How stories influence the self: Antecedents, processes and consequences

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In great literature,

I become a thousand different men

but still remain myself.

C.S. Lewis

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Abstract

The impact of stories in their ability to shape our view on the world has long been a central topic in communication science and media psychology. While reading a book or watching a movie, we are transported into story worlds and we identify with depicted protagonists. Several studies showed that high levels of transportation lead to greater story-consistent beliefs. Similar effects were found for identification. However, much less is known how and in which direction stories could affect the self. Five experimental studies were conducted and summarized in three manuscripts. Manuscript #1 explored the moderating role of transportation that could shift one's self-perception towards traits of a depicted story character (assimilation) or away from him/her (contrast). Manuscript #2 focused on downward social comparisons with a protagonist and possible contrast effects on participants' self-perception in relation to others, their motives and behavior. Thereby, the mediating role of transportation and identification were investigated. Finally, upward social comparison with a protagonist and related emotions (e.g., envy) that mediate possible effects on one's self perception and behavioral intentions were investigated in manuscript #3.

This dissertation project contributes to the literature on stories and the self. Consistent with previous work, assimilation effects were found for highly transported recipients. However, stories might also elicit contrast effects on recipients' selves and behavioral intentions that are opposite to a depicted character. Extending prior research, there were evidence that transportation and envy are important process variables explaining assimilation vs. contrast effects.

Zusammenfassung

Wie Geschichten unsere Weltsicht verändern können ist seit langem ein zentrales Themenfeld in der Kommunikationswissenschaft und Medienpsychologie. Beim Lesen eines Buches oder beim Schauen eines Films werden wir in die Welt der Geschichte hinein transportiert und identifizieren uns mit den Protagonisten. Mehrere Studien haben gezeigt, dass Transportation und Identifikation zu Einstellungsänderungen in Übereinstimmung mit der Geschichte führt. Es wurde jedoch bisher weniger wissenschaftlich untersucht wie und in welche Richtung Geschichten das Selbst beeinflussen können. Daher wurden fünf experimentelle Studien durchgeführt und in drei Manuskripten zusammengefasst. In Manuskript #1 wurde die Rolle von Transportation als Moderator auf die Selbstwahrnehmung von Rezipienten erforscht. Eine hohe Ausprägung von Transportation führte zur Assimilation von Protagonisten-Eigenschaften auf die Selbstwahrnehmung, wohin gegen eine niedrige Ausprägung von Transportation in einen Kontrast bei der Selbstwahrnehmung resultierte. Manuskript #2 fokussierte auf soziale Abwärtsvergleiche mit einem Protagonisten und mögliche Kontrasteffekte auf die Selbstwahrnehmung im Vergleich zu anderen Personen, Motiven und tatsächlichem Verhalten. Dabei wurden mögliche Mediatoren, wie Transportation und Identifikation, experimentell manipulieret. In Manuskript #3 standen soziale Aufwärtsvergleiche mit einer Protagonistin und die dabei erlebten Emotionen (z.B. Neid) im Vordergrund, was Effekte auf die eigene Selbstwahrnehmung sowie Verhaltensintentionen mediierte.

Meine Dissertation leistet einen Beitrag zum Forschungsfeld Geschichten und das Selbst. Übereinstimmend mit früheren Studien ließen sich Assimilationseffekte bei einem hohen Maß an Transportation finden. Geschichten können jedoch auch zum Protagonisten entgegengesetzte Effekte (Kontrasteffekte) auf die Selbstwahrnehmung und Verhaltensintentionen hervorrufen. Über bisherige Forschung hinaus, fanden sich Belege, dass Transportation und Neid wichtige Prozessvariablen sind, die Assimilations- und Kontrasteffekte erklären können.

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1 Introduction

Since the beginning of human kind, stories are a central part of our social life and an important means for cultural discourse. Our need for stories is insatiable: We are thrilled by personal stories of other people (e.g., gossip or anecdotes) and we spend much of our time with TV-shows, movies, or written novels. Stories are deeply linked to our human existence as "story-telling animals" (Gottschall, 2013):

"Among the vehicles of narrative are articulated language, whether oral or written, pictures, still or moving, gestures, and an ordered mixture of all those substances; narrative is present in myth, legend, fables, tales, short stories, [...], movies, local news, conversation. Moreover, in this infinite variety of forms, it is present at all times, in all places, in all societies; indeed narrative starts with the very history of mankind; there is not, there has never been anywhere, any people without narrative [...]" (Barthes & Duisit, 1975, p. 237).

All cultures have used narratives as a primary mode of oral discourse through time (Rubin, 1995). Early on in human evolution, even before homo sapiens, our ancestors used primitive stories as means of communication (Donald, 1991). The desire of people to tell or hear stories encouraged some scholars to rename the human being to *homo narrans* (Fisher, 1984; Ranke, 1967). Importantly, stories are not only a central element of our social and cultural life, but also partly contribute to our *self* and identity (Costabile, Shedlosky-Shoemaker, & Austin, 2018). Furthermore, the experience of stories is not merely frivolous entertainment; instead stories offer simulations of social worlds, which fosters our understanding of other people (Mar & Oatley, 2008) and even how we perceive ourselves (Green, 2005). The power of stories is often attributed to the distinctive experiential state while engaged into a story. Undoubtedly, we have all had the experience of being carried away in a well-written novel or being immersed into an enthralling movie. Some stories are even so well crafted that recipients

feel like stepping into a protagonist's proverbial shoes and experiencing the story world from his or her perspective. Anecdotally, most people have favorite stories and characters that have shaped their life and self fundamentally. For instance, some children or teenagers dearly desire to be like *Harry Potter* and therefore clothes themselves in a *Hogwarts* school uniform and carry a magic wand. The many visitors to Star Trek, Star Wars and Lord of the Rings conventions also show great enthusiasm in wearing costumes and share their favorite stories with likeminded people. Their common enthusiasm for distant story worlds could shape their behavior and their sense of self (Green, 2005). Narratives might also have clear implications for the self, specifically by learning about oneself (McAdams & Olson, 2010), by expanding (Slater, Johnson, Cohen, Comello, & Ewoldsen, 2014), and changing the self (Richter, M. Appel, & Calio, 2014). One of the biggest benefits of narratives is the unique advantage of being able to provide recipients with readily available simulations of other realties, actions and even personalities. But how do stories become alive in our mind's eye and which processes influence how we perceive ourselves?

In order to explain the impact of stories on recipients, different theories and models have been proposed, including the *Transportation Imagery Model* (Green & Brock, 2000, 2002) and *identification* (Cohen, 2001). The main idea of transportation is based on the metaphor that recipients undertake a mental journey into the story world. During this journey recipients might temporarily lose access to the surroundings of the real world and they can return changed by this intense experience (Gerrig, 1993). When deeply drawn into a story, recipients devote most of their cognitive resources to imagine the story world, and thus, they lack the capacity to critically elaborate aspects of a story (e.g., by less *counterarguing* of story assertions; Moyer-Gusé, 2008; Slater & Rouner, 2002).

Another process describing recipients' engagement into a story and its characters is *identification* (Cohen, 2001). Identification is considered a mental state that describes the simulation of a character's mindset by temporarily abandon components of one's own self and the world surrounding us (Kaufman & Libby, 2012). When we adopt the perspective of story protagonists, we simulate their thoughts, emotions and goals, as if they were actually occurring to us in real time (Cohen, 2001). Identification refers to character involvement in contrast to transportation, which describes a more holistic involvement with the story in general (Brown, 2015). Transportation and identification have primarily been investigated in the context of narrative persuasion. Several studies showed that high levels of transportation and identification lead to greater story-consistent beliefs, attitudes and behavior (for an overview, see Brown, 2015; Tukachinsky & Tokunaga, 2013; van Laer, Ruyter, Visconti, & Wetzels, 2014). However, much less is known about the influence of stories on recipients' selves. Thus, I address this central research gap in the current thesis.

Pioneering empirical evidence on how stories influence recipients' selves (M. Appel, 2011; Dal Cin, Gibson, Zanna, Shumate, & Fong, 2007; Isberner et al., 2019; Sestir & Green, 2010) showed that recipients' self-perceptions temporarily changed in line with the story protagonists' characteristics. In other words, recipients' self-perceptions become similar to the traits displayed by the character. These *assimilation effects* were strengthened by recipients' transportation into the story world (e.g., Isberner et al., 2019; Richter et al., 2014) or identification with the main character (e.g., Dal Cin et al., 2007; Sestir & Green, 2010). As there are only few studies examining these assimilation effects on the self, the question remains whether we always perceive ourselves to be similar to a protagonist's characteristics. Instead, we could perceive ourselves to be opposite or in contrast to a story protagonist (*contrast effects*). Indeed, contrast effects might be more likely when recipients have a more distant stand towards a story and its protagonists, which might be reflected by a lower degree of transportation. Surprisingly,

prior research has not examined the link between transportation and contrast effects. Therefore, the focus of manuscript #1 was on the moderating role of transportation explaining different effects on the self. Furthermore, recipients may also at times compare themselves with protagonists in order to gain relevant information about themselves or look down on them to feel better about themselves (Mares & Cantor, 1992). Especially if recipients are less transported into a story or do not identify with story characters, social comparisons with protagonists might be more likely (Green, 2005).

A relevant category for social comparisons is group affiliation, since being part of relevant social groups is a central part of the self (cf. *Social Identity Theory;* Tajfel & Turner 1986). People often seek out information, which favors their own social group in comparison to a relevant out-group, such as negative stereotypes that doubt the ability of the out-group. As a result, members of the in-group compare themselves downwards with members of an inferior out-group and might experience *stereotype lift*, that is, a boost in one's performance (Walton & Cohen, 2003). Importantly, this effect might also occur because of stereotypic displays in the media content (M. Appel & Weber, 2017). However, possible stereotype lift or contrast effects have hardly been linked to narrative content and processes while engaged into a story, such as transportation and identification. In line with this idea, manuscript #2 focused on contrast effects or stereotype lift on recipients' behavior via downward social comparison with a story protagonist and the mediating role of transportation, as well as identification in the process.

As mentioned above, only a few empirical studies emphasized social comparison with story characters and possible assimilation vs. contrast effects. Importantly, these studies focused either on self-related beliefs (e.g., Krause & M. Appel, 2019; Richter et al., 2014), behavior (e.g., M. Appel, 2011) or emotional responses (e.g., Tsay-Vogel & Krakowiak, 2019) as outcome variables. However, the relation between these outcome variables and the underlying

processes are rather under-examined. Different outcomes of social comparisons are based on how the comparison situation is framed or what self-knowledge is initially rendered accessible during social comparison (Selective Accessibility Model; Mussweiler, 2001a). When people initially focus on similarities, subsequent self-evaluations are usually assimilated towards the comparison target, whereas when they initially focus on dissimilarities between themselves and a comparison target, follow-up self-evaluations are often contrast away from a comparison target. Furthermore, social comparison and perceived similarity to a story character do not only affect how we perceive ourselves, but can also trigger specific emotions (R. Smith, 2000) that mediate the effects of social comparisons on behavior (Nabi & Keblusek, 2014). Especially upwards comparisons to a superior story character could elicit behavior-guiding emotions, such as envy and hope. Envy is usually experienced when recipients have a sense of dissimilarity (contrast) to a superior story character. Envy aims to balance differences between oneself and the superior other by either lowering them (at least mentally) to one's own level or by improving oneself to the given higher standard (Lange & Crusius, 2015). Hope is experienced when recipients believe to be rather similar (assimilation) to superior story character and as a result one could be optimistic to achieve the higher standard in the near future as well. In line with these ideas, manuscript #3 focused on the experimental manipulation of hope and envy, as important processes that further explain assimilation vs. contrast effects on recipients' selves and their behavior.

In sum, the central aims of my dissertation project are to explore antecedents and processes that could explain assimilation vs. contrast effects of stories on the self (Figure 1). This cumulative dissertation consists of three related sections: The first section is the synopsis in which I describe the theoretical and methodological foundations of my dissertation in detail. The second section entails three manuscripts, each of them addressing different research gaps. Finally, I discuss the findings of all three manuscripts and integrate them into a larger research

context. In the following sections, I start by defining the terms *story* and *narrative* more closely (2), followed by a theoretical presentation of *transportation* as well as important findings on effects on recipients' selves (2.1). Then, I describe *identification*, as the second important process of narrative involvement, and how this process might change our self-perception (2.2). At the end of third section, I give an overview on assimilative vs. contrastive self-changes by means of social comparison with story characters and the mediating role of experienced emotions while being engaged into a story (3).

2 The Nature of Narratives

Over centuries, varieties of definitions for stories or narratives (both terms are used interchangeable in this dissertation) have emerged (Stein, 1982). Probably the most basic definition of narratives describes them as "the representation of an event or a series of events" (Abbott, 2008, p. 13). However, definitions that only focus on mere events might fall short, since central narrative elements, such as the way a narrative is presented, are not mentioned. Early on in western history, the ancient Greek philosophers were concerned with proper definitions and the way narratives are presented. Plato (c. 373 BC) and Aristotle (S. Halliwell, 1987) were the first who differentiated between two major ways of presenting narratives: First, Diegesis that is the plain telling of a story, in which the author tells or report the story events as speaker. Importantly, there is some distance between the story world and the speaker, as well as to the recipients (Bunia, 2010). Second, Mimesis entails the imitation or simulation of actions and speeches of story characters. This role-play, as often depicted in theater drama, enables recipients to feel deeply touched and to sympathize with the characters (Oatley, 1995). Furthermore, Mimesis entails the active role of a recipient in creating or mentally simulating a story world and its characters while engaged into a narrative (Oatley, 2016). The ancient distinction of narratives also implicitly entails differences in the way narratives are presented. Diegesis are narratives that are told or written, whereas Mimesis encompasses acted narratives,

such as plays, or nowadays movies and TV-shows (Abbott, 2008). However, newer definition of narratives do not draw such a clear distinction of modality differences in representation, since the understanding and processing of narratives are based on similar cognitive processes that are independent from the medium (Busselle & Bilandzic, 2008; Green et al., 2008; Sukalla, 2018).

Other definitions of narratives emphasize the central role of characters living in the story world. After all, characters usually cause story events, and in turn, they are affected by them (Fludernik, 2009). The central role of the story characters is taken up by Fludernik (2009, p. 6), as she describes a narrative as:

"[...] a representation of a possible world in a linguistic and/or visual medium, at whose centre there are one or several protagonists of an anthropomorphic nature [...] who (mostly) perform goal-directed actions (action and plot structure). It is the experience of these protagonists that narratives focus on, allowing readers to immerse themselves in a different world and in the life of the protagonists."

In other words, narratives allow recipients access to the inner world of their characters, and thus, the sensation of what it is or could be like to be in the situation of the characters (Hamburger, 1993). The *experientiality* of narratives, that is, the "communication of anthropocentric experience" (Fludernik, 2009, p. 59), is a key difference to other types of texts. Indeed, narratives usually simulate socially interacting characters or entire social worlds (Oatley, 2016) and therefore offer the unique possibility to train one's understanding of other people (Djikic & Oatley, 2014). Another specific characteristic of narratives is their particularity, thus, they depict specific events with specific characters in specific circumstances, rather than a general and abstract description of a sequence of events (Herman, 2009).

Importantly, the characteristics contained in all the definitions above are not to be understood as absolute. Rather, specific stories have different gradations of these properties, hence higher or lower *narrativity*, and thus, differ more or less between narrative genres (Sukalla, 2018). In addition, the effect of narratives on recipients does not necessarily depend on the degree of fiction. Formats, such as mockumentaries, biopics and (scripted) reality-TV programs could also entail narrative elements. After all, these formats also depict events, people's actions, their interactions with each other, and often play in distant places (Oatley, Dunbar, & Budelmann, 2018). Picking up this variety of narratives, I conducted my experiments with written stories (manuscript #1 and #2), as well as with reality-TV content (manuscript #3).

2.1 Transportation into Narrative Worlds

Almost everyone has experienced the sensations of being "lost in a book" (Nell, 1988) or swept up into a well-crafted movie – a process called *transportation*. According to the *Transportation Imagery Model* (Green & Brock, 2000, 2002), recipients are considered "travelers", who embark metaphorically on a journey into the story world (Gerrig, 1993). This journey or transportation into a story world entails vivid mental imagery of the story plot and its characters, such that recipients often become emotionally attached to story characters (Brown, 2015). Indeed, a protagonist is often the driving force of a narrative and therefore transportation is also connected to strong feelings towards protagonists (Green, 2006; Green & Brock, 2000). In addition, if recipients are deeply transported into vivid story worlds, protagonists' experiences become closer to a feeling of real experiences. Accordingly, narratives due to their vivid nature have the potential to influence attitudes and behaviors, much like direct experiences (Green & Brock, 2002). Indeed, if people imagine events that did not happen to them (as induced in an experimental setting; Mazzoni & Memon, 2003), they are more likely to report that they actually experienced these events in the past (for a meta-analytic review, see Scoboria et al., 2017).

Transportation involves a deep, yet subjectively effortless, focus on a narrative so that recipients become detached from their world of origin. Consequently, recipients loose access

to their real-world surroundings one a physical level (e.g., by being not noticing when they are addressed) and even on a psychological level (e.g., by reduced counterarguing of story claims; Green & Brock, 2000). Thereby, parts of the world of origin become partially inaccessible and after the story reception one returns somewhat changed by this intense experience (Djikic, Oatley, Zoeterman, & Peterson, 2009; Gerrig, 1993). Transportation is often connected to a reduction in negative cognitive responding towards a story (and it's claims), that is, *counterarguing* of story assertions (Dunlop, Wakefield, & Kashima, 2009; Green & Brock, 2000; Moyer-Gusé, 2008), since the state of being transported is considered a pleasurable state, and therefore recipients lack the motivation to interrupt this pleasant experience through critical thoughts (Green & Brock, 2000). Furthermore, it might be rather difficult to express counterarguments in relation to the lived experiences of another real or fictional person (Slater & Rouner, 2002).

In sum, there is large body of empirical evidence that transportation into a story world and a reduction in counterarguing are central mechanisms of narrative persuasion, that is the adoption of attitudes, beliefs and goals in line with a story and its characters (e.g., M. Appel & Richter, 2007, 2010; Green & Brock, 2000; Vaughn, Hesse, Petkova, & Trudeau, 2009)¹. Yet little is known to what degree and with what outcome transportation, as well as counterarguing influence the self (Green, 2005). Thus, this research desideratum is experimentally addressed in manuscript #1.

¹Classic two-process models of persuasion (e.g., *Elaboration Likelihood Model, ELM*, Petty & Cacioppo, 1986; or *Heuristic Systematic Model, HSM*, Chaiken, Liberman, & Eagly, 1989) are difficult to transfer to the reception of narratives. On the one hand, transportation is not characterized by the fact that the recipients systematically think about arguments and the quality of arguments does not affect transportation (Gnambs, M. Appel, Schreiner, Richter, & Isberner, 2014). On the other hand, transportation is not comparable to the low involvement processing on a peripheral route, since transported recipients are highly motivated to be engaged into narratives and use significant cognitive resources to process them. The peripheral route in the ELM also assumes the importance of peripheral cues such as source credibility. However, for narrative persuasion, source credibility does not matter and in fact, fictional stories are as transporting and convincing as nonfictional stories (M. Appel & Malečkar, 2012).

2.1.1 Transportation and its Impact on the Self

As mentioned above, a narrative is considered to be (at the very least) a series of events; however, a story is more than a mental representation of these events. Busselle and Bilandzic (2008) expanded the concept of transportation in their Model of Narrative Comprehension and Engagement (in short: narrative engagement) with regard to mental processes during narrative reception and how one perceives story characters. The central idea of narrative engagement describes recipients as active constructors of mental models (Johnson-Laird, 1983), which represents story elements, such as characters, places and events. While reading or watching a narrative, recipients actively construct contextualized mental models (Johnson-Laird, 1983) or more specifically situation models (Busselle & Bilandzic, 2008; Ohler, 1994; Wyer, 2004), which are considered as a "mental micro world of what the story is about" (Graesser, Olde, & Klettke, 2002, p. 234). The construction of such a mental model is a dynamic process in which recipients generate inferences about future events and the relationships between story elements (Sukalla, 2018). Thereby, recipients fill narrative gaps contained in a story with their own selfand world knowledge, experience, as well as genre schemas in order to comprehend the story (Abbott, 2008; Gerrig, 1993; Sukalla, 2018). Moreover in order to facilitate the understanding of a story, recipients "shift the center of their experience from the actual world into the fictional world and position themselves within the mental models of the story" (Busselle & Bilandzic, 2008, p. 272) and interpret the story from that story-centered viewpoint (Gerrig, 1993; Segal, 1995). In order to describe this process, Busselle and Bilandzic (2008) used the Deictic Shift Theory (Duchan, Bruder, & Hewitt, 1995). Concepts like "here", "I", "now", become comprehensible only when the recipient positions herself within a story by losing awareness of her surroundings.

The state of the deictic shift is comparable to a *flow* experience, which is described as intense, yet effortless, absorption in an activity (e.g., sports or video games; Csikszentmihalyi,

1990, 1997). Transportation is also positively related to absorption (Tellegen & Atkinson, 1974), that is, the general tendency to become absorbed by a range of activities (Green & Donahue, 2009). Absorption is linked to hypnotic susceptibility and people high in trait absorption are considered to have high imagery abilities and a proneness to a rich fantasy as well as day dreams (Roche & McConkey, 1990). Indeed, hypnotic trance and being transported into a story world might be closely related to each other and both altered mental states might lead to transformation processes (Green, 2005; Nell, 1988). Just like absorption, transportation can open up the possibility of exploring other possible selves (James, 1890; Markus & Nurius, 1986) and alternative personalities without any real costs (apart from the time required to read or watch a narrative). Beyond one's immediate social world, narratives might also provide a concrete and organized presentation of a future self as depicted by various characters. In fact, by giving vivid insights into a story character that one might have not ever met in one's daily life, narratives and their characters can be a tangible and concrete blueprint toward a new possible self (Green, 2005). Furthermore, leaving the current self behind by being transported into a story world may be desirable sometimes. In line with this idea, Moskalenko and Heine (2003) showed that participants, who experienced threats to their selves, spent a longer time watching television in a laboratory experiment. A possible explanation could be that narratives are a powerful mean to escape aversive threats to the self beyond mere escapism and offer the possibility to temporarily lose the boundaries of one's self by means of transportation and identification (Slater et al., 2014).

2.1.2 Empirical Effects of Transportation

Previous research has shown that stories not only influence our views about the external world, but also beliefs that one hold about oneself. For instance, Djikic et al. (2009) found changes of recipient's perception of their personality traits (using the Big-Five Inventory) after reading a literary text (*The Lady with the Toy Dog* by Anton Chekhov) compared to reading a

mere description of the story events. The effect of the literary text on recipients' changes in their self-ratings were mediated by emotional engagement into the story. On a critical note, the authors used a non-validated emotion checklist and did not incorporate any narrative involvement measures, such as transportation or counterarguing. Furthermore, Djikic et al. (2009) only included a global measure of trait changes (across all five Big-Five dimensions) and did not specify any direction of trait changes in relation to the depicted protagonists. Richter et al. (2014) showed that a story about a mother struggling with her motherhood (vs. a gender-neutral control story) increased self-rated femininity among recipients who scored higher on the transportation scale and who were unlikely to engage in social comparison with the depicted character (by being not a mother like the protagonist of the experimental story). Finally, in a recent paper, Isberner et al. (2019, experiment 1) showed that a story displaying a protagonist with high (vs. low) self-efficacy leads to positive effects on participants self-related control beliefs in line with the depicted character under conditions of high transportation.

Another method to reveal effects on recipients' selves are indirect or implicit measures. Implicit measures have been used in different areas of media psychology and communication science in order to provide additional insights into media effects (Payne & Dal Cin, 2015). In contrast to explicit measures, such typical questionnaires, implicit indicators, like the *Implicit Association Test* (IAT; Greenwald, McGhee, & Schwartz, 1998), do not rely on conscious self-reports. Rather, implicit indicators assess automatic responses that are difficult, if not impossible, to control (Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005). The IAT is robust towards third-person effects (i.e., recipients believe that they are less influenced by the media than other people) and demand characteristics of typical lab situations (e.g., after reading a story, participants are asked questions in line with the story, which might lead to biases; Payne & Dal Cin, 2015).

For the IAT participants have to match specific attribute pairs (e.g., "good" vs. "bad") to different pictures or words of two objects (e.g., "me" vs. "you") as quickly as possible. Thereby, their reaction times are recorded and afterwards the different attribute-object pairings are compared (e.g. reaction time for me-good vs. you-bad). The quickest and most accurate responses are considered as indicator of the participant's implicit associations, because the stronger an association is, the easier and faster a match is made (Greenwald et al., 1998; Nosek, Banaji, & Greenwald, 2002).

Regarding the influence of stories on the self, few studies examined self-perceptions on an implicit level. In a study, Gabriel and Young (2011) asked participants to read a passage from either *Twilight* (a novel about vampires) or from *Harry Potter* (in which the lives of young British wizards are depicted). As one dependent variable, an implicit measure, the *identity IAT* (Nosek et al., 2002) was administered. For the identity IAT, "me" object words (e.g., me, myself,), "not me" words (e.g., theirs, they), "wizard" words (e.g., broomstick, wand), and "vampire" words (e.g., fangs, blood) were used. On average, participants showed higher implicit associations in line with the presented fantasy characters they had read about before.

Sestir and Green (2010) showed participants different trait words in line with the protagonist's traits before and after watching a movie clip. As one dependent variable, participants rated in an implicit reaction time task (i.e., me/not me task) whether they believed the trait described themselves or not. Moreover, transportation into the story world and identification with the main protagonist were manipulated through brief written instructions right before watching the movie clip. One central result was that the transportation manipulation led to a greater proportion of switches from the implicit not-me-judgments to me-judgments concerning protagonist's traits from the pretest to the posttest, indicating an effect of the experimental manipulation on participants' implicit self-perception through transportation.

In order to detect narrative effects on recipients' selves on an implicit and explicit level, I applied a self-report measure of conscientiousness (DV 1), as well as an identity IAT that aimed at capturing implicit associations between their selves and the concept of conscientiousness (DV 2).

2.1.3 Measurement and Manipulation of Transportation and Counterarguing

Since transportation is an important factor that influences the impact of narratives on recipients' selves, a closer look on measures and experimental manipulations is deemed appropriate in order to further investigate it empirically. Green and Brock (2000) proposed a scale that aim at transportation as a convergent mental process of traveling into a story world, which includes mental imagery, a strong emotional attachment to protagonist and the loss of access to one's surroundings. In its original form, transportation is measured via a self-report scale entailing 15 items (e.g., "I could picture myself in the scene of the events described in the narrative."; Green & Brock, 2000). However, the original scale turned out to be too long for many studies, and therefore was often shorted differently by various authors, making it difficult to compare results between different studies. As a result, M. Appel, Gnambs, Richter, and Green (2015) introduced a shorted form of the transportation scale containing six items that has a comparable reliability to the original longer version. The transportation short scale was used in manuscript #1 and #2.

Other indicators of engagement into stories, such as counterarguing, often entail the task to find contradicting facts or false statements within an experimental story. Green and Brock (2000, study 2) asked participants to circle "Pinocchios" that are inconsistencies within an experimental story. In line with the authors' expectations, highly transported participants circled less words or sentences, compared to lesser-transported individuals. Besides the *Pinocchio circling* technique, other forms of measuring counterarguing entail a thought-listing technique by asking participants to list all their actual thoughts while engaged into the experimental

story (Hoeken & Fikkers, 2014; Slater & Rouner, 2002). Afterwards, participants' thoughts are coded into different categories, such as the central theme of the story, which is finally coded for positive, negative or neutral valence (Slater & Rouner, 2002). In order to measure self-reported counterarguing, Moyer-Gusé (2007) developed an economical scale entailing four-items. The scale was first used in the context of entertainment TV and safe sex education (example item: "While reading the text, I sometimes found myself thinking of ways I disagreed with what was being presented") and has been applied in several other studies (e.g., Igartua & Vega Casanova, 2016; McKinley, 2013; Moyer-Gusé & Nabi, 2010; Nabi, Moyer-Gusé, & Byrne, 2007).

However, in order to establish causal effects of transportation on recipients' selves, a successful experimental manipulation of this construct and surrounding factors influencing both are necessary. Therefore, the following sections focus on factors that support or even hinder transportation.

Characteristics of narratives influencing transportation. Literary quality, high craftsmanship in the presentation of a movie, and the appeal of a story line, as found in best-seller books, might enhance transportation and related effects on recipients' beliefs and attitudes (Green & Brock, 2002; Slater & Rouner, 2002). Bilandzic and Kinnebrock (2006) define under the term *narrativity* various features that could enhance the experience of a story. Thereby, the authors described different elements on the story plot (e.g., a variety of possible courses of action), the text structure (e.g., temporal sequence of depicted events) and the artistic presentation of a narrative (e.g., writing quality). Importantly, narratives entail a scalable degree of narrativity, hence higher or lower narrativity is expected depending on the amount and quality of these features (Sukalla, 2018). In some experiments, transportation has been successfully manipulated via changing the narrativity of a story by scrambling the order of story events, while not changing the actual story content (Gnambs et al., 2014; Schreiner, M. Appel, Isberner,

& Richter, 2018; Wang & Calder, 2006). However, a meta-analysis by Tukachinsky (2014) showed that the literary quality, such as the coherence of a narrative structure or the perspective from which a story is told, has no effect on transportation. Yet, it must be noted that only a few studies that focused on literary qualities and how it influences transportation were included in the meta-analysis. Furthermore, the effects were not homogeneous, indicating that the effects varied between studies (Tukachinsky, 2014).

Contextual and situational factors influencing transportation. External factors might also influence transportation by preventing recipients from being fully engaged into a story. For instance, loud construction site noise while reading a thrilling book or a ringing mobile phone while trying to watch a movie in the cinema makes it difficult to leave the real world behind and to focus on a story (Green, Brock, & Kaufman, 2004). Distractions by either having recipients complete additional tasks while reading (Green & Brock, 2000) or by using physical distraction, such as noise or simulated video-playback problems (e.g., Zwarun & Hall, 2012) have been used to manipulate transportation in experimental studies. Other forms of manipulation entailed tasks, such as to circle difficult words or to find language errors within an experimental story while reading (de Graaf, Hoeken, Sanders, & Beentjes, 2009). Meta-analytic evidence points to small to medium effects of distractions manipulation on transportation. However, the effects were heterogeneous indicating possible moderator variables that influence the effect sizes among different studies (Tukachinsky, 2014; van Laer et al., 2014).

Other forms of context factors influencing transportation include reception motives or expectations regarding a story. Instructions either to think of an experimental story as entertainment, or to delve into or critique the text (Green & Brock, 2000) are effective in influencing transportation (van Laer et al., 2014). For instance, Sestir and Green (2010) manipulated transportation via an instruction that either emphasized to "[focus] on the events as if [one] were

inside the movie itself", which is considered to increased transportation, or by asking participants to "focus on the color scheme used in the movie clip", which lowers transportation (p. 277). According to Tukachinsky's (2014), these kinds of manipulation yield small to medium effects, yet only four studies were included in the meta-analysis.

Expectations about a narrative might also be influenced by other meta-narrative information, such as paratexts, which include surrounding material of a narrative, like a genre label, a back-cover text (M. Appel & Malečkar, 2012), or reviews about a story (Bacherle, 2015; Dixon, Bortolussi, & Sopčák, 2015; Gebbers, De Wit, & Appel, 2017; Isberner et al., 2019; Shedlosky-Shoemaker, Costabile, DeLuca, & Arkin, 2011; Tiede & M. Appel, 2019). Compared to reading instructions in an experimental setting, manipulations of paratextual features might be a closer and more tangible proxy of how transportation is influenced through external factors. Indeed, reviews on movies and books are a common part of our media reception in real life, because they offer helpful guidance in choosing from the unmanageable number of possible media content (Dixon et al., 2015). The entertainment industry hopes for an increase in recipient numbers; therefore, they are especially interested in positive reviews of their movies (Eliashberg & Shugan, 1997) or an endorsement of their media content by trustworthy celebrities, such as Oprah Winfrey (Butler, Cowan, & Nilsson, 2005).

Especially reviews by credible experts and peers that are rather similar to oneself are convincing to the reader (Dixon et al., 2015). Thereby, reviews could influence expectations in line with the valence of a review by guiding the recipient's attention to specific aspects of a narrative, such as particular characters, writing style, or specific scenes that confirm these expectations. As a result, these positive expectations increase transportation, whereas a critical review is considered to lower the evaluation and transportation of an upcoming story (Dixon et al., 2015; Shedlosky-Shoemaker et al., 2011). In line with this idea, Shedlosky-Shoemaker et al. (2011) investigated the influence of positive vs. negative evaluations of an upcoming

short story on transportation and enjoyment by using reviews that were apparently written by peers. In two experiments, the authors showed that recipients followed the review of their fellow students and experienced greater (or lesser) transportation and enjoyment when their peers had positively (or negatively) evaluated the experimental story. Likewise, Gebbers et al. (2017) manipulated transportation into a movie clip via a positive vs. a negative review prior watching the clip. More recently, Isberner et al. (2019), as well as Tiede and M. Appel (2019) also successfully manipulated transportation via positive vs. negative reviews prior to watching a short film.

In sum, the manipulation of recipients' expectations regarding a story via positive vs. negative reviews are effective means to experimentally manipulate transportation into narratives. Compared to other types of manipulation, such as manipulations of narrativity (see above), reviews are a reliable and an (external) valid method that does not alter the structure and understanding of a narrative (Bacherle, 2015). Therefore, in manuscript #1 and #2, reviews were employed as the experimental manipulation of transportation.

2.2 Identification with a Protagonist

Besides transportation, the concept of *identification* (Cohen, 2001; Oatley, 1995) has also been studied in order to explain narrative effects on recipients. In terms of possible narrative effects on the self, some authors even regard identification as a stronger predictor than transportation (Sestir & Green, 2010; Sukalla, 2018). Before I present current empirical findings, a closer look at identification's broad historical background is needed, since the term identification has been used ambiguously in our everyday and even the academic context (Brown, 2015). In our everyday language, identification is often used as either recognition or imitation of other people or story characters (Oatley, 1995). However, most academic approaches to identification often entail a different view on this concept. The term identification was first used by Sigmund Freud in an academic context (Brown, 2015). According to Freud

(1922) one part of identification is considered a nonconscious process by which children incorporate their parents' values and identity into their developing selves or superegos. Social psychologist Herbert Kelman (1958) defined identification as a central process that entails the internalization of other people's attitudes and beliefs, thus identification is linked to social influence. Furthermore, he considered identification as "self-defining" in a sense that "the individual defines his own role in terms of the role of the other [and] attempts to be like or actually to *be* the other person." (Kelman, 1961, p. 63).

The basic idea that recipients become one with the protagonist is central for more recent theory regarding identification. According to Oatley (1999), identification is a combination of empathy and merging with story characters: "The meeting of identification is a species of empathy, in which we do not merely sympathize with a person, we become that person" (p. 446). In other words, rather than being a mere spectator of a story, who observes and feels for protagonists within a story, recipients can temporarily assume the identity of a particular protagonist by internalizing his or her goals, beliefs, thoughts and even traits (Kaufman & Libby, 2012). Furthermore, identification is considered a combination of empathic feelings towards a story character and the cognitive perspective taking of that character (Busselle & Bilandzic, 2009; Cohen, 2001; Kaufman & Libby, 2012). In order to reach the merging between self and a protagonist, a recipient has to be absorbed into the story by losing self-awareness and letting go one's own identity (Cohen, 2001). In my dissertation, I followed the approach of identification as process that enable recipients to simulate the inner states of a protagonist beyond mere spectatorship (Oatley, 1995, 2016) and as a result recipients literally might experience the story through the eyes of a protagonist (Cohen, 2001).

Importantly, identification as merging with a protagonist is distinct from perceived similarity between recipients and story characters, or mere liking of protagonists, since these processes involve maintaining one's own self and identity while making evaluations about story

characters (Cohen, 2001; Hamby, Brinberg, & Jaccard, 2018). Moreover, identification has often been confused with "wishful identification" (e.g., Frank, Murphy, Chatterjee, Moran, & Baezconde-Garbanati, 2015; Vezzali, Stathi, Giovannini, Capozza, & Trifiletti, 2015). As indicated by the term "wishful", this kind engagement with a media character is not about becoming one with him or her at the expense of the self, but about the desire to be like that particular character (Hoffner, 1996; Hoffner & Buchanan, 2005).

2.2.1 Empirical Effects of Identification

Identification with media characters is considered a powerful means in order to persuade recipients, since it offers new and different perspectives that in turn enlarge one's understanding of other people (Cohen, 2001). For example, de Graaf, Hoeken, Sanders, and Beentjes (2012) presented one out of two experimental stories about a job interview that differed in the perspective from which the story was told (an applicant in a wheelchair vs. non-disabled member in the selection committee). Both persons had opposing attitudes towards disabled persons in the professional context. The perspective from which the story was told increased identification with the corresponding character and in turn influenced participants' attitudes in line with the depicted perspective. Igartua (2010) showed positive relations between identification with a story character, who is a Mexican immigrant, and attitudes towards immigrants. Likewise, Moyer-Gusé, Chung, and Jain (2011) found positive effects of identification with a character, who openly talked about sexually transmitted infections (STIs) and how to prevent them, on participants' engagement in prevention behavior of STIs.

Furthermore, there are only a few studies that focused on possible effects on recipient's self through character identification. In a study by Dal Cin et al. (2007), the authors presented different video-clips from the movie *Die Hard*. The content of the video-clips differed in whether or not the main protagonist was smoking. One interesting result was that non-smokers, who strongly identified themselves with the main protagonist, showed stronger associations

between the self and smoking (measured via an identity IAT; Nosek et al., 2002). In an experimental study, Kaufman and Libby (2012) showed that participants can simulate the experience of a fictional story protagonist by identifying with him or her, which subsequently changed participants' self-rated introversion and even actual behavior (voting on election day) in line with the protagonist. Narrative perspective, self-concept accessibility, and the protagonist's group membership were crucial factors in this process.

2.2.2 Measurement and Manipulation of Identification

In order to study identification empirically, different scales have been developed. For instance, Cohen (2001) proposed a ten item scale in order to measure character identification. However, two items of the original scale overlap with transportation (i.e., "While viewing program X, I felt as if I was part of the action"; "While viewing program X, I forgot myself and was fully absorbed"); therefore, these items are usually removed (Tal-Or & Cohen, 2016). More importantly, Cohen's (2001) identification scale has never been formally validated (Kaufman & Libby, 2012; Tal-Or & Cohen, 2016). It also received some criticism that this scale does not fully capture the adaption process of a protagonist's perspective (e.g., Kaufman, 2009). Overcoming this problem, Kaufman and Libby (2012) proposed a different scale. Their Experience Taking Scale consists of seven items that measure the extent to which recipients adopted the perspective of a protagonist (e.g., "I understood the events of the story as though I were the character in the story."), experienced the same emotions (e.g., "I found myself feeling what the character in the story was feeling"), and thoughts (e.g., "I was not able to get inside the character's head (reverse-scoring)". A German translation of the Experience Taking Scale was used in manuscript #2 and #3 in order to measure recipients' identification with story characters. The German translation was made using the committee approach (Harkness, 2003): Two colleagues and I independently translated the scale, followed by a joint review and refinement of our translations. In the end, we agreed on a common translation. Beyond the mere measurement

of identification, the following sections entail a closer review on different experimental manipulations of this construct.

Contextual and situational factors influencing identification. Similar to manipulations of transportation, different types of distractions while reading or watching a narrative have been used to manipulate identification. For instance, de Graaf et al. (2009) asked participants to select sentences in an experimental story that could be omitted from the story or find punctuation and grammar errors. However, there were no significant effects of these manipulations on recipients' character identification. According to a meta-analysis by Tukachinsky (2014), these kinds of distraction tasks when reading/watching a story have no effect on identification.

There are some scientific indications that similarity to a story protagonist may influence identification, however these findings are often rather mixed. This research usually distinguishes between objective similarity and subjective similarity, which is sometimes also referred to as perceived homophily (Sukalla, 2018). Objective similarity is often manipulated by matching (vs. not matching) certain attributes of recipients with the main story protagonist, such as ethnicity (Appiah, 2001), study program (Hoeken, Kolthoff, & Sanders, 2016), sexual orientation (Kaufman & Libby, 2012), housing situation (de Graaf, 2014), or typical health behavior (Lu, 2013). In a more recent study by Cohen and Tal-Or (2017), gender and nationality of the experimental story's main protagonist was manipulated to be either similar or dissimilar to the participants, yet the experimental manipulation had no significant effect on identification. These findings are in line with meta-analytic evidence indicating that the manipulation of objective similarity to a protagonist does not have a significant impact on identification (Tukachinsky, 2014).

Other manipulations of identification often entail reading an instruction prior to reading/watching an experimental narrative. For instance, Sestir and Green (2010) manipulated

identification with the main protagonist through written instructions before watching the experimental video-clip (e.g., to watch the video-clip "as you were the main character in the clip"; p. 277). This kind of experimental instruction lead to quicker reaction times on character relevant traits on an implicit measure indicating that participants temporarily adopted the characteristics of a protagonist (Sestir & Green, 2010). On a critical note, an instruction on how to read or watch an upcoming narrative influence recipients' identification scores in an experimental setting, yet, such manipulations are rather artificial and therefore have little ecological and externa validity (Tukachinsky, 2014).

Characteristics of narratives influencing identification. High literary quality of a narrative and especially the way protagonists are depicted might influence identification. The intense representation of a character's mind could contribute to an increase in identification. The viewpoint from which a story is narrated might be the most basic feature of a short story or novel. A story is often either told from the perspective of the main protagonist or from the viewpoint of an independent observer (first-person perspective vs. third-person perspective). A first-person perspective uses the first-person pronoun I, and thus invites recipients' to identify with him or her (e.g., "I went out the door to enjoy the sunshine."). In the third-person perspective, recipients are more distant to a protagonist in the role of an external observer (e.g., "Claudia went out the door to enjoy the sunshine."; Christy, 2018). The virtue of creating a more immediate sense of familiarity and closeness to the main protagonist in the first-person perspective might be more beneficial to the process of identification than a third-person perspective. The third-person perspective explicitly positions the main protagonist as a separate entity, and thus, encourages recipients to keep the role of spectators (Kaufman, 2009). Meta-analytic evidence supported the effect of the narrator's perspective on identification. Tukachinsky (2014) found this kind of manipulation to have a rather large effect on character identification, yet the effect sizes of the five studies included were heterogeneous. Moreover, more recent results regarding positive effects of first-person over third-person perspective on identification are rather mixed (Christy, 2018). For instance, Nan, Futerfas, and Ma (2017) experimentally varied the perspective of a story-like advertisement about a women with a HPV diagnosis. The experimental manipulation had no significant effect on identification with the depicted protagonist. Chen, Bell, and Taylor (2016) conducted a study about caffeine overdose; their perspective manipulation did not yield a significant effect on identification, either. Importantly, both studies described above depicted highly stigmatized out-groups, and therefore, recipients might not be eager to identify with depicted protagonist (Christy, 2018). In one of their experiments, Kaufman and Libby (2012) manipulated the first-vs. third-person perspective and the group membership of the depicted character (in-group: student of same university as the participants vs. out-group: student from a rival university). The level of identification experienced by the participants of the first-person in-group story was significantly higher than in all other three experimental conditions. In sum, the manipulation of the story perspective might be an adequate manipulation of identification. Therefore, this method was used in manuscript #2 (experiment 2).

2.3 Conceptual Difference between Identification and Transportation

The concept of being transported into a story somewhat overlaps with identification (Brown, 2015; Moyer-Gusé, 2008). Thus, the two concepts are often highly correlated (Tal-Or & Cohen, 2016). Transportation is considered a more holistic experience of a story world, whereas identification emphasizes the bond or unity of perspective between recipient and story character. Empirical work supports this differentiation by using different manipulations for transportation and identification that effect both processes independently. For example, Tal-Or and Cohen (2010) varied the valence of information regarding a main protagonist (protagonist is loyal towards his wife vs. a notorious cheater). Furthermore, the authors manipulated the occurrence of a decision to be faithful or to cheat on his wife (decision was made in the past

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vs. he will face the decision in the future). The manipulation of valence influenced identification, since participants identified themselves rather with the faithful protagonist than with the serial cheater. There was no effect of valence on transportation. However, transportation was affected by the time of the decision-making. Recipients were more transported in the condition that depicted the protagonist facing his decision in the future, compared to the condition that entailed a past decision. Meta-analytic evidence by Tukachinsky (2014) also support the notion that transportation and identification are related, yet definable from each other. Her meta-analytic results indicate that identification is more successfully manipulated by editing a story's literary qualities (e.g., first-person vs. third-person narrator), while manipulations of story-related background information and distraction task were more likely to influence transportation.

3 The Malleable Self

In the paragraphs above, I explained how transportation and identification can shape how we perceive ourselves. Yet, how is it possible that stories can promote changes in the self, a concept that is often supposed to be perceived stable in lay theories? Indeed, we often rely on the conviction to know ourselves, which helps to make sense of the world and to justify our decisions. Thereby, the self is a central motivational and self-regulatory tool guiding us through our daily life. Many psychological theories suggest that specific aspect of the self are rather stable, whereas other aspects are considered to be malleable (DeSteno & Salovey, 1997; McConnell, 2011), context sensitive (e.g. towards media stimuli; Cohen, M. Appel, & Slater, 2019), and often driven by dynamic construction processes (Oyserman, Elmore, & Smith, 2012).

One of the earliest psychological conceptualization of the self emphasizes the dual nature of the self (Aronson, Wilson, & Akert, 2010). According to William James (1890), the "me" part of the self entails a person's reflections of one's known thoughts and beliefs, whereas the "I" part of the self is an active observer of the "me" part. In other words, the self includes both,

the knowledge about who we are (the "me" part as *self-concept*) and the active reflection about ourselves (the "I" part as *self-awareness*). Both parts of the self create a sense of one's identity (Aronson et al., 2010). However, the terms self and identity are often used interchangeably (M. Appel, Mara, & Weber, 2014; Swann & Bosson, 2010). According to Oyserman, Elmore, and Smith (2012, p. 74), both "terms are [sometimes] used in reference to the process of making sense of the world in term of what matters to 'me' or to the consequences of social contexts on a variety of beliefs and perceptions about the self, or simply to refer to membership in sociodemographic categories such as gender or social class". Furthermore, self, self-concept, and identity are considered to be a series of nested constructs "with self as the most encompassing term, self-concepts being embedded within the self, and identities being embedded within self-concepts" (Oyserman et al., 2012, p. 94).

Furthermore, James (1890) described the self as a multiplicity of empirical selves that are arranged in a hierarchical order, and sometimes different selves may conflict with each other. Interestingly, James (1890, p. 311) also connected the self to persuasive messages: "Neither threats nor pleadings can move a man unless they touch some one of his potential or actual selves". More recent theories of the self were influenced by James' conception of multiple selves and how they are shaped by context factors (cf. *working self-concept*, Markus & Kunda, 1986 or the *Active-Self Account*, Wheeler, DeMarree, & Petty, 2007, 2014).

3.1 The Active-Self Account

Wheeler and colleagues (2007, 2014) distinguish in their *Active-Self Account* between a temporarily *active* and a *chronic self-concept*. The chronic self-concept refers to those stable features of the self-(knowledge) that are stored in one's long-term memory, including beliefs, goals, and values (Markus & Wurf, 1987). Its content is not active, but still available for activation. The active self-concept entails only a subset of chronic self-concept schemata that are currently salient and accessible. Importantly, only this salient and rather small part of the active

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self-concept can influence judgments and behavior. Empirical evidence showed that even rather subtle stimuli or primes can *temporarily* influence specific active self-concepts in line with the stimuli (DeMarree, Wheeler, & Petty, 2005; Kawakami et al., 2012; Skowronski, Sedikides, Heider, Wood, & Scherer, 2010; Wheeler et al., 2007).

Importantly, factors that stimulate greater assimilation of primed concepts into the active self-concept are considered to trigger related behavior. Thereby, the active self-concept often overlaps with the chronic self-concept. Yet, primed constructs might influence the active self, even if there is hardly an overlap with the chronic self-concept, and in turn, the prime can be misattributed as aspects of the chronic self (Wheeler et al., 2007). A typical mechanism behind this misattribution of self-related content is perspective taking. Perspective taking entails the adoption of another person's physical point of view, that is, the imagination what another person is seeing and doing in a particular situation. Furthermore, it also entails a psychological or empathic view on other persons by understanding their thoughts and emotions (Bortolussi, Dixon, & Linden, 2018). Perspective taking increases the self-prime linkage, and in turn, the primed content is falsely considered part of the self which can lead to prime-congruent behavior (Wheeler et al., 2007). For instance, research has shown that a mental practice by imagining specific actions facilitates subsequent performance of these actions. One the one hand, performance enhancements are higher when one generates "internal" mental images that entail a sense of the real-situation by imaging the entire physical sensation of an action (e.g., a professional surfer imagines the sound of and feeling of the waves). On the other hand, the construction of "external" mental images in which a person watches him- or herself as an external object performing an action does not enhance the subsequent performance (Hinshaw, 1991; Wheeler et al., 2007).

Furthermore, even members of an out-group can misattribute stereotypes about another group into their active self-concept, and in turn, show behaviors linked to those stereotypes, if

they are engaged in some sort of perspective taking. In a study by Wheeler, Jarvis, and Petty (2001), participants were asked to write an essay about a student called either Tyrone (typical African American name) or Erik (typical Caucasian-American name) and performed a math test afterwards. When Caucasian participants wrote about Tyrone, they performed worse in the experimental math test compared to the Erik condition. Thus, writing about Tyrone subtly increased the salience of the negative African American stereotype (i.e., as having low ability and interest in math) "by activating behavioral intentions of stereotype-relevant traits" (Wheeler et al., 2001, p. 179). In other words, an out-group stereotype can be assimilated to the self, and in turn, impact related behavior in a concrete situation.

Narratives might also serve as a prime, though narratives are more complex than primes used in social psychological research. Indeed, narratives could lead to an activation of self-related content in line with a story and its characters, since narratives enable us to identify with depicted characters and to be transported into their worlds (see above). M. Appel (2011) applied the mechanism of (media) priming effects (Roskos-Ewoldsen, Roskos-Ewoldsen, & Dillman Carpentier, 2009) through narratives in an experiment. He found evidence that participants assimilated self-related content about a stupid hooligan, and in turn, showed lower scores on a knowledge test (as behavioral measure).

On a critical note, there is an ongoing debate questioning the validity and reliability of priming to behavior effects (Harris, Coburn, Rohrer, & Pashler, 2013), since several prominent studies could not be replicated. Especially, Dijksterhuis and Bargh's (2001) theory of a *Perception-Behavior Link* that assumes a direct link of our perception and our behavior is under special scrutiny. The perception-behavior link roots from a biological standpoint; it suggests that people are hardwired to automatically imitate observed behavior, comparable to some other species. However, these automatic behaviors are still flexible in a way that the perception-behavior link can be actively inhibited. For instance, people could refrain from enacting a

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prime-induced behavior, since this specific behavior could be in conflict with one's current goals (Macrae & Johnston, 1998). Conversely, the results of the highly cited study by Bargh, Chen, and Burrows (1996), in which the authors found a priming effect of elderly stereotypes on participants' walking speed, could not be replicated (Doyen, Klein, Pichon, & Cleeremans, 2012). Furthermore, Shanks et al. (2013) and O'Donnell et al. (2018) were not able to replicate priming effects of stereotypes associated with intelligence (professor) vs. stereotypes associated with lower intelligence (soccer hooligans) on a knowledge test.

In sum, simple priming of behavior effects, as suggested by the perception-behavior link, might not be sufficient to explain more complex media effects on recipients' behaviors, as induced through narratives (M. Appel, 2011). A more nuanced view on further processes linked to complex stimuli, like narratives, their impact on recipients' selves, and in turn, possible behavior will be considered in more detail below.

3.2 Different Directions of Narrative Impact: Assimilation vs. Contrast

In general, research on media effects, as well as research on narratives and their influence on the self in particular, is usually concerned with *assimilation effects*, in a way that self-evaluations, beliefs, and related behavior become more similar to a media stimulus. Existing studies on how narratives influence their audience are guided by the assumption that recipients usually assimilate aspects of a story and its characters, such as knowledge (Morgan, Movius, & Cody, 2009; Murphy, Frank, Chatterjee, & Baezconde-Garbanati, 2013), beliefs (M. Appel & Richter, 2007; Dal Cin, Zanna, & Fong, 2004; Green & Brock, 2000), attitudes (Escalas, 2004; Johnson, 2013; Mazzocco, Green, Sasota, & Jones, 2010), and behavioral intentions (Banerjee & Greene, 2012; Gebbers et al., 2017). Even the few studies on narratives' influence on one's self-perceptions expect assimilation effects as default outcome (e.g., Dal Cin et al., 2007; Gabriel & Young, 2011; Isberner et al., 2019; Kaufman & Libby, 2012; Sestir & Green,

2010). As mentioned above, being transported into a story world and identifying with a protagonist are highly engaging processes that foster assimilation effects by adapting traits, goals (Isberner et al., 2019; Richter et al., 2014; Sestir & Green, 2010), and even behavior of a protagonists (M. Appel, 2011).

However, can narratives have reverse effects on us as recipients by perceiving ourselves to be opposite or in contrast to a story protagonist (*contrast effects*)? At times, recipients may also compare themselves with protagonists in order to gain relevant information about themselves or look down on them to feel better about themselves (Mares & Cantor, 1992). Especially if recipients are less engaged into a story, social comparisons with protagonists might be more likely (Green, 2005). Social comparison with story characters and potential (contrast) effects on recipients' selves, as well as the mediating role of transportation and identification in the process are currently not well understood and an under-researched domain. Connecting prior research of transportation and identification to the research gap concerning how and when contrast effects occur, I expected that recipients may be more likely to engage in social comparison with story characters whenever transportation into a narrative is low (manuscript #1) and they do not identify with a protagonist (manuscript #2).

3.3 Applying a Social Comparison Framework to Narratives

Self-changes by means of encounters or social comparisons with story characters are best understood in terms of contextual and social factors. There is a long line of research in social psychology which supports that people derive their self-knowledge from social interactions with others (e.g., *Symbolic Interactionism*, Cooley, 1902; Mead, 1934; *Social Identity Theory*, Tajfel & Turner, 1986; *Social Comparison Theory*, Festinger, 1954). In order to evaluate ourselves, we often compare our abilities, attitudes, opinions, and achievements with other people (Festinger, 1954; Suls & Wheeler, 2000) that we encounter face-to-face, socially (Haferkamp & Krämer, 2011; Wilson, Knobloch-Westerwick, & Robinson, 2018), or in mass media

(Ferguson, 2013; Groesz, Levine, & Murnen, 2002; Knobloch-Westerwick & Hastall, 2006; Mares & Cantor, 1992). There have been over 60 years of research on social comparison in social psychology and with regard to media content, there is already an extensive body of research concerned with comparison processes (cf. meta-analysis by Gerber, Wheeler, & Suls, 2018). However, concerning research on narratives, there is only sparse application of social comparison theory and related processes that might occur during the reception of narratives (e.g., Green, 2005).

3.3.1 Social Comparison

How people evaluate and perceive themselves is often determined by *social comparisons* with other people. According to Festinger (1954), people strive for a stable and correct perception of their selves by an accurate self-assessment. Therefore, they search for information about their own abilities. When objective information, such as standardized test values or physical quantities, is absent, people usually compare themselves to similar others (*lateral social comparison*), since they offer the highest diagnostic value (Suls, Martin, & Wheeler, 2002).

However, there is no empirical support for the presumption of a general preference for objective information over social information. In an experimental study, Klein (1997) varied objective and social comparison information independently from each other. After a performance task, subjects received either feedback based on an objective criterion (40% or 60% of the task had been solved correctly) or social information (their performance was below or above average). It showed that the objective feedback had no influence on subsequent assessment of participants' own abilities and their satisfaction with their own performance, whereas the social information did. In sum, an important reason for social comparisons roots in the basic motive of *self-evaluation* (Tesser, 1988). We want to know how well we can do something, whether we have a certain ability, or whether our attitudes are appropriate. To answer these

questions, we compare ourselves with others. This bias is so pronounced that we sometimes use information from social comparisons in our judgments, even if they are not actually diagnostic. Importantly, self-evaluation is not the only motive to socially compare (Suls & Wheeler, 2017).

Downward social comparison. Besides self-evaluation motives, we also strive for a positive self-image that can be attained if we perceive ourselves better than others by *downward social comparison* (Wills, 1981). Downward social comparisons are carried out with the aim of increasing our self-esteem, and thus, gratify the *self-enhancement* motive (Suls et al., 2002). In particular, when the self is threatened, this increases the likelihood of downward social comparisons. In an influential study by Wood, Taylor, and Lichtman (1985), women with a breast cancer diagnosis that poses an acute threat to their self were asked about their standards of comparison. Most of the interviewed women rated their situation primarily in comparison to other patients who felt even worse. In an experimental study, Mares and Cantor (1992) asked elderly recipients (70 years and older) to watch video portrayals about Joseph Barnett, an old man that was depicted as either alone and isolated, or happy living with his wife and having many friends. In line with the idea of the self-enhancing effects of downward comparison, lonely elderly participants showed greater interest in viewing the isolated portrayal (vs. the happy portrayal) and felt better about themselves after viewing the portrayal.

The strategic use of downward comparison as a form of coping under threat and self-enhancement were of central interest in social psychology in the 1980s and 1990s. However, more recent empirical evidence raised serious questions about the exclusivity of positive effects of downward comparison on the self, and challenges the notion that threat automatically leads to downward comparisons (Suls et al., 2002). Indeed, meta-analytic evidence by Gerber et al. (2018) showed that threat to the self does not automatically lead to downward comparisons

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when participants were limited to either up- or downward comparisons choices (in both laboratory or field studies).

Another line of research has focused on downward social comparison with stigmatized groups as depicted in stereotypical media content and its different consequences for majorities and minorities (cf., Mastro, 2015; Ramasubramanian, 2010; Tukachinsky, Mastro, & Yarchi, 2017). According to Tajfel and Turner (1986) part of our self-evaluation is the social identity, which consists of memberships in different social groups and the evaluation of these memberships. Importantly, the perceived status of one's group is usually determined in comparison to other relevant out-groups. Since people strive to maintain or improve a positive social identity, we seek out information that favors our own social group in comparison to other groups (e.g., by selecting specific TV-content; Harwood, 1999). Furthermore, prejudice and stereotyping towards out-groups can also strengthen the beliefs in the superiority of one's group (Fein & Spencer, 1997; McLaughlin, Rodriguez, Dunn, & Martinez, 2018). In line with this idea, Knobloch-Westerwick and Hastall (2010) conducted an experiment on selective exposure to either positive or negative news articles about elderly or younger people and used a sample of either old (50-65 years) or young people (18-30 years). Compared to positive news, negative news about young people as out-group enhanced older people's self-esteem. In another study by Mastro, Behm-Morawitz, and Kopacz (2008), Caucasian participants were asked to follow an experimental TV-script (experiment 1) or TV-clip (experiment 2) depicting either a Caucasian or Latino protagonist – the latter are often depicted stereotypical as sex objects or as uneducated in entertainment media (cf., Tukachinsky et al., 2017). In both experiments, higher in-group association with participants' race/ethnicity led to more self-esteem after reading/watching the TV-script/clip about a Latino protagonist (compared to a Caucasian protagonist). Therefore, the authors cautiously conclude "that these intergroup comparisons [by Caucasian participants] favoring the in-group may protect and/or enhance [their] self-esteem by way of downward social comparisons" (Mastro et al., 2008, p. 19). Furthermore, stereotypes often contain a dual nature, in the sense that an out-group (such as Latinos in the example above) is negatively stereotyped (e.g., as uneducated), whereas the dominant in-group is often positive depicted (e.g., as more educated). For members of the negatively stereotyped group, the salience of such a stereotype could lead to a performance decrease in testing situations (*stereotype threat*; Steele, 1997; Steele & Aronson, 1995). However, when negative stereotypes doubt the worth of an out-group, people that belong to the in-group might experience a boost in their performance. This *stereotype lift* in performance and motivation is linked to the salience of perceived superiority of one's own group over an inferior out-group (Shih, Ambady, Richeson, Fujita, & Gray, 2002; Shih, Pittinsky, & Ambady, 1999; Walton & Cohen, 2003). Reasons for the enhancement in one's performance (i.e., a *contrast effect*) might be due to an increase in self-esteem and a decrease in self-doubts via downward social comparisons with a negatively stereotyped outgroup (J. Smith & Johnson, 2006).

Indeed, there was a small effect of stereotype lift on one's performance when confronted with media portrayals of a stereotyped out-group in a recent meta-analysis by M. Appel and Weber (2017). A reason for this small effect might be due to possible moderating factors that influence the effect of stereotypes on one's performance boost. For instance, for members of a high status group, negative stereotypes about a low status out-group could be chronically salient by endorsing this stereotype or having prejudice towards the out-group. As a result, they tend to use this negative stereotype for frequent downward comparisons from the inferior group that in turn foster their performance (Chatard, Selimbegović, Konan, & Mugny, 2008). Another factor, which influences stereotype lift, could be identification with a stereotyped domain (J. Smith & Johnson, 2006). *Domain identification* signifies the personal relationship between oneself and a field of pursuit, such as the academic domain. For individuals who strongly identified with a specific domain, the domain is seen as greatly self-defining and could have an

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impact on one's global self-evaluation (Osborne, 1997). If people are already highly identified with a domain which is positively linked to their group, they might only need a subtle reminder of their social self and related domains for a performance lift effect to occur (J. Smith & Johnson, 2006). Importantly, the degree of stereotype salience influences the different direction of effects on people's performance (stereotype lift vs. threat). There could be even stereotype threat effects, such as worse performance in a math test, on holders of these stereotypes under conditions of subtle stereotype salience (Wheeler et al., 2001).

Extending prior research on social comparisons and narratives, I applied the idea of stereotype lift (boost in motivation and performance) via downward comparisons (contrast effect) with a member of a stereotyped out-group using written stories about a pre-service teacher (manuscript #2, experiment 1).

Upward social comparison. Contrary to downward social comparison, people can also compare themselves with superior others, who perform better in a relevant domain (Blanton, Buunk, Gibbons, & Kuyper, 1999). *Upward social comparisons* were often linked to negative contrast effects on one's self-esteem followed by negative effects on mood (e.g., Morse & Gergen, 1970). However, does upward social comparison always lead to contrast effects? Indeed, upward social comparisons can also be made with the desire for *self-improvement* (Collins, 1996). Thus, superior others might provide inspiration and hope by serving as role models that inform people about ways to improve themselves (Buunk & Gibbons, 2007; Snyder, Cheavens, & Sympson, 1997; Suls et al., 2002). In order for a superior other to have a positive impact on one's self-perception and motivation, it seems necessary that superior others provide information about specific ways how to improve or change (Corcoran & Crusius, 2016). Thus, self-efficacy or the belief to be able to reach the superior standard could be important (Bandura, 1977, 1982). Furthermore, a superior other should be moderately better then oneself, rather

than extremely better (e.g., Mussweiler, Rüter, & Epstude, 2004), so that one perceives the depicted achievements as attainable (Lockwood & Kunda, 1997).

In terms of upward comparisons with media characters, there is a large body of research on negative effects of thin-idealized media persons (particular young women as depicted in TV, movies, print, or social media). Upward social comparisons with these attractive women could lead to a negative body image (Anschutz, Spruijt-Metz, van Strien, & Engels, 2011; Groesz et al., 2002; Hawkins, Richards, Granley, & Stein, 2004), negative emotional states (Cattarin, Thompson, Thomas, & Williams, 2000), and dysfunctional eating behavior (Grabe, Ward, & Hyde, 2008; Stice & Shaw, 1994) among women. However, other meta-analytic evidence only showed very small to no media effects on women's body (dis)satisfaction (Ferguson, 2013). Although 's Ferguson's (2013) meta-analysis did not find strong evidence for direct media effects on body (dis)satisfaction, this does not exclude possible indirect effects explaining this relation further. It is possible that individual differences moderate the impact of thin-idealized media content on body dissatisfaction and related behavior (Nabi & Keblusek, 2014). Indeed, women who were experimentally endorsed with a self-improvement motive (vs. self-evaluation motives) showed no body-focused anxiety (E. Halliwell & Dittmar, 2005). Furthermore, women sometimes even imagine themselves as the idealized media person via a "thin fantasy" and as a result, they could assimilate the thin-ideal standard into their self (Mills, Polivy, Herman, & Tiggemann, 2002). A longitudinal study by Knobloch-Westerwick (2015) supports the importance of self-improvement motives on women's body satisfaction. Over a period of five days, participants were exposed to magazine articles depicting thin-ideal women. Results showed that women scoring high on self-improvement social comparisons had positive changes in their body satisfaction, whereas their body satisfaction decreased when they engaged in self-evaluation. In another experimental study by Veldhuis, Konijn, and Knobloch-Westerwick (2017), self-evaluation vs. -improvement was induced via different headlines (e.g.,

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self-evaluation: "Compare your body to the latest trend! Check if you can live up to the ideal!"; self-improvement: "Boost your body to the latest trend! Get inspired for action: The ultimate body work-out!"; p. 5) on experimental magazines depicting ideal body models. Results indicated that self-improvement motives induced via the headlines lead to an increase in participants' body image, compared to neutral headlines.

3.3.2 The Selective Accessible Model: Assimilative vs. Contrast

Importantly, the direction (upwards vs. downwards) of comparisons does not necessarily determine negative or positive effects for the self and affective responses (Buunk, Collins, Taylor, Van Yperen, & Dakof, 1990; Meier & Schäfer, 2018). More recent theoretical developments emphasize the role of social cognition processes during comparisons (Buunk & Gibbons, 2007). In line with this idea, possible effects of social comparison depend on the self-related knowledge that is rendered activated or accessible during social comparison processes. According to the *Selective Accessibility Model* (Mussweiler, 2003; Mussweiler & Strack, 2000), people selectively search for self-related information that indicates similarity or dissimilarity to a comparison target. Thereby, they form automatic, holistic impressions about the comparison target based on salient features, such as, age, gender, or group affiliation. Importantly, these features become a point of reference in follow-up judgements about the self. When initially focused on similarities, subsequent self-evaluations usually become more consistent with the comparison target via *assimilation*. However, when people initially focus on dissimilarities between themselves and a comparison target, their follow-up self-evaluations could shift away or *contrast* from a comparison target.

The assumption that perceived similarity leads to assimilation while dissimilarity could cause contrast effects were tested in an experimental study by Mussweiler (2001b). In his study, participants were either primed via a procedural priming task that entails the instruction to find either similarities or dissimilarities between two drawings. After this priming of a similar or

dissimilar mindset, participants were asked to participate in a "second "study that was framed as unrelated to the first study, although it was not. For the "second" study, participants were randomly asked to read one out of two descriptions of a fellow student (Christiane). In one description, Christiane was adjusting very poorly in the new city. She did not find many friends, and moreover, she had problems with her studies. In the other description, Christiane was described as adjusting very well to her new life at the university by finding many new friends and performing excellently in her studies. After reading the description, participants were asked how well they adjusted to university. The items consisted of two objective questions regarding the amount of new friends they have made and how often they went out. Participants primed with a dissimilarity mindset rated their adjustment to university lower when exposed to the well adjusting student (contrast effect), but those primed with a similar mindset rated their adjustment higher when exposed to the well adjusting student (assimilation effect). However, the effects were reversed for participants who read the description of the poorly adjusting student: Participants' self-evaluations of their adjustment was higher when they were primed with dissimilarity (contrast effect) and lower when primed with similarity (assimilation). Furthermore, there was partial support for the Selective Accessibility Model (SAM) in a recent metaanalysis by Gerber et al. (2018). According to the authors, dissimilarity priming showed moderate effects on contrast effects, whereas similarity priming lead to only non to very weak effects on assimilation.

In an experiment regarding narratives, the SAM was applied by M. Appel (2011) using a story about a stupid soccer hooligan. Before reading the experimental story, participants' mindset was manipulated: they were either asked to find dissimilarity between themselves and the hooligan, or to summarize the content of the story. Participants, who summarized the story content, assimilated to key aspects of the story by performing worse in a knowledge test. In contrast, participants, who had the instruction to find dissimilarities between themselves and

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the stupid main character, showed contrast effects by performing better in a knowledge test. In manuscript #3, I used an experimental manipulation similar to M. Appel's (2011) experimental manipulation of recipients' mindset in order to induce assimilation vs. contrast effects.

3.3.3 Emotional Reactions to Social Comparisons

Social comparisons not only affect how we perceive ourselves in relation to others, but can also trigger specific emotions that can mediate the effects of social comparisons on behavior (e.g., Nabi & Keblusek, 2014). Thereby, two emotions in particular, *hope* and *envy* are of special interest in my dissertation (manuscript #3). The concept of hope has been around for millennia, and according to Greek mythology, it was what remained in Pandora's box after she unknowingly released evil into the world (Rand & Touza, 2018). A central theory within (positive) psychology is Snyder's (1994) *theory of hope*. He defines hope as the motivation to commit to positive goals and describes how these goals can be reached. For him, hope is a cognitive process of thinking about one's goals, which includes the following two components: a) the determination to move towards a goal (agency) and b) the expectation that one finds ways to reach his or her goal (pathways). On the one hand, hopeful people focus more on their goals and pathways, thus, they become less discouraged by obstacles and are more likely to keep engaged into goal-related behavior. People low on trait hope and agency, on the other hand, are more likely to be caught in goal-inhibiting thoughts, struggling to generate new solutions, and consequently giving up faster or behaving passively (Snyder et al., 1997).

When confronted with superior others, a typical emotional reaction could also be *envy*, that is, a feeling of inferiority and dissimilarity to the comparison standard. Importantly, envy could entail the aim to balance differences between oneself and the superior other by either lowering them (at least mentally) to one's own level or by improving oneself to the given higher standard (Lange & Crusius, 2015). Evolutionary psychology considers envy as an adaptive and

functional emotion that elicits behaviors aiming at outperforming rivals, with whom one competes over resources and potential mates (Hill & Buss, 2008). Furthermore, the noteworthy interpersonal, as well as societal consequences of envy have been well documented and it also occupies a great place in cultural history (Corcoran & Crusius, 2016; R. Smith & Kim, 2007). Envy is considered an emotion causing sinful behavior, such as the biblical fratricide of Cain to Abel (Aquaro, 2004). Many religions, such as Christianity and Judaism, associate envy with devilish powers, and condemns it as a deadly sin (Schimmel, 1997). Western philosophy emphasizes the competitive nature of envy to be better as a rival and it's viciousness that is related to its secret and cunning character (Kant, 1785/2015; Miceli & Castelfranchi, 2007). Accordingly, envy entails the goal to reach up to the level of superior others, rather than answering questions of moral justice and deservingness regarding perceived differences. Therefore, envy is often considered as an amoral and antisocial emotion (cf. D'Arms & Kerr, 2008).

Social comparison-based emotions. Along hope and envy, other emotional reactions caused by social comparisons are possible. In order to describe emotions caused by different social comparison processes, R. Smith (2000) proposed a model of *Social Comparison-based Emotions* using two factors: a) the direction of social comparison (up- vs. downward), and b) the assimilative vs. contrastive processes that occur accordingly if one feels as similar vs. dissimilar to a comparison target. Based on these two factors, social comparison processes can be categorized into four different types: upward assimilative, downward assimilative, upward contrastive, and downward contrastive that may have different emotional consequences. If one compare herself downward contrastive, she looks down to an inferior target, who is perceived as dissimilar to herself. Emotions that are elicited during this comparison involve feelings of pride to be better than the inferior target, schadenfreude about the target's misfortune, or contempt toward the target as a scornful believe that the situation of the inferior other is well deserved. If one compare herself downward assimilative, she looks down to an inferior target,

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who is perceived as rather similar to herself. Therefore, typical emotions are pity for the other's situation, fear to suffer the same, or sympathy that combines both pity for the target and fear that one could become like the inferior other (R. Smith, 2000).

Hope. When we are making an upward assimilative comparison, we look up to a superior other and we believe that we can be similar to this target. In other words, we hope that we could be like the target in the near future, while we admire and feel inspired by the esteemed comparison target (Meier & Schäfer, 2018). A superior other establishes an attractive possible outcome that one might also attain, especially with a mindset of self-improvement motives (Nabi & Keblusek, 2014). Importantly, the superior other should share similarities on the relevant comparison dimension and the higher standard should be attainable (Lockwood & Kunda, 1997). Empirical evidence showed that school children tend to react with hopeful emotions when confronted with classmates that had better grades (e.g., "I hoped I would also receive such a good grade the next time", p 232). Likewise, stories about people who survived fatal illnesses, such as cancer or cardiovascular diseases, helped similarly sick patients to cope with their situation by feeling hopeful to overcome their own illness (Taylor & Lobel, 1989). Moreover, hope is a "necessary condition for action" (Stotland, 1969, p. 7). More specifically, empirical studies support the notion of hope can trigger specific behavioral intentions. In a study by Nothwehr, Clark, and Perkins (2013), hope was positively associated to behavioral strategies on planning to live more healthy (e.g., "How often do you keep a record in your head of how physically active you've been during a week?"; p. 160) among overweight, primary care patients.

Envy. Upward contrastive comparisons with a superior other entail the feeling that one cannot be similar to the comparison target. Emotional reactions to these comparisons are usually depression and resentment due to the feeling of inferiority (R. Smith & Kim, 2007). Indeed, envy is often linked to negative well-being (Verduyn et al., 2015) or negative emotional states

regarding one's body image when comparing unfavorably with superior others in the domain of body and appearance (Pila, Stamiris, Castonguay, & Sabiston, 2014).

Furthermore, envy often entails the aim to balance differences between oneself and the superior other by lowering them (at least mentally) to one's own level. According to Miceli and Castelfranchi (2007, p. 470), the following requirements must be met for envy:

"(a) one's unfavorable comparison with another as regards a certain goal or class of goals; (b) one's suffering because of this sense of inferiority and the implied loss of self-esteem; (c) one's feelings of helplessness and hopelessness with regard to overcoming one's own inferiority; (d) one's ill will towards the advantaged party, which implies (e) one's ultimate goal or wish that the advantaged party should not achieve (some of) her goals."

Recent empirical findings in the area of social media (e.g., H. Appel, Gerlach, & Crusius, 2016), as well as in research on the depiction of beautiful and young women on TV and in print support the assumption of envy's negative malicious nature (e.g., Lewis & Weaver, 2016). However, envy could also be a source of self-improvement motivation, since envy entails the desire to have what a superior other has, which might be accomplished by improving oneself to the given standard (Lange & Crusius, 2015). Indeed, envy, especially its benign aspects, can encourage personal effort, such as increasing students' study hours when confronted with a superior other student while self-improvement seems to be attainable (study 4; van de Ven, Zeelenberg, & Pieters, 2011). Moreover, dispositional (benign) envy was linked to hope for success and increased goal setting to attain the achievements of a superior other. These motivational dynamics could in fact influence behavior positively, such as faster race performance in a long-distance race among marathon runners (Lange & Crusius, 2015). Moreover, envy towards people, who improved their appearance via a cosmetic surgery in the context of

reality-TV, has been identified as an important process variable that prompts behavioral intentions to receive cosmetic enhancements as well (Nabi & Keblusek, 2014).

Hope, envy, identification, and social comparison effects in narratives. Only a few studies emphasized social comparison with media characters in narratives and assimilation vs. contrast effects. In sum, these studies focused either on self-related beliefs (Isberner et al., 2019; Richter et al., 2014), behavior (M. Appel, 2011), or emotional responses (Lewis & Weaver, 2016; Tsay-Vogel & Krakowiak, 2019) as possible outcomes. Importantly, the relations between these outcomes, as well as underlying processes are rather under-examined. Therefore, this issue is experimentally addressed in manuscript #3.

For manuscript #3, envy as emotion related to contrastive upwards comparisons and hope as emotion related to assimilative upward comparisons were experimentally induced via an explicit processing instruction to find differences between oneself (vs. control baseline; M. Appel, 2011) and a main protagonist, a beautiful young model in a TV-Show. As mentioned above, the initial perception of (dis)similarity might not be the only important factor that can trigger assimilation vs. contrast effects. Instead, character identification with a story protagonist might also evoke assimilation or contrast effects on self-evaluations, emotional states, and even behavior. Thus, a measure of identification was also include in manuscript #3.

4 Aims of the Present Research

With this dissertation, I contribute to the literature on narratives and the self. Furthermore, it bridges to different fields of research, such as media psychology, social cognition and social psychology in unique ways by focusing on processes during narrative involvement. Based on the theoretical and empirical background outlined above, I expect transportation (manuscript #1 and #2), identification (manuscript #2) and experienced emotions, such as hope and envy (manuscript #3) to be important processes driving different outcomes of assimilation

vs. contrast effects. Figure 1 provides an integrative and schematic overview of all antecedences that were manipulated in the course of my five laboratory experiments, measured processes during narrative reception, and different consequences for the self (assimilation vs. contrast effects).

As mentioned above, contrast effects could occur when recipients have a more critical stand towards a story and its protagonists, which is reflected by a lower degree of transportation and a higher amount of counter-arguing. Surprisingly, prior research has not examined the link between transportation, respectively counterarguing, and contrast effects yet. Therefore, this research lacuna was addressed in manuscript #1. In the first experiment, participants' self-rated conscientiousness (DV 1) was assessed after participants read a story about either a diligent or a negligent student. Furthermore, participants' implicit associations between their selves and the concept of conscientiousness were assessed using an *identity IAT* (DV 2; Nosek et al., 2002). In line with previous research, participants who were highly transported and low on counterarguing were expected to assimilate depicted traits of the main character as indicated by implicit and explicit conscientiousness scores in line with that character. Importantly, recipients low in transportation and high in counterarguing were expected to score (higher) on the self-reported and implicit conscientiousness measures after reading a story with a diligent (negligent) protagonist than after reading a story with a negligent (diligent) protagonist. The first experiment of manuscript #1 included transportation only as measured variable. Therefore, in the second experiment, transportation was experimentally manipulated via written reviews prior to reading the experimental story in order to determine causality of the expected effects of transportation and counterarguing on participants' selves.

Manuscript #2 aimed to build on the findings of manuscript #1 by empathizing more on processes, such as social comparison and identification with the depicted main protagonist,

explaining contrast effects. Contrast effects might also be possible if recipients compare themselves to a protagonist, especially if they are less transported into a narrative and do not identify with a protagonist. In line with this idea, manuscript #2 (experiment 1) focused on downward social comparison with an out-group protagonist, a pre-service teacher, who was depicted as incompetent. Pre-service teachers are subject to considerable stereotyping (Carlsson & Björklund, 2010) in their professional life and during their studies, which is also evident in news and entertainment media (Swetnam, 1992). In general, stereotypes about (pre-service) teachers often entail the perception of less competence and a lack of motivation in their work, yet the positive stereotype of them being warm and friendly also applies (Carlsson & Björklund, 2010)². Ihme and Möller (2015) compared these paternalistic stereotypes (being warm, yet incompetent) about pre-service teachers with other professions. Regarding warm stereotypes, there was no significant difference between pre-service teachers and psychology students, whereas both groups differed in perceived competence by other students. Accordingly, possible downward comparisons to pre-service teachers regarding perceived competence might be conceivable from the viewpoint of a psychology student. Therefore, for manuscript #2 (experiment 1) only psychology students read a story about a pre-service teacher (out-group).

For manuscript #2, contrast effects via downward social comparisons with a pre-service teacher were expected as indicated by higher self-reported competence ratings in relation to others (DV 1), higher achievement goals (DV 2) and more motivation to spend time on a tire-some task (DV 3). Furthermore, contrast effects were assumed when participants had a more distant view toward the protagonist and the experimental stories. This distant view might be reflected by a lower degree of transportation and identification with the main character. How-

²Regarding the negative stereotypes, it is important to note that there are no actual significant differences between pre-service teachers and other students regarding their actual achievement motivation and intelligence (Spinath, van Ophuysen, & Heise; 2005).

ever, under conditions of high transportation and identification, assimilation effects were expected by temporarily rating oneself and behaving similar to the depicted protagonist. Thereby, transportation was manipulated via (positive vs. negative) written reviews (experiment 1) and identification was manipulated by varying the perspective of the story's narrator (first- vs. third-person perspective; experiment 2).

Finally, manuscript #3 further focused on processes, namely emotional experience, while engaged into a story, which could further explain assimilation vs. contrast effects. The emotions envy and hope were experimentally induced via an instruction to find differences between oneself (vs. control baseline) and a main protagonist, a beautiful young model in a TV-Show (superior comparison target). Finding dissimilarities was expected to elicit more envy (upward contrastive comparison), whereas in the baseline control group, hope was expected to be higher (upward assimilative comparisons). Higher envy values (Mediator 1) in turn should decrease one's state body image (DV 1). Further, envy was hypothesized to increase intentions to change one's behavior to become more like the depicted model (DV 2). Last, envy was expected to influence participants' actual behavior by choosing healthy (vs. unhealthy) food after the experiment (DV 3). Higher hope values were hypothesized to increase participants' state body image (DV 1). Like envy, hope was also expected to change behavioral intentions to become more like the depicted model (DV 2) as well as actual behavior by choosing healthy food. (DV 3). Moreover, identification was include as additional measure in order to explore possible assimilation vs. contrast effects on the mediating and dependent variables beyond the experimental manipulation.

The findings of all three manuscripts will be discussed and integrated in the final discussion, with reference to both limitations of the current studies and an outlook for future research.

Processes during Reception Narrative Involvement • Transportation (manuscript #1 and #2) • Identification (manuscript #2 and #3) **Experienced Emotions** • Envy and Hope (manuscript #3) **Assimilation vs. Contrast** Antecedents Context Factors **Effects** Self • Review Manipulation (manuscript #1 and #2) • Self-Reported Conscientiousness (manuscript #1) Characteristics of Narratives • Identity-IAT (manuscript #1) • Perspective Manipulation Self-Reported Competence in (manuscript #2) relation to others (manuscript #2) • State Body Image (manuscript #3) **Process Instructions** • Mindset Manipulation **Motives** (manuscript #3) • Learning and Performance Motivation (manuscript #2) **Behavior** • Time Spent on an Anagram Task (manuscript #2) • Behavioral intentions (manuscript #3) • Actual Behavior (manuscript #2 and #3)

Figure 1. Overview of experimental manipulations, processes during the reception of stories and possible assimilation vs. contrast effects.

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5 Manuscript #1

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Stories and the self: Assimilation, contrast, and the role of being transported into the narrative world

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MANUSCRIPT #1: STORIES AND THE SELF

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Abstract

Two experiments examined the influence of stories on recipients' self-perceptions. Extending

prior theory and research, our focus was on assimilation effects (i.e., changes in self-

perception in line with a protagonist's traits) as well as on contrast effects (i.e., changes in

self-perception in contrast to a protagonist's traits). In Experiment 1 (N = 113), implicit and

explicit conscientiousness were assessed after participants read a story about either a diligent

or a negligent student. Moderation analyses showed that highly transported participants and

participants with lower counterarguing scores assimilate depicted traits of a story protagonist,

as indicated by explicit, self-reported conscientiousness ratings. Participants who were more

critical towards a story (i.e., higher counterarguing) and with a lower degree of transportation

showed contrast effects. In Experiment 2 (N = 103), we manipulated transportation and

counterarguing, but we could not identify an effect on participants' self-ascribed level of

conscientiousness. A mini meta-analysis across both experiments revealed significant

positive overall associations between transportation and counterarguing on the one hand and

story-consistent self-reported conscientiousness on the other hand.

Key Words: Self, Transportation, Narratives, Assimilation, Contrast

Stories and the self: Assimilation, contrast, and the role of being transported into the narrative world

The impact of stories on recipients has been a topic of many empirical studies in the recent years. Stories possess the power to take us out of our own everyday realities. We become transported into narratives (Gerrig, 1993), and we encounter characters in these narratives with a diverse range of personalities and perspectives (Cohen, 2001; Kaufman & Libby, 2012). For the most part, research on story effects has been focused on recipients' views about the outside world, with attitudes and beliefs as the main dependent variables (van Laer, Ruyter, Visconti, & Wetzels, 2014). Much less is known about the influence of stories on recipients' view of themselves (Gabriel & Young, 2011). The existing empirical evidence on this topic showed that participants' self-perceptions tend to temporally change in line with the story protagonists' characteristics. In other words, recipients' self-perceptions become similar to the traits displayed by the character. These assimilation effects were strengthened by recipients' transportation into the story world (Richter, Appel, & Calio, 2014). However, do we always perceive ourselves to share a protagonist's characteristics? This manuscript explores effects of stories on the self, taking into account the possibility that recipients' selfperceptions may change but deviate from a protagonist's traits (contrast effects), particularly if transportation into a narrative world is low and counterarguing is high.

Two studies are presented that examine the influence of stories on assimilation versus contrast effects on the self, for individuals who were more or less transported into the narrative and who were more or less engaged in counterarguing. Extending prior research designs, we used two different stories with protagonists that displayed opposite characteristics. Moreover, effects on explicit self-ratings and on implicit trait associations were investigated (Nosek, Banaji, & Greenwald, 2002).

Being lost in a story world and the effects of stories on the self

Gerrig (1993) described the concept of transportation with the metaphor of a mental journey of a "traveler", who is transported into a story world. Transportation is characterized by an integrative melding of attention, imagery, and feelings, focused on story events (Green, 2005). Narrative influence and transportation have primarily been investigated in the context of changing attitudes, beliefs, and worldviews. Transported recipients do not critically process story claims, and thus, they are persuaded in line with the story (Green & Brock, 2000). Indeed, transportation is connected to a reduction in *counterarguing* of story assertions. Particularly highly transported recipients devote most of their mental capacity to imagining story events, and therefore do not have the cognitive capacity to critically question aspects of a story (e.g. Moyer-Gusé, 2008). Likewise, transportation should also reduce recipients' motivation to counterargue, because interrupting the narrative flow to disagree with the author's claims would likely destroy the pleasure of the experience (Green, Brock, & Kaufman, 2004).

Based on these findings from narrative persuasion research, this manuscript deals with the influence of stories on perceptions about ourselves. For the most part, prior studies on the influence of stories on the self have been guided by the assumption of *assimilation* as the effect to be expected (Richter et al., 2014). The term assimilation applies whenever a recipient's self-concept becomes more similar to the central theme of a story, protagonists' characteristics, or both. Accordingly, recipients temporarily assimilate depicted aspects of a story and its protagonists into their self-concept (Sestir & Green, 2010). Kaufman and Libby (2012) showed that participants can simulate the experience of fictional story characters by assuming their identities, which subsequently changed participants' self-perception. Self-concept accessibility, narrative voice, and the story character's group membership were important factors in this process. In another study by Richter and colleagues (2014), an

experimental story about a young mother and her daily struggles with parenthood (vs. a gender-neutral control story) increased self-rated femininity among highly transported readers.

Implicit measures and story effects on the self

Implicit measures have been used in different areas of media psychology and communication science in order to provide additional insights on media effects (Payne & Dal Cin, 2015). In contrast to explicit measures, such as questionnaires, implicit indicators, like the Implicit Association Test (IAT), do not rely on conscious self-reports. Rather, implicit indicators assess automatic responses which are difficult, if not impossible, to control (Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005).

Regarding the influence of stories on the self, few studies examined self-views on an implicit level. Gabriel and Young (2011) presented participants a passage from either a book about wizards or from a book about vampires. Afterwards, participants were asked how vampire- or wizard-like they perceived themselves. As the second dependent variable, an implicit measure, the *identity IAT* (Nosek et al., 2002) was administered. For the identity IAT, "me" words (e.g., myself,), "not me" words (e.g., they), "wizard" words (e.g., broomstick), and "vampire" words (e.g., fangs) were used. On average, participants showed higher implicit and explicit scores in line with the presented fantasy characters they had read about. Dal Cin, Gibson, Zanna, Shumate, and Fong (2007) presented different video clips in which the main protagonist was smoking or not. Non-smoking participants, who strongly identified themselves with the main protagonist, showed stronger associations between the self and smoking on an identity IAT. Sestir and Green (2010) showed participants different trait words in line with the protagonist's traits before and after watching a movie clip. As the dependent variable, participants rated in an implicit reaction time task (i.e., me/not me task) whether they believed the trait described themselves or not. Moreover, transportation into the

story world and identification with the main protagonist were manipulated through brief written instructions right before watching the movie clip. One central result was that the transportation manipulation led to a greater proportion of switches from the implicit not-mejudgments to me-judgments concerning protagonist's traits from the pretest to the posttest.

Are we always becoming similar to a story character?

Most of the existing empirical evidence points to assimilation effects as default for possible effects of stories on the self (Appel, 2011). Considering reading/watching stories as a highly immersive process (transportation; cf. Green, 2005) and the intense connection between recipients and story characters (identification; cf. Cohen, 2001) rather foster assimilation effects. However, we assume that stories can also influence recipients' self-concept in the reverse direction. Recipients may, at times, compare themselves with others to gain self-relevant information (Vorderer, Klimmt, & Ritterfeld, 2004). We therefore suggest that recipients could perceive themselves to be opposite or in *contrast* to specific traits of a story protagonist. Mares and Cantor (1992) showed that lonely, elderly people preferred watching a portrayal of a depressive, isolated elderly person, rather than watching a happy, socially integrated person. The authors suggested that an unhappy protagonist provides a target of downward social comparison. Thus, the participants perceived themselves to be less lonely after watching a socially isolated person.

Contrast effects are expected when recipients have a mindset that leads them to compare themselves with a story protagonist (Appel, 2011; Mussweiler, 2003). In an experimental study (Appel, 2011) participants read a story about a stupid and aggressive soccer hooligan. In the experimental group, the mindset of the participants was manipulated by receiving a reading goal instruction to find dissimilarities between oneself and the main protagonist. These participants performed better in a knowledge test after reading the story about the stupid hooligan compared to participants who received no instruction at all. In sum,

story characters' traits can work as a standard of comparison. Contrast effects based on media persona have been found mainly in a non-narrative context, such as media portrays of thin and beautiful people. Experimental and correlative research on this topic suggest that exposure to very thin bodies is linked to perceiving oneself as rather unattractive and overweight (Grabe, Ward, & Hyde, 2008).

Study overview and predictions

The main aim of this manuscript was to shed light on the influence of stories on the self with a particular emphasis on the direction of influence. Most of the existing empirical evidence points to assimilation effects, indicating that recipients become more similar to a main protagonist's traits after reading a story or watching a movie clip. Assimilation effects are expected whenever transportation into a narrative is high and counterarguing is low.

However, we believe that stories can as well affect recipients' self-concept in the opposite direction of a main protagonist's traits. These contrast effects are likely when recipients have a more distant or critical stance towards a story and its protagonists (Appel, 2011; Mussweiler, 2003). We expect this distant view to be reflected by a lower degree of transportation (Green, 2005) and a higher amount of counterarguing of story assertions (Moyer-Gusé, 2008).

Two experiments were conducted. Extending prior research, we used two parallel experimental stories in Experiment 1, which differed in the central trait of the main protagonist. In addition to explicit self-ratings, we included an implicit measure of the self-concept. As a further extension of prior findings, counterarguing (in addition to transportation) was included as a key moderating factor. In a second study, transportation was manipulated rather than measured to further investigate causal processes underlying the effects of stories on the self.

In our first experiment, we presented one out of two experimental stories. The main difference between the stories was the central trait of the protagonist. The protagonist was either very diligent or very negligent about his/her schoolwork. Two dependent measures were applied to capture assimilation vs. contrast effects on recipients' self-perception. The first dependent variable was an explicit self-rating of conscientiousness (Ostendorf & Angleitner, 2004) and we expected the following:

Hypothesis 1a (H1a): Participants reporting high levels of transportation during reading rate themselves to be more conscientious after reading the diligent student story as compared to the negligent student story (assimilation effect).

Hypothesis 1b (H1b): Participants reporting low levels of transportation during reading rate themselves to be less conscientious after reading the diligent student story as compared to the negligent student story (contrast effect).

Hypothesis 2a (H2a): Participants reporting low levels of counterarguing rate themselves to be more conscientious after reading the diligent student story as compared to the negligent student story (assimilation effect).

Hypothesis 2b (H2b): Participants reporting high levels of counterarguing rate themselves to be less conscientious after reading the diligent student story as compared to the negligent student story (contrast effect).

The second dependent variable was an implicit identity IAT, which measures the association between the self and the concept of conscientiousness (Nosek et al., 2002) and we expected the following:

Hypothesis 3a (H3a): Participants reporting high levels of transportation during reading show stronger association between their self and conscientiousness after reading the diligent student story as compared to the negligent student story (assimilation effect).

Hypothesis 3b (H3b): Participants reporting low levels of transportation during reading show less association between their self and conscientiousness after reading the diligent student story as compared to the negligent student story (contrast effect).

Hypothesis 4a (H4a): Participants reporting low levels of counterarguing show stronger association between their self and conscientiousness after reading the diligent student story as compared to the negligent student story (assimilation effect).

Hypothesis 4b (H4b): Participants reporting high levels of counterarguing show less association between their self and conscientiousness after reading the diligent student story as compared to the negligent student story (contrast effect).

Experiment 1

Method

Participants. Our procedure included a main experimental session and a prior online survey of different trait measures ¹. Since these trait measures had no effect on our dependent

¹ These measures were the Personal Expansion Questionnaire, "Kind of Person" Implicit Theory—Others Form For Adults, and the German Private Self-Consciousness Scale (see the online appendix for references to these questionnaires).

measures and moderating variables, related results are not reported here. One hundred thirteen individuals (99 women, age in years M = 22.54, SD = 4.19) were recruited in different social science classes at the University of Koblenz-Landau. The participants received partial course credit and participated in a lottery to win one 50€ or one out of four 10€ amazon coupons. The experiment took place in a laboratory with one to seven participants per session.

Procedure and stimulus text. Participants were randomly assigned to read one of two stories (diligent student story: n = 57, 1968 words; negligent student story: n = 56, 1726 words), which were presented as a paper booklet. Both stories were developed for the sake of this study and included a first-person narrator. There was no indication of the main protagonist's gender. The setting and topic of both stories were similar, but the main personality trait of the protagonist differed. In both stories, the main protagonist had to prepare a presentation. In the first story, the protagonist was very excited about the task and finished the presentation early (diligent student story). In the other story, the protagonist was just doing as much as needed for the presentation and preferred to spend some time with a friend (negligent student story).

Measures

Identity Implicit Association Test (Identity IAT). After reading the story, participants worked on an identity IAT (Nosek et al., 2002) on a computer using Inquisit 3. The entire procedure and the words used were adapted from Steffens and Schulze König (2006). The identity IAT was an indirect measure of participants' associations between their self and conscientiousness. Participants had to categorize five *self*-words (e.g., I, me), five *other*-words (e.g., you, your), five *conscientiousness* words (e.g., persistent, organized) and five *negligence* words (e.g., aimless, chaotic) to the respective categories. The identity IAT score was calculated using the improved scoring algorithm (Greenwald, Nosek, & Banaji,

2003). Accordingly, error trials were handled by the build-in error penalty, which required participants to correct their response after wrong categorization. The additional response time was included in the final analysis (D-score = .48; SD = 0.36). A higher (positive) identity IAT score indicated stronger associations between the self and conscientiousness. The internal consistency was calculated by examining the correlations of the two quotients composing the overall identity IAT D-score Accordingly, the identity IAT score had an odd-even split-half reliability of r = .65 (Spearman-Brown corrected). After finishing the identity IAT, participants received a paper booklet containing the following measures:

Transportation. Participants' immersion into the story world was measured with the Transportation Scale – Short Form (Appel, Gnambs, Richter, & Green, 2015). The six items went with a seven-point scale (e.g., "I wanted to learn how the narrative ended.", $I = not \ at \ all; \ 7 = very \ much$). The reliability was satisfactory ($\alpha = .78$); the overall mean was $4.94 \ (SD = 1.05)$.

Counterarguing. Four items assessed the extent to which participants generate thoughts which dispute what is being presented in the story (Moyer-Gusé, 2007), for example: "While reading the text, I sometimes found myself thinking of ways I disagreed with what was being presented", $I = strongly \ disagree$; $5 = strongly \ agree$). The reliability of the counterarguing scale was acceptable ($\alpha = .67$) and the overall mean was $2.44 \ (SD = 0.85)$.

Explicit Self-Ratings of Conscientiousness. As the second dependent measure, participants self-ascribed their level of conscientiousness (Ostendorf & Angleitner, 2004). Participants were briefly instructed to spontaneously rate themselves on ten adjectives (e.g., I am: persistent; aimless) on a seven-point Likert scale from I = not at all to 7 = very much. These ten adjectives were identical to the trait adjectives used in the identity IAT. The scale showed satisfactory reliability ($\alpha = .80$) and the overall mean was 5.33 (SD = 0.81). Finally, participants answered demographic questions.

Results

Since two stories were used as experimental manipulation, the study followed a one-factorial between-subjects design (treatment: story condition). In these and the following analyses, the experimental treatment was dummy-coded (*negligent student story* = 0; *diligent student story* = 1). Furthermore, all other variables were z-standardized to facilitate the interpretation of findings for variables with different scaling.

Explicit Self-Rating of Conscientiousness as DV. The story factor did not exert a significant overall effect on participants' explicit self-ratings of conscientiousness, t(111) = 0.27, p = .79. However, a moderated regression analysis showed a significant interaction between story condition and transportation on participants' explicit self-rating of conscientiousness, $b_{Int} = .75$, SE = .19, t(109) = 4.02, p < .001, $\Delta R^2 = .13$.

In order to test for the effect of story condition on explicit self-ratings of conscientiousness for low and high transportation scores (H1a and H1b), we conducted a simple slope analysis (Aiken, West, & Reno, 1991). Both conditions were compared at a high degree of transportation (+1 SD above the sample mean) and a low degree of transportation (-1 SD below the sample mean). In line with H1a, participants reporting high levels of transportation rated themselves as more conscientious after reading the diligent student story as compared to the negligent student story, indicating an assimilation effect, b = .68, SE = .27, p = .01. The effect was reversed for participants reporting low levels of transportation, which supported H1b: They rated themselves as less conscientious after reading the diligent student story compared to the negligent student story condition, indicating a contrast effect, b = -.81, SE = .25, p < .001 (Figure 1).

< Figure 1 around here>

The simple slopes of transportation and explicit self-ratings of conscientiousness differed between both experimental story conditions. The slope was negative, b = -.34, SE =

.14, p = .02 in the negligent student story condition (higher transportation yielded less conscientiousness), whereas the effect was positive in the diligent student story condition, b = .41, SE = .12, p < .001 (higher transportation yielded higher conscientiousness).

The interaction between story condition and counterarguing on explicit self-ratings of conscientiousness was also significant, $b_{Int} = -.73$, SE = .18, $t(108)^2 = -4.08$, p < .001, $\Delta R^2 = .13$. In order to test for the effect of story condition on explicit self-ratings of conscientiousness for low and high counterarguing scores (H2a and H2b), we again conducted a simple slope analysis (Aiken et al., 1991). Both conditions were compared at a high degree of counterarguing (+1 SD above the sample mean) and a low degree of counterarguing (-1 SD below the sample mean). In line with H2a, participants reporting low levels of counterarguing during reading rated themselves as more conscientious after reading the diligent student story compared to the negligent student story condition, indicating an assimilation effect, b = .67, SE = .25, p = .01. The effect was reversed for participants reporting high levels of counterarguing, which was in support of H2b. They rated themselves as less conscientious after reading the diligent student story compared to the negligent student story condition, indicating a contrast effect, b = .79, SE = .25, p < .001 (Figure 2).

< Figure 2 around here>

Likewise, the simple slopes of counterarguing and explicit self-ratings of conscientiousness were different in both experimental story conditions. The slope was positive, b = .30, SE = .13, p = .03 in the negligent student story condition (higher counterarguing yielded higher conscientiousness), whereas the slope was negative in the diligent student story condition, b = -.43, SE = .12, p < .001 (higher counterarguing yielded less conscientiousness). Finally, it should be noted that the three-way interaction of story

² Degrees of freedom for t-values of counterarguing are different from transportation, because one participant did not answer the counterarguing scale.

condition, transportation, and counterarguing on explicit self-ratings of conscientiousness was not significant $b_{lnt} = -.19$, SE = .19, t(104) = -1.00, p = .32.

Identity IAT scores as DV. There was no significant effect of the story condition on the identity IAT, t(111) = .35, p = .73. Moreover, the results of a moderated regression analysis of the story condition and transportation on the identity IAT did not show a significant interaction effect, $b_{Int} = .21$, SE = .20, t(109) = 1.04, p = .30. However, an outlier analysis of the identity IAT score revealed two extreme values, one above +2 SD and another below -2 SD. When the analysis was repeated with these two participants excluded (Miller, 1991) a significant interaction was observed, $b_{Int} = .41$, SE = .20, t(107) = 2.10, p = .04, $\Delta R^2 = .04$.

We estimated the effect of the story condition on the identity IAT at high and low levels of transportation (1 SD above and below the mean). At high levels of transportation, there was no significant effect of the story condition on the identity IAT, b = .26, SE = .28, p = .34 (in contrast to what was expected in H3a), but we found a significant effect, b = -.56, SE = .27, p = .04, at low levels of transportation. This result provides tentative supported for H3b, indicating a contrast effect on the identity IAT (Figure 3). Simple slope analyses revealed that transportation was positively related to the identity IAT scores only for the diligent student story, b = .34, SE = .13, p = .01, whereas there was no significant effect on participants who had read the negligent student story, b = -.07, SE = .14, p = .63. We wish to add that these effects on the identity IAT scores need to be considered with caution since they were only present after excluding the two outliers.

< Figure 3 around here>

The results of a moderation analysis of story condition and counterarguing on the identity IAT was not significant, $b_{Int} = -.20$, SE = .19, t(108) = -1.05, p = .30 (excluding the two outliers: $b_{Int} = -.24$, SE = .19, t(106) = -1.28, p = .20). Therefore, there was no support for

H4a and H4b. The three-way interaction of story condition, transportation and counterarguing on the identity IAT was also not significantly different from zero, $b_{Int} = -.04$, SE = .21, t(104) = -.27, p = .79 (with excluding the two outliers: $b_{Int} = -.11$, SE = .18, t(102) = -.60, p = .55).

Discussion

Study 1 supported some of our expectations. Highly transported participants as well as participants with lower counterarguing values showed higher explicit self-ratings of conscientiousness after reading the story centering on a studious protagonist. An assimilation effect was also found in the negligent student story condition. In this condition, highly transported participants, as well as participants low on counterarguing, showed lower self-ratings of conscientiousness. Importantly, recipients low in transportation and high in counterarguing rated themselves as less conscientious after reading a story with a diligent protagonist than after reading a story with a negligent protagonist (contrast effect).

The results regarding the moderating effects of transportation and counterarguing on the identity IAT were mixed. Only after excluding two outliers, the identity IAT scores revealed a significant effect. Participants with low transportation values showed lower implicit associations between the self and conscientiousness after reading the diligent student story compared to the negligent student story. The results (with excluded outliers) indicated only a contrast effect on the identity IAT.

One of the main limitations of this study was that transportation and counterarguing were included as measured variables. This is in line with the great majority of research on experiential states during media use. However, this methodological approach is limited: The moderating variables are assumed to cause changes in the effect of the experimental treatment on the dependent variable, but the causal agent is measured, rather than manipulated, opening the possibility of alternative interpretations. To corroborate the causal

effect of transportation and counterarguing on the self, we aimed at manipulating these states in a subsequent study.

Experiment 2

We manipulated transportation and counterarguing by presenting positive or negative reviews about a story prior to reading the story itself. While reading a review about a story, people form expectations in line with the review, which subsequently impact on transportation while reading, listening, or watching a story (Gebbers, de Wit, & Appel, 2017; Shedlosky-Shoemaker, Costabile, DeLuca, & Arkin, 2011). Shedlosky-Shoemaker et al. (2011) manipulated reviews by either presenting favorable or unfavorable written evaluations of a story before presenting the actual story. The results indicated that the valence of the review influenced transportation: the group with a positive, favorable review showed significantly higher transportation ratings, as compared to the group that read a negative, unfavorable review.

Since transportation and counterarguing are related concepts (Moyer-Gusé, 2008), we expected effects of the review manipulation on counterarguing as well. This is a somewhat novel approach as there are no empirical studies - at least to our knowledge - which examined counterarguing measures after applying a review manipulation. We expected that participants, who read a positive review about our experimental story (the diligent student story from Experiment 1), showed higher transportation and lower counterarguing scores than participants who read a negative review. Positive changes in transportation and negative changes in counterarguing were in turn expected to contribute to an increase of participants' explicit self-perceptions of conscientiousness (assimilation). We included only explicit self-perceptions of conscientiousness as the DV, because Experiment 1 showed stronger support for assimilation and contrast effects on this explicit scale, whereas the results for the identity IAT were rather mixed.

Method

Participants. The initial sample consisted of N = 105 participants. One participant had already participated in Experiment 1 and another participant did not correctly answer the control items regarding the content of the experimental story. Therefore, both participants were excluded from the final sample. The final sample consisted of N = 103 students (85 women) with a mean age of M = 22.24 years (SD = 3.33). Participants were recruited in different social science classes at the University of Koblenz-Landau and received partial course credit. The computer-based experiment took place in a laboratory with one to seven participants per session.

Procedure. After arriving at the laboratory, participants were welcomed and randomly assigned to one of two review conditions. They either read a negative (n = 54) or a positive review (n = 49) of the story. Both reviews were supposed to be from an online literature community (leselupe.de), and were supposed to be written by an experienced community member. Both reviews were similar in word count (positive review: 154 words, negative review: 170 words) and layout design. The main difference between the reviews was the valence of the evaluation regarding the short story that followed. The negative review emphasized the "rather repulsive and unpretentious story setting", whereas the positive review described that "the reader is carried away by the pleasant flow of the story". Moreover, there was a five-star rating of the story by 94 community members at the end of both reviews: (negative: 1.21 stars; positive: 4.78 stars). After reading the review, participants were asked to state the main content of the review into a text field as a control measure. All participants stated correctly the content and valence of the review that was allocated. Next, participants read the diligent student story from Experiment 1, and afterwards they worked on the Transportation Scale – Short Form ($\alpha = .86$; M = 4.67; SD = 1.24) and the counterarguing scale ($\alpha = .78$; M = 2.32; SD = 0.94), like in Experiment 1. Subsequently, participants rated

their conscientiousness on the scale from Experiment 1 (α = .70; M = 5.10; SD = 0.72). Finally, participants answered three control items regarding the story's content and whether or not they had participated in Experiment 1. The final page of the questionnaire consisted of demographic information.

Results

To examine the effects (assimilation vs. contrast) on participants' explicit ratings of conscientiousness, we conducted two bootstrapping analyses with 1) transportation and 2) counterarguing as mediators (Hayes, 2013; model 4). In these and the following analyses, the experimental treatment was dummy-coded ($negative\ review = 0$; $positive\ review = 1$). Furthermore, all other variables were z-standardized.

Transportation. The analysis with transportation as a mediator yielded a non-significant *total effect* of the review manipulation on the explicit self-rating of conscientiousness, b = .16, SE = .20, t(101) = .79, p = .43. However, the analysis yielded a significant effect of the review manipulation on transportation, b = .45, SE = .19, t(101) = 2.32, p = .02. Thus, the manipulation of the reviews had the expected effect on participants' transportation levels, but the effect was rather small with Cohen's d = .46 (negative review: M = 4.40, SD = 1.31; positive review: M = 4.96, SD = 1.11). Likewise, there was no *direct effect* of the review treatment on participants' explicit self-rating of conscientiousness, b = .10, SE = .20, t(101) = .48, p = .63. Moreover, the results did not show an effect of transportation on explicit self-ratings of conscientiousness, b = .13, SE = .10, t(100) = 1.28, p = .20. Following these findings, and against our expectations, there was no *indirect effect* of our review manipulation on explicit ratings of conscientiousness through transportation (see Figure 4). A bias-corrected bootstrap confidence interval (CI) for this indirect effect based on 10000 bootstrap samples was not significant with an *estimate* of .06, 95% CI [-.03, .24].

< Figure 4 around here>

Counterarguing. The analysis for counterarguing as a mediator also yielded a non-significant *total effect* of the review manipulation on self-reported conscientiousness, b = .16, SE = .20, t(101) = .79, p = .43. There was no *direct effect* of the review manipulation on participant's conscientiousness, b = .15, SE = .20, t(101) = .74, p = .46. The manipulation of the review had no effect on counterarguing, b = -.15, SE = .20, t(101) = -.78, p = .44, and there was no effect of counterarguing on the explicit self-rating of conscientiousness, b = -.06, SE = .10, t(100) = -.59, p = .56. Following these results, there was no indication of an *indirect effect* of the review manipulation on conscientiousness mediated by counterarguing. A bias-corrected bootstrap confidence interval (CI) for this indirect effect based on 10000 bootstrap samples was not significant with an *estimate* of .01, 95% CI: [-.02, .12].

Discussion

As expected, we found a significant, but small effect of the review manipulation on transportation, but there was no effect of our review manipulation on counterarguing. For our reviews, we followed an approach successfully used in previous studies (Gebbers et al., 2017; Shedlosky-Shoemaker et al., 2011) and varied the valence of the reviews. Therefore, most of the reviews' statements focused on the dramatic and creative quality of the short story, rather than its authenticity of story assertions and statements made by the main protagonist.

Accordingly, our reviews might have somewhat triggered emotional and imagery expectations regarding the story, which are more related to transportation (Green & Brock, 2000). Future manipulations of reviews and their impact on counterarguing could also emphasize authenticity or plausibility of story assertions in their evaluations.

Most importantly, there was no significant association between transportation or counterarguing and participants' self-ratings of conscientiousness. The latter finding was unexpected, since we observed medium to large associations between transportation and counterarguing and participants' self-reported conscientiousness in the equivalent diligent

student condition in Experiment 1, with zero-order correlations of r(55) = .43 and r(55) = .45, respectively. This raises the question of power. Did this experiment have enough power (1-beta) to detect relationships of similar size as in Experiment 1? To answer this question, we conducted post-hoc power analyses with the help of g*power (Faul, Erdfelder, Lang, & Buchner, 2007). Given the effect sizes found in Experiment 1, $\alpha = .05$ (two-tailed) and a sample size of 103 in Experiment 2, we had a power of .998 (transportation) and .999 (counterarguing) to identify the focal relationships. Thus, it appears that the non-significant finding in Experiment 2 was not due to a lack of power to identify the relationships that were present in Experiment 1³. Although these power analyses were somewhat re-assuring with respect to the contribution of Experiment 2, the findings of Experiment 1 and Experiment 2 taken together remained somewhat inconclusive. In order to clarify the joint evidence of both experiments we conducted *mini meta-analyses* (cf. Goh, Hall, & Rosenthal, 2016).

Mini Meta-Analyses Across Both Experiments

Experimental researchers are faced with the challenge that within a series of studies the findings of single studies may differ substantially. In recent years it has become good practice to report studies, irrespective of the results (hiding inconsistencies by omitting imperfect studies would ultimately contribute to biased effect size estimates and a smaller likelihood of follow-up replications). One way to provide estimates and interpretations over a

 $^{^3}$ Note that these power analyses are based on sample point estimates and not the unknown "true" population values. Sample point estimates are not always accurate, since they do not account for uncertainty in estimates of population effect sizes. Therefore, Perugini, Gallucci, and Costantini (2014) proposed a more conservative approach - the "safeguard power analysis" - that incorporates this uncertainty by using the lower boundary (60%, two-tailed confidence interval) of the effect size. Given the lower-bound effect sizes (transportation; 60% CI: .33, .52; counterarguing, 60% CI: -.54, -.35) found in Experiment 1, α = .05 (two-tailed) and a sample size of 103 in Experiment 2, we would had a power of .940 (transportation) and .964 (counterarguing) to identify the focal relationships. We additionally calculated the needed sample size for identifying the crucial relationships in Experiment 2, given the correlations found in Experiment 1. Following Cohen's (1992) recommendations, the power was set to .80 (α -level = .05). Based on analyses with g*power (Faul et al., 2007), 37 (33) participants would have been sufficient in order to detect the relationship between transportation (counterarguing) and conscientiousness. Moreover, the power when analyzing mediation effects (as expected for Experiment 2) is usually larger than the power when analyzing single relationships (Kenny & Judd, 2014).

set of studies is to conduct mini meta-analyses (Goh et al., 2016). They summarize study results and increase statistical power. In past research, mini meta-analyses were applied with no more than two studies (e.g., Hugenberg & Bodenhausen, 2004; Lamarche & Murray, 2014; Williams & DeSteno, 2008).

For mini meta-analyses to be applicable, two or more experiments need to entail comparable measures and stimuli. In both of our experiments, the same story about a diligent student was presented and identical measures were used to examine the relationships between transportation and counterarguing and the story-related explicit self-ratings of conscientiousness. These associations represent two of the four simple slopes within the model tested in Experiment 1. Furthermore, Experiment 1 involved a second story with a negligent student and implicit measures were assessed, whereas Experiment 2 included an experimental manipulation of transportation. These features were specific to the single experiments and could not be meta-analyzed.

We focused on the fixed effects model in our mini meta-analyses which is recommended and general practice, assuming one underlying true effect size for the analyzed studies (Goh et al., 2016). We calculated estimates of the mean correlations between transportation and the conscientiousness ratings after reading the diligent student story using the *Comprehensive Meta-Analysis 2* software. In this process, the correlations were weighted by sample size. Across both experiments, we identified a significant positive association, Mr = .25, Z = 3.17, p = .002. We conducted a second mini meta-analysis for the association between counterarguing and conscientiousness which yielded the expected negative association, Mr = .21, Z = .2.64, $p = .01^4$. These meta-analyses showed that, taken together the results from both experiments, transportation was positively related to story-consistent

⁴ Goh and colleagues (2016) recommend reporting the random effects results for reasons of transparency: transportation, Mr = .28, Z = 1.80, p = .07; counterarguing, Mr = .26, Z = -1.26, p = .21.

self-ratings whereas counterarguing was negatively related to story-consistent self-ratings, supporting the assumptions underlying the hypotheses.

General Discussion

Stories influence how we perceive the world and ourselves. Using a novel methodology that involved two parallel stories, we showed that recipients see themselves to be more conscientious after reading a story about a diligent protagonist than after reading a story about a negligent protagonist – but only when they were transported into the narrative world and showed little counterarguing. When transportation was low and counterarguing was high, recipients perceived themselves to be *less* conscientious after reading a story of a diligent protagonist than after reading a story about a negligent protagonist. These findings were consistent with previous work that identified *assimilation effects* on recipients' self-perceptions, particularly when transportation was high (e.g., Richter et al., 2014). Extending prior studies, we found a complementary effect carried by recipients' counterarguing.

This study is the first to show that when transportation is low (and counterarguing is high), reading the story elicited self-perceptions that are the opposite of the characters' attributes. Thus, our findings highlight the possibility of *contrast effects* in response to stories, a phenomenon that has attracted little attention so far. Contrast effects are theoretically relevant and may occur in many everyday settings in which stories are not compelling.

Limitations and Future Research

Despite the importance of our findings, several limitations need to be acknowledged.

As a major caveat, the causal assumptions underlying our approach could not be corroborated in full in our second experiment. Our review manipulation yielded a significant influence on transportation, but the effect size was small. Counterarguing was not affected by the manipulation at all. Importantly, there was no significant link between either transportation or

counterarguing and recipients' self-ratings of conscientiousness in Experiment 2. Thus, we failed to replicate the basic relationships between the process measures and story-consistent self-ratings underlying the results of Experiment 1. We conducted two mini meta-analyses to increase the conclusiveness of our findings. We gained meta-analytical support for the expected associations between transportation and counterarguing on the one hand, and self-reported conscientiousness on the other. Still, we need to acknowledge that associations between transportation and counterarguing and recipients' selves appear to be rather variant. This needs to be taken into account in future research, for example by including theoryguided moderator variables. On a methodological note, researchers from communication science and media psychology are encouraged to consider mini meta-analyses when dealing with varying effects across multi-study papers.

We carefully developed two parallel stories for Experiment 1. Aimed at securing high internal validity, both stories only differed in the central trait of the protagonist. However, in order to generalize our findings, different media stimuli and trait measures should be examined in future research.

In our first experiment, the results for the identity IAT scores were rather mixed, which might be due to the low conceptual correspondence of different measurement methods and underlying mental processes (Hofmann et al., 2005). The identity IAT measures associative processes, whereas the transportation and counterarguing scales require explicit judgments. Both of these mental processes are linked, but distinct from each other (Hofmann et al., 2005). Therefore, non-self-report measures of transportation (e.g., eyelid movements) might show stronger associations with the identity IAT.

Our findings are in line with prior research (e.g., Gabriel & Young, 2011; Kaufman & Libby, 2012; Sestir & Green, 2010) and support the hypothesis that narratives temporarily influence recipients' self-perceptions. However, is it possible that narratives can promote

permanent changes in peoples' personality, a system that is supposed to be rather stable?

Djikic and Oatley (2014) suggested that the artistic and emotional quality of stories open up recipients by temporally destabilizing their personality system. These singular fluctuations in one's personality repeatedly occur by reading different narratives. Consequently, stable personality traits may shift to a different level over time. Yet, in order to empirically support possible long-term effects of narratives on the self, longitudinal designs are needed.

Finally, neither of the two studies presented here contained a measure of social comparison, which might be an additional factor in order to explain contrast effects.

Therefore, it might be valuable to include specific measures of social comparison processes for future research (Appel, 2011).

Conclusion

The presented research contributes to the literature on stories and the self. Consistent with previous work, we found *assimilation* effects when transportation was high and when counterarguing was low. As a result, participants temporally incorporated attributes of a story protagonist into their own self-concept. However, stories are no hypodermic needles, which automatically inject different self-perceptions into the readers. Indeed, we found evidence that stories do not always elicit responses that are in line with the protagonist's traits. Unlike most media effect research in general, and research on stories and the self in particular, we showed changes in participants' explicit self-perception that were in *contrast* to the protagonist's characteristics, provided that participants showed low transportation or high counterarguing.

Research Transparency Statement

The authors are willing to share their data, analytics methods, and study materials with other researchers. The material will be available upon request.

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Figures

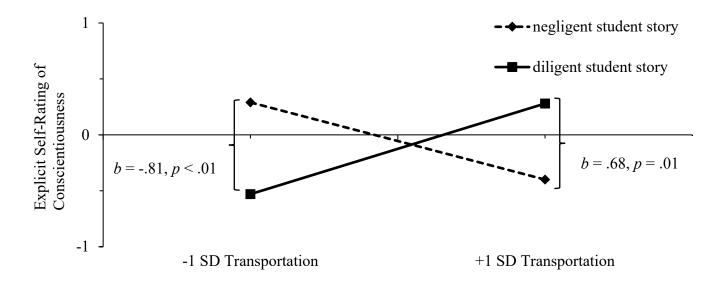


Figure 1. Moderation and conditional effects of the experimental stories on explicit self-rating of conscientiousness by transportation.

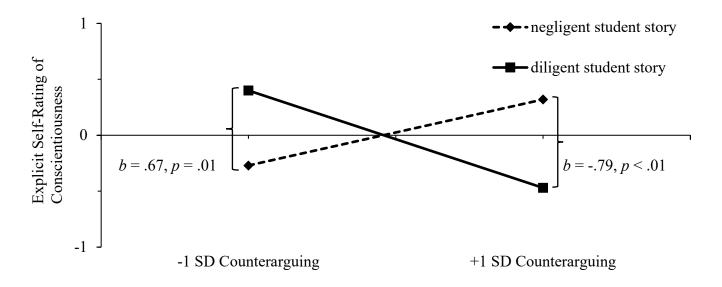


Figure 2. Moderation and conditional effects of the experimental stories on explicit self-rating of conscientiousness by counterarguing.

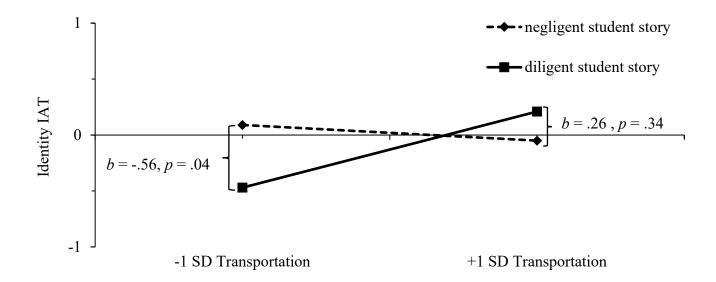


Figure 3. Moderation and conditional effects of the experimental stories on the identity IAT by transportation (with excluding two outliers).

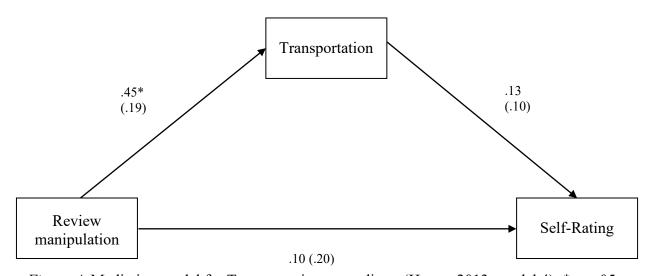


Figure 4. Mediation model for Transportation as mediator (Hayes, 2013, model 4); *p < .05

Online Appendix

Stories and the self: Assimilation, contrast, and the role of being transported into the narrative world

Stimuli used In the identity IAT German original [and English translation] selbst [self]: ich, mein, mir, mich, meins [I, mine, me, me, mine] andere [others]: du, dein, dir, dich, deins [you, your, you, you, yours] gewissenhaft [conscientious]: pedantisch, willensstark, diszipliniert, organisiert, zuverlässig [pedantic, strong-willed, disciplined, organized, reliable] nachlässig [negligent]: ziellos, faul, chaotisch, unordentlich, unpünktlich [aimless, lazy, chaotic, untidy, unpunctual]

Diligent Student Story

Der Tag davor

Ein Geräusch dringt an mein Ohr. Hell und beständig sticht es in mein schlaftrunkenes Bewusstsein wie die Nadel einer Maschine durch weichen Samt. Ich runzle die Stirn, öffne meine Augen und blicke benommen in das graue Zwielicht. Einen Moment lang verharre ich in der gebrochenen Stille. Dann rolle ich auf die Seite, taste über das Laken, bis meine Finger schließlich gegen etwas Hartes unter meinem Kissen stoßen. Ich ziehe ein kleines Objekt hervor; hektisch blinkende Zahlen flackern mir vom Display des kleinen Funkweckers in meiner Hand entgegen, begleitet von unablässigem, aufgeregtem Piepsen. Verwirrt starre ich auf die Anzeige. Da stimmt was nicht, denke ich schläfrig. Warum weckt das Ding mich so früh...?

Dann stoße ich ein Seufzen der Erkenntnis aus und lasse mich zurück in das weiche Kissen sinken. Die gestrige Nacht war lang gewesen...

Ich hatte an einer wichtigen Präsentation gearbeitet und viele Stunden mit der Suche nach brauchbarem Material verbracht. Für gewöhnlich teile ich meine Zeit ziemlich genau ein. Mir gefällt das Gefühl nicht, unter den Druck einer plötzlich sehr dicht lauernden Deadline zu geraten.

Gestern aber hatte mich etwas gepackt: Ich verlor mich im Arbeitseifer; die Ideen in meinem Kopf nahmen immer komplexere Gestalt an und ich gab ihnen, getrieben von Elan und Tatenkraft, einen Rahmen auf dem virtuellen Papier. Über meine Geschäftigkeit vergaß ich die verstreichenden Stunden. Als irgendwann die Schläfrigkeit in meine Gedanken kroch, blickte ich zur Uhr und erschrak über die Feststellung, dass meine Arbeit längst noch nicht erledigt war. Gegen Mittag am nächsten Tag aber *musste* ich fertig sein. Dann würde sich meine Seminarsgruppe ein letztes Mal treffen und den bevorstehenden Vortrag endgültig besprechen. Ich griff nach dem Wecker, erwog, früh am kommenden Morgen die Ideen der Nacht zu vervollständigen... Dann zögerte ich.

Ja, ich konnte auf gute Fügung hoffen. Ich konnte der Schläfrigkeit nachgeben und den Laptop einfach schließen, darauf vertrauend, dass ich rechtzeitig erwachen und alles, was ich mir vorgenommen hatte, schaffen würde. Aber diese Sorglosigkeit behagte mir nicht. Zu groß war das Risiko, etwas Unvollendetes nicht beenden zu können und sich dann in endlos neue Probleme zu verstricken. Wie, du hast es nicht geschafft? Wir brauchen doch... warum hast du nicht? Blanker Stress! Also widerstand ich der Müdigkeit, schob die verlockende, aber trügerische Zuversicht beiseite, dass "alles schon irgendwie klappen" würde, und tippte

entschlossen weiter... bis ich schließlich müde, aber zufrieden gegen die Lehne meines Stuhls sank.

... Geschafft. Alles geschafft...

Bloß den Wecker hatte ich vergessen. Ich drücke auf die Tasten und stelle ihn beiseite. In der schattigen Düsternis meines Zimmers streicht ein milder Lufthauch über mein Gesicht, lässt die Rollläden sanft beben. Ich wickle mich in das kühle Laken und schließe ruhig die Augen...

... Alles geschafft...

Eine Stunde später schallt das geschäftig klingende Piepen erneut durch den Raum. Ich schwinge mich aus dem Bett, greife nach der sorgfältig über die Stuhllehne gefalteten Kleidung. An dem kleinen grünen Kaktus vorbei schreite ich über den gepflegten Teppich zur Tür, gähne ein Mal herzhaft, strecke mich und setze meinen Weg zum Bad pfeifend fort.

Was liegt an, frage ich das Gesicht in der klaren Spiegelfläche vor mir. Einiges für die Uni, antworte ich mir selbst in Gedanken und spüle mit klarem Wasser den Schlaf aus meinen Augen. Am Abend wollte ich meinen besten Freund Daniel besuchen. Haben uns ja ziemlich lange nicht mehr gesehen, denke ich. Aber für dieses Treffen war bislang nie Zeit gewesen. Es gab immer etwas zu tun, als Student mehr denn je. Ich seufze und streife die Kleidung über. Nur dieser eine Nachmittag noch, diese letzte Besprechung mit meinen Kommilitonen... dann endlich war Zeit für die angenehmen Dinge des Lebens. Ich spucke Zahnpasta aus, drehe den Wasserhahn zu und kehre zurück. Am Rahmen meiner Zimmertür bleibe ich stehen und lehne mich gegen das weiche Holz.

Mein Blick wandert durch den Raum, über die ordentlich gereihten Studienordner im Regal, die sortierten Bücher und Papiere auf dem Schreibtisch und bleibt schließlich haften an den sorgfältig gestapelten Notizen der letzten Nacht. Nachdenklich überfliege ich die Entwürfe. Ich möchte, dass unser Vortrag besonders gut wird, denke ich. Viel Zeit und Herzblut sind hineingeflossen, viele Stunden, die jeder von uns hätte anders nutzen können. Unser aller Bestehen hängt davon ab... Er musste einfach gut werden.

Ich blicke zur Uhr. *Halb eins. Zeit für den Abflug*. Ich hefte die Papiere sorgsam in meinen Ordner, schiebe die Unterlagen in den Rucksack und verlasse die Wohnung.

Auf dem Weg trete ich gedankenverloren Steinchen über den grauen Pflasterstein. Meine erste Zusammenarbeit mit einer Gruppe an der Universität war alles andere als erfolgreich verlaufen. Damals war wenig abgesprochen, das wenige Vereinbarte nicht eingehalten und eigentlich kein einziger Termin pünktlich wahrgenommen worden. So gestaltete sich schließlich auch unser Vortrag: Ein geschliffenes Desaster in vielen hässlichen Facetten. Die Kritik

war entsprechend vernichtend. Berechtigt, ja. Aber irgendwie schmerzhaft und unangenehm. Doch wir waren selbst schuld daran... Das nagte bis heute an mir.

Diesmal hatten wir es anders gemacht. Diesmal hatten wir kein Wagnis zugelassen, nicht bei einem so wichtigen Projekt, und einen Zeitplan erstellt, mit dem wir unsere Vorbereitungen planen konnten. Dieses Mal haben nicht nur ein Ziel, sondern auch einen Weg vor Augen.

Vor einer Haustür bleibe ich stehen und hebe den Finger zum Klingelknopf. Prompt wird die Tür aufgerissen. Elisa, meine Kommilitonin blickt mir fröhlich entgegen:

"Pünktlich wie immer", lacht sie und zwinkert mir zu. Sie deutet mit dem Kopf in die Küche hinter sich. Ich folge ihr, nehme Platz zwischen den Anderen. Ein anderer Kommilitone, Martin, blickt auf und sieht mich fragend an: "Hast du deinen Teil vorbereitet?"

Ich hole meinen Laptop mit den Folien hervor, die Notizen der letzten Nacht und trage meine Ideen vor. Er nickt.

"Ziemlich gut. Aber diese eine Stelle... weißt du, du brauchst nicht gleich die Wissenschaft neu zu erfinden." Er lacht. "'Nen kurzer Überblick reicht da aus".

Ich lächle schief. Er hatte recht. Was ich tue, möchte ich gerne möglichst perfekt machen. Und wenn der Ehrgeiz mich packt, manchmal ein wenig zu perfekt. Vielleicht war es gut, wenn jemand mich gelegentlich ausbremste.

Mehrere Stunden lang diskutieren wir miteinander, bis wir schließlich das Gefühl haben, für den morgigen Tag gut gewappnet zu sein. Martin klopft mit der flachen Hand auf den Tisch. "Freunde, wir sind fertig. Wir sind durch!" Wie auf ein Kommando entspannen sich fünf Schulterpaare. Wir lehnen uns zurück. "Endlich", erwidere ich. "Dann... sehen wir uns also morgen zur Präsentation. In alter Frische. Bis dahin, Leute... Freizeit!"

Daheim stelle ich den Rucksack ab. Ich greife nach zwei Flaschen im Kühlschrank und schwinge mich aufs Rad, um meinen besten Freund zu besuchen. Nun, da alles Notwendige erledigt ist, kann der Spaß erst richtig beginnen. Energiegeladen trete ich in die Pedale, summe eine Melodie. In nur wenigen Minuten bin ich am Ziel. Beschwingt springe ich vom Sattel und betätige die rasselnde Klingel. "Ich bin's, mach auf", sage ich fröhlich, als eine knackende Stimme aus der Gegensprechanlage ertönt.

Wir begrüßen uns herzlich. Ich stelle die Getränke in den Kühlschrank, während Daniel zwei Pizzen in den Backofen schiebt. Danach setzen wir uns gemütlich vor den Fernseher im Wohnzimmer. Keine Arbeit, alles weg, denke ich. Frei. Einfach nur genießen. Ich rutsche etwas an der Sessellehne hinunter, seufze zufrieden und falte die Arme hinter meinem Kopf. Einfach genial.

Während einer Sendung vibriert mein Handy. Ich starre einen Moment lang auf den Bildschirm. Dann richtet mein Blick sich wie magisch angezogen auf das kleine Display. *Kurz nach halb eins,* denke ich. *Wer ruft um diese Zeit noch an?* Verdutzt hebe ich das Gerät an mein Ohr. "Was ist denn?", frage ich, springe auf und laufe aus dem Wohnzimmer. Daniel sieht mir nach, milde Überraschung auf seinen Zügen.

"Hey, ich bin's, Elisa! Sorry, dass ich dich so spät noch stören muss, aber es ist wirklich wichtig! Wir werden morgen einer weniger sein..."

"Was... warum das?", unterbreche ich sie verdutzt. Innerlich raufe ich das Haar.

"Martin ist gestürzt. Auf dem Heimweg. Nichts Gefährliches, aber er muss vorerst im Krankenhaus bleiben. Was machen wir jetzt? Wir haben keine Einleitung und keinen Schlussteil."

Ich blinzele in die Dunkelheit des Flurs vor mir. Auf der anderen Seite eröffnet ein Fenster den Blick auf die schattenumhüllte Landschaft. Die Schemen einzelner Häuser zeichnen sich vage im Düster der Nacht ab. *Martin... armer Martin. Mist.*

Ich atme durch. "Wenn wir durchfallen, dürfen wir das ganze Modul noch einmal wiederholen", sage ich langsam. "Dann verlieren wir 'ne schöne Menge Zeit."

"Nein…", haucht meine Kommilitonin entsetzt. "Ich fliege doch nächstes Semester nach Andalusien. Und noch ein Jahr länger will ich nicht auf den Bachelor warten. Das geht nicht! Was machen wir jetzt? Soll ich dem Dozenten schreiben? Ich schicke ihm jetzt eine Mail…"

Ich schweige. Auf gut Glück hoffen? Alles erklären? Nein. Zu unsicher. Das Risiko, auf Unverständnis zu treffen und die rigorose Forderung, dass Gruppenmitglieder doch "einfach eben spontan einspringen" sollen, war einfach zu groß.

Ihr seid jetzt an der Uni, hatte man uns immer wieder gesagt, also selbst verantwortlich für euer Lernen, euer Arbeiten und wie ihr euch organisiert. Natürlich gibt es Ausnahmefälle, in denen wir individuell etwas absprechen können...

Ich schüttele den Kopf. In der Nacht vorm Präsentationstag? Wie sähe das denn aus? Hat das jemals glaubhaft gewirkt? "Nein, Elisa... warte."

Mit geschlossenen Augen versuche ich, mir die letzten Besprechungen ins Bewusstsein zu rufen... Was hat Martin heute alles erzählt...? Nichts allzu Komplexes, ein wenig von mir, von Elisa und den anderen zusammengefasst... Szenen tauchen vor meinem inneren Auge auf, die Diskussionen, die Notizen, die Vorträge der anderen, ihre Folien... Schließlich formen sich Bilder von unserem verletzten Kollegen Martin, der heute Mittag, feixend vor seinem Laptop gestikulierend, noch seinen Part vorgetragen hatte...

Es lässt sich schaffen, denke ich plötzlich. Ich habe seine Dokumente. Eine Entscheidung... jetzt!

Mein Blick fokussiert sich. Ein bemerkenswert hässlicher Kuckuck auf einer geschmacklosen geschnitzten Uhr erwidert ihn mit hölzernem Grinsen. Seine Augen bewegen sich im Takt der verstreichenden Sekunden von links nach rechts. Gelegentlich hängt ein Auge, wie in diesem Moment. Zum Ticken des schwingenden Zeigers schielt er mir entgegen. Ich runzle entschlossen die Stirn. "Ich mach's", sage ich fest.

"Was?", erklingt die zaghafte Stimme meiner Kommilitonin.

"Wir können nichts ändern. Ich mach's so gut, wie ich es eben hinbekomme. Der Rest lässt sich morgen mit dem Dozenten klären."

"Oh... danke", sagt sie erleichtert. "Danke! Wenn du Hilfe brauchst... irgendetwas... ruf mich an."

Ich verabschiede mich von ihr. In der Dunkelheit seufze ich noch einmal und lege meine Hand an die Klinke zum Wohnzimmer. Welche Wahl haben wir schon? Wir können unsere Hände in den Schoß legen, uns dem Zufall überantworten und nach all der Mühe und Anstrengung untätig einem ungewissen Ende entgegentreiben. Im besten Fall erwartet uns die verlegene, vielleicht unverdiente Erleichterung, gerade eben einem fatalen Ausgang entgangen zu sein. Im schlechtesten Fall erwarten uns Wut und Enttäuschung über die vergebene Arbeit und ein weiteres Jahr in diesem Bachelor. War das erstrebenswert? War es sinnvoll?

Nein. Es ist besser, dem Zufall gar keine Chance zu lassen und so viel, wie wir nur können, selbst in die Hand zu nehmen, um die Misere nach allen Kräften abzuwehren. Wir haben viel getan, wir haben es gut getan. Warum jetzt aufgeben, wenn wir noch Möglichkeiten haben?

Ich drücke die Klinke. Daniel blickt fragend auf. Ich lächle entschuldigend. "Tut mir leid…", fange ich an und erzähle, was vorgefallen ist.

"... Wir sehen uns dafür morgen", schließe ich, "versprochen." Er grinst. "Ist zwar schade, aber ich verstehe das. Mach dir keinen Kopf. Der Vortrag ist wichtiger. Viel Erfolg!" Mit diesen Worten drehe ich mich um, schreite über das knarrende Laminat und steige leise die Treppe hinab. Ich nehme mein Fahrrad, schiebe es neben mir durch das Eingangstor. Wenn ich diesen Teil so beginne, denke ich, dann könnte ich doch… und…

Die Stille der Nacht verschluckt meine Schritte, als ich gedankenversunken über den bläulich schimmernden Pflasterstein nach Hause schreite.

Negligent Student Story

Der Tag davor

Ein Geräusch dringt an mein Ohr. Schrill und beständig sticht es in mein schlaftrunkenes Bewusstsein wie die Nadel einer Maschine in widerstrebenden Stoff. Ich runzle die Stirn und versuche, es zu verbannen, aus meiner Wahrnehmung zu verdrängen wie die Gedanken an das Unvermeidbare, das mir nun bevorsteht. Ich schnaube leise. *Nein*, denke ich. Eine Hand tastet suchend in Richtung des penetranten Geräuschs. "5 Minuten...". Die Finger strecken sich, schieben sich über die kühle Oberfläche des Plastikgehäuses meines Funkweckers und suchen nach der schlafbringenden Erlösung. "5 Minuten... nur noch...". Etwas gibt nach, das Geräusch verstummt. "...5 Minuten". Ich seufze zufrieden.

Widerstrebend öffnen sich meine Lider erneut. Stumm starre ich durch das schattige, trübe Zwielicht zur Decke. Ich gähne. Sekunden verstreichen, ehe ich einen Blick auf die digitale Anzeige neben mir riskiere und mich selbst murren höre: "Nun gut. Dann eben 20 Minuten. Passt." Ich strecke mich genüsslich. Dann bringen meine Ellenbogen meinen protestierenden Oberkörper langsam in eine aufrechtere Lage. Doch mein Kopf sackt in den Nacken. *Nein*, denke ich gequält. *Nein. Keine Lust. Ich habe einfach... keine Lust.* Ich seufze und verharre einen Moment in dieser Haltung. *Muss wohl. Bringt ja nichts.*

Träge hieven unwillige Arme und Beine meinen bleiernen Körper über die Bettkante. Eine Hand greift widerstrebend nach achtlos über die Stuhllehne geworfenen Kleidungsstücken, die andere zerrt lustlos am Zugseil des Rollladens. Unter größtem Protest bahnen meine Füße sich schließlich einen Weg über den Boden, treten dabei nachlässig verstreute Gegenstände und Papiere über den Teppich und tragen mich Richtung Bad.

"Was liegt an?", frage ich brummend das Gesicht in der fleckigen Spiegelfläche. "Nein, sag's nicht. Irgendwas mit Uni." Ich wende mich ab.

Keine Lust, denke ich, als meine Hände die Hose über meine Beine streifen. Keine Lust, während ich die Falten im Shirt glattstreiche. Mein Blick begegnet mir im Spiegel. Ich versuche, meine Gedanken zu sammeln, mich zu konzentrieren auf... Keine Lust.

Seufzend kehre ich zurück und verharre im Rahmen der Zimmertür. Skeptisch wandert mein Blick über Berge von Gegenständen, die sicherlich ihren angestammten Platz hätten, wenn ich nur nach einem für sie suchen würde... Eilig verstaute und aus Ordnern gefallene Aufzeichnungen lugen hinter Schränken und Kommoden hervor. Stifte liegen auf, hinter und unter dem Schreibtisch, umringt von haufenförmigen Ansammlungen aus unsortierten Kla-

motten. Mein Blick fällt auf mehrere verstreut liegende Papiere. Eines wurde vom Wind aufgewirbelt und auf den kleinen Zierkaktus gespießt, der vertrocknet in krustiger Blumenerde auf dem Beistelltisch steht. Innerlich sacke ich ein wenig zusammen.

Dann gebe ich mir einen Ruck. Ich raffe mich auf, die Papiere vom Boden zu sammeln und versuche, sie zu ordnen. Ich habe Mühe, die einzelnen Seiten in eine stimmige Reihenfolge zu bringen. Mehrfach muss ich sie hin- und herwenden, nebeneinander legen und angestrengt die Zeilen an ihrem Anfang und Ende vergleichen, bis ich schließlich aufgebe und sie nach einem müden Blick auf die Uhr eher willkürlich in meinen Ordner hefte.

Auf dem Weg zum Gruppentreffen grüble ich lustlos über unsere letzte Sitzung nach. Über das Referat, das wir vorbereiten müssen, und den unerträglich straffen und kleinschrittigen Zeitplan, den eine Kommilitonin vorgeschlagen und für uns alle vorbereitet hat. "Gute Idee, findet ihr nicht", fragte sie stolz in die Runde. Ich wölbte die Brauen, verzichtete aber auf eine Antwort. Wie kann man so unentspannt sein? Es gibt Wichtigeres als Bücher, Skripte und ständige Lerntreffen. Wissen diese Leute überhaupt, wie man lebt?

Vor einer Haustür bleibe ich stehen und hebe den Finger zum Klingelknopf. Prompt wird die Tür aufgerissen, die Kommilitonin mit dem straffen Zeitplan funkelt mich herausfordernd an:

"Du kommst zu spät", schnauzt sie. "Wir warten schon seit einer halben Stunde auf dich, du Faulpelz! Hättest dich wenigstens melden können."

Ich hebe beschwichtigend die Hände. "Hey, hey! Sorry. Bin ja jetzt hier."

Mit dem Kopf deutet sie ruckartig in die Küche hinter sich. Ich folge ihr zur Gruppe, die schweigend auseinanderrückt, um mir Platz zu machen. Ein Kommilitone sieht mich prüfend an:

"Verpennt?"

Ich schnaufe abfällig. "Kommt vor."

"Hast du deinen Teil vorbereitet?"

Ich denke nach. Nur schwach entsinne ich mich der Inhalte, die ich gestern noch vor dem Zubettgehen überflogen hatte. Ziemlich selbsterklärend, beschloss ich, und verzichtete deshalb darauf, mir irgendwelche Notizen zu machen.

"Ein wenig", erwidere ich ausweichend, ohne zu überlegen. "Das Wichtigste eben." Insgeheim hoffe ich, dass mir weitere Nachfragen erspart bleiben.

Das Treffen verläuft so, wie ich es erwartet hatte: Sinnloses Beisammensitzen mehr oder weniger motivierter Menschen, die sich über Aufteilung, Reihenfolge und Inhalt der Referatsteile zanken. Ich halte mich zurück, besonders viel weiß ich ohnehin nicht. Während die anderen miteinander reden, blättere ich lustlos durch meine unsortierten Unterlagen. *Kreative Ordnung in deinem Ordner*, denke ich selbstironisch. Dann erzählt jemand, auf welch einfallsreiche Weise er seinen Teil vortragen wolle und verweist dabei auf eine Textstelle, die ich gar nicht finden kann. Hm, blöd. Wohl daheim vergessen. *Egal, bis morgen wird sich bestimmt alles finden. Habe mich allerdings schon mehrmals bei so etwas verschätzt...* Ob ich meinen Teil versuchsweise vortragen könne, fragt plötzlich die straff terminierte Kollegin. "Nein", erwidere ich und verdrehe innerlich die Augen. "Aber ich werde ihn bis zur Präsentation morgen fertig haben." *Das heißt dann, wenn er wirklich wichtig ist*, füge ich stumm hinzu.

Die Gruppe beschließt eine endgültige Reihenfolge und diskutiert ein letztes Mal die konkreten Inhalte. Ob ich mit dem Ergebnis zufrieden sei, werde ich gefragt. Ich hebe die Schultern, nicke dann. Eigentlich interessiert mich das Ganze nicht sonderlich. Wird schon schiefgehen.

Wieder zu Hause, schleudere ich den Rucksack zu Boden und hole mein Handy hervor. Ich lese die Nachricht eines Freunds, der mich fragt, ob ich Lust hätte, mit ihm einen Film zu schauen. Ich zögere. Eigentlich sollte ich an meiner Präsentation arbeiten. Unschlüssig lasse ich das Handy sinken und blicke auf den Rucksack mit meinen Referatsmaterialien. Erst mal etwas essen, denke ich. Danach kann ich immer noch entscheiden, was ich mache.

Während der Mahlzeit vibriert mein Handy. Eine Nachricht von der eifrigen Kommilitonin: Sie erinnert uns unter Einsatz einiger überflüssiger Satzzeichen daran, dass wir für morgen unbedingt und unter allen Umständen "an alles Wichtige denken müssen, das ist wirklich, wirklich wichtig, sonst stehen wir echt doof da!!!!!" Ich grinse. Fünf Ausrufungszeichen. Wissen diese Leute, wie man lebt?

Ich stapele das Geschirr übereinander und schiebe es beiseite. In meinem Zimmer lasse ich mich aufs Bett sinken. Zum Rhythmus meiner trommelnden Finger erwäge ich, ob ich zu meinem Freund gehen und den Film schauen oder lieber den Referatsteil vorbereiten sollte. Mehrere Augenblicke lang starre ich in die Leere vor mir. Die Entscheidung fällt mir schwer. Ach, denke ich mir, der Tag ist noch lang, und springe auf. Ich nehme die Jacke vom Haken. Und für die Arbeit brauche ich Motivation, positive Energie! Die kommt nicht von uninspiriertem Rumhängen über blöden Büchern! Hinter mir fällt die Tür ins Schloss, als ich mich gutgelaunt auf den Weg zu meinem Freund mache.

Früh am Morgen kehre ich mit dröhnendem Schädel zur Wohnung zurück. Vorsichtig öffne ich die Haustür, schleiche zu meinem Zimmer und schlüpfe aus den Schuhen. Meine Mitbewohnerin reiht ihre stets akkurat entlang der Wand auf, ich hingegen verteile meine in überschaubarem Durcheinander vor meiner Zimmertür. Mit bloßen Zehen taste ich mich über den kaum sichtbaren Teppich zu meinem Bett. Dort ziehe ich mich aus, lasse meinen Blick kurz durch den völlig überfüllten Raum gleiten und verstaue meine Klamotten schließlich achselzuckend als Knäuel in einem schmalen Spalt zwischen der Schrank- und Zimmerwand. Hat Platz und Halt, denke ich.

Erschöpft sinke ich aufs Laken, presse eine Hand gegen die Schläfe und schließe die Augen. Was für ein geiler Abend! Besser hätte er nicht laufen können. Vielleicht wiederhole ich das morgen, direkt nach... Plötzlich reiße ich die Augen auf. Das Referat! Mein Vortrag!

Ich schnelle hoch. Der Rucksack, wo ist er? Ich knipse das Licht an, starre panisch auf das gewohnte Chaos, versuche, mich mit Blicken allein zu orientieren. Keine Chance! Hastig wühle ich mich durch Berge getragener Hosen, Shirts, diverser Papiere und sonstigen Zeugs, das sich irgendwie, irgendwo in das vertraute Durcheinander fügt. *Verdammt. Verdammt! Warum liegt denn alles durcheinander? Idiot! Du wolltest gestern schon aufräumen!* Wieder und wieder halte ich inne, versuche Ordnung zu schaffen, schaufele dabei jedoch bloß Gegenstände von einem Haufen auf den nächsten. Ich schlucke schwer. *Das ist doch nicht möglich! Wo habe ich das Ding hingestellt?* Ich drehe mich ratlos im Kreis, fühle mich aufgeschmissen, irgendwie überrumpelt. Plötzlich ertastet eine Hand unter der achtlos hingeworfenen Jacke die Tragelasche des Rucksacks. Ich schließe die Augen, stoße erleichtert die Luft aus. Endlich! Verfluchtes Referat! Ich hole die mittlerweile stark geknitterten Seiten hervor, kneife die Augen zusammen und überfliege mit trübem Blick eilig die Absätze. Konzentriert versuche ich, mir Inhalte zu merken, kaue nachdenklich auf meiner Lippe und starre gelegentlich an die Wand, darum bemüht, mir Fetzen des Geschriebenen einzuprägen. *Mann, ziemlich viel. Was für ein Stress.*

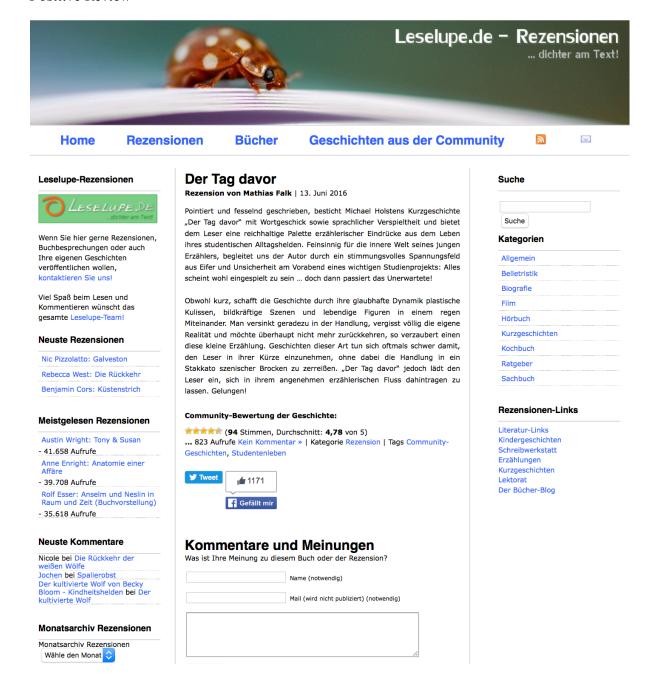
Ich halte inne.

Und lasse die Papiere sinken.

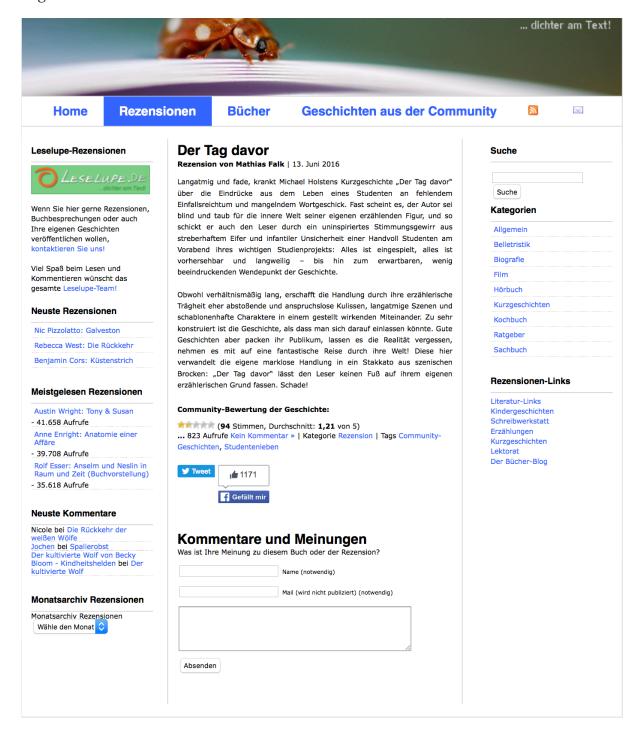
Aber schon alles irgendwie selbsterklärend, oder, denke ich. Wozu brauche ich Notizen? Wie schwer kann das schon sein? Bin ich eben spontan und denke mir den Text aus, wenn es soweit ist, überlege ich. Stand-Up-Science. Kommt eh besser als diese auswendig gelernte Leierei. Passt. Wird schon schiefgehen...

Review Manipulation (Experiment 2)

Positive Review



Negative Review



6 Manuscript #2

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Lift me up by looking down: Social comparison effects of narratives

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8

9 Abstract

- Stories are a powerful means to change recipients' views on themselves by being transported
- into the story world and by identifying with story characters. Previous studies showed that
- recipients temporarily change in line with a story and its characters (assimilation). Conversely,
- assimilation might be less likely when recipients are less identified with story protagonists or
- less transported into a story by comparing themselves with a story character. This may lead to
- 15 changes, which are opposite to a story and its characters (contrast). In two experiments, we
- manipulated transportation and experience taking via two written reviews (Experiment 1; N =
- 17 164) and by varying the perspective of the story's narrator (Experiment 2; N = 79) of a short
- story about a negligent student. Recipients' self-ratings in comparison to others, motives, and
- problem-solving behavior served as dependent variables. However, neither the review nor the
- 20 perspective manipulation affected transportation or experience taking while reading the story.
- perspective manipulation affected transportation of experience taking with reading the story.
- 21 Against our expectations, highly transported recipients (in Study 1) and recipients with high
- 22 experience taking (in Study 2) showed more persistency working on an anagram-solving task,
- even when controlling for trait conscientiousness. Our findings are critically discussed in light
- of previous research.
- 25 Keywords: Self, Self-Concept, Transportation, Identification, Experience Taking,
- 26 Narratives, Social Comparison

27 1 Introduction

- 28 In daily life, people are exposed to a great number of narratives, for example, in advertising,
- 29 books, or movies. Narratives let us experience the personal history of people with various
- 30 backgrounds that are different from our own. This can broaden our understanding of other
- 31 people's struggles and achievements, who we would have never met (Sestir and Green, 2010)
- 32 or they can feature people who we might rather look down at (Mares and Cantor, 1992).
- 33 Thereby, narratives are potentially powerful means to produce temporal changes in recipients'
- 34 selves by giving them the experience of different lives and personas. The influence of stories
- is often attributed to their power to transport us to other places (transportation; Gerrig, 1993;
- 36 Green and Brock, 2000). Furthermore, recipients identify with story characters (Cohen, 2001;

Oatley, 1994) by temporarily simulating their thoughts, emotions, and goals (experience taking; Kaufman and Libby, 2012). Due to these processes, recipients' selves can temporarily change in line with either the theme of the narrative or with specific traits of story characters, a process called assimilation (Appel, 2011; Richter et al., 2014). However, stories do not always work like a simple "hypodermic needle" that injects a different self into its recipients. Instead, a story and its protagonists might also serve as a standard of social comparison (Biernat, 2005; Festinger, 1954). As the result of a social comparison process (particularly with a lower comparison standard), recipients' self-concepts, motives, and even their behaviors might temporarily change by contrasting themselves away from traits and behavior depicted in a story. These contrast effects are expected when recipients have a mindset that leads them to compare themselves with a story protagonist (Appel, 2011; Mussweiler, 2007), and when they compare themselves downwards with others who are worse off, in order to feel better about themselves (Mares and Cantor, 1992). Up until now, downward social comparison with protagonists and potential (contrast) effects on recipients' selves, as well as the mediating role of transportation and experience taking in the process are not well understood. Acknowledging this research gap, we took an experimental approach to manipulate transportation (Study 1) and experience taking (Study 2). The goal of the present research was to examine potential outcomes of contrast effects and downward social comparison with an incompetent protagonist (Study 1) and a negligent protagonist (Study 2).

2 Theory

2.1 Effects of narratives on recipients

To date, most research regarding narratives and how they influence the self is guided by the idea that recipients' beliefs become similar to aspects of the story by being immersed into the story (Green and Brock, 2000) or by temporarily assuming protagonists' characteristics (Kaufman and Libby, 2012; Cohen, 2001). Furthermore, there is some empirical evidence that stories could even temporarily shift recipients' self-perceptions, motives, and behavior in line with the story and its characters, a process called *assimilation* (Appel, 2011; Richter et al., 2014; Sestir and Green, 2010; Gabriel and Young, 2011). According to Appel (2011), reading a highly transporting story and having a close connection to its protagonist should lead to assimilation effects. The central idea of transportation (Green and Brock, 2000) is based on a metaphorical journey into the story. During this journey, recipients may temporarily lose access to their real world surroundings, and when they return, they are changed by this intense experience (Gerrig, 1993).

Shedlosky-Shoemaker et al. (2011) and Bacherle (2015) experimentally manipulated transportation by asking participants to read a positive or negative review prior to reading the story. Through the review, people form a specific mindset and expectations about the upcoming story, which subsequently influence transportation while reading, listening to, or watching a story (Shedlosky-Shoemaker et al., 2011). This approach has also been successfully applied in the area of health narratives. In an experimental study by Gebbers et al. (2017), transportation was manipulated using negative vs. positive reviews before watching a video-clip about a car accident caused by a drunken driver. Highly transported participants (positive review condition) rated the risk severity of drunk driving significantly higher compared to less transported participants (negative review condition).

Complementary to transportation, which describes a more holistic involvement with the story, *identification* or *experience taking* particularly refer to character involvement. *Experience taking* (Kaufman and Libby, 2012) or *identification* (Cohen, 2001) describe the

imaginative process of temporally simulating the perspective of a character in a story (Sestir and Green, 2010; Dal Cin et al., 2007). As both concepts, experience taking and identification, are highly similar, we decided to employ the term experience taking throughout this manuscript. Sestir and Green (2010) experimentally manipulated experience taking and transportation via written instructions before watching a movie (e.g., high experience taking: "observe the clip as if you were the main character in the clip"; p. 277) in order to show assimilation effects. Participants with high experience taking and transportation scores showed stronger trait shifts in a Me/Not-Me task in line with the story character than participants who identified less with the story character and who were less transported.

Manipulations of experience taking include the variation of the narrative voice of a story. A first-person voice entails the main character, who narrates the story from his/her point of view, whereas in a third-person voice story, an independent observer serves as a more distant narrator of the story events and the characters. Kaufman and Libby (2012) showed that a story written from a first-person voice depicting a main character of the same group as the reader (i.e., ingroup) led to higher experience taking values compared to a story written in a third-person voice with an out-group protagonist.

It is important to note that both processes of narrative involvement - transportation and experience taking - are considered to be largely intertwined, yet distinguishable (Moyer-Gusé, 2008; Brown, 2015). A single experimental approach that aims at the manipulation of only one of these processes might not be sufficient to describe the specific processes of narrative involvement. On this account, we used two different manipulations that aimed at varying transportation (Study 1) and experience taking (Study 2), respectively. Figure 1 gives an overview of our complete model and assumptions.

< Figure 1 around here >

Recipients' engagement into a story and its characters are central mediators that might explain changes in participants' selves in line with a story (assimilation effects). Yet, what happens if recipients have a more distant view towards a story and its protagonist? Both approaches, transportation and experience taking, do not explicitly address this open question. Under conditions of feeling less transported into a story and low experience taking with the protagonist, we expected recipients to compare themselves with others to gain relevant information about oneself (Green, 2005).

2.2 Social comparison framework

Social comparison theory (Festinger, 1954) posits that people strive to gain self-knowledge by comparing themselves with similar others, who usually offer the highest diagnostic information about oneself (Wills, 1981). Especially when objective information is absent, people make meaning of their own performance and success by comparing themselves to relevant others (Lyubomirsky and Ross, 1997). Social comparisons can occur in our daily life by both interpersonal interaction and mediated through mass communication (e.g., social media, TV shows), which both offer plentiful opportunities to gather information about other people's actions, failures, and accomplishments (Mares and Cantor, 1992; Knobloch-Westerwick and Hastall, 2010, 2016). However, research combining the fields of media effects (especially through narratives) and social comparisons is somewhat limited, since media scholars have mainly focused on upward social comparisons (e.g., media effects related to body image; Groesz et al., 2002; Cattarin et al., 2000).

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The outcome of a social comparison process (e.g., self-evaluation) is based on specific mental states, as Mussweiler (2003) describes in his selective accessibility model (SAM): if people are faced with the possibility to compare themselves with others, they form automatic, holistic impressions about other people based on salient features (e.g., gender, age, group affiliation). These features become a point of reference for one of the following judgments regarding self-other comparisons: a) If the person is judged to be similar to oneself, people are more likely to consider information about themselves that is consistent with the other person. The outcome is an assimilation effect by adapting attributes of the person and becoming more similar. b) If the person is considered to be dissimilar to oneself, different aspects of one's self become more salient, which are opposite to the other person (Suls and Wheeler, 2017; Mussweiler, 2007). As a result, a contrast effect emerges, as recipients shift away their judgment about themselves from the other person. Contrast effects have often been studied in association with downward social comparison with less fortunate people. According to Wills (1981), people who experience threats to their self-esteem enhance their self-regard by comparing themselves downwards. Likewise, cancer patients benefited from strategic downward comparisons with other less fortunate cancer patients, who they encountered in their daily life, TV shows, or newspaper articles (Wood et al., 1985). In an experiment, Mares and Cantor (1992) asked older participants to watch a portrayal about an old man, who was depicted as either unhappy and isolated or happy and socially integrated. Lonely elderly participants who watched the unhappy portrayal compared themselves downwards and, as a result, felt better about themselves.

Another relevant category for downward social comparisons is group affiliation (Mastro, 2003; Mastro et al., 2008), since being part of relevant social groups is a central part of the self (cf. social identity theory; Tajfel and Turner, 1986). Therefore, people seek out information which favors their own social group in comparison to a relevant out-group (Harwood, 1999). For example, Mastro (2003) asked participants to read one out of two crime stories (written as a TV script) and only manipulated the name of the murderer (typical Caucasian vs. Latino name). Caucasian participants exposed to the TV script with a Latino murderer showed contrast effects by scoring higher on self-esteem measures than those who read the TV script with a Caucasian murderer. Meta-analytic data within the field of social psychology supports these findings: When a negative stereotype doubts the ability or worth of an out-group, people who belong to the in-group may experience stereotype lift – a performance boost that occurs when downward comparisons are made with a denigrated out-group (Walton and Cohen, 2003). This effect can also occur as a consequence of stereotypic displays in the media (for a meta-analytic review see Appel and Weber, 2017). The enhanced performance has been attributed to increased self-efficacy and decreased self-doubts as a result of negative outgroup stereotypes (Chatard et al., 2008).

2.3 Stereotypes about (pre-service) teachers

Stereotypes about specific groups can be encountered in media content (Mastro and Tukachinsky, 2012). Especially entertainment media often demeans minorities, such as people with mental illness (Caputo and Rouner, 2011), overweight persons (Grabe et al., 2008), or non-Caucasians (Mastro, 2015). Regarding different professions, teachers are subject to considerable stereotyping (Carlsson and Björklund, 2010) in their professional life and during their studies, which is also evident in news and entertainment media (Swetnam, 1992). The *stereotype content model* (Fiske et al., 2002; Fiske et al., 1999) describes stereotypes along two independent dimensions: competence and warmth. Accordingly, pre-service teachers are perceived as less competent and motivated in their studies, but also as warm and friendly (Carlsson and Björklund, 2010).

Ihme and Möller (2015) found empirical support for the presence of these paternalistic stereotypes in a multi-study paper. First, they asked pre-service teachers about typical characteristics ascribed to their profession in an open-ended survey. Even pre-service teachers themselves believed in the incompetent, but warm stereotypes. Second, the authors asked other groups of people to rate typical characteristics of pre-service teachers, psychology, law, and computer science students on a list of competence and warmth adjectives. Results showed that pre-service teachers were perceived as significantly less competent, which includes a lack of study related motivation, compared to other fields, like psychology¹. Furthermore, the authors found significant higher warmth ratings of pre-service teachers compared to law and computer science students, whereas there was no significant difference to psychology students.

Importantly, stereotypes like these do not require clear indications, such as open insults, to become salient. Instead, even subtle hints such as how a person is described in a news article (Gupta et al., 2014) may be sufficient in order to trigger stereotypes that are associated with a certain group as research on stereotype threat has shown (for a review of media content that triggers stereotype threat see Appel & Weber, 2017). We argue that this may also activate downward social comparisons if the person described is part of a relevant outgroup. As psychology students and pre-service teachers are perceived to be similarly warm, yet different in competence (Ihme and Möller, 2015), social comparison processes are likely to occur.

2.4 The current research

The current work examines the influence of stories on the self, with a) a special emphasis on potential contrast effects, and b) the mediating role of transportation and experience taking during the process. In Study 1, we focused on contrast effects via downward social comparisons based on group affiliation. Accordingly, we expected contrast effects after reading a story, if recipients (psychology students) have a more distant view towards a protagonist (pre-service teacher) and the story. This distant view might be reflected by a lower degree of transportation with the main character. However, when transportation is high, we expect assimilation effects by temporarily rating oneself and behaving similar to the protagonist. To induce contrast vs. assimilation effects, we tried to manipulate transportation via reviews prior to reading the story. In Study 2, we examined contrast effects via downward social comparison based on individual differences. By adding trait measures as possible alternative explanations, we intended to clarify the relation between narrative involvement measures and potential contrast effects. In this study, we tried to manipulate experience taking by varying the narrator's voice in two otherwise identical stories.

3 Study 1

In Study 1, transportation was experimentally manipulated by presenting a brief positive (e.g., "the story was emotionally involving") or negative review (e.g., "the story was rather unemotional") about a story prior to reading it (Shedlosky-Shoemaker et al., 2011; Gebbers et al., 2017). Both reviews were written in a way that they might also influence experience taking. For example, the positive review about the story stated that the reader was forgetting about herself/himself by experiencing the story, as she/he felt like the protagonist herself/himself,

¹ It is important to note that empirical studies show *no* significant differences between pre-service teachers and other students regarding their *actual* achievement motivation and intelligence (Spinath et al., 2005).

215 whereas in the negative review, it was stated that the reader perceived the protagonist as strange 216 and distant. To our knowledge, there are no studies so far which manipulated experience taking 217

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It was assumed that recipients in the negative review condition compared to the control group would score lower on transportation and experience taking. Negative changes in transportation and experience taking were in turn expected to lead to (H 1a) an increase in selfreported competence ratings (but not warmth) in relation to others, (H 2a) higher learning goals ratings, and (H 3a) more time spent on an anagram task (i.e., contrast effects). Likewise, it was expected that recipients in the positive review condition compared to the control group would score higher on transportation and experience taking. Positive changes in transportation and experience taking were in turn expected to lead to (H 1b) a decrease in self-reported competence ratings (but not warmth) in relation to others, (H 2b) lower learning goals ratings, and (H 3b) less time spent on an anagram task (i.e., assimilation effects).

Method 3.1

3.1.1 Participants

As indicated by an a-priori power analysis, for a medium direct effect (d = .50) with $\alpha = .05$ and power = .80, a sample size of N = 159 participants is needed (one-way ANOVA with three groups). One hundred seventy-nine participants were recruited in different psychology classes at the University of Koblenz-Landau, Germany. All participants signed an informed consent in accordance with the Declaration of Helsinki before participating in the study. They were also assured that they could stop their participation without any consequences at any time. Participants received partial course credit and participated in a lottery. For the lottery, one time 30€ and seven times 10€ were raffled. The experiment was computer-based and took place in a laboratory with one to seven participants per session. Three participants had to be excluded from the sample due to technical problems. Moreover, five participants were excluded because they failed the manipulation check of the review manipulation. They could not correctly report (in an open-end text field) the valence of the review they had read as either negative or positive, indicating that they had not read the review. Another five participants were excluded as they did not correctly answer two control questions about the story, indicating that they had not read the story. Last, two participants were excluded from the final data analysis, as one indicated that the story was already known (despite the fact that the short story had been specifically written for the purpose of this study, see below), while the other did not study psychology, and thus, was not part of the in-group (see section on the stimulus text below). The final sample consisted of N = 164 psychology students (n = 131 female) with a mean age of 21.81 years (SD = 3.61; range: 18 - 49 years).

250 3.1.2 Material

251 3.1.2.1 Review Manipulation

Both reviews were specifically written for the purpose of this study, yet structure and wording were based on previous research (Shedlosky-Shoemaker et al., 2011; Gebbers et al., 2017; Bacherle, 2015). Participants read either a negative, a positive, or no review at all of an upcoming short story. Both reviews were supposed to be from an online literature community (leselupe.de) and were indicated to be written by an active and experienced community member. The reviews were comparable in word count (positive review: 218 words, negative review: 211 words) and layout design. Their main difference was the valence of the evaluation of the short story that followed. While the positive review emphasized the "intense impression

of the story, which leaves the reader deeply impressed", the negative review describes the story as "strange and leaves the reader rather unimpressed". Moreover, there was a review on a five-star scale rated by community members at the end of both reviews (negative review: 1 star; positive review: 5 stars). After reading the review, as a manipulation check, participants were asked to summarize the main messages of the respective review in a text field. The authors thoroughly checked the open-ended answers regarding statements about the valence of the reviews. Five participant did not directly address whether the review had been positive or negative, and therefore, they were excluded from the statistical analyses.

3.1.2.2 Stimulus Text

The experimental story (2939 words) was written for the purpose of this study and included a first-person narrator. The gender of the main protagonist was not specified to avoid comparison processes based on gender differences. The story was written in a way that made it easy to imagine both a female and a male protagonist, as no gender stereotypes were addressed. It featured a pre-service teacher who struggles with his/her schoolwork, while enjoying a student's life outside of university with partying and playing sports. The pre-service teacher attends a psychology course along with psychology students (which is common practice regarding some courses at the university where this research was conducted). While preparing for an important exam as part of this course, the protagonist struggles studying – particularly compared to fellow psychology students. As a result, he/she fails the exam. While trying to figure out reasons for this disappointment, he/she visits the professor's office hours. The professor tells the protagonist that most students had passed the exam, mainly psychology students, while most of his or her fellow pre-service teachers had also failed. However, the protagonist gets encouraged to repeat the course the next year.

The experimental story was written in a way that typical stereotypes of pre-service teachers were not directly addressed, but rather indirectly depicted in the story. Research on group-based stereotypes revealed that even subtle cues may trigger common stereotypes (Appel and Weber, 2017; Nguyen and Ryan, 2008). We asked only psychology students (in-group) to read the story about the pre-service teacher (out-group). Accordingly, possible *downward comparisons* to prospect teachers regarding *competence* might be conceivable from the viewpoint of a psychology student, especially when they were less involved with the story and its protagonist.

3.1.2.3 Experience Taking

In order to measure participants identification with the main character, the *Experience Taking Scale* was used (Kaufman and Libby, 2012). In our sample, the reliability of this sevenitem scale was good ($\alpha = .90$). The items (e.g., "I understood the events of the story as though I were the character in the story.") went with a nine-point Likert-scale, as in the original publication (*I - strongly disagree*; *9 - strongly agree*). The overall mean was 6.24 (SD = 1.68).

3.1.2.4 Transportation

Participants' immersion into the story world was measured via the *Transportation Scale* – *Short Form* (Appel et al., 2015). In our sample, the reliability of this six-item scale was satisfactory ($\alpha = .78$). The items (e.g., "I could picture myself in the scene of the events described in the narrative") went with a seven-point Likert-scale (l - not at all; 7 - very much). The overall mean was 4.65 (SD = 1.15).

3.1.2.5 Social Comparison

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304 Participants rated their self-perceived competence (four items: competent, intelligent, 305 diligent, determined) and their self-perceived warmth (five items: likeable, helpful, sincere, 306 warm, kind) in relation to other students. Furthermore, three unrelated items (athletic, sense of 307 humor, musical) were included as distractors. The scale was adapted from the Social 308 Comparison and Interest Scale (SCIS) by Thwaites and Dagnan (2004). As the original SCIS 309 scale does not include the dimensions competence and warmth, we used competence and warmth adjectives based on the findings of Ihme and Möller (2015) for our scale. We took only 310 311 those adjectives, which had the highest factor loadings on the two dimensions when describing 312 pre-service teachers and psychology students (T.A. Ihme, personal communication, March 11, 2016). All items went with a bipolar ten-point Likert scale (e.g., "Compared to other students 313 314 I feel... 1 - less intelligent to 10 - more intelligent"). The competence sub-scale showed 315 satisfactory reliability ($\alpha = .76$) and the overall mean was 5.98 (SD = 1.43). The warmth sub-316 scale also showed satisfactory reliability ($\alpha = .79$) and the overall mean was 6.82 (SD = 1.18).

3.1.2.6 Learning Motives

318 Participants' motivation to learn was assessed with the Scales for the Assessment of Learning and Performance Motivation School-Student Version (SELLMO-ST; Spinath et al., 319 320 2002). It is a standardized diagnostic measure, which assesses motivational goal orientation by 321 31 items on a five-point Likert scale (1 - totally disagree to 5 - totally agree). The SELLMO-322 ST contains four dimensions: learning goals (e.g., "In school I want to get new ideas."; $\alpha = .71$, 323 M = 4.43, SD = 0.41), performance-approach goals (e.g., "In school I want to show that I am good at things."; $\alpha = .79$, M = 3.17, SD = 0.67), performance-avoidance goals (e.g., "In school 324 325 I don't want the other students to think I am stupid."; $\alpha = .88$, M = 2.36, SD = 0.80), and work 326 avoidance (e.g., "In school it is important for me to do only the necessary work."; $\alpha = .83$, M = 1.93, SD = 0.63). 327

328 3.1.2.7 Anagram-solving Task

329 As a proxy for persistency and competent behavior, we measured time spent on an anagram-330 solving task (Muraven et al., 1998). On the first page, participants were instructed to solve 331 twenty anagrams. They were free to skip anagrams if they were not able to solve them. 332 Furthermore, participants were told that they had as much time as they wanted for this task. 333 They did not know that half of the anagrams were not solvable. In order to gather a reliable and 334 valid measure, the entire anagram-solving task was presented on a single page, right after the 335 introduction page, and the survey software automatically tracked the time spent on the page in 336 the background. The overall mean was 535.66 seconds (SD = 348.73). To reduce the extreme 337 skewness and kurtosis, time spent on anagrams was logarithmically transformed (Tabachnick 338 and Fidell, 2007).

3.1.3 Procedure

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After arriving at the laboratory, participants were welcomed and randomly assigned to one of three experimental conditions. They either read a positive (n = 56), a negative (n = 53) or no review (control baseline; n = 55) prior to reading the story itself. We varied the order of the material for the two review conditions versus the no review condition (control baseline). In both review conditions, participants read the review first and answered related control questions, followed by the story with two control questions. Afterwards, they answered the Experience Taking Scale and the Transportation Scale – Short Form. Next, we asked the participants to rate themselves on our adapted version of the SCIS and the SELLMO-ST. These scales were presented on separate pages due to their different rating scales (experience taking

- entailed a nine-point Likert scale, whereas the SELLMO-ST went with a five-point Likert
- scale). After reading a short instruction, participants worked on the anagram task, while the
- 351 time spent on the anagram page was measured. We changed the order of the material in the no
- review condition to establish a true baseline. In the no review condition, participants were first
- asked to rate themselves on the adapted version of the SCIS and the SELLMO-ST, followed
- by the anagram task. Afterwards, they read the story, answered the Experience Taking scale as
- well as the Transportation Scale Short Form and two control questions regarding the story.
- 356 Finally, on the last page, participants in all conditions provided demographic information.
- 357 Upon completion of the study, participants were debriefed.
- 358 3.1.4 Design
- The experiment followed a between-subjects design with the positive vs. negative review
- 360 condition as treatment and the no review condition as baseline. We propose a mediation model,
- with the review condition as independent variable, transportation and experience taking as
- mediating variables, and the SCIS competence subscale, learning motives, and the anagram
- 363 task as dependent variables.

364 **3.2 Results**

- A one-way between subjects ANOVA was conducted to compare the effect of the review
- 366 manipulation on experience taking and transportation. There were no significant effects of the
- experimental manipulation on experience taking, F(2, 161) = .29, p = .75, and on transportation,
- F(2, 161) = .05, p = .95. Due to the unsuccessful experimental manipulation, we refrained from
- 369 conducting the mediation analyses for our hypotheses. Instead, we focus on the correlations
- 370 between transportation/experience taking and the dependent variables in the following
- paragraphs. We only report the results for both review conditions (n = 109), since the order of
- 372 the stimulus material and measures differed between the two review conditions and the control
- 373 condition.
- 374 3.2.1 Social Comparison
- 375 The SCIS competence subscale was neither significantly correlated with experience taking,
- 376 r(107) = -.15, p = .12, nor with transportation, r(107) = .00, p = .82. Regarding the SCIS -
- warmth subscale, there was neither a significant correlation with experience taking, r(107) =
- 378 .08, p = .40, nor with transportation, r(107) = .00, p = .98.
- 379 3.2.2 Learning Motives
- Transportation and learning goals were significantly correlated, r(107) = .26, p = .01.
- 381 However, there were no significant correlations between transportation and the other
- SELLMO-ST subscales; performance approach goals, r(107) = .15, p = .11; performance -
- avoidance goals, r(107) = .05, p = .60; work avoidance, r(107) = .01, p = .89. Likewise, there
- were no significant correlations between experience taking and the SELLMO-ST subscales;
- learning goals, r(107) = .06, p = .55; performance approach goals, r(107) = -.03, p = .75;
- icarning goals, r(107) = .00, p = .05, performance approach goals, r(107) = -.05, p = .75
- 386 performance avoidance goals, r(107) = .00, p = .97; work avoidance, r(107) = .09, p = .36.
- 387 3.2.3 Anagram-solving task
- 388 The correlation between experience taking and time spent on the anagram-solving task
- (log10 transformed) failed to reach significance, r(107) = .17, p = .08, while transportation and
- time spent on the anagram-solving task were significantly correlated, r(107) = .21, p = .03.

391 < Table 1 around here >

3.3 Discussion

There was a positive correlation between transportation and time spent on the anagrams, whereas experience taking was only trend-significantly correlated to time spent on the anagrams. These results contradict our expectations, since we expected less transported participants who do not identify with the incompetent pre-service teacher in the story to contrast themselves away from the story and its main protagonist (e.g., by spending more time on the anagrams). Furthermore, the persistence to work on the anagram-solving task was not correlated to any of the other DVs. This suggests that the anagram-solving task might not be an indicator for competence self-ratings (in relation to others) or competence-related learning motives (see Table 1). To test an alternative explanation of this finding, we added trait conscientiousness as a broader concept in the follow-up study. Conscientiousness could be a third variable that explains the correlation between transportation/experience taking and time spent on anagrams, as the trait is related to persistence to stay on demanding tasks (Dudley et al., 2006).

Moreover, there were no significant correlations between the narrative involvement measures and the SCIS - competence subscale. Thus, it is unclear whether or not psychology students compared themselves downwards to the pre-service teacher in our study. Maybe psychology students could relate to the pre-service teacher in the story, since he or she was also a student who was taking psychology classes. In other words, group affiliation might play a less important role in perceiving a story character (at least in the context of the content of our study), than intra-individual differences, such as certain personality traits in relation to the story content. Consequently, in Study 2, we did not focus on in- vs. out-group; instead, we added different measures in order to test the alternative explanation that certain personality traits influence the experience of a story with a protagonist that is described as having certain (negative) characteristics. Furthermore, since the review manipulation had no impact on transportation and experience taking in Study 1, we chose a different manipulation of story and character involvement in Study 2.

4 Study 2

In Study 2, we again focused on contrast effects of stories on recipients' selves, and payed special attention to the mediating processes of transportation and experience taking. In order to establish a causal chain, we chose another experimental approach. Instead of manipulating the conditions before reading a story (e.g., presenting a review), we manipulated specific aspects of the story itself. We manipulated the narrative voice of the story by preparing a story in which either the protagonist was the narrator of the story or the entire story was written from the viewpoint of an independent observer (first person voice vs. third-person voice). Compared to a third-person voice, a first person voice is expected to create a more intimate and closer connection between a recipient and a main protagonist, which strengthens experience taking (Kaufman and Libby, 2012). As in Study 1, we also included transportation as an additional measure of media involvement. However, the effect of narrative voice and related manipulations on transportation is according to Tukachinsky (2014) small to non-significant. Therefore, we included narrative engagement (Busselle and Bilandzic, 2009) as a third storyrelated measure. The concept of narrative engagement is strongly related to both transportation and experience taking. However, since there is little empirical evidence on the effect of the narrative voice manipulation on transportation and narrative engagement, we were reluctant to

predict clear-cut effects on both measures. Therefore, we included the analyses of these effects as explorative research questions.

The experimental story was about a female negligent and very unconscientious student, who had to prepare a seminar presentation, but instead of proper preparation, she rather spent her time with a friend². The story was specifically written in a way that the main protagonist was described in a rather negligent way (i.e., adjectives were used based on the personality trait conscientiousness; Ostendorf and Angleitner, 2004). Accordingly, we adapted the Social Comparison and Interest Scale (SCIS) by including these adjectives in order to capture specific media effects related to the experimental story. Moreover, we matched the study major of the protagonist of the story to our sample (i.e., media communication students).

Additionally, we included different trait measures in order to control for other third variables as alternative explanations. The broad trait measure of conscientiousness has been shown to be a valid predictor of work related behavior, like high job performance (Dudley et al., 2006), academic success (Poropat, 2009) and even the neatness of item responses in an experimental study (Paunonen and Ashton, 2001). In line with these findings, Ventura et al. (2013) found evidence that time spent on an experimental anagram and riddle task was positively correlated to a self-report measure of conscientiousness. Moreover, we controlled for participants' study-related motives, as well as their knowledge on how to perform well in their field of study. A higher degree of similarity between recipients and protagonists (in our case low study-related motives and little knowledge how to perform well in one's study) has been shown to block the mediating effects of experience taking (Hoeken et al., 2016).

We expected that participants who read the story with a third-person narrator would show lower levels of experience taking and transportation. Negative changes in experience taking and transportation were in turn expected to lead to contrast effects by increasing participants' (H 1a) self-reported conscientiousness ratings in comparison to others, and (H 2b) time spent on an anagram-solving task. Likewise, we expected that participants who read the story with a first-person narrator would show more experience taking and transportation. Positive changes in experience taking and transportation were in turn expected to lead to an assimilation effect by decreasing participants' (H 1b) self-reported conscientiousness ratings in comparison to others, and (H 2b) time spent on an anagram-solving task.

4.1 Method

4.1.1 Participants

The total sample consisted of N=81 media communication students, who were recruited in different communication studies and media psychology classes at the University of Würzburg, Germany. All participants received partial course credit. Participants signed an informed consent in accordance with the Declaration of Helsinki before the study started. Furthermore, they were informed that they could revoke their participation without any consequences at any time. The study was conducted in a laboratory with one to eight participants per session. The entire study was computer-based. Two participants had to be excluded from the analyses, because they did not correctly answer control questions regarding the experimental stories,

² In contrast to Study 1, we chose to use a protagonist with a specific gender, since telling a story from the view of an independent observer without directly referring to the protagonist's gender is rather untypical for a story.

- 476 indicating that they had not properly read the story. The final sample consisted of N = 79
- participants (n = 69 female) with a mean age of 20.86 (SD = 1.84; range: 18-28).
- 478 4.1.2 Material
- 479 4.1.2.1 Manipulation of Narrative Voice
- We manipulated the narrator's voice similar to Kaufman and Libby (2012). Either,
- 481 participants read the story written from the main character's point of view (first-person
- arrator), or they read the same story from the viewpoint of a third-person narrator.
- 483 4.1.2.2 Experimental Story
- The story titled "The day before" was about Tina, a negligent student of media
- communication, who was preparing a presentation for a course session together with a group
- of other students. The group was very eager to prepare a decent presentation; however, Tina
- was only doing as much as needed for the task ahead. Instead of thorough preparation, she
- 488 preferred spending leisure time with a friend. The story (1657 words) had been specifically
- written for a previous study (Krause and Appel, 2017). It was slightly adapted to the current
- 490 context by changing the protagonist's field of study and university.
- 491 4.1.2.3 Transportation
- As in Study 1, participants' immersion into the story world was measured via the
- Transportation Scale Short Form (Appel et al., 2015), M = 4.59, SD = 1.10, $\alpha = .75$.
- 494 4.1.2.4 Narrative Engagement
- In order to capture the processing of the experimental narrative in more detail, a second
- 496 measure of participants' immersion into the story world was assessed by using the Narrative
- Engagement scale (Busselle and Bilandzic, 2009). The twelve items went with a seven-point
- Likert-scale; 1 not at all; 7 very much. The Narrative Engagement scale (M = 4.80; SD =
- 499 0.78; $\alpha = .78$) consists of four subscales: attentional focus (e.g., "I found my mind wandering"
- while reading."; M = 5.15; SD = 1.31; $\alpha = .86$), narrative understanding (e.g., "My
- understanding of the characters is unclear (R)."; M = 6.29; SD = 0.72; $\alpha = .64$), emotional
- engagement (e.g., "The story affected me emotionally."; M = 4.20; SD = 1.25; $\alpha = .68$), and
- narrative presence (e.g., "At times during reading, the story world was closer to me than the
- 504 real world."; M = 3.55; SD = 1.41; $\alpha = .81$).
- 505 4.1.2.5 Experience Taking
- As in Study 1, participants' identification with the main character was assessed with the
- 507 Experience Taking Scale (Kaufman and Libby, 2012), M = 5.89, SD = 1.68, $\alpha = .90$.
- 508 4.1.2.6 Social Comparison
- Similar to Study 1, participants were asked to rate themselves regarding their
- conscientiousness in relation to other people using ten items (DV1). Furthermore, eight other
- 511 trait items were presented as distractors. All items went with a ten-point bipolar Likert scale
- 512 (e.g., " $l less \ organized$ " to " $l0 more \ organized$ "). The scale was adapted from the Social
- 513 Comparison and Interest Scale (SCIS; Thwaites and Dagnan, 2004) by using adjectives from
- 514 the German translation of the NEO personality inventory (Ostendorf and Angleitner, 2004).
- The overall mean of SCIS conscientiousness subscale was 5.86 (SD = 1.41; $\alpha = .85$).

516 4.1.2.7 Anagram-solving task

Time spent on an anagram-solving task (Muraven et al., 1998) was assessed similar to Study 1 (DV2). Participants spent on average 613.06 seconds on the task (SD = 554.86). As in Study 1, time spent on the anagram-solving task was logarithmically transformed (log10) in order to

reduce the extreme kurtosis and skewness of this measure (Tabachnick and Fidell, 2007).

4.1.2.8 Control Scales

Three scales were assessed in order to rule out alternative explanations (i.e., that study-related motives or the personality trait conscientiousness would influence the effect narrative involvement measures on the DVs). First, we assessed *potential to succeed in school* (subscale of the academic belonging scale; Cook et al., 2012) with four items (e.g., "I am the kind of person that does well in my school."), which went with a six-point Likert scale; I - *strongly disagree* to 6 - *strongly agree*. The mean for this scale was 4.29 (SD = 0.66; $\alpha = .44$). Due to the low reliability of the scale, we refrained from including it in any analyses. The second scale was the *domain identification measure* (four items adapted from Smith and White, 2001, e.g., "How important is it to you to be a student of media communication?"), which went with a five-point Likert scale; I - *not at all* to S - *very*. The mean for this scale was S - S (SD = 0.74; C = .71). Third, participants were asked to rate five personality traits on the S - S

537 4.1.3 Procedure

After arriving at the computer laboratory, participants were asked to answer the three control scales: potential to succeed in school, domain identification, and the BFI-10 personality scale. Afterwards, they were randomly assigned to one of two experimental story conditions (first-person vs. third person narrator). After reading the story, participants were asked to answer two control questions regarding the content of the story as a manipulation check. Then, participants answered the narrative engagement and transportation scale, whereby the order of the items was randomized between and within both scales. Next, they answered the experience taking scale. Subsequently, both dependent variables were assessed, first the adapted SCIS, and second, the anagram-solving task. Finally, participants provided demographic information. Upon completion of the study, they were debriefed.

548 4.1.4 Design

The experiment followed a between-subjects design with the story condition as independent variable (first-person vs. third-person narrator). Like in Study 1, transportation and experience taking were included as mediating variables. The SCIS - consciousness subscale and the anagram task served as dependent variables.

4.2 Results

Three separate t-tests for independent samples revealed that there was no significant effect of narrative voice on transportation, t(77) = -0.30, p = .77; experience taking, t(77) = -0.23, p = .0.23, p = .0.23

³ Spearman-Brown reliability estimate

= .82, or narrative engagement, t(77) = -0.71, p = .48, and its subscales (see Table 2 for more information).

558 Table 2 around here >

Again, due to the unsuccessful experimental manipulation on the narrative involvement measures, we refrained from conducting the mediation analyses for our hypotheses. Instead, the relations between variables were examined by using correlations (see Table 3) and stepwise multiple linear regressions analyses for each dependent variable (see Tables 4 and 5).

4.2.1 Narrative Involvement

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Regarding the correlation analyses, only the BFI-10 conscientiousness subscale was negatively correlated with all three narrative involvement measures, experience taking: r(77) = -.39, p < .001; transportation: r(77) = -.36, p < .001 and narrative engagement: r(77) = -.27, p = .01 (of the four subscales only emotional engagement was significant, r(77) = -.41, p < .001). Furthermore, domain identification was not significantly correlated to any of the narrative involvement measures (for more information see Table 3). These results indicate that participants who were more conscientious felt less part of a story about an unconscientious student and were less likely to experience the story from the perspective of the negligent main character.

573 < Table 3 around here >

4.2.2 Social Comparison

To investigate the relation between the narrative involvement measures and participants' self-ratings regarding their conscientiousness in relation to other people (SCIS conscientiousness subscale, DV1), a hierarchical multiple linear regression analysis was performed. We included the control measures domain identification and trait conscientiousness (BFI-10) as first block of predictors in order to control for possible effects on the SCIS conscientiousness subscale. The second block entailed the transportation short-scale, the narrative engagement subscales, and the experience taking scale. Tests for multicollinearity indicated an acceptable level of multicollinearity for both models (all VIFs < 3; see also Table 4). For Model 1, which only included the control measures as predictors, a significant regression equation was found, F(2, 76) = 24.46, p < .001, with an adjusted R^2 of .38. It was found that only trait conscientiousness significantly predicted participants' ratings regarding their conscientiousness in relation to other people, $\beta = .61$, p < .001. Introducing the narrative involvement measures as additional predictors in Model 2, F(8, 70) = 6.43, p < .001, with an adjusted R^2 of .36, did not significantly add explained variance, $\Delta R^2 = .03$, p = .70. This finding suggests that only participants' trait conscientiousness explained how they compare themselves to others regarding this trait, while the story had no influence on how people judge themselves in relation to others (see Table 4 for more information).

4.2.3 Anagram-solving task

A second hierarchical multiple regression was conducted with time spent on the anagramsolving task (DV2). Again, the control measures were entered in the first block and the second block additionally entailed the narrative involvement measures. Tests for multicollinearity indicated an acceptable level of multicollinearity for both models (all VIFs < 3; see also Table 5). For Model 1, which only included domain identification and trait conscientiousness as predictors, a non-significant regression equation was found, F(2, 76) = 0.27, p = .76, with an adjusted R^2 of .00. Entering transportation, the narrative engagement subscales, and experience taking into the second model, F(8, 70) = 2.25, p = .03, with an adjusted R^2 of .11, significantly added explained variance, $\Delta R^2 = .20$, p = .01. Regarding the individual coefficients, only the effect of experience taking was significant, $\beta = .42$, p = .01. This finding indicates that experience taking and time spent on the anagrams show a positive relation, even when controlling for domain identification and trait conscientiousness (see Table 5 for more information).

< Table 4 and Table 5 around here >

4.3 Discussion

The findings suggest that interindividual differences in recipients' traits in relation to the main character influence how participants experience a story. Less conscientious participants felt more like being part of the story world, and they strongly identified with the main protagonist. Indeed, character-audience similarity, respectively familiarity with the story theme (Green, 2004) have been shown to increase transportation (Kim et al., 2016) and experience taking (Hoeken et al., 2016). A multiple regression showed a positive relationship between trait conscientiousness and participants' self-ratings regarding their conscientiousness levels compared to others. Reasons for this finding might be that the SCIS - conscientiousness subscale is a rather trait-like measure, which might not be sensitive enough to capture state-like effects, induced temporarily through a story. However, there was still a positive relation between narrative involvement (i.e., experience taking) and how much time participants spent on the anagram-solving task. Importantly, this result, which was partly in line with Study 1, could not be explained by participants' trait conscientiousness or domain identification.

5 General Discussion

A unique feature of narratives is the power to enable us to be transported into foreign worlds (Gerrig, 1993). Moreover, being transported into a story can influence the understanding of other people (Mar and Oatley, 2008) and even how we see ourselves (Djikic et al., 2009; Cohen, 2001). The present research tried to extend previous findings on stories and the self, which focused on how recipients' selves change in line with the story, a process called assimilation (Richter et al., 2014). Both transportation and experience taking have been shown to facilitate the influence of stories and its protagonists on recipients' selves (Sestir and Green, 2010; Kaufman and Libby, 2012).

Yet, a story is no "magic bullet", which automatically changes recipients' self-perceptions in line with its content and its protagonists. Based on theoretical assumptions and previous findings, in Study 1, we expected participants, who were less involved in the narrative, to distance themselves from the story by comparing themselves downward, and thus, lifting themselves up (e.g., by being more eager to spend time on the anagram-solving task). However, the correlations between the narrative involvement measures and the dependent variables of both experiments did not support this assumption. Against our assumptions, high experience taking (in Study 2) and high transportation values (in Study 1) were both positively correlated to persistently working on a partly unsolvable anagram task. Importantly, trait conscientiousness and domain identification, which were included as a potential alternative explanation (Study 2), could not explain the effects on how much time participants spent on the anagram-solving task.

5.1 Limitations and Future Research Directions

Despite its contribution to the literature, several limitations of this research need to be acknowledged. As we failed to find significant results regarding our hypotheses, we need to consider potential explanations why the expected results were not found. In the following, we would like to highlight three starting points that might inspire future research: 1) statistical reasons (where the studies underpowered or the design inappropriate?), 2) methodological reasons (where the manipulations or measures invalid?), or 3) theoretical reasons (is the theory invalid, and therefore, would another theory be more appropriate?).

5.1.1 Statistical Reasons

An important reason for the null-findings regarding our hypotheses is the unsuccessful manipulation of transportation and experience taking in both experiments. Indeed, findings on the effects of different approaches to manipulate transportation and experience taking are very heterogeneous between different studies, since there might be different moderating factors that influence the size of possible effects (Tukachinsky, 2014). Therefore, a) a larger number of participants in order to avoid low-power designs and b) assessing potential moderating factors might be beneficial for future studies. Furthermore, we used only one short story in each of the two experiments. A higher number of different experimental stories might be useful in order to show the expected effects.

5.1.2 Methodological Reasons

In contrast to our failed attempts, similar manipulations of transportation (Shedlosky-Shoemaker et al., 2011; Gebbers et al., 2017) and experience taking (Kaufman and Libby, 2012; Hoeken et al., 2016) have been successfully used before. However, other techniques to manipulate narrative involvement such as disrupting the text structure (Gnambs et al., 2014), using a non-narrative control text as baseline (Bal and Veltkamp, 2013), or giving simple instructions before reading or watching a story (e.g., "read/watch the story as if you were the character"; Sestir and Green, 2010) might have been more effective in our context.

Moreover, all our measures regarding recipients' experience of a story were based on post exposure recall; we did not directly measure related processes in both studies. Therefore, an alternative approach to measure recipients' experience of a story while they are reading or watching it by using psycho-physiological continuous methods, like facial electromyography, heart rate, and electrodermal activity, might be useful for future studies (Ravaja, 2004; Weber et al., 2015). Indirect or implicit measures, like the Implicit Association Test (Nosek et al., 2002) might be also valuable in order to detect more subtle temporal changes in recipients' association between their selves and aspects of the story (Dal Cin et al., 2007; Sestir and Green, 2010; Gabriel and Young, 2011). The use of an IAT measure could be especially beneficial for assessing traits, motives, or ratings of (inferior) others compared to oneself, which might all subject to social desirability biases on explicit self-report measures (Hefner et al., 2011).

In Study 1, we expected psychology students to compare themselves downward to the preservice teacher in the experimental story. However, future studies are recommended to control for interindividual differences in social comparison tendencies (e.g., measured via the Iowa-Netherlands Comparison Orientation Measure; INCOM; Schneider and Schupp, 2011) in order to show contrast effects. Furthermore, social comparison may be directly manipulated in an experimental approach for future studies. For example, Appel (2011) instructed participants to find dissimilarities between themselves and a stupid main protagonist. These participants (compared to participants without such an instruction) performed better in a knowledge test

- after reading an experimental story about a stupid protagonist, indicating a contrast effect.
 Future studies regarding social comparison with media personae should also take into account the salience and importance of social group categories (one's one group vs. out groups) that
- 691 could trigger social comparison processes (Trepte and Loy, 2017).

Furthermore, research on the persuasive power of stories showed that the effects of transportation on recipients beliefs (Appel and Richter, 2007) and on empathy (Bal and Veltkamp, 2013) increase over time (*absolute sleeper effect*). Likewise, possible contrast effects on participants' selves may also appear with a time delay. Therefore, future studies on contrast effects under conditions of low transportation should also include a delayed assessment of its DVs.

5.1.3 Theoretical Reasons

In Study 1, transportation was only positively correlated to the SELLMO subscale "learning goals", whereas both narrative involvement measures (i.e., transportation, experience taking) were not correlated to any of the other SELLMO-ST subscales. Drawing on personality traits as a potential third variable influencing this relationship, learning goals (i.e., a drive to broaden ones horizon and competences) might be linked to interindividual differences in recipients' general tendency to become transported into a story. Therefore, future studies might also consider including a trait measure of transportability (Mazzocco et al., 2010) in order to explain assimilation vs. contrast effects.

In both studies, we found strong evidence for positive relations between high narrative involvement and participants' perseverance to work on anagrams, even when controlling for trait consciousness and domain identification. These unexpected results could be interpreted in line with other theories and research regarding non-interactive media entertainment and well-being (Rieger et al., 2014). Indeed, a recent study demonstrated that participants who were highly involved into a narrative showed higher recovery experience and – somewhat similar to our finding – higher cognitive performance (Rieger et al., 2017). In other words, narratives enable recipients to experience a temporal self-relief (Moskalenko and Heine, 2003); it might be that even the boundaries of their selves expand while they are transported into a story (TEBOTS; Slater et al., 2014). During this process, recipients' selves replenish, and after reading a story, they might be more energized to work on a challenging (anagram-solving) task. However, the underlying causal processes and related outcomes need to be explored more systematically in future research.

5.2 Conclusion

The primary aim of this research was to develop a better understanding of narratives' influence on how recipients see themselves compared to a story character. Furthermore, we tried to measure recipients' motives and even their behavior after experimentally manipulating both transportation and experience taking. Going beyond previous studies on narrative effects, we did not only expect assimilation effects (changes that are in line with a story); rather, we tried to reveal contrast effects (changes that are opposite to a story). Despite the fact that our hypotheses were not supported, we are still inspired by the statement "progress occurs when existing expectations are violated" (Open Science Collaboration, 2015). Therefore, we hope that the results of this research will encourage others to future research in order to shed light on the underlying mechanisms of story reception and to advance theory of how it could influence the self in different directions.

733 6 Ethics Statement

- According to institutional guidelines of the Institute of Communication and Media Psychology
- at the University Koblenz-Landau and the Human-Computer-Media Institute at the University
- of Würzburg, full ethical reviews are not required for the type of studies conducted in this
- research. We adhered to all ethical requirements for research with human subjects according
- to the German Psychological Society (DGPs) and the Declaration of Helsinki. All participants
- 739 gave their informed consent in a written form.

740 7 Author Contribution

- 741 SK and SW conceptualized and designed both experiments. SK implemented the studies and
- carried out the analysis for both studies. SK also wrote the manuscript with valuable input from
- 743 SW.

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- 750 helpful in improving the manuscript.

751 9 Data Availability Statements

- 752 The raw data supporting the conclusions of this manuscript will be made available by the
- authors, without undue reservation, to any qualified researcher.

754 10 Supplementary Material

755 The Supplementary Material for this article can be found online at: [LINK]

756 11 Competing Interests

- 757 The authors declare that the research was conducted in the absence of any commercial or
- 758 financial relationships that could be construed as a potential conflict of interest.

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1001

Table 1

Correlations Among and Descriptive Statistics (Study 1)

	M(SD)	Trans.	$SCIS_{Comp}$	$SCIS_W$	SEL _{LG}	SEL_{PAp}	SEL_{PAv}	SELwa	Anagrams
Exp.	6.23 (1.73)	.60**	15	.08	.06	03	.00	.09	.17 [†]
Trans.	4.66 (1.13)		02	.00	.26**	.15	.05	.01	.21*
$SCIS_{Comp}$	5.98 (1.51)			.29**	.17	.19*	07	32**	.02
$SCIS_W$	6.78 (1.24)				06	02	.10	08	.01
$\mathrm{SEL}_{\mathrm{LG}}$	4.42 (0.44)					.26**	02	25**	$.18^{\dagger}$
$\mathrm{SEL}_{\mathrm{PAp}}$	3.15 (0.72)						.46**	.13	.07
SEL_{PAv}	2.42 (0.80)							.18	02
SELWA	1.95 (0.60)								.02

Notes. N = 109. For Exp. = Experience Taking. Trans. = Transportation. $SCIS_{Comp} = Social$ Comparison and Interest Scale - Competence Subscale. $SCIS_{W} = Social$ Comparison and Interest Scale - Warmth Subscale. $SEL_{LG} = SELLMO-ST$ - Learning Goals Subscale. $SEL_{PAp} = SELLMO-ST$ - Performance- Avoidance Goals Subscale. $SEL_{WA} = SELLMO-ST$ - Work Avoidance Subscale. Anagrams = Time Spent on Anagram Task - log10 Transformed.

†
$$p < .10$$
, * $p < .05$; ** $p < .01$.

Table 2

Results of t-Tests for Independent Samples and Descriptive Statistics Transportation,
Experience Taking and Narrative Engagement by Experimental Treatment (Study 2)

		-Person arrator		l-Person rrator		
	M	SD	M	SD	t	p
Transportation	4.56	1.14	4.63	1.07	-0.30	.77
Narrative Engagement	4.74	0.82	4.86	0.74	-0.71	.48
NE: Attentional Focus	5.18	1.40	5.12	1.24	0.21	.83
NE: Narrative Understanding	6.32	0.66	6.25	0.79	0.46	.65
NE: Emotional Engagement	4.06	1.33	4.35	1.17	-1.03	.31
NE: Narrative Presence	3.38	1.42	3.73	1.39	-1.10	.27
Experience Taking	5.84	1.87	5.93	1.48	-0.23	.82

Notes. N for First-Person Narrative Voice = 39. N for Third-Person Narrative Voice = 40. dfs for all t-Tests = 77.

MANUSCRIPT #2: LIFT ME UP

Table 3

Correlations Among and Descriptive Statistics (Study 2)

	M (SD)	Dom.	BFI-10 _{Con}	Trans.	NE	NE-AF	NE-NU	NE-EE	NE-NP	Exp. T.	$SCIS_{Con}$	Anagrams
Voice		07	.08	.03	.08	02	05	.12	.12	.03	.08	10
Dom.	3.55 (0.74)		.32**	.02	03	.03	19	.04	04	09	.23*	06
BFI-10 _{Con}	3.25 (0.87)			36**	27*	03	04	41**	19	39**	.62**	.04
Trans.	4.59 (1.10)				.71**	.26*	.23*	.65**	.64**	.58**	16	.05
NE	4.80 (0.78)					.61**	.48**	.67**	.81**	.55**	21	.12
NE-AF	5.15 (1.31)						.23*	04	.32**	.12	06	.14
NE-NU	6.29 (0.72)							.26*	.10	.22	.00	.27*
NE-EE	4.21 (1.25)								.49**	.56**	29**	.06
NE-NP	3.55 (1.41)									.50**	16	06
Exp. T.	5.89 (1.68)										23*	.26*
$SCIS_{Con}$	5.86 (1.41)											.10

Notes. N = 79. Voice = Narrative Voice (0 – First Person; 1 – Third Person). Dom. = Domain Identification Measure. BFI- 10_{Con} = BFI-10 Conscientiousness Subscale. Trans. = Transportation. NE = Narrative Engagement (overall scale). NE-AF = Narrative Engagement: Attentional Focus. NE-NU = Narrative Engagement: Narrative Understanding. NE-EE = Narrative Engagement: Emotional Engagement. NE-NP = Narrative Engagement: Narrative Presence. Exp. T. = Experience Taking. SCIS_{Con} = Social Comparison and Interest Scale Conscientiousness Subscale. Anagrams = Time Spent on Anagram Task - log10 Transformed.

^{*} *p* < .05; ** *p* < .01.

Table 4

Hierarchical Regression Analysis Predicting Participants' Rating of Conscientiousness in Comparison to Others (SCIS) for Study 2

		Mode	1 1					Mo	odel 2	
_	B (SE B)	β	t	p	VIF	B (SE B)	β	t	p	VIF
Dom.	0.07 (.18)	.04	0.37	.71	1.11	0.10 (.20)	.05	0.50	.62	1.31
BFI-10-C	1.00 (.15)	.61	6.51	.00	1.11	0.98 (.19)	.61	5.32	.00	1.57
Trans.						0.30 (.19)	.24	1.62	.11	2.58
NE-AF						-0.10 (.12)	09	-0.88	.38	1.39
NE-NU						0.11 (.20)	.06	0.53	.60	1.32
NE-EE						-0.20 (.16)	18	-1.27	.21	2.48
NE-NP						-0.09 (.13)	09	-0.69	.49	2.09
Exp.						0.01 (.10)	.02	0.14	.89	1.79

Notes. N = 79. For Dom. = Domain Identification. BFI-10-C = Trait Conscientiousness. Trans. = Transportation. NE-AF = Narrative Engagement: Attentional Focus. NE-NU = Narrative Engagement: Narrative Engagement: Emotional Engagement. NE-NP = Narrative Engagement: Narrative Presence. Exp. = Experience Taking.

Table 5

Hierarchical Regression Analysis Predicting Time Spent on the Anagram-Soling Task (log10) for Study 2

	Model 1							Model 2					
_	B (SE B)	β t	t p	VII	F	B (SE B)	β	t	p	VIF			
Dom.	-0.04 (.06)	08	-0.65	.52	1.11	-0.03 (.06)	06	-0.51	.61	1.31			
BFI-10-C	0.03 (.05)	.06	0.53	.60	1.11	0.07 (.05)	.18	1.32	.19	1.57			
Trans.						-0.01 (.05)	04	-0.26	.80	2.58			
NE-AF						0.04 (.03)	.17	1.34	.18	1.39			
NE-NU						0.08 (.06)	.17	1.35	.18	1.32			
NE-EE						0.01(.05)	.04	0.21	.83	2.48			
NE-NP						-0.07 (.04)	30	-1.93	.06	2.09			
Exp.						0.09 (.03)	.42	2.92	.00	1.79			

Notes. N = 79. For Dom. = Domain Identification. BFI-10-C = Trait Conscientiousness. Trans. = Transportation. NE-AF = Narrative Engagement: Attentional Focus. NE-NU = Narrative Engagement: Narrative Understanding. NE-EE = Narrative Engagement: Emotional Engagement. NE-NP = Narrative Engagement: Narrative Presence. Exp. = Experience Taking.

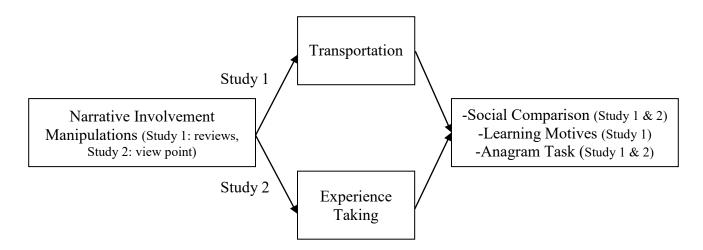


Figure 1. Proposed Model of Assimilation vs. Contrast Effects for both Studies

Supplementary Material

Lift me up by looking down: Social comparison effects of narratives

Stefan Krause^{1*} and Silvana Weber¹

¹Human-Computer-Media Institute, University of Würzburg, Germany

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Review Manipulation (Experiment 1)

Positive Review



[Rezension] Die Klausur

🛇 29. Juli 2014 🕒 5 Sterne, Kurzgeschichte 🧳 Erschienen 2014



Erscheinungsdatum: 14.07.2014
Bewertung:

Gelungenes Erstlingswerk

Die Kurzgeschichte "Die Klausur" ist ein zu Recht mit dem renommierten Walter-Serner-Preis ausgezeichnetes Erstlingswerk der jungen Autorin Lara Fritzsche. Der Protagonist dieser fesselnden Geschichte ist mit den Herausforderungen des Studiums konfrontiert und stößt dabei auf zahlreiche Schwierigkeiten. Hierbei bleibt der Lehramtsstudent – oder die -studentin? – jedoch anonym und geschlechtsneutral. Die Hauptfigur wird in ihrem Alltag mit all den typischen Höhen und Tiefen mitreißend und authentisch beschrieben. Der Autorin gelingt es dabei auf wunderbare Weise, die Hoffnungen, aber auch typische studentische Sorgen spannend und emotional ansprechend einzufangen. Gerade durch die hier besonders feinsinnige und gelungene Wahl der Ich-Erzählung wird man förmlich in die Welt $der \ Geschichte \ entführt, \ und \ hat \ dabei \ stets \ eine \ klare \ Vorstellung, \ was \ im \ Protagonisten$ vor sich geht. Der Leser erlebt die Handlung völlig selbstvergessen aus der Sicht des sympathischen Studenten und empfindet dabei seine Gedanken- und Gefühlswelt am eigenen Leib nach. Die Geschichte schafft gerade in diesen intensivsten Passagen, was andere Werke sehr selten schaffen: Der Leser taucht so tief in die Handlung ein, dass man selbst kurzzeitig zum Protagonisten der Geschichte wird. Ein intensiver Eindruck, mit dem man auch nach dem Lesen der Geschichte nachhaltig zurückgelassen wird.

Fazit: Lara Fritzsches meisterhaftes Erstlingswerk "Die Klausur" zeigt, dass man nicht einen ganzen Roman lesen muss um Gedanken, Gefühle und Motive eines Charakters zu erfassen. Einfach lesenswert!





Die Bloggerin

Ich heiße Thea und bin 29 Jahre alt. Verrückt nach Büchern, Serien, Filmen und Twitter. Dementsprechend blogge ich auch über diese Themen und was mir halt sonst noch so einfällt. Nach meinem Studium der Germanistik und Romanistik folgte ein Volontariat bei der Süddeutschen Zeitung, Zurzeit bin ich neben der Bloggerei vor allem als freie Autorin bei zett tätig.

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Negative Review



[Rezension] Die Klausur

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Autor: Lara Fritzsche Erscheinungsdatum: 14.07.2014 Bewertung: 金 貴 貴 貴 貴

Misslungenes Erstlingswerk

Die Kurzgeschichte "Die Klausur" ist das Erstlingswerk der jungen Autorin Lara Fritzsche, und demonstriert, wie man großes, sprachliches Potential schlecht umsetzen kann. Der Protagonist dieser langatmigen Geschichte ist mit den Herausforderungen des Studiums konfrontiert und stößt dabei auf zahlreiche Schwierigkeiten. Hierbei bleibt der Lehramts $student-oder\ die\ -studentin?-jedoch\ anonym\ und\ geschlechtsneutral.\ Die\ Hauptfigur$ wird in ihrem Alltag mit all den typischen Höhen und Tiefen langatmig und unglaubwürdig beschrieben. Die Autorin schaffte es nicht, den studentischen Alltag spannend oder gar in irgendeiner Weise emotional ansprechend einzufangen. Die Geschichte wird zwar aus der Ich-Perspektive des jungen Studenten erzählt, lädt den Leser aber leider nicht dazu ein, sich als Teil der Handlung zu fühlen. Die Geschichte scheitert vor allem daran, dass sich der Leser weder in die Gedanken-, noch in die Gefühlswelt des Protagonisten hineinversetzen kann und dieser deshalb fremd bleibt. Dennoch versucht die Autorin verzweifelt mit ihrem verkrampft wirkenden künstlerischen Schreibstil dem Leser das seltsame Wechselspiel aus Abspannung und Freude im banalen, studentischen Alltag anschaulich zu machen. Dies gelingt leider nicht: Der Protagonist und die Handlung erscheinen dem Leser fremd und am Ende bleibt man unbeeindruckt zurück.

Fazit: Lara Fritzsches Erstlingswerk "Die Klausur" ist bestenfalls als bemüht zu bezeichnen. Wer lesen möchte, wie verschenktes Potenzial aussieht, ist hier richtig. Ansonsten nicht empfehlenswert, schade!





Die Bloggerin

Ich heiße Thea und bin 29 Jahre alt. Verrückt nach Büchern, Serien, Filmen und Twitter. Dementsprechend blogge ich auch über diese Themen und was mir halt sonst noch so einfällt. Nach meinem Studium der Germanistik und Romanistik folgte ein Volontariat bei der Süddeutschen Zeitung, Zurzeit bin ich neben der Bloggerei vor allem als freie Autorin bei zett tätig.

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Story for Experiment 1

Die Klausur

Für mich also das Lehramtsstudium. Ganz recht, ich bereite mich auf ein Leben als künftiger Lehrer vor! Und in diesem Studium muss man nicht nur Vorlesungen zu Bildung und Sozialisation hören, sondern auch Scheine in Psychologie machen, in die Soziologie reinschnuppern und mehrere Berufspraktika absolvieren. Das finde ich toll. Warum ich diese Wahl getroffen habe? Offiziell natürlich deshalb, weil ich viel zu neugierig bin auf viele Dinge, als dass ich eine ganz klare Entscheidung hätte treffen können. "Ich habe einfach so umfassende Interessen", hatte ich zu meinen Eltern gesagt, "und bin ja selbst auch so super vielseitig. Da kann ich mich doch nicht jetzt schon festlegen. Da würde ich mich ja total einschränken! Aber das Lehramtsstudium hält mir vieles offen, da ich zwei Hauptfächer studiere, und viele Nebenfächer belegen kann." Aber der wahre Grund für die Wahl dieses Fachs ist natürlich ein anderer: Ich kann mich nicht entscheiden. Ich kann mich nicht entscheiden, was ich studieren soll, und ich kann mich nicht entscheiden, welchen Beruf ich später einmal ergreifen will. Keine Ahnung, nada, niente.

Das Lehramtsstudium verschiebt diese Entscheidung um ein paar Jahre nach hinten, und das hinterlässt in mir das gute Gefühl, die eigene Spätpubertät noch eine geraume Zeit verlängern zu können. Vor allem aber gefällt mir, dass viele meiner Kommilitonen genau so denken wie ich, und ich mit meinen Unsicherheiten nicht so alleine dastehe. Irgendwie ganz anders sind da die Psychologiestudenten, die total fokussiert und zielstrebig wirken. Sie sitzen in allen Veranstaltungen zur Entwicklungs- und Sozialpsychologie immer getrennt von uns – "Psychologie für Pädagogen" heißt das Modul in unserem Lehrplan. Tatsächlich aber sitzen wir Lehrämtler dabei in den gleichen Seminaren und Vorlesungen wie die Psychologen, die das im Hauptfach studieren, und müssen auch für dieselben Prüfungen büffeln.

Ich habe mich damals generell sehr schwer getan mit der Auswahl meines Studiums. Geschichte fand ich spannend, Jura interessierte mich, vielleicht Volkswirtschaft oder Soziologie, Journalistik fand ich auch ganz spannend, aber die Kommunikationswissenschaften hatten es mir ebenfalls angetan, und von einem Medizinstudium träumt ja sowieso fast jeder, der irgendwann mal dicke

Kohle machen möchte. Die traurige Wahrheit ist aber, dass ich für viele dieser Studiengänge nicht gut genug war und der Notenschnitt auf meinem Abiturzeugnis nicht reichte. Und so verschmälerte sich meine Auswahl praktisch ganz von selbst auf einen überschaubaren Rest. Schließlich fiel meine Wahl auf das Lehramtsstudium. Ich war froh, als ich eine Universität fand, die keine Eignungstests verlangte und deren Numerus Clausus bei einem recht gnädigen Wert von 3,1 lag.

"Nun denn", seufzte ich, als ich den Zulassungsbescheid schließlich in meinen Händen hielt. "So schwer kann's schon nicht werden." Schule, das kannte ich schließlich aus meinen eigenen bewegten Jahren in dieser Institution. Und wenn ich daran dachte, wer mich dort alles unterrichtet hatte, dann konnte so ein Lehramtsstudium doch eigentlich auch gar nicht so schwer sein, oder? Dachte ich.

Das war vor über sechs Monaten. Nun neigt sich mein erstes Semester dem Ende entgegen, und die Abschlussklausuren stehen an. Die finalen Höhepunkte. Meine erste Klausur schreibe ich im Modul "Psychologie für Pädagogen", und während ich noch am Anfang des Studiums voller Neugierde auf das blickte, was mich in diesem Fach erwarten würde, ließ meine Motivation rasch wieder nach. Ein Blick in die müden Gesichter meiner Kommilitonen verriet mir schon in der zweiten Vorlesung, dass auch sie lieber in der wärmenden Sonne der länger werdenden Tage sitzen würden, als den drögen Monologen der alternden Dozentin Frau Dr. Meiser über frühkindliche Entwicklung zuzuhören. Und so streckten wir uns schließlich zusammen im Park auf dem weichen Rasen, sangen zum Gitarrenspiel von Kommilitonin Saskia und grillten im Schatten der grünenden Laubbäume, während die Psychos, wie wir sie nannten, still und emsig Woche für Woche in den dunstigen Bänken der Universitätssäle vor sich hinbrüteten. So vergingen die Tage des Semesters auf recht erträgliche Weise …

Doch die Klausur rückte näher. Ihr Termin schwebte über uns wie ein Damoklesschwert, und als nur noch wenige Wochen verblieben begann ich mit meinen ersten Vorbereitungen. Ich lerne jetzt erst seit ein paar Tagen. Immer wieder mal zumindest, jedenfalls versuche ich es. Aber es fällt mir schwer, mich zu konzentrieren, mich zu motivieren: Ich wache morgens um zehn Uhr auf, blinzle einoder zweimal in die Dunkelheit meines Zimmers, und rolle mich auf die Seite.

Um 12 springe ich dann meist fluchend aus dem Bett, schiebe mir eine Pizza in den Ofen, beuge mich über meine Unterlagen und raufe meine Haare über dem drögen Akademikersprech und unverständlichen Diagrammen, verabrede mich lieber mit Saskia zum Slacklinen oder mit Michael zum Basketballspielen. Wenn ich abends heimkomme, plaudere ich noch eine Weile mit meinen Mitbewohnern über einem leckeren Merlot. "Mach einen Lernplan", schlägt meine Mitbewohnerin Lisa vor, als ich mich bei einer dieser Gelegenheiten über meine Motivationsprobleme auskotze. "Vielleicht hilft dir das, den Stoff in kleinen, leicht verständlichen Abschnitten vorzubereiten."

Mehrmals verwerfe ich den eher halbherzigen Entwurf meines Lernplans, als sich irgendwann eine chaotische Abfolge von Tagen ausgelassenen Vergnügens und Stunden panikgetrieben Lernens einstellt. Immer, wenn ich anfange, die Absätze in den dicken Lehrbüchern mehrmals lesen zu müssen oder meine eigenen Aufzeichnungen plötzlich keinen Sinn mehr ergeben, greife ich zum Handy und rufe einen meiner Kommilitonen an. "Um mich abzulenken", wie ich sage, "zum Sackenlassen. Denn auch Wissen muss schließlich arbeiten." Leider passiert das ziemlich oft. Aber ich lebe nur ein Mal, sage ich mir immer wieder mit grimmiger Entschlossenheit, und möchte später nicht bereuen müssen, dass ich die letzten Tage meiner dahinwelkenden Jugend hinter den grauen Mauern der Universitätsbibliothek in der staubtrockenen, eintönigen Gesellschaft langweiliger Bücher verbracht habe. Langweilen kann ich mich, wenn ich tot bin.

So fliegen die Tage trotz aller Lernschwierigkeiten dahin. Ich gehe zur Uni, wenn ich muss. Ich habe einen Stundenplan und arbeite ihn ab. Zwänge sind besser als diese Unsicherheit, denke ich, und eigentlich lerne ich auch nur aus dem Zwang, keine schlechte Note schreiben zu wollen. Natürlich ist die "Psychologie für Pädagogen" interessant, aber so interessant, dass ich gern wochenlang büffle, nun auch wieder nicht. Natürlich macht die Uni Spaß, aber mehr Spaß macht eigentlich der Kosmos drum herum. Das ändert sich auch nicht, als der große Klausurtermin plötzlich nur noch wenige Tage entfernt ist, und ich mittlerweile sogar vermeide, auf den großen Kalender in unserer Küche zu schauen. Aber befreien kann ich mich von der zunehmenden Panik nicht. Ich weiß, dass ich bisher nicht gerade viel gelernt habe, obwohl ich es eigentlich hätte tun sollen. Ich verfalle immer wieder in ziellose, panische Überaktivität, wühle, getrie-

ben von Angst, durch meine Ordner, erschrecke über der schier unüberblickbaren Menge an Artikeln und Präsentationen, brülle dann meinen Laptop an: "Wer soll das denn alles lernen? Und wann?" Ich verzweifle noch etwas mehr, schreibe in WhatsApp hektische Nachrichten an meine Seminarskollegen in unserer Lerngruppe Psycho-Zeugs fürs Lehramt und schicke stumme Stoßgebete aus in der Hoffnung, dass jemand mir mit einfachen Worten aushelfen oder mit guten Erklärungen die Knoten in meinem Verstehen glätten möge. Doch die sind ebenfalls alle ratios. Michael schickt mir nur drei Fragezeichen als Antwort, Saskia einen traurigen Smiley. Allmählich dämmert mir, dass es vielleicht keine so gute Idee war, das ganze Semester über im Seminar zu schlafen und die Vorlesungen durch Parkbesuche zu ersetzen. Doch ich habe keine Zeit für Reue, stürze mich wieder ins Lernen, aber ich habe überhaupt keinen Plan davon, was ich eigentlich vorbereiten soll. Ich weiß nicht, was verlangt wird, ich weiß nicht, wie viel, und verstehen tue ich das sowieso alles nicht. Zu viel, viel zu viel! Viel zu komplex, viel zu abstrakt. Wer schreibt denn so was? Wer liest den Mist? Und wer braucht das? Ich schaffe es nicht, schaffe es nicht ...

Mit Wucht stoße ich das dicke "Lehrbuch der Entwicklungspsychologie" von mir und lasse mich rücklings aufs Bett fallen. Ich schließe die Augen. Keine Chance … Ich schaff's nicht. Unter der Last dieser Erkenntnis schwinden mir die Sinne. Ich versinke in einem unruhigen, traumlosen Schlaf …

Es ist soweit. D-Day! Mit einem Schreibblock, zwei sorgfältig gespitzten Bleistiften und einem Füller bewaffnet, begebe ich mich zum Seminarraum, in dem die Klausur geschrieben werden soll. Als ich den Kopf hebe und vorsichtig durch den Türrahmen in den engen, muffigen Raum schiele, begegne ich dem ausdruckslosen Blick eines Mädchens aus meinem Psychologie-Seminar. Wie heißt die noch mal? Clementine oder Charlie oder so. Jedenfalls eine von diesen eifrigen Psychologiestudentinnen, die nichts Besseres zu tun haben, als versonnen auf die komplizierten Diagramme in ihren Lehrbüchern zu starren und ganze Sachbücher auswendig zu lernen. Wahrscheinlich mitsamt Impressum und Literaturverzeichnis. Wie strebsam sie und ihre Gruppe abgeklärter Psychologen immer waren und wie aufmerksam sie zuhörten, wenn die Professorin etwas vortrug... puh. Niemand, der klar bei Verstand ist, hört 90 Minuten lang interessiert dem Geschwafel einer alten Knackerin zu, die im Vorbeigehen eine Dunstwolke aus Mottenkugeln hinterlässt. Ich schüttle den Kopf und gehe an dem Mädchen

vorüber, meine schwarze Stofftasche streift den Ärmel ihrer Bluse. *Irgendwie cool ist sie trotzdem*, denke ich fast ein bisschen neidisch. *Und feiern kann sie auch.* Jedenfalls habe ich sie bei fast jeder Fachschaftsparty mit ihren Psychologen-Freundinnen gesehen. Nur gegen Ende des Semesters nicht mehr, als sowieso die meisten standhaften Partygänger kalte Füße bekamen und sich lieber dem Lernen zuwandten als dem rauschenden Leben. *Spießer!*

Nervös wippe ich mit dem Fuß. Vor mir, in der Mitte des Pults, liegt umgedreht ein unscheinbarer Bogen bedruckten Papiers. Ich starre darauf hinab. Meine Finger kneten nervös an seinen Ecken und Kanten, während ich an die Stufen der Moralentwicklung nach Kohlberg – oder hieß er Kohlmann? – denke, über die Entwicklungsstufen von Pia-Dingsbums, dieser Franzose – oder ein Schweizer? – grüble, und ich plötzlich nicht mehr unterscheiden kann, welche Theorie nun was besagt, und in welchem Alter nun was passiert?

Alles, was ich notdürftig gelernt habe in den vergangenen Wochen, ist plötzlich weg! Alles, wirklich alles.

Das Blut schießt mir in den Kopf, meine Adern pulsieren, mir wird heiß, und ich zittere. Ich schlucke schwer, blicke immer wieder auf den unschuldig daliegenden Klausurbogen, als könnte mein Starren allein ihn zum Verschwinden bringen. Ich streiche mir über das Gesicht, es fühlt sich nass an, aber das ist vielleicht weniger schlimm als das Gefühl, Melkfett abzusondern.

Ich versuche tief durchzuatmen, ein, aus, ein, aus, doch irgendwie klappt es nicht so richtig. Meine Atmung ist flach und schnell. Irgendwie leide ich jetzt unter einer Form von lerntraumatischer Kurzzeitamnesie — oder konnte ich mir schon vorher nichts merken? Ich verlasse den Raum, renne auf die Toilette, reiße die Tür zur zweiten Kabine von links auf, drehe den Schlüsselknauf von innen herum und lehne mich an die Tür. Ich atme immer schneller, ich habe alles vergessen, ich halte dem Druck nicht stand. Das blaue Antifixerlicht in der Toilette flackert unerträglich. Schrill kreischt eine Stimme zwischen meinen Schläfen, dass ich nichts verstanden hätte, dass ich gar nichts könne, nicht mal das Wenige, von dem ich dachte, dass ich es nach einmaligem Querlesen zumindest so ein wenig durchdrungen hätte. Nichts ergibt mehr einen Sinn. Mir fallen die ganzen wichtigen Begriffe nicht mehr ein, die komplizierten Modelle von Herrn Soundso und Doktor Wiehießernoch. Wäre das eine mündliche Prüfung, könnte ich mich

vielleicht irgendwie retten. "Door in the face" nennt Kommilitone Michael dieses Vorgehen, den Professor möglichst von der ersten Minute an mit einem Schwall von Wörtern zu übergießen. Absolute Souveränität bei völliger Ahnungslosigkeit oder so ähnlich. Ja, manchmal klappt das, und, ja, es habe ihn auch schon mal vorm Durchfallen bewahrt, meinte er. Aber hier und jetzt ist das keine Option für mich, keine Ausflucht.

Ich schaue auf die Uhr. Kurz nach zwei. In spätestens zehn Minuten teilt Frau Dr. Meiser die Klausuren aus. Ich atme tief durch, zwinge meine wirbelnden Gedanken zur Ruhe. Dann drehe mich um, schiebe mich langsam und mit bebenden Beinen Schritt für Schritt in den Seminarraum zurück. Mit gesenktem Kopf betrete ich die Höhle des Löwen.

Zwei Wochen später sitze ich auf einem braunen Kunstfaserteppich vor einem Raum mit geschlossener Tür. Neben mir sitzt Michael, neben ihm haben sich Saskia und noch vier, fünf, nein, sechs Leute aufgereiht, die ich flüchtig aus meinen Seminaren kenne. Wir warten auf Frau Dr. Meiser, die "Mutter der Psychologie", die "Herrin der Zensuren". "Sprechstunde mittwochs, 14 bis 15 Uhr", ist im Vorlesungsverzeichnis hinter ihrem Namen vermerkt. Jetzt ist es fünf nach zwei, doch die Tür von Frau Dr. Meisers Büro ist verschlossen.

Ich will in ihre Sprechstunde gehen, weil auf dem Pinnbrett im Flur des Instituts meine Matrikelnummer angeschrieben steht, direkt unter der Überschrift "Klausur Entwicklungspsychologie [Veranst.-Nr.: 3678]: nicht bestanden". Nun will ich Frau Dr. Meiser persönlich danach fragen, "zur Rede stellen", so hatte ich vor Lisa noch groß getönt. Wahrscheinlich werde ich aber bloß höflich nachfragen und mir danach einen netten Ratschlag für die Nachschreibeklausur geben lassen.

"Ich muss um fünfzehn Uhr zu meiner Vorlesung", schrillt plötzlich eine Stimme durch den Flur. Köpfe wirbeln herum. "Wir haben eine halbe Stunde Sprechstunde, hier sitzen acht Leute. Bitte fassen Sie sich kurz, wir haben für jeden drei Minuten. Wer ist der Erste?"

Ich gehe hinter ihr durch die Tür, Frau Dr. Meiser wühlt mit einer Hand in ihrer Ablage herum, mit der anderen zeigt sie auf einen dreibeinigen Schemel, der vor ihrem Schreibtisch steht. Offenbar soll ich mich da hinsetzen. Ich nehme

Platz, der Schemel wackelt, und irgendwie komme ich mir vor wie ein Erstklässler, der zu seiner Lehrerin aufblickt. Frau Dr. Meiser beginnt das Gespräch mit einer Frage: "Ihr Name?"

Ich sage artig meinen Namen und erwähne, dass ich in ihrem Entwicklungspsychologiekurs gewesen bin, dass ich die Klausur mitgeschrieben habe und dass ich leider Gottes durchgefallen bin.

"Das ist sehr schade, und was führt Sie dann zu mir?"

"Ich wollte mal sehen, was ich falsch gemacht habe, und fragen, ob ich eine Wiederholungsklausur schreiben kann."

Frau Dr. Meiser wühlt in ihrem Stapel herum, und murmelt dabei: "Hätte ich bloß die Noten erst in den Semesterferien aufgehängt, dann käme jetzt niemand auf die Idee, in die Sprechstunde zu kommen und rumzumeckern." Dann zieht sie meine Arbeit heraus.

"Hier", sagt sie und reicht sie mir herüber, "Sie sind zwei Punkte an einer Vier vorbei und das, obwohl die Klausur insgesamt recht gut ausgefallen ist. Mir ist aufgefallen, dass in dieser Prüfung fast ausschließlich Lehramtsstudenten durchgefallen sind. Ich weiß wirklich nicht, was bei Ihrer Gruppe schiefgelaufen sein könnte. Haben Sie dafür vielleicht eine Erklärung?" Sie sieht mich fragend an.

Ich nehme den Zettel und blicke darauf, einige wenige Häkchen finden sich auf dem Blatt, dafür aber sehr viele Fs für Fehler oder falsch oder fehlend oder was auch immer.

"Hmm, nun. Ich hätte mich vielleicht etwas besser vorbereiten müssen, war da vielleicht ein wenig … nachlässig", sage ich vorsichtig und denke an die vielen Studentenpartys und Parkbesuche, das Slacklinen mit Saskia und Basketball spielen mit Michael. Dann dringen jedoch die vielen Male in mein Bewusstsein, als ich mit leerem Blick vor meinem Schreibtisch saß, auf die Unmengen von Wörtern gestarrt habe, die für mich einfach keinen Sinn ergeben wollten, die Berge von Begriffen, Definitionen, Experimenten, Namen …

"... Aber die Klausur war auch wirklich, wirklich sehr schwer", beende ich den Satz. "Und ... ja, es war auch ziemlich viel Stoff. Fast zu viel, wie ich finde. Kann ich vielleicht eine Nachschreibeklausur schreiben?", frage ich zaghaft.

Sie blickt mich lange an, mustert mich nachdenklich durch die dicken Gläser ihrer Brille. "Kommen Sie doch einfach in zwei Semestern wieder in meinen Kurs und probieren es noch mal", schlägt sie vor und nimmt meine Klausur wieder entgegen. "Sie haben sehr viele Lücken gehabt und einige Begriffe falsch verwendet. Es ist aber wichtig, dass Sie fundierte Kenntnisse von dem haben, was hier geprüft wird, denn schließlich sollen Sie das Wissen doch später auch bei Ihrer Arbeit mit Menschen anwenden. Wir prüfen Sie ja nicht, um Sie zu ärgern." Sie lächelt freundlich.

Ich sacke innerlich etwas zusammen, sage ihr, dass es doch eine Nachschreibeklausur geben soll und dass ich lieber nachschreiben würde, als den Kurs nochmals zu belegen, und dass es doch ohnehin nur ein Nebenfach für mich sei und der Fokus meines Studiums ganz woanders liege und und und...

Sie schüttelt den Kopf, als ich verstumme, versuche, sie mit meinen Augen allein zu beschwören. Mit ruhiger, fast sanfter Stimme erwidert sie: "Ich kann ihren Ärger verstehen. Aber leider kann ich in dieser Sache nichts machen. Ich weiß, dass Sie Lehramtsstudent sind und nicht Psychologiestudent, aber es gelten für Sie dieselben Anforderungen und Bedingungen wie für alle anderen Studenten in meinem Kurs auch. Das habe ich Ihnen allen zu Beginn des Semesters gesagt. Es liegt ganz in Ihren Händen, wie Sie sich vorbereiten und welche Leistung Sie erbringen."

Sie blickt mich bedauernd über den schwarzen Rand ihrer großen, runden Brillengläser an und ich greife mit einer Hand nach meinem Rucksack. Dann erhebe ich mich und murmle: "Alles klar. Sie haben wahrscheinlich recht", seufze ich.

"Kommen Sie in einem Jahr wieder", sagt sie, diesmal munterer, "denn dann werde ich das Seminar zusätzlich zur Vorlesung wahrscheinlich noch einmal für Sie und Ihre Mitstudenten gesondert anbieten! Dass so viele durchgefallen sind, muss ja einen Grund haben. Es kann durchaus sein, dass Sie mit dem Stoff überfordert waren, wie Sie sagen, und dass es so viele von Ihren Kommilitonen ebenfalls getroffen hat, kommt ja schließlich nicht von ungefähr." Ich kratze mich am Kopf, grinse sie schief an. Sie lächelt zuversichtlich.

"Ich drücke Ihnen fest die Daumen für das nächste Mal. Sie schaffen das. Ganz bestimmt. Wenn Sie diesmal gut mitarbeiten und sich ausreichend Zeit für die

Vorbereitung nehmen, steht einer guten Note nichts mehr im Wege. Sie werden sehen!"

Ich nicke, wende mich ab, und als ich in den Flur hinaustrete, verdeckt die zufallende Tür den Blick ins kleine, kahle Arbeitszimmer, das schmale Fenster, die Stapel der Klausurbögen und Frau Dr. Meisers wohlwollendes Lächeln.

Stories for Experiment 2

First-person perspective

Der Tag davor

Ein Geräusch dringt an mein Ohr. Schrill und beständig sticht es in mein schlaftrunkenes Bewusstsein wie die Nadel einer Maschine in widerstrebenden Stoff. Ich runzle die Stirn und versuche, es zu verbannen, aus meiner Wahrnehmung zu verdrängen wie die Gedanken an das Unvermeidbare, das mir nun bevorsteht. Ich schnaube leise. "Nein, noch 5 Minuten", denke ich. Meine Hand tastet suchend in Richtung des penetranten Geräuschs. Meine Finger strecken sich, schieben sich über die kühle Oberfläche des Plastikgehäuses meines Funkweckers und suchen nach der schlafbringenden Erlösung. "5 Minuten… nur noch…", sind die einzig klaren Gedanken, die ich fassen kann. Der Wecker gibt nach, das Geräusch verstummt. "…5 Minuten", denke ich und seufze zufrieden.

Widerstrebend öffnen sich meine Lider erneut. Stumm starre ich durch das schattige, trübe Zwielicht zur Decke. Ich gähne. Sekunden verstreichen, ehe ich einen Blick auf die digitale Anzeige neben mir riskiere und mich selbst murren höre: "Nun gut. Dann eben 20 Minuten. Passt.", denke ich mir. Ich strecke mich genüsslich. Dann bringen meine Ellenbogen meinen protestierenden Oberkörper langsam in eine aufrechtere Lage. Doch mein Kopf sackt in den Nacken. *Nein*, denke ich gequält. *Nein. Keine Lust. Ich habe einfach... keine Lust.* Ich seufze und verharre einen Moment in dieser Haltung. *Muss wohl. Bringt ja nichts*, ächze ich leise vor mich hin.

Träge hieven unwillige Arme und Beine meinen bleiernen Körper über die Bettkante. Eine Hand greift widerstrebend nach achtlos über die Stuhllehne geworfenen Kleidungsstücken, die andere zerrt lustlos am Zugseil des Rollladens. Unter größtem Protest bahnen meine Füße sich schließlich einen Weg über den Boden, treten dabei nachlässig verstreute Gegenstände und Papiere über den Teppich und tragen mich Richtung Bad.

"Was liegt an, Tina?", frage ich brummend mein Gesicht in der fleckigen Spiegelfläche. "Nein, sag's nicht. Irgendwas mit Uni." Ich wende mich von meinem Spiegelbild ab.

Keine Lust, denke ich, als meine Hände die Hose über meine Beine streifen. Keine Lust, während ich die Falten im Shirt glatt streiche. Mein Blick begegnet mir im Spiegel. Ich versuche, meine Gedanken zu sammeln, mich zu konzentrieren auf... Keine Lust.

Seufzend kehre ich zurück und verharre im Rahmen der Zimmertür. Skeptisch wandert mein Blick über Berge von Gegenständen, die sicherlich ihren angestammten Platz hätten, wenn ich nur nach einem für sie suchen würde… Eilig verstaute und aus Ordnern gefallene

Aufzeichnungen lugen hinter Schränken und Kommoden hervor. Stifte liegen auf, hinter und unter dem Schreibtisch, umringt von haufenförmigen Ansammlungen aus unsortierten Klamotten. Mein Blick fällt auf mehrere verstreut liegende Papiere. Eines wurde vom Wind aufgewirbelt und auf den kleinen Zierkaktus gespießt, der vertrocknet in krustiger Blumenerde auf dem Beistelltisch steht. Den vielen Formeln nach zu urteilen könnte es Statistik sein... trockener geht es kaum. Innerlich sacke ich ein wenig zusammen.

Dann gebe ich mir einen Ruck. Ich raffe mich auf, die Papiere vom Boden zu sammeln und versuche, sie zu ordnen. Media Richness, Reduced Social Cues, SIDE – die Aufzeichnungen sind mit Begriffen gefüllt, die mir vage bekannt vorkommen, aber nie wirklich in meinem Kopf abgespeichert wurden. Irgendwas mit Medien halt. Ich habe Mühe, die einzelnen Seiten in eine stimmige Reihenfolge zu bringen. Mehrfach muss ich sie hin- und herwenden, nebeneinander legen und angestrengt die Zeilen an ihrem Anfang und Ende vergleichen, bis ich schließlich aufgebe und sie nach einem müden Blick auf die Uhr eher willkürlich in meinen Ordner hefte.

Auf dem Weg zum Gruppentreffen grüble ich lustlos über unsere letzte Sitzung nach. Über das Referat zur Media Equation, das wir vorbereiten müssen, und den unerträglich straffen und kleinschrittigen Zeitplan, den ein Kommilitone vorgeschlagen und für uns alle vorbereitet hat. "Gute Idee, findet ihr nicht", fragte er stolz in die Runde. Ich wölbte die Brauen, verzichtete aber auf eine Antwort. Wie kann man so unentspannt sein? Es gibt Wichtigeres als Bücher, Skripte und ständige Lerntreffen. Wissen diese Leute überhaupt, wie man lebt?

Vor einer Haustür in der Sanderau bleibe ich stehen und hebe den Finger zum Klingelknopf. Prompt wird die Tür aufgerissen, und Max, der Kommilitone mit dem straffen Zeitplan, funkelt mich herausfordernd an:

"Du kommst zu spät", schnauzt Max. "Wir warten schon seit einer halben Stunde auf dich, du Faulpelz! Hättest dich wenigstens melden können."

Ich hebe beschwichtigend die Hände. "Hey, hey! Sorry. Bin ja jetzt hier."

Mit dem Kopf deutet er ruckartig in die Küche hinter sich. Ich folge ihm zur Gruppe, die schweigend auseinanderrückt, um mir Platz zu machen. Jemand sieht mich prüfend an:

"Verpennt?"
Ich schnaufe abfällig. "Kommt vor."
"Hast du deinen Teil vorbereitet?", fragt Max.

Ich denke nach. Nur schwach entsinne ich mich der Inhalte, die ich gestern noch vor dem Zubettgehen überflogen hatte. Media Equation bedeutet, dass Menschen dazu neigen, Computer wie reale Personen zu behandeln. *Ziemlich selbsterklärend*, beschloss ich, und verzichtete deshalb darauf, mir irgendwelche Notizen zu machen.

"Ein wenig", erwidere ich ausweichend, ohne zu überlegen. "Das Wichtigste eben." Insgeheim hoffe ich, dass mir weitere Nachfragen erspart bleiben.

Das Treffen verläuft so, wie ich es erwartet hatte: Sinnloses Beisammensitzen mehr oder weniger motivierter Menschen, die sich über Aufteilung, Reihenfolge und Inhalt der Referatsteile zanken. Ich halte mich zurück, besonders viel weiß ich ohnehin nicht. Während die anderen miteinander reden, blättere ich lustlos durch meine unsortierten Unterlagen. Kreative Ordnung in deinem Ordner, denke ich selbstironisch. Dann erzählt jemand, auf welch einfallsreiche Weise er seinen Teil vortragen wolle und verweist dabei auf eine Textstelle, die ich gar nicht finden kann. Hm, blöd. Wohl daheim vergessen. Egal, bis morgen wird sich bestimmt alles finden. Habe mich allerdings schon mehrmals bei so etwas verschätzt... Ob ich meinen Teil versuchsweise vortragen könne, fragt plötzlich der straff terminierte Kollege Max. "Nein", erwidere ich und verdrehe innerlich die Augen. "Aber ich werde ihn bis zur Präsentation morgen fertig haben." Das heißt dann, wenn er wirklich wichtig ist, füge ich stumm hinzu.

Die Gruppe beschließt eine endgültige Reihenfolge und diskutiert ein letztes Mal die konkreten Inhalte. Ob ich mit dem Ergebnis zufrieden sei, werde ich gefragt. Ich hebe die Schultern, nicke dann. Eigentlich interessiert mich das Ganze nicht sonderlich. Wird schon schiefgehen.

Wieder zu Hause, schleudere ich den Rucksack zu Boden und hole mein Handy hervor. Ich lese die Nachricht eines Freundes, der mich fragt, ob ich Lust hätte, mit ihm einen Film zu schauen. Ich zögere. Eigentlich sollte ich an meiner Präsentation arbeiten. Ich bestehe das Seminar nur, wenn ich eine halbwegs passable Präsentation abliefere. Ohne Referat kein bestandenes Seminar, also auch kein Notenbonus. Aber den Notenbonus könnte ich wirklich gut gebrauchen. Unschlüssig lasse ich das Handy sinken und blicke auf den Rucksack mit meinen Referatsmaterialien. Erst mal etwas essen, denke ich. Danach kann ich immer noch entscheiden, was ich mache.

Während der Mahlzeit vibriert mein Handy. Eine Nachricht vom eifrigen Kommilitonen Max: Er erinnert uns als Gruppe unter Einsatz einiger überflüssiger Satzzeichen daran, dass wir für morgen unbedingt und unter allen Umständen "an alles Wichtige denken müssen, das ist wirklich, wirklich wichtig, sonst stehen wir echt doof da!!!!!" Ich grinse. Fünf Ausrufungszeichen. Rufzeichen sind keine Rudeltiere... Wissen diese Leute, wie man lebt?

Ich stapele das Geschirr übereinander und schiebe es beiseite. In meinem Zimmer lasse ich mich aufs Bett sinken. Zum Rhythmus meiner trommelnden Finger erwäge ich, ob ich zu meinem Freund gehen und den Film schauen oder lieber den Referatsteil vorbereiten sollte. Mehrere Augenblicke lang starre ich in die Leere vor mir. Die Entscheidung fällt mir schwer. Ach, denke ich mir, der Tag ist noch lang, und springe auf. Ich nehme die Jacke vom Haken. Und für die Arbeit brauche ich Motivation, positive Energie, denke ich mir beschwingt. Die kommt nicht von uninspiriertem Rumhängen über blöden Büchern! Hinter mir fällt die Tür ins Schloss, als ich mich gutgelaunt auf den Weg zu meinem Freund mache.

Früh am Morgen kehre ich mit dröhnendem Schädel zur Wohnung zurück. Vorsichtig öffne ich die Haustür, schleiche zu meinem Zimmer und schlüpfe aus den Schuhen. Meine Mitbewohnerin reiht ihre stets akkurat entlang der Wand auf, ich hingegen verteile meine in überschaubarem Durcheinander vor meiner Zimmertür. Mit bloßen Zehen taste ich mich über den kaum sichtbaren Teppich zu meinem Bett. Dort ziehe ich mich aus, lasse meinen Blick kurz durch den völlig überfüllten Raum gleiten und verstaue meine Klamotten schließlich achselzuckend als Knäuel in einem schmalen Spalt zwischen der Schrank- und Zimmerwand. Hat Platz und Halt, denke ich.

Erschöpft sinke ich aufs Laken, presse eine Hand gegen die Schläfe und schließe die Augen. Was für ein geiler Abend! Besser hätte er nicht laufen können. Vielleicht wiederhole ich das morgen, direkt nach... Plötzlich reiße ich die Augen auf. Das Referat! Mein Vortrag!

Ich schnelle hoch. Der Rucksack, wo ist er? Ich knipse das Licht an, starre panisch auf das gewohnte Chaos, versuche, mich mit Blicken allein zu orientieren. Keine Chance! Hastig wühle ich mich durch Berge getragener Hosen, Shirts, diverser Papiere und sonstigen Zeugs, das sich irgendwie, irgendwo in das vertraute Durcheinander fügt. *Verdammt. Verdammt! Warum liegt denn alles durcheinander? Idiot! Du wolltest gestern schon aufräumen!* Wieder und wieder halte ich inne, versuche Ordnung zu schaffen, schaufele dabei jedoch bloß Gegenstände von einem Haufen auf den nächsten. Ich schlucke schwer. *Das ist doch nicht möglich! Wo habe ich das Ding hingestellt?* Ich drehe mich ratlos im Kreis, fühle mich aufgeschmissen, irgendwie überrumpelt. Plötzlich ertastet eine Hand unter der achtlos hingeworfenen Jacke die Tragelasche des Rucksacks. Ich schließe die Augen, stoße erleichtert die Luft aus. Endlich! *Verfluchtes Referat!* Ich hole die mittlerweile stark geknitterten Seiten hervor, kneife die Augen zusammen und überfliege mit trübem Blick eilig die Absätze. Konzentriert versuche ich, mir Inhalte zu merken, kaue nachdenklich auf meiner Lippe und starre gelegentlich an die Wand, darum bemüht, mir Fetzen des Geschriebenen einzuprägen. *Mann, ziemlich viel. Was für ein Stress*, grübele ich müde.

Ich halte inne.

Und lasse die Papiere sinken.

Aber schon alles irgendwie selbsterklärend, oder?, denke ich. Wozu brauche ich Notizen? Wie schwer kann das schon sein? Bin ich eben spontan und denke mir den Text aus, wenn es soweit ist, überlege ich. Stand-Up-Science. Kommt eh besser als diese auswendig gelernte Leierei. Passt. Wird schon schiefgehen, sporne ich mich selbst an.

Third-person perspective

Der Tag davor

Ein Geräusch dringt an ihr Ohr. Schrill und beständig sticht es in ihr schlaftrunkenes Bewusstsein wie die Nadel einer Maschine in widerstrebenden Stoff. Sie runzelt die Stirn und versucht, es zu verbannen, aus ihrer Wahrnehmung zu verdrängen wie die Gedanken an das Unvermeidbare, das ihr nun bevorsteht. Sie schnaubt leise. "Nein, noch 5 Minuten", denkt sie. Ihre Hand tastet suchend in Richtung des penetranten Geräuschs. Ihre Finger strecken sich, schieben sich über die kühle Oberfläche des Plastikgehäuses ihres Funkweckers und suchen nach der schlafbringenden Erlösung. "5 Minuten… nur noch…", sind die einzig klaren Gedanken, die sie fassen kann. Der Wecker gibt nach, das Geräusch verstummt. "…5 Minuten", denkt sie und seufzt zufrieden.

Widerstrebend öffnen sich ihre Lider erneut. Stumm starrt sie durch das schattige, trübe Zwielicht zur Decke. Sie gähnt. Sekunden verstreichen, ehe sie einen Blick auf die digitale Anzeige neben ihr riskiert und sich selbst murren hört: "Nun gut. Dann eben 20 Minuten. Passt.", denkt sie sich. Sie streckt sich genüsslich. Dann bringen ihre Ellenbogen ihren protestierenden Oberkörper langsam in eine aufrechtere Lage. Doch ihr Kopf sackt in den Nacken. *Nein*, denkt sie gequält. *Nein. Keine Lust. Ich habe einfach... keine Lust.* Sie seufzt und verharrt einen Moment in dieser Haltung. *Muss wohl. Bringt ja nichts*, ächzt sie leise vor sich hin.

Träge hieven unwillige Arme und Beine ihren bleiernen Körper über die Bettkante. Eine Hand greift widerstrebend nach achtlos über die Stuhllehne geworfenen Kleidungsstücken, die andere zerrt lustlos am Zugseil des Rollladens. Unter größtem Protest bahnen ihre Füße sich schließlich einen Weg über den Boden, treten dabei nachlässig verstreute Gegenstände und Papiere über den Teppich und tragen sie Richtung Bad.

"Was liegt an, Tina?", fragt sie brummend ihr Gesicht in der fleckigen Spiegelfläche. "Nein, sag's nicht. Irgendwas mit Uni." Sie wendet sich von ihrem Spiegelbild ab.

Keine Lust, denkt sie, als ihre Hände die Hose über ihre Beine streifen. Keine Lust, während sie die Falten im Shirt glatt streicht. Ihr Blick begegnet ihr im Spiegel. Sie versucht, ihre Gedanken zu sammeln, sich zu konzentrieren auf... Keine Lust.

Seufzend kehrt sie zurück und verharrt im Rahmen der Zimmertür. Skeptisch wandert ihr Blick über Berge von Gegenständen, die sicherlich ihren angestammten Platz hätten, wenn sie nur nach einem für sie suchen würde... Eilig verstaute und aus Ordnern gefallene Aufzeichnungen lugen hinter Schränken und Kommoden hervor. Stifte liegen auf, hinter und un-

ter dem Schreibtisch, umringt von haufenförmigen Ansammlungen aus unsortierten Klamotten. Ihr Blick fällt auf mehrere verstreut liegende Papiere. Eines wurde vom Wind aufgewirbelt und auf den kleinen Zierkaktus gespießt, der vertrocknet in krustiger Blumenerde auf dem Beistelltisch steht. Den vielen Formeln nach zu urteilen könnte es Statistik sein... trockener geht es kaum. Innerlich sackt sie ein wenig zusammen.

Dann gibt sie sich einen Ruck. Sie rafft sich auf, die Papiere vom Boden zu sammeln und versucht, sie zu ordnen. Media Richness, Reduced Social Cues, SIDE – die Aufzeichnungen sind mit Begriffen gefüllt, die ihr vage bekannt vorkommen, aber nie wirklich in ihrem Kopf abgespeichert wurden. Irgendwas mit Medien halt. Sie hat Mühe, die einzelnen Seiten in eine stimmige Reihenfolge zu bringen. Mehrfach muss sie sie hin- und herwenden, nebeneinander legen und angestrengt die Zeilen an ihrem Anfang und Ende vergleichen, bis sie schließlich aufgibt und sie nach einem müden Blick auf die Uhr eher willkürlich in ihren Ordner heftet.

Auf dem Weg zum Gruppentreffen grübelt sie lustlos über ihre letzte Sitzung nach. Über das Referat zur Media Equation, das sie vorbereiten müssen, und den unerträglich straffen und kleinschrittigen Zeitplan, den ein Kommilitone vorgeschlagen und für sie alle vorbereitet hat. "Gute Idee, findet ihr nicht", fragte er stolz in die Runde. Sie wölbte die Brauen, verzichtete aber auf eine Antwort. Wie kann man so unentspannt sein? Es gibt Wichtigeres als Bücher, Skripte und ständige Lerntreffen. Wissen diese Leute überhaupt, wie man lebt?

Vor einer Haustür in der Sanderau bleibt sie stehen und hebt den Finger zum Klingelknopf. Prompt wird die Tür aufgerissen, und Max, der Kommilitone mit dem straffen Zeitplan funkelt sie herausfordernd an:

"Du kommst zu spät", schnauzt Max. "Wir warten schon seit einer halben Stunde auf dich, du Faulpelz! Hättest dich wenigstens melden können."

Sie hebt beschwichtigend die Hände. "Hey, hey! Sorry. Bin ja jetzt hier."

Mit dem Kopf deutet er ruckartig in die Küche hinter sich. Sie folgt ihm zur Gruppe, die schweigend auseinanderrückt, um ihr Platz zu machen. Jemand sieht sie prüfend an:

"Verpennt?"

Sie schnauft abfällig. "Kommt vor."

"Hast du deinen Teil vorbereitet?", fragt Max.

Sie denkt nach. Nur schwach entsinnt sie sich der Inhalte, die sie gestern noch vor dem Zubettgehen überflogen hatte. Media Equation bedeutet, dass Menschen dazu neigen,

Computer wie reale Personen zu behandeln. *Ziemlich selbsterklärend*, beschloss sie, und verzichtete deshalb darauf, sich irgendwelche Notizen zu machen.

"Ein wenig", erwidert sie ausweichend, ohne zu überlegen. "Das Wichtigste eben." Insgeheim hofft sie, dass ihr weitere Nachfragen erspart bleiben.

Das Treffen verläuft so, wie sie es erwartet hatte: Sinnloses Beisammensitzen mehr oder weniger motivierter Menschen, die sich über Aufteilung, Reihenfolge und Inhalt der Referatsteile zanken. Sie hält sich zurück, besonders viel weiß sie ohnehin nicht. Während die anderen miteinander reden, blättert sie lustlos durch ihre unsortierten Unterlagen. Kreative Ordnung in deinem Ordner, denkt sie selbstironisch. Dann erzählt jemand, auf welch einfallsreiche Weise er seinen Teil vortragen wolle und verweist dabei auf eine Textstelle, die sie gar nicht finden kann. Hm, blöd. Wohl daheim vergessen. Egal, bis morgen wird sich bestimmt alles finden. Habe mich allerdings schon mehrmals bei so etwas verschätzt... Ob sie ihren Teil versuchsweise vortragen könne, fragt plötzlich der straff terminierte Kollege Max. "Nein", erwidert sie und verdreht innerlich die Augen. "Aber ich werde ihn bis zur Präsentation morgen fertig haben." Das heißt dann, wenn er wirklich wichtig ist, fügt sie stumm hinzu.

Die Gruppe beschließt eine endgültige Reihenfolge und diskutiert ein letztes Mal die konkreten Inhalte. Ob sie mit dem Ergebnis zufrieden sei, wird sie gefragt. Sie hebt die Schultern, nickt dann. Eigentlich interessiert sie das Ganze nicht sonderlich. Wird schon schiefgehen.

Wieder zu Hause, schleudert sie den Rucksack zu Boden und holt ihr Handy hervor. Sie liest die Nachricht eines Freundes, der sie fragt, ob sie Lust hätte, mit ihm einen Film zu schauen. Sie zögert. Eigentlich sollte sie an ihrer Präsentation arbeiten. Sie besteht das Seminar nur, wenn sie eine halbwegs passable Präsentation abliefert. Ohne Referat kein bestandenes Seminar, also auch kein Notenbonus. Aber den Notenbonus könnte sie wirklich gut gebrauchen. Unschlüssig lässt sie das Handy sinken und blickt auf den Rucksack mit ihren Referatsmaterialien. *Erst mal etwas essen*, denkt sie. Danach kann sie immer noch entscheiden, was sie macht.

Während der Mahlzeit vibriert ihr Handy. Eine Nachricht vom eifrigen Kommilitonen Max: Er erinnert die Gruppe unter Einsatz einiger überflüssiger Satzzeichen daran, dass sie für morgen unbedingt und unter allen Umständen "an alles Wichtige denken müssen, das ist wirklich, wirklich wichtig, sonst stehen wir echt doof da!!!!!" Sie grinst. Fünf Ausrufungszeichen. Rufzeichen sind keine Rudeltiere... Wissen diese Leute, wie man lebt?

Sie stapelt das Geschirr übereinander und schiebt es beiseite. In ihrem Zimmer lässt sie sich aufs Bett sinken. Zum Rhythmus ihrer trommelnden Finger erwägt sie, ob sie zu ihrem Freund gehen und den Film schauen oder lieber den Referatsteil vorbereiten sollte. Mehrere

Augenblicke lang starrt sie in die Leere vor ihr. Die Entscheidung fällt ihr schwer. Ach, denkt sie sich, der Tag ist noch lang, und springt auf. Sie nimmt die Jacke vom Haken. Und für die Arbeit brauche ich Motivation, positive Energie, denkt sie sich beschwingt. Die kommt nicht von uninspiriertem Rumhängen über blöden Büchern! Hinter ihr fällt die Tür ins Schloss, als sie sich gutgelaunt auf den Weg zu ihrem Freund macht.

Früh am Morgen kehrt sie mit dröhnendem Schädel zur Wohnung zurück. Vorsichtig öffnet sie die Haustür, schleicht zu ihrem Zimmer und schlüpft aus den Schuhen. Ihre Mitbewohnerin reiht ihre stets akkurat entlang der Wand auf, sie hingegen verteilt ihre in überschaubarem Durcheinander vor ihrer Zimmertür. Mit bloßen Zehen tastet sie sich über den kaum sichtbaren Teppich zu ihrem Bett. Dort zieht sie sich aus, lässt ihren Blick kurz durch den völlig überfüllten Raum gleiten und verstaut ihre Klamotten schließlich achselzuckend als Knäuel in einem schmalen Spalt zwischen der Schrank- und Zimmerwand. Hat Platz und Halt, denkt sie.

Erschöpft sinkt sie aufs Laken, presst eine Hand gegen die Schläfe und schließt die Augen. Was für ein geiler Abend! Besser hätte er nicht laufen können. Vielleicht wiederhole ich das morgen, direkt nach... Plötzlich reißt sie die Augen auf. Das Referat! Ihr Vortrag!

Sie schnellt hoch. Der Rucksack, wo ist er? Sie knipst das Licht an, starrt panisch auf das gewohnte Chaos, versucht, sich mit Blicken allein zu orientieren. Keine Chance! Hastig wühlt sie sich durch Berge getragener Hosen, Shirts, diverser Papiere und sonstigen Zeugs, das sich irgendwie, irgendwo in das vertraute Durcheinander fügt. *Verdammt. Verdammt! Warum liegt denn alles durcheinander? Idiot! Du wolltest gestern schon aufräumen!* Wieder und wieder hält sie inne, versucht Ordnung zu schaffen, schaufelt dabei jedoch bloß Gegenstände von einem Haufen auf den nächsten. Sie schluckt schwer. *Das ist doch nicht möglich! Wo habe ich das Ding hingestellt?* Sie dreht sich ratlos im Kreis, fühlt sich aufgeschmissen, irgendwie überrumpelt. Plötzlich ertastet eine Hand unter der achtlos hingeworfenen Jacke die Tragelasche des Rucksacks. Sie schließt die Augen, stößt erleichtert die Luft aus. Endlich! *Verfluchtes Referat!* Sie holt die mittlerweile stark geknitterten Seiten hervor, kneift die Augen zusammen und überfliegt mit trübem Blick eilig die Absätze. Konzentriert versucht sie, sich Inhalte zu merken, kaut nachdenklich auf ihrer Lippe und starrt gelegentlich an die Wand, darum bemüht, sich Fetzen des Geschriebenen einzuprägen. *Mann, ziemlich viel. Was für ein Stress*, grübelt sie müde.

Sie hält inne.

Und lässt die Papiere sinken.

Aber schon alles irgendwie selbsterklärend, oder?, denkt sie. Wozu brauche ich Notizen? Wie schwer kann das schon sein? Bin ich eben spontan und denke mir den Text aus, wenn

es soweit ist, überlegt sie. Stand-Up-Science. Kommt eh besser als diese auswendig gelernte Leierei. Passt. Wird schon schiefgehen, spornt sie sich selbst an.

Adjectives used for the SCIS - Competence and SCIS - Warmth in Experiment 1

German original [and English translation].

competence: kompetent, intelligent, fleißig, entschlossen [competent, intelligent, dilignet, determined]

warmth: sympathisch, hilfsbereit, aufrichtig, warm, freundlich [likeable, helpful, sincere, warm, kind]

control: sportlich, Sinn für Humor, musikalisch [athletic, sense of humor, musical]

Adjectives used for the SCIS - Conscientiousness in Experiment 2

German original [and English translation].

ausdauernd, willensstark, diszipliniert, organisiert, zuverlässig, ziellos, faul, chaotisch, unordentlich, unpünktlich [persistent, strong-willed, disciplined, organized, reliable, aimless, lazy, chaotic, untidy, unpunctual]

7 Manuscript #3

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Running head: PUSHED BY ENVY
Pushed by Envy: Effects of Social Comparison with Reality-TV-Models
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An online supplement, including the experimental video-clip, instructions and scales used in
this experiment, can be found at: https://osf.io/tqfbj/

Abstract

Despite considerable research on upward social comparison with thin-ideal media characters and possible negative effects on recipients, limited attention has been given to linked processes, such as experienced emotions, which might explain different outcomes on one's body image and behavior. In the current experiment (N = 95), the emotions envy as well as hope were experimentally induced via an explicit processing instruction (vs. control baseline) to find differences between oneself and a main protagonist, a beautiful young model in a TV-Show. Results showed that only envy mediated the negative contrast effect on participants' body image, whereas there were positive assimilation effects of envy on participants' intentions to behave like the protagonist in the near future. The associations between identification with the depicted TV-model and experienced emotions while watching the experimental video-clip, as well as with body image and behavioral intentions were further explored.

Pushed by Envy: Effects of Social Comparison with Reality-TV-Models

Social comparison theory suggests that people have the need to assess their own abilities and opinions, often in comparison to other similar people, who offer an accurate benchmark for one's self-evaluation (Festinger, 1954). Besides daily life encounters with other people, mass media (Groesz, Levine, & Murnen, 2002) and social media (Haferkamp & Krämer, 2011) offer plentiful opportunities to compare oneself with depicted people. Especially an ideal body image (e.g., thin, young, and pretty) is a central standard of comparison in many media formats (Knobloch-Westerwick & Romero, 2011). Reality-TV shows like America's Next Top Model or the German counterpart Germany's Next Top Model (GNTM) are typical examples for this continuing trend in the media representation of an ideal female body image. Female recipients of such TV-shows often compare themselves with the depicted models and they often believe to fall short in terms of their looks (Prokop, Friese, & Stach, 2011). Young women perceive a gap between their actual and their ideal self that is presented by young aspiring TV-models. In order to reduce this perceived gap, recipients might be motivated to engage in actions to achieve the desired body state (Tesser, 1988), for example, by restricting their eating behavior (Mask & Blanchard, 2011). Indeed, meta-analytic research revealed a link between thin-ideal body images in mass media and body dissatisfaction, as well as disordered eating among women (Grabe, Ward, & Hyde, 2008). However, only very small to no media effects on women's body dissatisfaction were found in a more recent meta-analysis by Ferguson (2013).

In order to explain these contradictory findings, the presented experiment takes a closer look on processes during the reception of idealized media models, as depicted in GNTM. We assume that upward social comparison per se is not the crucial factor for recipient's negative body image and related behavior. Going beyond looking at the sole direction of the social comparison, processes during the media reception might play an important role for the respective outcome of the comparison. We suggest that how persons feels during the media

reception (Nabi & Keblusek, 2014), and how one identifies with depicted media personae (Kaufman & Libby, 2012) may further explain possible outcomes.

Upward Social Comparison

According to Wood (1996, p. 520f), "[...] social comparison is defined as the process of thinking about information about one or more other people in relation to the self." Especially if objective means are not available, people make meaning of their characteristics by comparing themselves with similar others, since they are comparable to oneself on relevant dimensions, and therefore, offer a higher diagnostic value for one's self-evaluation (Festinger, 1954). There are two directions of social comparison: people can compare themselves with other people, who are better off (upward social comparison) or with others, who are worse off (downward social comparison; Wills, 1981). Downward social comparison is often linked to the need to improve one's well-being, mood, self-esteem, and the strive for self-enhancement and positive affect (Wills, 1981). It is also considered a coping strategy for people, who experience threats to their selves (Gibbons, Benbow, & Gerrard, 1994; Mares & Cantor, 1992; Wood, Taylor, & Lichtman, 1985).

Upward social comparisons with attractive people, as depicted in TV and in print, often leads to a negative body image (Hawkins, Richards, Granley, & Stein, 2004), negative emotional states (Cattarin, Thompson, Thomas, & Williams, 2000), and dysfunctional eating behavior among women (Grabe et al., 2008). However, does upward social comparison with thin-idealized people invariably have a negative impact? Not necessarily, as research shows, since the direction of comparison is not inherently connected to either negative or positive outcomes (Buunk, Collins, Taylor, Van Yperen, & Dakof, 1990). Upward social comparison can also be linked to self-improvement motives if people compare with only slightly superior others (Buunk et al., 1990; Collins, 1996; Wood, 1989). For example, Knobloch-Westerwick (2015) exposed female participants to magazine articles depicting thin-idealized women over

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a period of five days. There were positive changes in body satisfaction among women, who scored high on self-improvement social comparisons, whereas body satisfaction decreased for women, who engaged in self-evaluation. Indeed, people sometimes deliberately expose themselves to thin-ideal media content. For instance, Mills, Polivy, Herman, and Tiggemann (2002) showed that women, who are on a diet and who were exposed to thin-idealized pictures of other women, assessed their body size smaller. According to the authors, these female participants processed, somewhat, a "thin fantasy", and as a result, they temporarily assimilated the thin-ideal standard into their self-concept.

Assimilation vs. Contrast in Social Comparison

Different outcomes of social comparisons are based on how the comparison situation is framed (Buunk, Kuyper, & van der Zee, 2005) or what self-knowledge is initially rendered accessible during social comparison (Mussweiler, 2003). Based on the Selective Accessibility Model (Mussweiler, 2003), one can either focus on similarities or dissimilarities between oneself and a comparison target. When focused on similarities, self-evaluations could become more consistent with the comparison target (assimilative effect). When confronted with others, who are better off, one might engage in upward assimilative comparison, which entails a sense of similarity between oneself and the comparison target. Since the better-off comparison target establishes an attractive possible outcome, one can hope for the same outcome for oneself in the future (Buunk et al., 2005). Research on body image revealed that body-dissatisfied women, who were primed with self-improvement motives before looking at a magazine with ideal body adds, showed a higher exposure time to these adds (compared to the control group without selfimprovement prime), indicating an inspiring upward assimilative comparison (Knobloch-Westerwick & Romero, 2011). Lockwood and Kunda (1997) proposed that exposure to descriptions of successful people ('superstars' in the terminology of the authors) increased participants' self-ratings of competence when their success seemed to be relevant and attainable. The authors emphasize the role of hope and inspiration as important process variables that in turn motivated one to strive for the palpable success, as depicted by the superstar. Hope is also linked to behavioral tendencies to escape negative situations, and therefore, it can be a source of motivation to change behavior accordingly (Nabi & Keblusek, 2014).

However, when focusing on dissimilarities between oneself and a comparison target, self-evaluations could shift away from the comparison target (contrast effects). According to Smith (2000), upward contrastive comparison with successful others may lead to unpleasant emotions, like *envy*, which emphasize differences between oneself and the comparison target. Indeed, "envy occurs when a person lacks another's superior quality, achievement, or possession and either desires it or wishes that the other lacked it envy when the relative good fortune or advantage of another person makes us feel discontent and ill will" (Parrott & Smith, 1993, p. 906). In other words, envy entails a strong desire to have what a superior other has, which might be accomplished by improving oneself to the given standard (Lange & Crusius, 2015). For instance, envy towards people, who improved their appearance via a cosmetic surgery, has been identified as important process variable that triggers future intentions to receive cosmetic enhancements (Nabi & Keblusek, 2014). Indeed, envy is considered to entail benign and inspiring aspects (Meier & Schäfer, 2018), and therefore, it can encourage personal effort, such as increasing students' study hours when confronted with a superior other student (study 4; van de Ven, Zeelenberg, & Pieters, 2011). Moreover, dispositional benign envy even prompts actual behavior, such as a faster race performance in a long-distance race (Lange & Crusius, 2015). Recipients' focus on either similarities or dissimilarities has been experimental manipulated via the procedural priming task. This task involves finding similarities vs. dissimilarities between different pictures that is supposedly unrelated to the experiment. However, this kind of similarity vs. dissimilarity priming is considered to influence 192

subsequent behavior in an experimental task (e.g., Haddock, Macrae, & Fleck, 2002; Mussweiler & Damisch, 2008). Other forms of people's mindset manipulation entail direct instructions how to process an upcoming media stimulus. For instance, Appel (2011) asked participants to find dissimilarities between themselves and a stupid hooligan that led to behavioral contrast effects by scoring lower on a knowledge test. In a more recent experiment, Tsay-Vogel and Krakowiak (2019) manipulated similarity to a media character and the direction of social comparison via an essay task that entailed to write about one's virtues vs. vices. This task was followed by an experimental story that either depicted a moral or immoral character. For the story depicting a moral character, writing about one's vices (compared to writing about one's virtues) lead to more envy toward that character, since he was perceived different and better to oneself indicating upward contrastive comparisons.

Identification with Depicted Models

What is the default focus - similarity or dissimilarity - if people's mindsets are not manipulated via a priming task or process instructions? In general, a similarity mindset and resulting assimilation effects are considered the default mechanism (Mussweiler, 2003), since people usually tend to select similar comparison standards to the target in face-to face situations (Festinger, 1954) and also when confronted with media characters (e.g., Appel, 2011). However, similarity might not be the only important factor. Instead, identification (Cohen, 2001) with a character (e.g., in a reality-TV show such as GNTM or short story) could also evoke assimilation effects on self-evaluations and related emotions. Identification is considered a temporary simulation of a media person's thoughts, emotions, and even behaviors. In other words, recipients can temporally merge with the identity of a depicted media character. In order to reach the merging between the self and a media character, recipients have to be engaged into the media content by losing self-awareness and letting go their own identity (Cohen, 2001). Empirical evidence showed that *identification* can indeed lead to a temporary assimilation of a

media character's traits and behavioral intentions (e.g., Dal Cin, Gibson, Zanna, Shumate, & Fong, 2007; Moyer-Gusé, Chung, & Jain, 2011; Sestir & Green, 2010).

Empirical evidence on the relationship between similarity and identification is somewhat mixed. Some authors consider identification as distinct from perceived (as well as objective) similarity between recipients and media characters, because a sense of similarity involves maintaining one's own identity while making evaluations about media characters (e.g., Hamby et al., 2018). Meta-analytic evidence indicate that similarity and identification are distinct constructs, since the manipulation of recipient-protagonist similarity (e.g., by matching the sex) did not have a significant overall impact on identification (Tukachinsky, 2014). Yet, in a more recent study by Chen, Bell, and Taylor (2016) demographic similarity to a media character lead to higher identification scores, although the effects were rather small. In another experiment, Cohen, Weimann-Saks, and Mazor-Tregerman (2017) expected an effect of recipient-protagonist similarity on identification, yet the authors did not find the expected empirical evidence.

Furthermore, by taking over the perspective of a media character via identification one could also adapt or simulate the emotional states and goals of this character (e.g., Oatley, 1999). Indeed, the merging between recipient and media character might offer meaningful perspectives on the world and even foster the understanding of oneself (Cohen, Appel, & Slater, 2019). Thereby, identification with media characters leads to simulations of different social roles by giving deeper insights into how others feel in certain situations and how they might resolve possible conflicts. Therefore, media characters, who one highly identifies with, could work as a blue print helping oneself to overcome obstacles by imaging new identities and related behavior (Slater & Cohen, 2017). Furthermore, even reality-TV can be part of such meaningful entertainment experiences. For instance, reality-TV focusing on topics of personal

improvement can lead to elevating and hopeful emotions that in turn promote altruistic motivations (Tsay-Vogel & Krakowiak, 2016).

Stories and reality-TV in particular might provide means of simulating alternative lives by identifying with media characters. Yet what happens if one does not identify with a media character and is still aware of him- or herself during the media reception? Rather than assimilating features of the media character, recipients could also take a spectator role during the media reception. Indeed, some authors argue that there might be a continuum going from identification to observation when confronted with media characters (Mar & Oatley, 2008; Oatley, 1999). Especially if recipients take on the role as observer, contrastive comparisons with protagonists might be more likely, since recipients treat a media character as an external target that appears different to oneself (Green, 2005). This idea is in line with a bulk of research that found negative effects of contrastive upward social comparisons with attractive media characters, such as a lower body image (e.g., Cattarin et al., 2000) or envy (e.g., Pila, Stamiris, Castonguay, & Sabiston, 2014). Importantly, most of this research used short commercial clips or print advertising as stimuli that might be less suitable to induce identification with depicted media characters.

The Present Experiment and Hypotheses

So far, most studies on social comparison in terms of assimilation vs. contrast effects focused either on self-evaluation (Mussweiler, 2001; Mussweiler & Bodenhausen, 2002), behavior (Appel, 2011; Crusius & Mussweiler, 2012), or affect (Epstude & Mussweiler, 2009; Lewis & Weaver, 2016) as outcome variables. However, the relation between these outcome variables and the underlying processes are rather under-examined (Nabi & Keblusek, 2014). The current experiment aimed to examine the influence of upward assimilative vs. contrastive comparisons with thin-idealized TV-models, as depicted in GNTM, on recipient's self. The focus was on a) the emotions envy and hope as mediating variables, and b) the moderating role

of identification in the process. Body image (DV1), behavioral intentions (DV2), and actual food choice behavior (DV3) served as outcome variables.

Prior to watching a GNTM video-clip, upward contrastive comparisons were induced via an instruction to find dissimilarities between oneself and an aspiring TV-model (vs. a control base line; Appel, 2011). Finding dissimilarities (vs. control) was expected to elicit more envy (upward contrastive comparison; Hypothesis 1a), whereas in the control baseline group, hope was expected to be higher (upward assimilative comparisons; Hypothesis 1b). We hypothesized that higher envy (Mediator 1) decreases one's state body image (Hypothesis 2a). Further, envy was expected to increase intentions to change one's behavior to become more like the depicted model (Hypothesis 3a). Last, envy was expected to influence participants' actual behavior by choosing healthy (vs. unhealthy) food after the experiment (Hypothesis 4a). Hope (Mediator 2) was hypothesized to increase participants' state body image (Hypothesis 2b). Like envy, hope was also expected to change behavioral intentions to become more like the depicted model (Hypothesis 3b), as well as actual behavior by choosing healthy food (Hypothesis 4b).

We were reluctant to predict clear-cut interaction effects of the experimental manipulation and identification with the depicted GNTM model on envy, hope, and the dependent variables, since empirical evidence on this issue is rather mixed. Therefore, we put theses interaction effects as research questions: Will there be a stronger impact of the experimental manipulation (finding dissimilarity) on envy for participants who score low on identification, compared to participants stating higher identification scores (RQ1)? Furthermore, will participants state higher hope values in the control condition when they highly identify themselves with the depicted model, compared to participants who identify with her less? (RQ2)? The research questions for interaction effects on the DVs were the following: For participants in the control baseline condition, will higher identification with the depicted

model, compared to lower identification with her, lead to stronger assimilation effects by reporting more satisfaction with their body image (RQ3a), scoring higher on "model-like" behavioral intentions (RQ3b), and choosing healthy food (RQ3c)? Likewise, for participants in the dissimilarity condition, will lower identification, compared to higher identification scores, lead to stronger contrast effects by reporting less satisfaction with one's body image (RQ4a), scoring lower on "model-like" behavioral intentions (RQ4b), and choose unhealthy food (RQ4c).

Method

Participants

In order to determine the required sample size for indirect effects given our two parallel mediator model, we followed the recommendations on Monte Carlo power simulations by Schoemann, Boulton, and Short (2017). We assumed medium associations between the experimental manipulation and both mediators, as well as medium associations between both mediators and the dependent variables, each with r = .30. In order to detect indirect effects with a target power of .80, a sample size of 94 participants was suggested by 5'000 replications and 20'000 Monte Carlo draws.

Accounting for potential dropouts a total of 101 female students were recruited in exchange for extra course credit. The study took place in a laboratory with one to eight participants per session. Due to technical difficulties during the experimental sessions (e.g., problems with loading the experimental video-clip), five participants had to be excluded from the data analyses. The sample was also supposed to consist only of younger women, in order to be rather similar to the depicted younger TV-model, who served as the possible target of social comparison (Festinger, 1954). Accordingly, a cut-off for participant's age was set to > 30 years (exclusion of one participant, age 51 years). The final sample entailed 95 participants (age M = 20.49; SD = 2.11; range: 18-30 years) with a mean Body Mass Index (BMI) of 21.35

(SD = 2.85), which is within the normal weight spectrum (18.5 – 24.9; World Health Organization, 1995).

Material

Experimental Instruction. The experimental manipulation was adapted from Appel (2011). Participants were randomly assigned to one of two instructions how to watch the upcoming GNTM video-clip. The experimental group (n = 47) was asked to watch the upcoming video-clip carefully and to focus particularly on differences between themselves and the main protagonist. They were asked to state five differences in a dedicated text box after watching the video-clip. The control group (n = 48) was instructed to watch the following video-clip carefully and to summarize the content of the upcoming GNTM video-clip in five sentences. A thorough check of the open-ended answers revealed that all participants had followed the instructions.

GNTM video-clip. The short experimental video clip (14:21 min) was an excerpt from the reality TV show GNTM, which is similar to America's Next Top Model. In GNTM, young female contestants compete with each other for a chance to start a career in the modeling industry. We cut the video-clip particularly for this study by combining several episodes from Season 4 of GNTM, which was aired 2009. In the video clip, we focused on Marie Nasemann, who was 20 years old during the filming. At the beginning, Marie struggles with her first model challenge and is criticized for her performance. However, she improves during the competition and is even able to win an important challenge. As a result, Marie receives acknowledgment and envy from the other contestants.

Identification. Participants' identification with Marie was measured via the *Experience Taking Scale* (Kaufman & Libby, 2012). In our sample, the reliability of this seven-item scale was good ($\alpha = .87$). The items (e.g., "I understood the events of the story as though I were the

character in the story.") went with a nine-point Likert-scale from 1 (*strongly disagree*) to 9 (*strongly agree*). The overall mean was M = 4.91 (SD = 1.46).

Emotions during watching GNTM. Participants were asked to state their emotional reactions during watching the video-clip using a list of thirteen adjectives on a five-point Likert scale from 1 (not at all) to 5 (extremely). As mediating variables, hope (hopeful, inspired) and envy (envious, jealous) were assed (Nabi & Keblusek, 2014). Furthermore, nine items from the German Version of the Positive and Negative Affect Schedule (PANAS; Janke & Glöckner-Rist, 2012) were included as filler items. The reliability of envy (M = 1.68, SD = 0.83) was excellent, r = .90 (Spearman-Brown corrected), whereas hope (M = 2.10, SD = 0.78) showed poor reliability, r = .42 (Spearman-Brown corrected).

State Body Image (DV1). Participants rated their current ("at this moment") perception of their own body and physical appearance on the *Body Image States Scale* (BISS; Cash, Fleming, Alindogan, Steadman, & Whitehead, 2002) using a 9-point Likert-type scale, semantically anchored at each point. The six BISS items showed good reliability ($\alpha = .84$). The overall mean was M = 5.48 (SD = 1.45).

Behavioral intentions (DV2). Participated were asked to respond to seven items regarding future, "model like" behavior (e.g., "I would like to pay more attention to my figure in the future."). The scale was developed for this study and showed mediocre reliability ($\alpha = .60$). The overall mean was M = 2.95 (SD = 0.62).

Snack choice (DV3). After completing the study, participants were given the opportunity to choose either chocolate or a mandarin orange out of a paper box. This little token was framed as an additional small thank-you gift for participating in the study. However, the investigator recorded their choices.

Control measures. Before watching the GNTM video-clip, participants were presented a picture of Marie, the TV-model and main protagonist of the upcoming video-clip. Based on

the picture, participants were asked from which reality TV-format they knew the depicted person based on a selection of six different shows. If participants stated the format correctly (correct answer GNTM: n = 53), they were also asked which place Marie won in the show (correct answer second to third place: n = 23). After watching the video-clip, the name of the main protagonist, her age and which job challenge she had won were asked, in order to control whether participants had watched the video-clip carefully. All participants answered at least one question regarding the video-clip content correctly.

Procedure and Design

The study was part of a student course project, and thus, entailed additional measures that were unrelated to the current manuscript. The additional measures are listed in the online supplement¹. After arriving at the laboratory and signing the informed consent, participants saw a picture of the main protagonist of the upcoming video-clip and answered the control questions. Afterwards, all participants were randomly assigned to one of two experimental conditions and received their instruction for how to watch the upcoming video-clip (find dissimilarities vs. summarize content). Both instructions also included the request to put on the headphones next to the computer screen and to start the video-clip. After watching the video-clip, participants answered the three control questions regarding the content, followed by the request either to state the differences between oneself and the main protagonist (experimental condition) or to summarize the content of the video-clip in a text box (control condition). Then, participants answered the Experience Taking Scale (identification). Afterwards, participants rated their experienced emotions while watching the video-clip (including hope and envy). Finally, the BISS and the behavioral intention scale were assessed. The final page entailed demographics (age, gender, education, native language, field of study, body height, and weight)

¹https://osf.io/tqfbj/

and the offer to open a little box besides the computer screen. Participants were also told to choose one of the snacks inside the box (healthy choice: chocolate vs. unhealthy choice: orange). Before leaving the laboratory, participants received a written debriefing.

Results

The study followed a one-factorial between-subjects design (treatment: finding dissimilarities vs. control baseline: summarization). In the following analyses, the experimental treatment was dummy-coded (0 = control; 1 = finding dissimilarities). All other variables were z-standardized to facilitate the interpretation of findings for variables with different scaling. To examine the causal effect of the experimental instruction on participants' emotions that in turn influence their body image, behavioral intentions, and actual behavior, mediation analyses were conducted (Hayes, 2013). Similar to previous studies, Body Mass Index (BMI) was included as a control variable in all the following analysis, since it might predict body image concerns and related behavior beyond the experimental treatment (e.g., Frederick, Forbes, Grigorian, & Jarcho, 2007; Nabi & Keblusek, 2014; Young, Gabriel, & Sechrist, 2012). The control variable that measured weather the depicted TV-model was known was not included as a covariate, since there were no associations to any of the other variables of interest (Table 1).

Body Image (DV1)

The mediation analysis for body image (Figure 1) yielded no significant *total effect*, b = .04, SE = .20, t(92) = .22, p = .825, 95% CI [-.36, .45]. Likewise, no *direct effect* of the experimental instruction to find dissimilarities on body image was found, b = .22, SE = .20, t(90) = 1.12, p = .267, 95% CI [-.17, .62]. However, there was a significant effect of the experimental manipulation on envy, b = .42, SE = .20, t(92) = 2.08, p = .040, 95% CI [.02, .82], reflecting higher envy values after finding dissimilarities with the protagonist of the video-clip. Envy was in turn negatively associated with body image, b = -.38, SE = .10, t(90) = -3.78, p < .001, 95% CI [-.58, -.18], indicating that higher envy leads to a lower body image. Importantly,

the outlined path composed an indirect mediation effect. A bias-corrected bootstrap confidence interval (CI) for the indirect effect of the experimental instruction to find dissimilarities on body image via envy based on 10'000 bootstrap samples was significant with an *estimate* of -.16, 95% CI [-.39, -.02]. Thus, Hypotheses 1a and 2a were confirmed.

There was no effect of the experimental manipulation on hope, b = -.33, SE = .20, t(92) = -1.65, p = .103, 95% CI [-.74, .07], and no effect of hope on body image, b = .05, SE = .10, t(90) = .46, p = .644, 95% CI [-.15, .25]. A bias-corrected bootstrap confidence interval (CI) for the indirect effect based on 10'000 bootstrap samples was not significant with an *estimate* of -.02, 95% CI [-.14, .04]. Thus, Hypotheses 1b and 2b were rejected².

< Figure 1 and Table 1 around here>

Behavioral Intentions (DV2)

The mediation analysis for behavioral intentions (Figure 2) entailed the same predictor variable and mediators like the mediation analysis for DV1, therefore, the estimates of the experimental manipulation on envy and hope are identical. For behavioral intentions as criterion (DV2), there was no significant *total effect*, b = .18. SE = .21. t(92) = .89. p = .378, 95 % CI [-.23, .59]. Furthermore, there was no *direct effect* of the experimental manipulation on behavioral intentions, b = .16, SE = .21, t(90) = .75, p = .45, 95% CI [-.23, .59]. Envy was positively associated with behavioral intentions, b = .22, SE = .11, t(89) = 2.04, p = .04, indicating that higher envy leads to stronger behavioral intentions to behave like the protagonist in the video-clip, for example, by planning to eat healthier in the future. A bias-corrected bootstrap confidence interval (CI) for the indirect effect of the experimental instruction to find

² The covariate BMI only showed negative relations to body image, b = -.22, SE = .10, t(90) = 2.28, p = .025, 95% CI [-.41, -.03].

dissimilarities on behavioral intentions via envy based on 10'000 bootstrap samples was significant with an *estimate* of .09, 95% CI [.01, .27]. This confirms Hypothesis 3a.

For hope as mediator, there was only a trend significant effect on behavioral intentions, b = .20, SE = .11, t(90) = 1.86, p = .066, 95% CI [-.01, .41]. Moreover, there was no significant indirect effect, estimate = -.07, 95% CI [-.22. .00] based on 10'000 bootstrap samples. Thus, Hypothesis 3b was rejected³.

< Figure 2 around here>

Snack Choice (DV3)

At the end of the experiment, participants had the choice of either taking chocolate (n = 30), a mandarin orange (n = 40), both (n = 9), or nothing at all (n = 15). For the following analyses, participants choice were dichotomized into 0 – an unhealthy choice by taking chocolate or both snacks and into 1 – a healthy choice by taking the orange or no snack. The resulting dichotomous variable snack choice was analyzed by means of logistic regression analyses, including the two mediator variables⁴ (Figure 3). There was no *direct effect* of the experimental condition on snack choice, b = -.41, SE = .46, Exp(b) = -.90, p = .37, Nagelkerke's $R^2 = .08$. There was a significant effect of the experimental instruction to dissimilarities on envy, b = .45, SE = .26, t(91) = 2.19, p = .031, 95% CI [.04, .85], and only a trend significant effect on hope, b = -.35, SE = .20, t(91) = -1.71, p = .09, 95% CI [-.75, .06]. Envy, b = .47, SE = .26, Exp(b) = 1.80, p = .071, 95% CI [-.04, .97], yielded only a trend significant effect on snack choice, whereas hope, b = .14, SE = .23, Exp(b) = 0.62, p = .533, 95% CI [-.31, .60], was

³ The covariate BMI showed no significant relation to behavioral intentions, b = -.004, SE = .10, t(92) = -0.04, p = .970, 95% CI [-.21, .20].

⁴ Due to technical difficulties, the snack choice was not coded for one participant; therefore, the analyses for DV 3 were conducted with N = 94. Moreover, one participant chose a mandarin orange due to lactose intolerance, yet she stated that she would have preferred the chocolate. Therefore, her choice was coded as unhealthy.

not significantly related to DV3. Both indirect effects were also not significant using a bias-corrected bootstrap confidence interval (CI) based on 10'000 bootstrap sample, envy with an *estimate* of .21, 95% CI [.00 .66], hope with an *estimate* of -.05, 95% CI [-.36 .10]. Thus, Hypotheses 4a and 4b were rejected⁵.

< Figure 3 around here>

Exploring the Role of Identification

Identification did not significantly differ between the control baseline (M = 5.06, SD = 1.46) and the instruction to find dissimilarity (M = 4.76, SD = 1.45), t(93) = 1.07, p = .290. In order to explore possible interaction effects of the experimental manipulation and identification on the mediators envy and hope (RQ1 and RQ2), as well as on all three DVs (RQ3a-c and RQ4a-c), moderating mediation models including BMI as covariate were calculated (Figure 4; Hayes, 2013). For the pathway of the experimental manipulation on envy, there was no significant interaction effect with identification, b = -.14, SE = .20, t(90) = -0.72, p = .474, 95%CI [-.54; .25], yet both identification, b = .32, SE = .14, t(90) = 2.24, p = .028, 95%CI [.04; .60], and the experimental manipulation, b = .48, SE = .02, t(90) = 2.39, p = .019, 95%CI [.08, .87], yielded significant main effects on envy (Table 2). For hope as criterion, there was also no interaction effect between the experimental manipulation and identification, b = -.12, SE = .19, t(90) = -0.63, p = .534, 95%CI [-.49, .26]. However, there was a significant association between identification and hope, b = .48, SE = .13, t(90) = 3.59, p = .001, 95%CI [.21, .75] (Table 2). In sum, there is no support for interaction effects of the experimental manipulation and identification on envy, as well as on hope (RQ1-4).

< Table 2 around here>

⁵ The covariate BMI showed no significant relation to snack choice, b = .02, SE = .22, Exp(b) = .08, p = .93, 95 % CI [-.41, .44].

For state body image as criterion, there was no significant interaction effect of the experimental manipulation and identification, b = .10, SE = .19, t(88) = 0.53, p = .598, 95% CI [-.28, .49] and no significant main effect of identification, b = -.02, SE = .15, t(88) = -0.11, p = .911, 95% CI [-.31, .28]. Likewise, there was no significant interaction of the experimental manipulation and identification on behavioral intentions, b = .03, SE = .19, t(88) = 0.79, p = .895, 95%CI [-.36, .41]. However, identification yielded a significant main effect on behavioral intentions, b = .32, SE = .15, t(88) = 2.17, p = .032, 95%CI [.03, .62] (Table 2). For snack choice as criterion, there was neither a significant interaction effect of the experimental manipulation and identification, b = -.09, SE = .46, Exp(b) = -0.19, p = .852, 95% CI [-.98; .81], nor a significant main effect of identification, a = -.47, a = .36, a

< Table 3 around here>

Discussion

The central aim of the current study was to investigate processes during the reception of media content depicting thin-ideal TV-models. Indeed, how one feels during social comparisons with these TV-models might play a crucial role for possible outcomes. Therefore, the current study manipulated upward assimilative vs. contrastive social comparisons with an aspiring young TV-model as depicted in Germany's Next Topmodel. In line with our assumptions, the experimental manipulation successfully triggered feelings of envy when participants were asked to find differences between themselves and the depicted TV-model, whereas hope was not significantly influenced by our treatment. Importantly, the experimental manipulation of upward contrastive comparisons and the resulting feeling of envy is in line

with other empirical findings in the context of entertaining media content (Lewis & Weaver, 2016; Tsay-Vogel & Krakowiak, 2019).

Going beyond the scope of former studies, the current experiment linked the feeling of envy to different outcomes, such as changes in one's self-perception and behavioral intentions. Upward contrastive comparison with an aspiring young TV-model did not per se lower participants' body image or trigger the goal to become and behave more "model like". Instead, the feeling of envy during social comparisons mediated both outcomes. A closer look on processes during social comparisons with thin-ideal media characters, such as envy, may illuminate some of the contradictory findings regarding the strength of negative effects of media exposure on women's body dissatisfaction (Ferguson, 2013; Grabe et al., 2008; Nabi & Keblusek, 2014).

Recent meta-analytic evidence indicated that experimental priming of dissimilarity to a comparison target usually leads to modest contrast effects on one's self-evaluation (Gerber, Wheeler, & Suls, 2018). However, we did not find a direct effect of our experimental manipulation on participant's body image. Our experimental manipulation of dissimilarity resulted in higher envy ratings that in turn lowered participants' body image, indicating a contrast effect. Yet, participants were inspired through envy to improve themselves by assimilating behavioral intentions of the depicted TV-model. This finding indicates that recipients are not a 'helpless' audience which is directly influenced by media content; instead, the active assessment of differences between oneself and a media character and the resulting experience of envy are crucial in order to describe different outcomes.

Limitations and Future Research Directions

Although the current study may open up a number of interesting directions for future research, there are some limitations that need to be acknowledged. First, there were no interaction effects of the experimental manipulation and identification on envy, hope or on any

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DV (RQ1 to RQ4). However, identification was positively associated with envy, hope, and intentions to behave more "model like". The positive relations of identification and hope and behavioral intentions are in line with findings of identification and assimilation effects. For example, in an experiment by Hoeken and Sinkeldam (2014, study 1), identification with a story protagonist, who might have to live in a nursing home, led to feelings of sadness, similar to the feelings of the depicted character. In the current study, the depicted protagonist expressed a lot of hope for a successful model career, therefore, it is not surprising that identification and hope were rather highly correlated (r = .45). However, the positive, although much weaker association of identification and envy (r = .21) was rather unexpected. The depicted TV-model, Marie, struggled with the asked challenges at the beginning of the experimental video-clip, yet she improved her performance in later challenges. However, Marie expressed some envy towards other contestants during the video-clip that might have been assimilated by participants who highly identified with her.

Moreover, the experimental manipulation to find dissimilarities had no effect on identification, which indicates that perceived similarity and identification can be regarded distinct constructs (or possible effects of the experimental manipulation on identification were too small to detect given the sample size in this study). This finding is also in line with meta-analytic evidence that similarity and identification are not related to each other (Tukachinsky, 2014). In addition to the mediation effects found in this study, identification has been identified as an important mechanism behind effects of media content on recipients' selves (e.g., Dal Cin, Gibson, Zanna, Shumate, & Fong, 2007; Sestir & Green, 2010) and behavioral intentions (e.g., Kaufman & Libby, 2012; Murphy, Frank, Chatterjee, & Baezconde-Garbanati, 2013) in other studies. Therefore, it is important to further look at the role of identification as a different mechanism that might also explain possible assimilation vs. contrast effects.

Second, against our expectations, there was no effect of the control baseline condition on hope. Recent meta-analytic evidence indicated that assimilation is not per se the default response to social comparison; instead, it requires specific experimental manipulations. However, typical experimental manipulations that aim at feeling similar to a target (e.g., via similarity priming) only lead to very weak assimilation effects at best (see meta-analysis by Gerber, Wheeler, & Suls, 2018). Therefore, future studies should include manipulations of objective similarity, for example, via matching of gender and/or age of a media character and recipients, in order to induce assimilation and related emotions (Lewis & Weaver, 2016). Our findings are somewhat in line with previous research that focused on "thinspiration" (media content that 'inspires' people to lose weight; Knobloch-Westerwick, 2015; Knobloch-Westerwick & Crane, 2012). For instance, Knobloch-Westerwick (2015) conducted a longitudinal study by confronting women over a period of five days with thin-ideal messages. One of her findings was that self-evaluation social comparison, which highlights differences between thin-ideal media characters and oneself ("This woman is thinner than me/these women are thinner than me", p. 1094), lead to lower body satisfaction, whereas self-improvement social comparisons ("I would like my body to look like this woman's body/women's bodies", p. 1094) increased it. Importantly, self-evaluation comparisons were rather high the first two days and then declined, whereas self-improvement comparisons increased over time. There may be similar effects for hope in our study, since the expected positive effects of hope on participants' body image did not emerge in our single-exposure experiment, but might have occurred after repeated exposure to thin-ideal media content. Thus, it might be worthwhile to include more measurement occasions and media stimuli over a longer period of time in future studies.

Third, in the current study, we did not measure all emotions related to upward assimilative vs. contrastive comparisons as proposed by Smith (2000). Therefore, future

research is encouraged to include these additional measures in order to capture emotional processes during social comparisons in more detail. Furthermore, the reliability of the hope measure was rather weak. Thus, future studies might include more emotional facets related to hope and upward assimilative comparisons, such as optimism and inspiration.

Fourth, our DV snack choice after the experimental session did not show the expected effects, since it was neither associated with envy, nor hope. However, our forced choice to select either chocolate or a mandarin orange was rather limited in terms of the possible variety of healthy and unhealthy foods. Other experimental studies successfully used company gift cards representing a range of unhealthy (e.g., McDonald's) vs. healthy (e.g., Hello Fresh) food consumption as a broader behavioral measure (Wilson, Knobloch-Westerwick, & Robinson, 2018).

Fifth, we conceptualized envy as a uniform construct in the current study, yet recent research distinguishes between benign and malicious envy (Lange, Weidman, & Crusius, 2018). Importantly, the behavioral consequences of both forms are different from each other. Benign envy, as a more inspiring emotional reaction towards an inspiring superior person, is linked to self-improvement motivation and behavior, whereas malicious envy, as a more hostile form of envy, is considered to trigger more destructive and aggressive behavior (e.g., by pulling down a superior other). Therefore, future research should include both aspects of envy as mediators in order to explain different outcomes.

Last, we included identification with the depicted TV-model as an additional factor explaining assimilation vs. contrast effects. However, other forms of engagement with media characters, such parasocial interactions or relationships, might also be important for future research endeavors (Hartmann & Goldhoorn, 2011; Horton & Wohl, 1956). Indeed, there are some empirical findings that parasocial relationships with thin media figures lead to assimilation effects, rather than to contrast effects, on recipients' body image (Young, Gabriel,

& Sechrist, 2012) or self-esteem (Derrick, Gabriel, & Tippin Brooke, 2008). It seems worthwhile to further link social comparison processes and related emotions with parasocial relationships for future research.

Conclusion

This experimental study provides evidence that not upward contrastive comparison with an aspiring young TV-model per se lowers young women's body image and triggers the goal to become more "model like". Instead, the feeling of envy during the social comparison seems to mediate this process. We suggest that a stronger focus on processes during comparisons may explain some contracting findings regarding media effects of idealized media models on women's body dissatisfaction. A closer look on how recipients perceive media models (e.g., by identifying with them) can increase our understanding of possible negative effects of upward social comparison with idealized media models.

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 Descriptions, analyzes, criticisms of Germany's Next Top Model]. Marburg: Tectum

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Figures and Tables

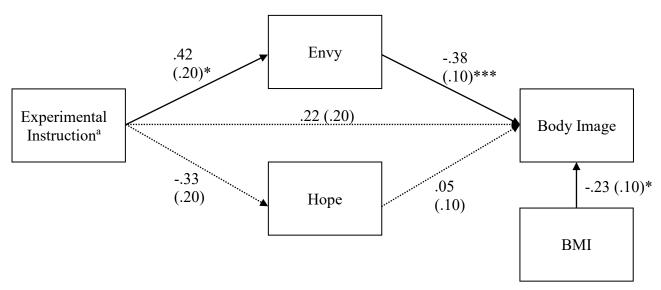


Figure 1. Mediation model for Envy and Hope as mediator and the Body Image States Scale as DV; controlled for participants' BMI; N = 95; adummy coding: 0 = control baseline, 1 = instruction to find dissimilarities;

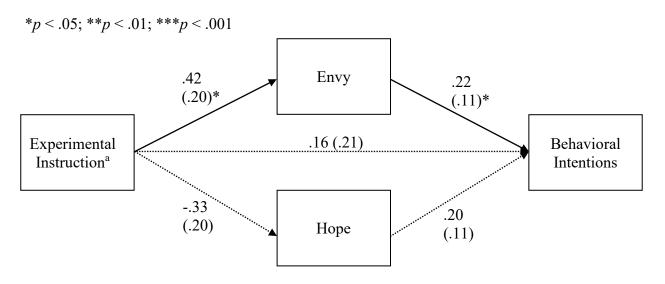


Figure 2. Mediation model for Envy and Hope as mediator and Behavioral Intentions as DV; controlled for participants' BMI; N=95; adummy coding: 0= control baseline, 1= instruction to find dissimilarities; *p < .05; **p < .01; ***p < .001

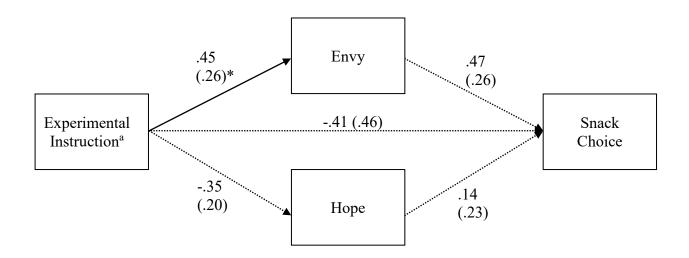


Figure 3. Mediation model for Envy and Hope as mediator and Snack Choice as DV; controlled for participants' BMI; adummy coding 0 = control baseline, 1 = instruction to find dissimilarities; N = 94; *p < .05; **p < .01; ***p < .001

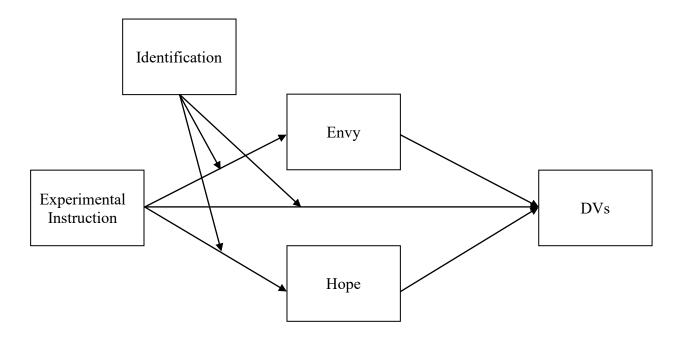


Figure 4. Moderated mediation models (model 8; Hayes, 2013).

Table 1

Correlations among variables and descriptive statistics for key study variables

Variables	M(SD)	1	2	3	4	5	6	7	8
1 Experimental Instruction (EI) ^a									
2 TV-Model known ^b		.12							
3 BMI	21.35 (2.85)	.00	.00						
4 Envy	1.68 (0.83)	.21*	.06	.01					
5 Hope	2.10 (0.78)	17	04	14	.22*				
6 Identification	4.91 (1.46)	11	.10	20	.21*	.45**			
7 State Body Image	5.46 (1.45)	.02	01	23*	35**	02	.00		
8 Behavioral Intentions	2.95 (0.62)	.09	.08	.00	.28**	.23*	.38**	36**	
9 Snack Choice ^c		06	.09	.00	.20	.13	08	21*	.09

Table 2

Moderated mediation models in which identification moderated the pathways from the experimental manipulation on envy and hope, as well as on DVs state body image and behavioral intentions

			Med	iators		Dependent Variables						
	Envy			Норе			State Body Image			Behavioral Intentions		
	b	p	<i>b</i> 95% CI	b	p	<i>b</i> 95% CI	b	p	<i>b</i> 95% CI	b	p	<i>b</i> 95% CI
Intercept (b ₀)	24	.09	[52, .03]	.11	.39	[15, .37]	11	.44	[38, .17]	10	.46	[37, .17]
BMI	.07	.51	[14, .27]	06	.55	[25, .13]	22	.03	[41,02]	.07	.48	[13, .26]
EIª	.48	.02	[.08, .87]	24	.20	[61, .13]	.23	.26	[17, .63]	.21	.30	[19, .60]
Identification	.32	.03	[.04; .60]	.48	.00	[.21, .75]	02	.91	[31, .28]	.32	.03	[.03, .62]
EI x Identification	14	.47	[54; .25]	12	.53	[49, .26]	.10	.60	[28, .49]	.03	.90	[36, .41]
Envy							38	.00	[59,18]	.17	.10	[03, .38]
Норе							.04	.75	[18, .26]	.07	.53	[15, .29]
16.116	$R^2 = .11,$		$R^2 = .22,$		$R^2 = .19,$		$R^2 = .00,$					
Model Summary	F(4,	F(4, 90) = 2.75, p = .033			F(4, 90) = 6.36, p < .001		F(6, 88) = 3.45, p = .004			F(6, 88) = 3.65, p = .003		

Notes. N = 95. a experimental instruction: dummy coding 0 = control baseline, 1 = instruction to find dissimilarities

Table 3

Moderated mediation models in which identification moderated the pathways from the experimental manipulation on envy and hope, as well as on the dichotomous DV snack choice

		Mediators						Dependent Variable			
		Envy			Норе			Snack Choice			
	b	p	<i>b</i> 95% CI	b	p	<i>b</i> 95% CI	b	p	Exp(b)	<i>b</i> 95% CI	
Intercept (b ₀)	26	.06	[54, .01]	.11	.42	[16, .37]	.60	.07	1.84	[04, 1.24]	
BMI	.08	.42	[12, .28]	06	.57	[25, .14]	06	.79	-0.27	[50, .38]	
EIª	.53	.01	[.13, .92]	23	.22	[61, .14]	55	.25	-1.16	[-1.47, .38]	
Identification	.31	.02	[.04; .59]	.47	.00	[.21, .72]	47	.17	-1.38	[-1.15; .20]	
EI x Identification	04	.83	[44; .35]	10	.60	[48, .28]	09	.85	-0.19	[98; .81]	
Envy							.58	.03	2.11	[.04, 1.11]	
Норе							.34	.20	1.28	[18, .86]	
16.116	$R^2 = .13,$		$R^2 = .22,$		Nagelkerke- $R^2 = .13, \chi^2(6) = 9.58, \mu$			$\chi^2(6) = 9.58, p$			
Model Summary	F(4,	89) = 3	3.36, p = .013	F(4, 8)	89) = 6	.23, p < .001	= .144	4			

Notes. N = 94 due to missing date for snack choice. a experimental instruction: dummy coding 0 = control baseline, 1 = instruction to find dissimilarities.

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Online Appendix

Krause, S. (2019). *Pushed by envy: Effects of social comparison with reality-TV-models*. Manuscript in preparation

MANUSCRIPT #3 225

Control Items prior to the Experimental Video-Clip



Picture Source: http://www.cosmopolitan.de/marie-nasemann-stye-genial-marie-wie-du-diesen-look-mit-deinen-styling-tricks-verwandelst-66828.html

First item:

Aus welchem Format ist diese Person bekannt? [In which format does this person appear?]

- a) The Voice of Germany
- b) Das Supertalent
- c) Der Bachelor
- d) Germany's next Topmodel
- e) Deutschland sucht den Superstar
- f) weiß ich nicht [I do not know]

Second item:

Wie weit ist die gezeigte Person in der Show gekommen? [How far has the person shown come on the show?]

- a) Platz 1 [1st place]
- b) Platz 2-3 [2nd-3rd place]
- c) Platz 4-10 [4th-10th place]
- d) Platz 11-20 [11th-20th place]
- e) Platz 21-50 [21st-50th place]
- f) weiß ich nicht [I do not know]

Note. The bold printed answers are correct.

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Experimental Instruction

Condition	Instruction (German)	Instruction (English translation)
Control baseline	Dir wird nun ein kurzer, zusammengeschnittener Videoclip aus der Sendung <i>Germany's next Topmodel</i> gezeigt. Bitte verfolge diesen aufmerksam. Nachdem du den Clip angeschaut hast, fasse diesen bitte in maximal fünf Sätzen in einem dafür vorgesehenen Textfeld zusammen.	You will now be shown a short, cuttogether video-clip from the TV-show <i>Germany's next Topmodel</i> . Please follow the clip carefully. After watching the clip, please summarize it in a maximum of five sentences in a text field provided for this purpose.
Finding dissimilarities	Dir wird nun ein kurzer, zusammengeschnittener Videoclip aus der Sendung Germany's next Topmodel gezeigt. Bitte verfolge diesen aufmerksam und konzentriere dich dabei besonders auf Unterschiede zwischen dir und der gezeigten Person. Nachdem du den Clip angeschaut hast, schreibe bitte fünf auffällige Unterschiede in einem dafür vorgesehenen Textfeld auf.	You will now be shown a short, cuttogether video-clip from the TV-show <i>Germany's next Topmodel</i> . Please follow the clip carefully and focus especially on differences between you and the person shown. After watching the clip, please write down five noticeable differences in a dedicated text box.

References:

Appel, M. (2011). A story about a stupid person can make you act stupid (or smart): Behavioral assimilation (and contrast) as narrative impact. *Media Psychology*, *14*, 144–167. doi:10.1080/15213269.2011.573461

MANUSCRIPT #3 227

Germany's next Topmodel (GNTM) – Experimental Video-Clip (14:21 min)

Available from the following osf repository: https://osf.io/tqfbj/

Control items after the video-clip

Item	Item (German)	English Translation	Ans-	Ans-	Ans-	Ans-
no.			wer A	wer B	wer C	wer D
1	Wie war der Name	What was the name of	Lea	Fran-	Marie	Joleen
	der Hauptperson in	the main character in		ziska		
	dem Clip?	the clip?				
2	Wie alt war sie?	How old was she?	19	24	20	26
3	Für welche Scho-	For which chocolate	Kinder-	Yogu-	Lindt	Mars
	koladenmarke ge-	brand did she win a	schoko-	rette		
	wann sie einen	job?	lade			
	Job?					

Note. The bold answers are correct.

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Identification

To measure identification with the depicted TV-model of the experimental video-clip (Marie), a German translation of the Experience Taking Scale (Kaufman & Libby, 2012) was used. The German translation was made for a past publication (see table below; Krause & Weber, 2018) using the committee approach (Harkness, 2003). Since the Experience Taking Scale was previously used only for written stories and nameless protagonists, the wording was slightly adapted. For the current manuscript, the original wording (italicized) was replaced by the text in the square brackets

Item	Item (English)	Item (German)
no.		
1	I felt like I could put myself in the shoes	Ich hatte das Gefühl, dass ich mich in den
	of the character in the story.	Protagonisten der Geschichte [Marie]
		hineinversetzen konnte.
2	I found myself thinking what the charac-	Ich habe gemerkt, dass ich an das gedacht
	ter in the story was thinking.	habe, was der Protagonist in der Ge-
		schichte [Marie] dachte.
3	I found myself feeling what the character	Ich habe gemerkt, dass ich das gefühlt
	in the story was feeling.	habe, was der Protagonist in der Ge-
		schichte [Marie] fühlte.
4	I could empathize with the situation of	Ich konnte mich in die Situation des Pro-
	the character in the story.	tagonisten [von Marie] einfühlen.
5	I understood the events of the story as	Ich konnte die Ereignisse der Geschichte
	though I were the character in the story.	[des Video-Clips] nachvollziehen, als
		wäre ich <i>der Protagonist</i> [Marie].
6	I was not able to get inside the character's	Ich war nicht in der Lage, zu verstehen,
	head.	was im Kopf des Protagonisten [von Ma-
		rie] vorgeht.
7	At key moments in the story, I felt I knew	In den Schlüsselmomenten der Ge-
	what the character was going through.	schichte [des Video-Clips] hatte ich das
		Gefühl zu wissen, was der Protagonist
		[Marie] gerade durchmacht.

Note. Items were rated on a nine-point Likert scale from 1 (strongly disagree / stimme überhaupt nicht zu) to 9 (strongly agree / stimme völlig zu).

References:

- Harkness, J. A. (2003). Chapter 3. Questionnaire translation. In J. A. Harkness, F. J. R. de van Vijver, & P. P. Mohler (Eds.), *Cross-cultural survey methods* (pp. 35–56). Hoboken, NJ: Wiley.
- Kaufman, G. F., & Libby, L. K. (2012). Changing beliefs and behavior through experience-taking. *Journal of Personality and Social Psychology*, *103*, 1–19. doi:10.1037/a0027525
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Emotions during Watching GNTM (Including Hope and Envy)

Emotional reactions during watching the experimental video-clip were assed using a list of thirteen adjectives. The emotions hope (hopeful, inspired) and envy (envious, jealous) were assed using the scales by Nabi and Keblusek (2014). Furthermore, nine items from the German Version of the Positive and Negative Affect Schedule (PANAS; Janke & Glöckner-Rist, 2012) were included as filler items.

Instruction:

Nun möchten wir gerne von dir wissen, wie du dich **während des Videoclipschauens** gefühlt hast. Die folgenden Wörter beschreiben unterschiedliche Gefühle und Empfindungen. Lese jedes Wort und trage dann in die Skala neben jedem Wort die Intensität ein.

[Now we would like to know how you felt during watching the video clip. The following words describe different feelings and sensations. Read each word and then enter the intensity next to each word in the scale.]

Item	Emotion (German)	Emotion (English)
no.		
1	angeregt*	inspired*
2	wach	alert
3	freudig erregt	excited
4	begeistert	enthusiastic
5	entschlossen	determined
6	neidisch**	envious**
7	ängstlich	afraid
8	verärgert	upset
9	nervös	nervous
10	hoffnungsvoll*	hopeful*
11	eifersüchtig**	jealous**
12	erschrocken	scared
13	bekümmert	distressed

Note. Items were rated on a five-point Likert scale from 1 (not at all / gar nicht) to 5 (extremely / äußerst); *adjectives used fort the hope scale; ** adjectives used for the envy scale

References:

- Janke, S. & Glöckner-Rist, A. (2014). Deutsche Version der Positive and Negative Affect Schedule (PANAS). *Zusammenstellung sozialwissenschaftlicher Items und Skalen*. doi:10.6102/zis146
- Nabi, R. L., & Keblusek, L. (2014). Inspired by hope, motivated by envy: Comparing the effects of discrete emotions in the process of social comparison to media figures. *Media Psychology*, 17, 208–234. doi:10.1080/15213269.2013.878663

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State Body Image (DV 1)

To measure state body image the Body Image States Scale (BISS; Cash, Fleming, Alindogan, Steadman, & Whitehead, 2002) was and translated into German using the committee approach (Harkness, 2003). The entire original English scale, including instructions and items, can be found in the appendix of Cash's et al. (2002) publication.

Instruction:

Bitte kreuze das Kästchen neben der Aussage an, die am besten beschreibt wie du dich gerade im Moment fühlst.

Antworte möglichst ehrlich und intuitiv.

- 1. Im Moment fühle ich mich ...
- o ... sehr unzufrieden mit meinem Aussehen.
- o ... größtenteils unzufrieden meinem Aussehen.
- o ... etwas unzufrieden meinem Aussehen.
- o ... ein bisschen unzufrieden meinem Aussehen.
- o ... weder unzufrieden noch zufrieden meinem Aussehen.
- o ... ein bisschen zufrieden meinem Aussehen.
- o ... etwas zufrieden meinem Aussehen.
- o ... größtenteils zufrieden meinem Aussehen.
- o ... sehr zufrieden meinem Aussehen.

2. Im Moment fühle ich mich ...

- o ... sehr unzufrieden mit meinem Körper und meiner Figur.
- o ... größtenteils unzufrieden mit meinem Körper und meiner Figur.
- o ... etwas unzufrieden mit meinem Körper und meiner Figur.
- o ... ein bisschen unzufrieden mit meinem Körper und meiner Figur.
- o ... weder unzufrieden noch zufrieden mit meinem Körper und meiner Figur.
- o ... ein bisschen zufrieden mit meinem Körper und meiner Figur.
- o ... etwas zufrieden mit meinem Körper und meiner Figur.
- o ... größtenteils zufrieden mit meinem Körper und meiner Figur.
- o ... sehr zufrieden mit meinem Körper und meiner Figur.

3. Im Moment fühle ich mich ...

- o ... sehr unzufrieden mit meinem Gewicht.
- o ... größtenteils unzufrieden mit meinem Gewicht.
- o ... etwas unzufrieden mit meinem Gewicht.
- o ... ein bisschen unzufrieden mit meinem Gewicht.
- o ... weder unzufrieden noch zufrieden mit meinem Gewicht.
- o ... ein bisschen zufrieden mit meinem Gewicht.
- o ... etwas zufrieden mit meinem Gewicht.
- o ... größtenteils zufrieden mit meinem Gewicht.
- o ... sehr zufrieden mit meinem Gewicht.

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- 4. Im Moment fühle ich mich körperlich ...
 - o ... sehr attraktiv.
 - o ... größtenteils attraktiv.
 - o ... etwas attraktiv.
 - o ... ein bisschen attraktiv.
 - o ... weder attraktiv noch unattraktiv.
 - o ... ein bisschen unattraktiv.
 - o ... etwas unattraktiv.
 - o ... größtenteils unattraktiv.
 - o ... sehr unattraktiv.

5. Im Moment fühle ich mich ...

- o ... sehr viel schlechter mit meinem Aussehen als normalerweise.
- o ... viel schlechter mit meinem Aussehen als normalerweise.
- o ... etwas schlechter mit meinem Aussehen als normalerweise.
- o ... ein bisschen schlechter mit meinem Aussehen als normalerweise.
- o ... in etwa gleich mit meinem Aussehen als normalerweise.
- o ... ein bisschen besser mit meinem Aussehen als normalerweise.
- o ... etwas besser mit meinem Aussehen als normalerweise.
- o ... viel besser mit meinem Aussehen als normalerweise.
- o ... sehr viel besser mit meinem Aussehen als normalerweise.

6. Im Moment habe ich das Gefühl, dass ich ...

- o ... sehr viel besser aussehe als eine durchschnittliche Person.
- o ... viel besser aussehe als eine durchschnittliche Person.
- o ... etwas besser aussehe als eine durchschnittliche Person.
- o ... ein bisschen besser aussehe als eine durchschnittliche Person.
- o ... weder besser noch schlechter aussehe als eine durchschnittliche Person.
- o ... ein bisschen schlechter aussehe als eine durchschnittliche Person.
- o ... etwas schlechter aussehe als eine durchschnittliche Person.
- o ... viel schlechter aussehe als eine durchschnittliche Person.
- o ... sehr viel schlechter aussehe als eine durchschnittliche Person.

Reference:

Cash, T. F., Fleming, E. C., Alindogan, J., Steadman, L., & Whitehead, A. (2002). Beyond body image as a trait: The development and validation of the Body Image States Scale. *Eating Disorders*, 10, 103–113. doi:10.1080/10640260290081678

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Behavioral Intentions (DV 2)

The following scale measures "model-like" behavioral intentions and it was specifically developed for the current experiment.

Instruction:

Nun möchten wir dir einige Fragen zu deiner Person stellen. Lies dir hierfür bitte die folgenden Aussagen durch.

[Now we would like to ask you some questions about yourself. Please read the following statements.]

Item	German	English translation
no.		
1	Ich würde gerne meine Frisur än-	I would like to change my hairstyle.
	dern.	
2	Ich würde gerne in Zukunft mehr auf	I would like to pay more attention to
	meine Figur achten.	my figure in the future.
3	Ich möchte mehr auf mein Äußeres	I want to pay more attention to my
	achten.	appearance.
4	In Zukunft möchte ich mich sportlich	In the future, I would like to be more
	mehr betätigen.	active in sports.
5	Ich möchte weniger ungesunde Le-	I would like to eat less unhealthy
	bensmittel essen.	food.
6	Angenommen ich hätte genügend	Assuming I had enough money, I
	Geld, dann würde ich mir mehr schi-	would buy more fancy clothes.
	cke Kleidung kaufen.	
7	Ich kann mir vorstellen meinen bis-	I can imagine giving up my previous
	herigen Berufswunsch aufzugeben,	career aspirations, if I had the oppor-
	wenn ich die Möglichkeit hätte zu	tunity to model.
	modeln.	

Note. Items were rated on a five-point Likert scale from 1 (not at all / trifft überhaupt nicht zu) to 5 (very much / trifft voll zu)

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Scales that were not Used for the Manuscript and Data-Analyses

Prior to the experiment described in the manuscript, participants were asked if they would like to take part into a separate paper-pencil study. This paper-pencil study, along with the experimental study, were part of a student course project. However, the additional measures in the paper-pencil study were unrelated to the current manuscript. For the sake of transparency, they are listed below.

Social Comparison Trait Measure (INCOM)

The short form of the Iowa-Netherlands Comparison Orientation Measure (INCOM; German translation by Schneider & Schupp, 2011) is a trait measure of one's tendency to compare oneself with others.

Reference:

Schneider, S., & Schupp, J. (2011). The social comparison scale: Testing the validity, reliability, and applicability of the Iowa-Netherlands Comparison Orientation Measure (INCOM) on the German population. *DIW Data Documentation*, 55, 1–33.

Social Desirability

The German Social Desirability Scale by Winkler, Kroh, and Spiess (2006) was also used in the paper-pencil study.

Reference:

Winkler, N., Kroh, M., & Spiess, M. (2006). Entwicklung einer deutschen Kurzskala zur zweidimensionalen Messung von sozialer Erwünschtheit [Development of a German short scale for the two-dimensional measurement of social desirability]. DIW Berlin Diskussion Paper 579.

Facebook Intensity

The German language version of the Facebook Intensity Scale (Appel, Schreiner, Weber, Mara, & Gnambs, 2018; Ellison, Steinfield, & Lampe, 2007) was also used in the paper pencil questionnaire.

References:

Appel, M., Schreiner, C., Weber, S., Mara, M., & Gnambs, T. (2018). Intensity of facebook use is associated with lower self-concept clarity. *Journal of Media Psychology*, 30, 160–172. doi:10.1027/1864-1105/a000192

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of facebook "friends:": Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12, 1143–1168. doi:10.1111/j.1083-6101.2007.00367.x

8 Final Discussion

Narratives offer the possibility to transport us into their worlds and to adopt the perspectives of their characters. This intense experience might even change how we perceive ourselves. As there are only few studies examining possible effects on recipients' selves, the question remains, whether we always perceive ourselves to be similar to a protagonist's characteristics (assimilation effects). Instead, at times, we could perceive ourselves to be opposite or in contrast to a story protagonist (contrast effects). Based on this general idea, the central aim of my dissertation project was to explore antecedents and processes that can explain assimilation vs. contrast effects on recipients' selves caused by narratives (see Figure 1). In the scope of my cumulative dissertation, five laboratory experiments were conducted, which were summarized in three manuscripts.

In manuscript #1, the focus was on the moderating role of transportation and counterarguing in explaining different effects of narratives on the self. Accordingly, a novel methodology was applied by creating two experimental stories that only differed in the central trait of the main protagonist. After reading the experimental story about either a diligent or a negligent student, participants' self-perception regarding their own conscientiousness was assessed in the first experiment of manuscript #1. In line with previous research, under conditions of high transportation and low counterarguing, participants temporarily assimilated to the central trait of the protagonist as indicated by self-reported conscientiousness ratings that became more similar to the depicted protagonist (assimilation effect). Importantly, recipients scoring low on transportation and high on counterarguing rated themselves as less (more) conscientious after reading a story with a diligent (negligent) main character than after reading a story with a negligent (diligent) main character, indicating a contrast effect. In manuscript #1's second experiment, transportation was manipulated via (positive vs. negative) written reviews, yet no effect on participants' self-ascribed level of conscientiousness was found. However, a mini meta-

analysis across both experiments revealed significant positive overall associations between transportation, respectively counterarguing, and self-reported conscientiousness. This finding supported the notion of assimilation on recipients' selves, when transportation and counterarguing are high. Importantly, this study was – to my knowledge – the first to show that when transportation is low, reading an experimental story can elicit self-perceptions that are opposite to a character's attributes. Therefore, the findings of manuscript #1 highlighted the possibility of contrast effects in response to narratives, especially when recipients have a distant stand towards a story as indicated by low transportation and high counterarguing.

Manuscript #2 took up the idea of possible contrast effects under conditions of a distant view towards a story and its protagonists. In order to investigate possible contrast effects, two experimental studies were conducted that focused on downward social comparison with an outgroup protagonist, who was depicted as incompetent. It was expected that participants, who were less transported and identified less with the protagonists (measured via the experience taking scale), show contrast effects by rating themselves to be more competent in comparison to others, to state more learning-related motivation, and to work more persistently on an experimental task. In manuscript #2's first experiment, transportation was manipulated via positive vs. negative reviews, while in the second experiment, identification was manipulated by varying the perspective of the experimental story's narrator (first vs. third person perspective). Yet, neither the review nor the perspective manipulation affected transportation nor identification while reading the experimental story. Due to the unsuccessful manipulations, associations between variables were examined by using correlations. In both experiments, the correlations between both transportation and identification and self-ratings in comparison to others were not significant. Thus, there was no support for neither assimilation nor contrast effects on participants' self-ratings. However, in both experiments of manuscript #2, positive correlations between transportation (experiment 1), respectively identification (experiment 2), and time

spent on a partially unsolvable anagram task were found, even when we controlled for a trait measure of conscientiousness and domain identification in experiment 2. One explanation for this finding could be that the intense experience of stories via transportation and identification may unlock additional resources that lead to more persistence in working on the anagram task.

Besides transportation and identification, emotional processes during media reception may further explain different outcomes of assimilation vs. contrast effects on recipients' selfperception and even potential behavior changes. Accordingly, manuscript #3 focused on the emotions hope and envy that could be elicited through upward social comparison with a superior protagonist. The emotions envy and hope were experimentally induced via an explicit processing instruction (vs. control baseline) to find differences between oneself and the main character, a beautiful young model in a TV-Show. The experimental manipulation only influenced feelings of envy when participants were asked to find differences between themselves and the depicted protagonist, whereas hope was not significantly influenced by the experimental treatment. Furthermore, the results showed that envy mediated the negative effect on participants' self-perception regarding their body image (contrast), whereas there were positive effects of envy on participants' intentions to behave like the protagonist, for example, by planning to work out more in the future (assimilation). Importantly, identification was not influenced by the experimental manipulation to find dissimilarity, indicating that the perception of similarity vs. identification with the protagonist are distinct concepts, and thus both underlying mechanisms might work independently from each other.

In consideration of the empirical findings and the theoretical advancement by combining different areas of research in a new way, the present thesis contributes to closing a research gap in the literature on narratives and the self. Consistent with previous work, assimilation effects were found when recipients are highly transported. However, it is important to emphasize that recipients are not passively exposed to narratives and automatically surrender their

sense of the self. Rather, narratives can also elicit contrast effects on recipients' selves and behavior that are opposite to a depicted character. Extending prior research, I also found evidence that transportation and envy are important processes explaining assimilation vs. contrast effects on recipients' selves, as well as behavioral intentions.

Going beyond these scientific contributions, the current thesis also provokes further research. Therefore, I will reflect on theoretical, as well as methodological implications for research on narratives and the self in the following sections. Moreover, I will also include limitations of my empirical work in these reflections. First, I start with transportation as a moderator of possible assimilation vs. contrast effects on recipients' selves (8.1). Then, I discuss the role of identification and its conceptual differences to recipient-protagonist similarity. This section also includes a discussion on the unexpected findings of manuscript #2, that is, the positive correlation between identification/transportation and time spent on the anagram task (8.2). Afterwards, I will examine the role of social comparison-based emotions, such as hope and envy, which might further explain different assimilative vs. contrastive outcomes (8.3). Finally, I summarize the implications of this thesis and close with a look at the bigger picture as indicated by my findings (8.4).

8.1 Implications for Research on Transportation and the Self

8.1.1. Assimilation vs. Contrast Effects: Transportation as Import Moderator

Previous studies have shown that stories do not only influence our views about the social world, but also how we perceive ourselves. Pioneering empirical evidence on this topic indicated that participants assimilate story aspects in line with a protagonists' characteristics when they are highly transported (e.g., Isberner et al., 2019; Richter, Appel, & Calio, 2014). The findings of manuscript #1 were in line with this research, which points to *assimilation effects* as a possible outcome under conditions of high transportation and low counterarguing. Just as recipients are transported into a story world and do not counterargue aspects of a story,

they "may also be less defensive about the boundaries and qualities of the self" (Green, 2005, p. 58). While transported into a story, recipients often experience a cognitive overlap with depicted characters that could bring recipients closer to a story's characters (Shedlosky-Shoemaker, Costabile, & Arkin, 2014). As a result, the experience and knowledge of a protagonist may be integrated into one's active self and further allow one for self-development by offering a specific blueprint for a possible self (Green, 2005; Shedlosky-Shoemaker et al., 2014).

Beyond the findings of assimilation effects, however, manuscript #1 was the first to show that when transportation is low (and counterarguing is high), reading an experimental story can elicited self-perceptions that are opposite to depicted characters. Thus, manuscript #1 points at the possibility of *contrast effects* in response to stories, a phenomenon that has attracted little attention in the literature on narratives effects so far. Despite numerous findings regarding contrast effects in different areas, such as social psychology, social cognition, and other areas of application (Gerber, Wheeler, & Suls, 2018), contrast effects have been hardly linked to possible effects on the self and related behavior through narratives. Manuscript #1 aimed at closing this research gap; and, there was some evidence that contrast effects on participants' self-perception occur under conditions of low transportation and high counterarguing.

Besides the theoretical implications, the findings of manuscript #1 might be highly relevant for applied contexts, too. For instance, narratives are often applied to health communication that is the depiction of health promotion and disease prevention as a central theme in a story (de Graaf, Sanders, & Hoeken, 2016). If health communication entails an enthralling story with protagonists, who also show positive health beliefs and behaviors, recipients might assimilate these beliefs and behaviors leading to a healthier lifestyle. However, if stories aim at education by depicting bad or repulsive examples (e.g., violent behaviors in a video-clip; Byrne, Linz, & Potter, 2009; or a glorifying depiction of alcohol abuse; Pinkleton &, Austin,

2019) unwanted assimilation effects might occur. In order to prevent such backfire or "boomerang" effects, these kind of educational or health-related stories need to be less transporting. Moreover, they should encourage recipients to counterargue story claims, as well as the depicted maladaptive beliefs and behaviors of their protagonists, thus leading to contrast effects and positive outcomes.

8.1.2. Methodological Contributions

Previous studies dealing with media effects of narratives through transportation either manipulated aspects of the story structure (e.g., Schreiner, Appel, Isberner, & Richter, 2019) or context factors, such as expectations as induced through positive vs. negative evaluations (Shedlosky-Shoemaker, Costabile, DeLuca, & Arkin, 2011). Indeed, a growing number of studies (e.g., Appel, Schreiner, Haffmans, & Richter, 2019; Dixon, Bortolussi, & Sopčák, 2015; Gebbers, De Wit, & Appel, 2017; Isberner et al., 2019; Tiede & Appel, 2019) has successfully applied a review manipulation as experimental treatment in order to influence transportation. Thereby, reviews are an effective and elegant way to experimentally manipulate transportation, since one can use a single experimental story, instead of creating and pre-testing various comparable stories (Isberner et al., 2019). The review manipulation was successful in manuscript #1, experiment 2, yet, there were no significant relations between transportation/counterarguing and participants' self-evaluations. Moreover, there was no effect of the review manipulation in manuscript #2, experiment 1. One reason for these mixed findings across both manuscripts could be due to the small to medium effect size of the review manipulation on transportation, which are rather variant (for a meta-analytic review see Tukachinsky, 2014)³. Therefore, future studies are encouraged to include a larger sample to increase power and to be able to detect a

³ More recent experimental studies, which also applied review manipulations, found small to medium effects, too. For instance, Gebbers et al. (2017) reported small effects, as indicated by d = .31. Isberner et al. (2019) found a medium to high effect, $\eta^2 = .12$. Tiede and Appel (2019) reported a medium to large effect, $\eta^2 = .11$ (experiment 1) and a small to medium effect, d = .41 (experiment 2). Finally, there was a small to medium effect, $\eta^2 = .05$, in an experiment by Appel et al. (2019).

low to medium effect of a review manipulation. Furthermore, future research should also include theory-guided moderators that may influence the effect of the review manipulation on transportation. Possible moderators could be the labeling of a story in a review as fiction vs. nonfiction (Appel & Malečkar, 2012) or whether the review's author is a literary expert vs. a non-experienced peer (Dixon et al., 2015).

The mini meta-analyses (Goh, J. Hall, & Rosenthal, 2016) conducted in manuscript #1 supported the idea of possible assimilation effects through our experimental stories. Mini metaanalyses provide greater transparency; they are one means to avoid the file drawer problem by reporting only significant findings. Research often entails several degrees of freedom in the ways that data is collected, analyzed, and how to report one's findings. This is often connected to a certain pressure due to the publication practices of journals, as often only significant results will be published⁴. Moreover, the majority of published studies describes only significant results and are often underpowered (Cumming, 2014). However, such research practices can lead to more false positive findings, beyond the nominal threshold of $p \le .05$, which in turn can be misleading for scientific debates resulting in a decrease of our professional reputation (Cumming, 2014; Simmons, Nelson, & Simonsohn, 2011). John, Loewenstein, and Prelec (2012) anonymously asked academic psychologist at US-universities regarding questionable research practices (e.g., stopping data collection earlier because of already significant results, rounding off p-values). One interesting finding was that 50% of their participants stated that they have selectively reported only significant studies and that they might excluded these findings from multi-study manuscripts in the future. The prevalence estimate for this rather "grey" research practice was even higher with 67%.

⁴ Over the past years, these publication policies have received some scholarly attention. Therefore, a great change in thinking, research methods, and publishing is currently taking place.

Nevertheless, it can be valuable for the scientific community to include studies with null-findings in mini meta-analyses (as long as measures between different studies are comparable) in order to discover rather small effects with a larger overall sample. Indeed, most effects found in psychological research are rather small (e.g., across 322 meta-analyses in social psychology the mean r was .21; Richard, Bond, & Stokes-Zoota, 2003). These effects are often difficult to detect, especially with limited sample sizes in experimental settings. By including non-significant, as well as threshold-significant studies, in a mini meta-analysis, the overall sample size increases, and therefore, it is more likely to detect small significant effects (e.g., Rule et al., 2015; Young, Goldberg, Rydell, & Hugenberg, 2019). Moreover, the overall effect size obtained from a mini meta-analysis is more robust compared to effect size estimates of single studies. Therefore, it is more suitable for a priori power analyses and sample size estimates when conducting follow-up studies (Goh et al., 2016). Furthermore, an overall non-significant (or a small to negligible) and homogeneous effect close to zero is a more convincing indication of an actual null-finding (e.g., no difference between two groups), compared to a single effect size of one study (Goh et al., 2016; J. Hall et al., 2009). Mini meta-analyses have been used in different fields of psychology by summarizing conceptually similar studies within one manuscript (e.g., W. Hall, Schmader, Aday, Inness, & Croft, 2018; Hugenberg & Bodenhausen, 2004; Lamarche & Murray, 2014; Miketta & Friese, 2019; Young et al., 2019). However, mini meta-analyses have not been that common in media psychology and communication science, yet. Indeed, manuscript #1 was one of the first publications applying mini meta-analyses in this field of research. Future studies in communication science and media psychology might also benefit from more robust and cogent conclusions made by mini meta-analyses.

8.1.3. Limitations and Future Research Directions

Despite several contributions to the literature on transportation and effects on the self, there are some limitations in my work that need to be taken into consideration. The first experiment in manuscript #1 used a second depended variable, the identity IAT. However, unlike the explicit measure of participants' self-perception, the results of the identity IAT were rather mixed. This finding might be due to the low conceptual correspondence of different measurement methods and underlying mental processes (Hofmann, Gschwendner, Nosek, & Schmitt, 2005). The indirect, implicit identity IAT measured automatic associative processes, whereas the explicit transportation and counterarguing scales measured propositional reasoning. Both of these mental processes are linked, but still distinct from each other (Gawronski & Bodenhausen, 2012). Therefore, an indirect, non-self-report measure of transportation (e.g., using eyelid movement or secondary task, such as reaction times; Bacherle, 2015) would have probably shown stronger effects on the identity IAT.

In manuscript #1, there was some evidence that the experimental narratives influenced participants' selves in different directions depending on their transportation into the story world. However, I could not establish a causal pathway that transportation influenced participants' selves, since both mediators – transportation and counterarguing – were not associated with the DV self-ratings of one's own conscientiousness in manuscript #1. Moreover, the experimental manipulations had no effects on transportation in manuscript #2. Furthermore, there were positive relations between transportation (experiment 1), respectively identification (experiment 2), and participants' self-perception in relation to others. This leaves room for an alternative explanation: Could recipients, who share central attributes of a protagonist, be more likely to be transported into a story? In order to answer this question, manuscript #2's second experiment included additional measures of conscientiousness and domain identification aiming at explain-

ing this relation. Importantly, including both measures in a multiple regression could not explain the found positive associations between the narrative involvement measures and the time spent on the experimental task. However, other third variables might explain the relation between transportation and recipients' selves. Meta-analytic evidence by Tukachinsky (2014) showed that the experimental manipulation of objective resemblance between recipients and protagonists (e.g., ethnicity or gender) yield a small effect on transportation, yet the effects sizes were rather heterogeneous. Furthermore, recipients might also differ in their degree of familiarity with specific story content and its characters. Familiarity entails prior knowledge, as well as story-related personal experience. Indeed, a minimum of familiarity might be essential to understand and to fully engage into a story (Mulcahy & Gouldthorp, 2016). Recipients, who possess story-related prior knowledge, are more likely to imagine story events, and thus, they might have a stronger intrinsic interest to process story aspects in detail (Slater, Rouner, & Long, 2006). Studies that focus on familiarity as a central variable found positive associations with transportation. For instance, participants, who have close gay friends or family members, were more transported into a story depicting a gay protagonist (Green, 2004). Likewise, Caputo and Rouner (2011) found significant positive relations between familiarity with mental illness and story involvement into a movie clip depicting a depressed woman. In order to rule out possible effects of familiarity on dependent measures, some study designs controlled for past personal experience with story content (Moyer-Gusé, Chung, & Jain, 2011) or even excluded participants with story-related experience from the study (So & Nabi, 2013). In sum, future studies on narrative effects on the self should include additional measures, such as the objective resemblance between recipients and protagonists, or familiarity with the story content and its characters, in order to rule out alternative explanations.

Manuscript #1 entailed two parallel experimental stories that only differed in the central trait of the main protagonist. Such a precise manipulation is useful in order to explore a theory,

as it increases the internal validity of an experiment. However, one might ask whether manuscript #1's experimental findings can be generalized to the real world? Finding an answer to this question would entail the use of multiple stories in future studies, for example, by manipulating other central traits of a protagonist. Moreover, the selection of specific experimental stories based on prior identification and operationalization of various story-related variables could be worthwhile (e.g., via a prior content analysis of possible experimental narratives; Slater, Peter, & Valkenburg, 2015). Thereby, one could take both sources of variance – between participants and between different narratives – into account for statistical analyses. For instance, multilevel analyses can be used in order analyze effects across different stories, or across participants, while taking into account the nested structure or even interactions between characteristics of a story and the participants (Reeves, Yeykelis, & Cummings, 2015; Slater et al., 2015).

Manuscript #1 showed that transportation is an important process influencing participants' selves even in an opposite direction. However, such contrast effects also occur when we evaluate others. For example, in the context of performance reviews, such as those taking place in schools and universities, contrast effects might bias evaluations. In line with this idea, an experimentally induced focus on differences can lead to contrast effects by rating two texts to be more different from each other, whereas there was no significant difference in ratings when participants were primed with a similarity mindset (Pohlmann & Möller, 2007). Even in non-laboratory settings, contrast effects have been found. Hartzmark and Shue (2018) showed that professional investors perceive earning announcements of a company as more (less) impressive, if former earning announcements of another, unrelated company were negative (positive), which in turn influenced real market stock prices. In a more interpersonal setting of speed dating, which offers participants the opportunity to meet a series of potential partners in a short amount of time, contrast effects can also occur. Bhargava and Fisman (2014) found evidence

that high perceived attractiveness of a speed-dating partner lead to a lower likelihood to date subsequent partners. On a final note, evaluations of narratives, such as the assessment of eudemonic or hedonic value (Oliver & Bartsch, 2010; Oliver & Raney, 2011), and more global criteria evaluations (e.g., story innovation and verisimilitude; Schneider, 2017) might be also affected by contrast effects. Furthermore, media choice of a specific narrative over another may be prone to contrast effects, since these evaluations are made rather automatically and often without the knowledge of narrative-inherent features (for an overview on narrative evaluation see Schneider, Welzenbach-Vogel, Gleich, & Bartsch, in press). Therefore, future research on narrative evaluation should also consider contrast effects in more detail.

There was evidence in manuscript #1 that narratives can influence participants' self-perception in the short-term. However, future research should also consider long-term assimilation vs. contrast effects via transportation on recipients' selves, as there is empirical evidence that narrative persuasion effects caused by transportation could be long lasting and even increase over time (Appel & Richter, 2007). In line with the idea of long-lasting effects, Djikic and Oatley (2014) assumed that emotional and artistic qualities of narratives open up their recipients and temporarily challenge their selves. Singular fluctuations in one's self-perception occur frequently by reading various narratives again and again. As a result, stable self-perceptions shift to another level over time. In sum, future research is encouraged to study long-term effects of narratives on the self, for example, by using longitudinal designs.

In all of my manuscripts, I assumed a one-way flow of narrative effects on recipients' selves and behaviors (although through different processes, see Figure 1). However, more recent theories on media effects (and media selection) go beyond unidirectional effects and rather empathize the transactional nature between recipients and media stimuli (Valkenburg, Peter, & Walther, 2016). Theories like the *Reinforcing Spirals Model* (Slater, 2015) argue that factors linked to the self can act as both an outcome and a predictor of media use. Therefore, future

studies are encouraged to study assimilation vs. contrast effects in terms of a possible interplay between effects of the self and media selection.

8.2 Implications for Research on Identification and the Self

8.2.1 Merging vs. Observing

A central part of a story is its characters. These characters give us the opportunity to experience a story through their eyes. Thereby, we identify with them by a) experiencing empathy; b) taking their perspectives in order to understand them and the story; c) internalizing their goals and beliefs; and d) losing self-awareness during the reception of a story (Cohen, 2001). In other words, stories enable us to simulate the inner states of the story characters (Oatley, 1995, 2016), and as a result we metaphorically experience the story through the eyes of a protagonist (Cohen, 2001). The central idea of identification that recipients merge with a protagonist while being engaged into a story has certainly received some criticism. For instance, Zillmann (1994) pointed out that identification in the sense of merging with a protagonist is not possible under any circumstances, unless the recipient is mentally ill. In fact, Zillmann (1994) acknowledged recipients only as witnesses of a story, who empathically response to the actions of its characters (Affective Disposition Theory). However, other scholars take a more balanced position between both poles – the recipient as an independent observer vs. an active actor within a story. For example, Oatley (1999) suggested a continuum between both poles, on which recipients can move dynamically between observing and merging with a protagonist depending on the course of the narrative. Even Cohen (2009) did not assume that identification is a permanent state during story reception: "Shifting of reception positions allows for a deeper appreciation of the work, one that comes from a position that is at an optimal psychological distance of the reader from the text. [...] [R]eception can either be overdistanced and hence removed and limited, or it can result in an underdistanced reception involving a full identification with a character [...]" (p. 230).

Identification with a story character is considered to temporarily change the way how we perceive ourselves, thereby, recipients could even assimilate traits of a protagonist (e.g., Dal Cin, Gibson, Zanna, Shumate, & Fong, 2007; Sestir & Green, 2010). Furthermore, recent empirical findings also emphasized the important role of identification in reducing prejudice towards stereotyped out-groups. Moyer-Gusé, Dale, and Ortiz (2019) found that identification with a story character, who interacted with a Muslim, facilitated the liking of Muslims and increased vicarious guilt on behalf of how Muslims are treated in the US, which in turn lowered prejudice against Muslims. Importantly, this line of research links identification to Social Identity Theory. Social Identity Theory suggests that people strive to maintain a positive view of the self and to achieve higher self-esteem, especially through their membership in a social (in-)group. As a result, people favor their own in-group over a distinct out-group (Tajfel & Turner, 1986). However, Chung and Slater (2013) showed that identification with a story character, who belongs to a stigmatized out-group, diminishes the in-/out-group distinctions, since recipients temporarily take over the perspective of the character that in turn enhanced the acceptance of such stigmatized characters.

Yet, what happens if recipients have a more distant stand towards a character, who is also a member of a negatively stereotyped out-group? In manuscript #2, this idea of a distant approach to a story character was examined, that might lead to social comparisons with protagonists (Green, 2005), as well as to contrast effects in one's persistence to work on a demanding task via *stereotype lift*. So far, contrast effects via stereotype lift have not been investigated in the context of narratives, and therefore, this research gap was addressed in manuscript #2. The novelty of the approach applied in manuscript #2 was the innovative combination of research from social and media psychology, applied specifically to narrative effects on the self in different directions (assimilation vs. contrast). Despite the fact that some of manuscript#2's

hypotheses were not confirmed, I believe that this contribution is of substantial interest to scholars from communication science, literature studies, media and social psychology.

8.2.2 Why does Reading a Narrative lead to Performance Enhancements?

Against my expectations, there was a positive significant relation between transportation (experiment 1), respectively identification (experiment 2), and time spent on the anagram task in manuscript #2. In order rule out alternative explanations, trait variables, such as domain identification that aimed at capturing the perceived importance being part of an in-group (J. Smith & White, 2001) and a broad trait measure of recipients' conscientiousness (Rammstedt, Kemper, Klein, Beierlein, & Kovaleva, 2014) were included in manuscript #2's second experiment. Both control variables could not explain the positive association between identification and time spent on an anagram task. These findings are in line with research on the recovery of psychological well-being by using (entertainment) media, providing one possible explanations of the effect. Correlational and experimental studies showed positive recovery outcomes, such as an increase of subjective well-being and energetic arousal, after the reception of entertainment media (Reinecke & Eden, 2017). Furthermore, there is empirical evidence that an experimental story can enhance cognitive performance through this kind of recovery experience which is also linked to media involvement (e.g., Reinecke, Klatt, & Krämer, 2011; Rieger, Reinecke, & Bente, 2017).

In order to replenish one's psychological resources, leaving the real world behind using narratives might be desirable sometimes. In line with this idea, Moskalenko and Heine (2003) showed that recipients, who experienced threats to their selves, spent a longer time watching television in a laboratory experiment. A possible explanation could be that narratives are a powerful means to escape aversive self-threating states. Furthermore, another line of recent research linked the depletion of self-control with a temporarily expansion of one's self-boundaries through narratives (*TEBOTS Model*; Slater, Johnson, Cohen, Comello, & Ewoldsen,

2014). In other words, narratives offer recipients the possibility to temporarily expand their self-boundaries, especially when their selves are under strain, and in the course of such an experience, transportation, as well as identification, could provide some sort of self-expanded agency (Johnson, Ewoldsen, & Slater, 2015). Importantly, this notion of self-expansion goes beyond mere escapism, as "it is not driven by a need for distraction, or abandonment of the self, but rather by a temporary loosening of the restrictions and limitations of personhood and the self-concept" (Johnson et al., 2015, p. 3). Thereby, narratives offer the possibility to temporarily distance oneself from everyday constraints by being engaged into narratives. Johnson et al. (2015) conducted an experimental study based on the TEBOTS model and manipulated self-control by asking participants to work on a demanding task. Compared to the control group, who worked on rather easy tasks, the self-depleted experimental group showed trend-significant higher identification and significantly higher transportation scores.

To summarize the theories presented above, narratives – via means of identification and transportation – might offer a rather easily available opportunity to replenish self-related resources after everyday constrains, and as a result, recipients might be more energized to work on demanding tasks (such as solving anagrams, as operationalized in manuscript #2). However, this line of research was not in the scope of the current thesis. Therefore, underlying processes as well as related outcomes in this context remain to be explored more thoroughly in future studies.

8.2.3 Recipient-Protagonist Similarity

Another noteworthy finding in manuscript #2, experiment two, was the negative correlation between participants' self-ratings of conscientiousness and identification with the rather negligent protagonist (r = -.39). This finding is in line with previous research that focused on recipient-protagonist similarity and its positive association with identification. For instance, Slater and Rouner (2002) emphasized the role of emotional involvement with story characters

in their *Extended Elaboration Likelihood Model* (E-ELM). Thereby, the "vicarious experience" of empathic feelings towards a protagonist, as well as perceived similarity between oneself and a protagonist are considered to enhance narrative involvement, such as identification (Slater & Rouner, 2002). Correlational studies supported the notion of a positive association between perceived similarities (homophily) to media characters and identification. For instance, Eyal and Rubin (2003) found a positive correlation between trait aggression and character identification with aggressive protagonists.

Experimental studies often manipulate objective similarity by matching (vs. not matching) certain attributes of recipients with the main story protagonist. For instance, Chen, Bell, and Taylor (2016) manipulated demographic similarity (age and gender) to a protagonist of an experimental story. There was a positive effect of similarity on identification scores, although the authors stated that this effect was rather small. Likewise, Hoeken and Fikkers (2014) found a positive effect of character similarity (manipulated by the protagonist's study program), along with the perspective from which the story was told, on identification. However, other experimental studies that manipulated recipient-protagonist similarity did not find expected effects of experimental manipulations on identification (e.g., Cohen & Hershman-Shitrit, 2017; de Graaf, 2014; Slater & Cohen, 2017). Indeed, objective and perceived similarity to a story character might be distinct to identification, since a sense of similarity includes maintaining one's own identity while making evaluations about story characters (e.g., Hamby, Brinberg, & Jaccard, 2018). Meta-analytic evidence supports this claim further, since the manipulation of recipient-protagonist similarity did not have a significant overall impact on identification (Tukachinsky, 2014), suggesting that perceived similarity (homophily) and identification can be regarded distinct constructs. Likewise, a systematic review on health-related narratives did not find strong evidence for recipient-protagonist similarity manipulations on persuasive effects via identification (de Graaf, Sanders, & Hoeken, 2016).

In sum, empirical findings and theoretical considerations on the effects of similarity on identification are rather mixed. However, there may be effects of perceived similarity on identification with a story character under specific conditions. Maybe simple shared demographic features, which are not relevant for a story, have low to no impact on identification. Instead, specific shared features that are highly relevant and central for a story may be more influential for identification with a protagonist (Green, 2006; Ooms, Hoeks, & Jansen, 2019). In line with this idea, the positive association of trait conscientiousness and identification in manuscript #2's second experiment could be explained due to the central role of conscientiousness, respectively depicted negligence, for the experimental story's central theme. Furthermore, in manuscript #3, I manipulated participants' perception of similarity to the protagonist of the experimental video-clip by asking them to find dissimilarities between themselves and the depicted protagonist. This kind of experimental treatment had no effect on identification. As stated above, such a global assessment of (dis)similarity to a story character might not be sufficient to enhance (or hinder) identification. Future studies are therefore encouraged to consider storyrelevant aspects of similarity as an additional factor influencing identification. Beyond the scope of the present thesis, a systematic review of specific narrative characteristics, as well as context and situational factors influencing identification might be worthwhile.

8.2.4 Limitations and Future Research Directions

Previous research found effects of a story's perspective on persuasive outcomes (e.g., H. Kim & Shapiro, 2016; Nan, Dahlstrom, Richards, & Rangarajan, 2015; Nan, Futerfas, & Ma, 2017) and identification (e.g., de Graaf, Hoeken, Sanders, & Beentjes, 2012; Hoeken, Kolthoff, & Sanders, 2016; Kaufman & Libby, 2012). However, the experimental manipulations of identification via different story perspectives (first- vs. third-person) did not work in manuscript #2, experiment two. Recipients may be unable or unwilling to identify with a protagonist, who displays discordant behaviors and attitudes (Cohen, Tal-Or, & Mazor-Tregerman,

2015), or who is a member of a stigmatized out-group (Chung & Slater, 2013; Igartua & Frutos, 2017). Indeed, some experimental studies suggested that identification is more likely if the depicted character is part of one's in-group (Hoeken et al., 2016) and if recipients' group identity is salient during reading/watching a story (Kaufman & Libby, 2012). Therefore, group membership might be an important moderator that influences the effect of narrative perspective on identification, and thus, should be considered in future studies. There is already some empirical evidence supporting this assumption. N. Kim, H. Kim, Wojcieszak, Igartua, and Lim (2019; study 2) manipulated the narrative perspective (first- vs. third-person) and whether or not the protagonist is of the same nationality as the participants. In line with the authors' expectations, there was a significant interaction effect of both factors, such that the experimental story written from a first-person's view prompted identification only when the depicted character was of the same nationality (group membership) as the recipient. Interestingly, social presence, which is "a sense [...] induced when we perceive the mediated or simulated other [...] to be a 'real, actual human being' [...] with whom we are interacting 'without any mediation" (N. Kim et al., 2019, p. 5) was only influenced by the narrative perspective of the experimental story, but not by the protagonist's nationality. Both processes, identification and social presence, are considered to be protagonist-driven, yet they differ in their degree how recipients demarcate their selves from the depicted protagonist: Identification entails a loss in one's self-awareness and recipients merge with protagonists, whereas social presence is linked to deep attachment with protagonists, yet without taking over their identity. In sum, future studies on identification should not only focus on story-related properties (and how to manipulate them), but also consider interindividual differences (e.g., group membership).

As mentioned above, the experience of a story and related processes, such as identification, are dynamic in their very nature. In terms of identification, recipients might vary between observing and merging with a protagonist. However, the identification measure used in

my research was based on post exposure recalls, thus, the underlying processes and their dynamics were not taken into account. One feasible means of capturing the dynamic process of identification could be psycho-physiological measures, particularly measures that are linked to mental simulations of the story and the protagonist's perspective. Furthermore, psycho-physiological measures may also provide a clearer delineation of processes associated with identification and other forms of narrative involvement, such as transportation, which may be stronger connected to an observer role of story events. In line with these ideas, a very recent experiment by Hartung (2017) showed that the narrative perspective (first vs. third person) of experimental stories had no effect on brain activation that is related to share the perspective with a protagonist (by using a fMRI). Regardless of the narrative perspective, the author identified three distinct types of recipients that differed in how they perceived a story by different patterns of brain activation. The first group preferred to view depicted protagonists from a first-person perspective (enactors), while a second group had a strong preference to approach the main protagonist as an observer from a third-person perspective. Interestingly, a third group engaged in both perspectives simultaneously. In sum, recipients might have a preference from which perspective they engage into a story and how to approach protagonists, which is not necessarily related to the perspective suggested by the narrative form (first-person vs. third-person perspective). In another experiment, Hartung (2017) showed that different brain areas (by using a fMRI) were activated when participants are instructed to experience the experimental story as if they were the main character (an experimental instruction to induce identification; Sestir & Green, 2010) or as uninvolved observers of the story. These differences between experimental manipulations even occurred when controlled for interindividual preferences for different perspectives (as mentioned above). Therefore, future experimental studies are encouraged to apply psycho-physiological measures in order to observe identification processes more directly. Furthermore, short instructions before being confronted with an experimental story (e.g., "observe

or read the experimental narrative as if you were the main character"; Sestir & Green, 2010) might be more successful in order to manipulate identification.

8.3 Implications for Research on Social Comparison and Narratives

8.3.1 Comparing Oneself with Protagonists: The Role of Experienced Emotions

Although narratives provide ample means of mental simulations of foreign worlds and merging with their story characters, they might also offer the possibility to actively compare oneself with depicted characters. Corcoran, Crusius, and Mussweiler (2011) suggested that social comparison is an effective and cognitive economical way to learn about oneself. Since media content, such as narratives, are rather easily available, story or media characters might provide a rather quick way to resolve uncertainty about oneself without the effort of engaging in real world face-to-face interactions. Thereby, upward social comparisons with superior others regarding one's abilities are more common than downward social comparisons with inferior others, as indicated by a recent meta-analysis by Gerber et al. (2018).

Besides the direction of comparison (up vs. down), perceived similarity to comparison targets are important in order to describe different emotional reactions (R. Smith, 2000) that in turn trigger different outcomes – assimilation or contrast effects – on recipients' self-perception and behavioral intentions (Nabi & Keblusek, 2014). In manuscript #3, perceived (dis)similarity to a protagonist (a "superior" beautiful model) in a TV-show was manipulated by the instruction either to find dissimilarities between oneself and her or to summarize the content of the experimental TV-clip, as control baseline. Beyond the scope of former experiments that focused on social comparison-based emotions in narratives (e.g., Lewis & Weaver, 2016; Tsay-Vogel & Krakowiak, 2019), manuscript #3 identified envy as an important mediator that influenced different outcomes, such as changes in participants' self-perception and behavioral intentions, in different directions. The experimental instruction to find dissimilarities resulted in higher envy ratings that in turn lowered participants' state body image, indicating a contrast effect. Yet,

participants were inspired through envy to improve themselves by assimilating depicted behavioral intentions of the TV-model. In sum, manuscript #3's findings indicate that recipients are not a helpless audience directly influenced by a narrative, instead the active assessment of difference between oneself and a protagonist and the resulting experience of envy are crucial in order to describe different outcomes. Indeed, these emotional processes during social comparisons with thin-ideal protagonist may explain some of the contradictory findings regarding the strength of negative effects of media exposure on young women's body dissatisfaction and dysfunctional eating behavior, since these processes were not taken into account in past research (Nabi & Keblusek, 2014).

8.3.2 Limitations and Future Research Directions

Despite several contributions the literature, there are some limitations in manuscript #3 that need to be addressed. In accordance with previous research, I assumed that the default process of how to approach a story character would be assimilation, rather than contrast (Appel, 2011). Therefore, it was expected that participants, who summarized the content of the experimental TV-clip, would experience more hope, than participants who were asked to find dissimilarities prior to watching the clip. Against my expectation, however, there was no effect of the control baseline condition (to summarize the content of the video-clip) on experienced hope during watching the TV-clip. This null-finding is somewhat in line with very recent meta-analytic evidence showing that assimilation is not per se the default response to social comparison. Moreover, typical experimental manipulations that aim at feeling similar to a target (e.g., via similarity priming) only lead to very weak assimilation effects at best (see meta-analysis by Gerber et al., 2018). However, recent experimental approaches, which also aimed at the manipulation of very specific aspects of similarity/dissimilarity between their participants and depicted protagonists, did not find effects on upward assimilative emotions, such as hope, either (e.g., Lewis & Weaver, 2019; Tsay-Vogel & Krakowiak, 2019). Furthermore, other factors

seem to increase hope, such as higher perceived realism of an experimental video-clip and whether a video-clip was scripted (e.g., *Gossip Girl*) vs. unscripted (reality-TV like *Party Down South*; Lewis, 2015). In a quasi-experiment, Lewis (2019) did not force participants to watch an experimental TV-clip; instead, participants had a free choice to select a TV-clip from a pool of different clips. This ecologically valid approach reflected more "natural" or typical engagement situations with narratives and their protagonists, although the experimental control was lost. Lewis (2019) found no association between hope and participants' general state self-esteem, which is somewhat in line with the findings in manuscript #3. A possible explanation for this finding could be due to a lack of perceived attainability to reach the higher standard as depicted by a superior other (Lockwood & Kunda, 1997). Therefore, future studies are encouraged to include attainability of a higher standard as an additional moderating variable that could enhance the effect of hope on behavioral outcomes.

Furthermore, identification did not interact with the experimental manipulation, thus, participants did not state higher hope values in the control baseline when they highly identified themselves with the depicted TV-model in comparison to low identification. However, there was a rather high correlation between identification and experienced hope during the reception of the experimental TV-clip. Hope might be theoretically related to an empathic feeling towards the depicted main character, which is closely connect to identification (Cohen, 2001). Moreover, there was no association of the hope measure and behavioral intentions in manuscript #3. This finding is somewhat in line with previous correlational studies that showed that the association between hope and behavioral motivation was only half the size of behavioral motivation as induced through envy (Nabi & Keblusek, 2014). Therefore, possible associations between hope and both behavioral DVs could have been too small to be detected given the sample size in manuscript #3. However, on the same lines, a series of experiments van de Ven, Zeelenberg,

and Pieters (2011) also found no support that hopeful or inspiring emotional reactions to upward comparisons lead to motivation to improve oneself, yet envy was the key mediating variable that led to an elevation in effort and performance in an experimental task.

Furthermore, a more accurate differentiation between hope and associated concepts, such as *optimism* could be worthwhile for future research on narratives, since both emotions are differently related to the view on the world and ourselves. The concepts of hope and optimism are often used synonymously or assumed to be strongly related, yet they differ in their degree of generalization (Bruininks & Malle, 2005). The commonality of hope and optimism stems from the fact that the occurrence of positive events can be dependent on both personal and situational factors. Therefore, optimism can be understood as 'generalized hope' and should arise from positive reinforcements via more frequent moments of hope (Scheier & Carver, 1985; Snyder, 2002). Furthermore, optimism involves the belief that the things in life will develop well on their own. Therefore, optimistic people look confidently into the future, leaving open whether things develop positively on their own or if one contributes to a possible positive outcome. In sum, optimism is more strongly associated to a general positive expectancy about others and the world, thus, it should have a higher impact on global perceptions of life (satisfaction). Hope, on the other hand, is more specifically related to expectations about oneself and how to achieve specific goals in life (Rand & Touza, 2018).

Research has supported the structural distinction between hope and optimism in terms of measurement. For instance, hope predicts well-being, independently of self-efficacy and optimism (Magaletta & Oliver, 1999). Gallagher and Lopez (2009) found optimism and hope to predict different aspects of well-being. Hope predicted more eudemonic well-being, whereas optimism showed stronger relations to hedonic components. In regard to narratives, optimism was linked to enjoyment and hedonic motivations for narrative selection (Oliver & Raney, 2011), whereas hope was stronger associated with appreciation and meaningful affect (Lewis,

2019; Lewis & Weaver, 2019). In sum, a stronger focus on the positive side of upward assimilative comparisons and experienced emotions, such as hope and optimism, might be worthwhile for future research on narratives. Thereby, the different relations of hope and optimism to social good and one's personal well-being could be an interesting field of research (Oliver et al., 2018).

As stated above, envy is often considered an amoral and malicious emotion (cf. D'arms & Kerr, 2008). However, there are many fictional depictions of envious characters in classic and modern narratives, such as Shakespeare's play Othello (Shakespeare, 2006). The commander Othello has preferred the Florentine Cassio in a promotion to the ensign Iago, whereupon Iago ponders revenge on Cassio and Othello. Iago's envy and his unscrupulous intrigues drive the tragedy, and at the end, Cassio is striped from his rank and Othello is driven to suicide. In a more recent narrative, the movie Seven (Fincher, 1995), the serial killer John Doe kills the wife of David Mills, one of the main protagonists, out of envy on Mills' and his wife's good life together. Indeed, envy is often considered to cause a variety of malicious tendencies, such as joyful feelings when envied others suffer (schadenfreude; Leach, Spears, Branscombe, & Doosje, 2003; R. Smith & van Dijk, 2018; van de Ven et al., 2015) or the destruction of good things if the alternative is that others have them (Klein, 1957; Miceli & Castelfranchi, 2007; Schimmel, 1997). The question remains, why recipients chose to watch or read narratives depicting such malicious characters? Future research on narratives is encouraged to focus more on envy as a central motive within a story and on the prevention of negative effects on recipients.

Envy was measured as a unidimensional construct in manuscript #3, yet recent research distinguishes between two different forms that are *benign* and *malicious envy* (Belk, 2011; Lange, Blatz, & Crusius, 2018; Lange, Weidman, & Crusius, 2018). Both forms of envy are experienced after upward social comparisons with superior others. Thereby, this gap can be

either reduced by pulling the other person down (malicious envy) or by moving oneself up to the higher standard (benign envy). Both facets of envy are mirrored in many languages that contain different words for envy, such as the German words *missgönnen* and *beneiden*. On the one hand, benign envy, as a more benevolent and positive emotion towards a superior other (Meier & Schäfer, 2018; van de Ven, Zeelenberg, & Pieters, 2009), is considered to increase personal effort to strive for the envied good (e.g., dispositional benign envy predicted faster race performance in a marathon, Lange & Crusius, 2015). On the other hand, malicious envy, as a more hostile and negative emotion, is often related to schadenfreude at superior others' misfortune (van de Ven et al., 2015). The malicious form of envy is also linked to the fear of not living up to the higher comparison standard, and as a result, one is more likely to avoid reaching a goal of excellence (Lange & Crusius, 2015). Moreover, malicious envy is often hostile in its very nature, what shows up in resentful thoughts (R. Smith, Parrott, Ozer, & Moniz, 1994), deceptive behaviors (Moran & Schweitzer, 2008), or actions that aim to hinder the successes of an envied other (Duffy, Scott, Shaw, Tepper, & Aquino, 2012).

In sum, future studies should include benign and malicious envy as mediating variables, since both facts of envy could lead to opposite outcomes. Benign envy might be more related to assimilative effects, since one aims at improving or simulating a superior other. Malicious envy, however, is stronger linked to the fear of not being able to reach the success of a superior other, and therefore, highlights differences or contrasts between oneself and a superior other.

8.4 Conclusion

The basic idea that narratives influence how we perceive the social world and ourselves dates back to the Classical Greek antiquity in which the experience of *Mimesis*, as creating or simulating a story world and its characters, teach recipients about themselves and the real world (Oatley, 2016). The reception of a narrative requires a high amount of cognitive effort, since

the recipients actively construct mental models with specific presuppositions, which are constantly revised throughout the story (Busselle & Bilandzic, 2008, 2009). Therefore, reading a captivating book or watching an exciting movie is ultimately linked to the idea of an active recipient, who dynamically constructs and transports herself into the story (Busselle & Bilandzic, 2008; Gerrig, 1993). Thereby, narratives offer the unique possibility of an active, intimate, and vicarious experience by trying on different selves and identities while being engaged into the story world (Cohen, Appel, & Slater, 2019), rather than mere learning via observation of story characters (Bandura, 2001) or simple priming effects on the self and related behavior (Wheeler, DeMarree, & Petty, 2007, 2014). Findings in the current dissertation were in line with the assumption of an active recipient, who transported herself into a story world and counterargued to a lesser degree story assertions. Thereby, one's self-perception could change in line with the story and its characters (assimilation effect). However, recipients are not automatically overwhelmed by narratives and therefore surrender their sense of the self. Instead, they might perceive stories with some distance, especially under conditions of low transportation and high counterarguing, which lead to self-perceptions opposite to a story and depicted characters (contrast effect).

Furthermore, my dissertation innovatively combined theories of media and social psychology, as well as social cognition in order to describe different narrative effects on recipients' selves. Indeed, narratives might exert an impact on social cognitions by presenting social content (e.g., protagonists interacting with each other) and/or evoking social processes (e.g., social comparison with depicted protagonists). Thereby, I identified social comparison-based emotions, such as experienced envy during story reception, as additional process in shaping assimilative vs. contrastive outcomes. Specifically, the active assessment of differences between one-self and a superior protagonist leads to feelings of envy. Envy in turn caused contrast effects in

one's self-perception, while it also led to assimilation effects in behavioral intentions to improve oneself to the given standard. I hope that my empirical work outlined above serve to inform future research on narratives and the self. Thereby, I am confident that my empirical findings will help to uncover further antecedences and processes leading to assimilation vs. contrast effects when confronted with narratives.

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