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## **The Underdog Narrative in Movies: When Our Memories Fail Us**

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**ABSTRACT:** Heroes who win are adulated. Underdogs are a special class of heroes who are facing especially daunting odds. Why do people extend support to underdog entities in light of their bleak odds for triumph? The current study explored the idea that the underdog narrative is one of ultimate success and that this schema is strong enough to elicit false memories. We surveyed participants' recollections of two boxing movies. As predicted, participants accurately remembered James Braddock beating the world champion in the end of *Cinderella Man* (underdog consistent plot) but failed to recall Apollo Creed beating Rocky Balboa in *Rocky I* (underdog inconsistent plot). While ruling out alternative explanations of time and emotional attachment we propose that the underdog storyline is one of eventual triumph. This distortion in memory may, in turn, contribute to unfounded optimism about the yet-to-be-determined chances of contemporary underdogs and increase the likelihood of support extended to them. Limitations and future avenues of research are discussed in detail.

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**KEYWORDS:** heroism, false memories, underdog narrative

Heroes and their noble stories serve important psychological purposes for their admirers such as inspiration, role-modeling and guides for moral action (Goethals & Allison, 2012). Heroes are perceived to be capable and honorable but they also must face hardship in reaching their goals and elevated status. When facing the odds, hero figures demonstrate persistence which brings about eventual success. Being triumphant is, naturally, a cherished attribute held dearly by many (Cialdini et al., 1976) and is often linked to the inspirational aspect of being a hero.

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Underdogs are a special sub-category of heroes as they attract attention mostly because the salient overwhelming odds are stacked against them (Vandello, Goldschmied & Richards, 2007). Underdogs are not necessarily more morally upright than their top-dog adversaries. Aside from the power disparity, underdog entities usually struggle with top-dogs who are in essence similar to them (as opposed to fighting an inner self, the gods or the “system”). The underdog fight is often characterized as a zero-sum game for which the resolution seems to be clear and immanent (i.e., elections, a sports match, a business bid, war) [Goldschmied & Vandello, 2012].

Religion, sport, politics and film are filled with underdog stories in which a significantly less powerful entity is facing a mighty opponent and against all odds overcomes adversity, all the while winning the adoration of the masses. The biblical story of David vs. Goliath, “The Miracle on Ice” (the U.S. college hockey squad vs. the all-powerful Soviet team), president Truman’s monumental photograph holding a premature newspaper title announcing his defeat, all come to mind rather easily when the underdog narrative is discussed.

Paharia, Keinan, Avery and Schor (2011) utilized an extensive open-ended item generation approach, and subsequent factor analysis to study the construct found that the inspirational tale of the underdog was composed of two fundamental elements: (1) external disadvantage (i.e., not of the underdog’s doing) (2) great exertion by the protagonist.

Past research (Kim et al., 2008; Vandello et al., 2007; Paharia et al., 2011) found strong support for the underdog among the non-aligned. For example, Kim et al. (2008) introduced their participants to animated clips of struggling and non-struggling geometric figures. The results showed that participants expressed more support for struggling shapes especially when they encountered a “malicious” top-dog figure which seemed to go after its weaker counterpart blocking and impeding the underdog’s progress. Vandello et al. (2007) provided their participants with five countries’ all-time Olympic medal totals. Participants were then asked to imagine two of the countries engaged in an upcoming swimming contest. The results revealed that those countries with fewer medals always received more support from the unaffiliated individuals. Paharia et al. (2011) used short vignettes describing the evolution of business manufacturing companies. They found that when pitting a hypothetical underdog company with humble beginnings against a top-dog competitor with abundance of resources, participants reported greater purchase intentions towards the underdog brand. All in all, laboratory based research with stimuli generated specifically to assess the phenomenon demonstrated support for the underdog across many domains such as law, business, international relations, politics and sports.

Over a relatively short lifespan of about a century, movies have become a dominant popular art form, serving both as a reflection of society and its values, as well as its aspirations. As noted by Goethals and Allison (2012) films can be more vivid and less intricate than other forms of art (e.g., literature) and as such are a great source of hero and underdog creation. Fischhoff (1998) investigated film preferences among a demographically diverse, large nationwide sample, measuring film and genre favorites, as well as preferred film elements. He concluded that:

the importance of the fantasy ‘Triumph of the Underdog’ as compared with all other fantasies across all genres cannot be overstated. Clearly this is a theme that most anyone can relate to. Most people have been, at one point or another, an underdog in a dog eat

dog, power oriented society. The fact that, collapsing across all genres, Triumph of the Underdog fantasy is even higher than the Hero fantasy speaks to the likelihood that our collective fantasy of triumphing speaks more about redressing an imbalance than about standing out from the crowd per se and receiving its accolades. (Fischhoff, 1998, pp. 15-16).

Clearly, Fischhoff (1998) perceived underdog support as part of the Freudian approach of identification or “the assimilation of one ego to another” (Freud, 1933).

However, underdog support is puzzling since it contradicts principles of social identity theory (Tajfel & Turner, 2004); as the unaffiliated observe a top-dog vs. underdog about to battle, they have the benefit of choosing sides. By inference, they should align themselves with the mightier entity which is more likely to achieve success, thereby enhancing their self-esteem.

Vandello et al. (2007) attempted to explain the underdog support phenomenon by focusing on fairness. They demonstrated that having substantially less financial resources trumped lesser odds of winning as the driving force behind underdog backing. Specifically, their study consisted of several scenarios in which two teams previously unfamiliar to the participants were about to compete against each other in an important match. Participants, who were only informed that one team had a 70% chance of victory while its opponent had a 30% chance, supported the latter. Other participants, who were only informed of a high vs. low payroll imbalance, supported the team with less financial resources. However, when these two elements were contrasted such that one team had a 70% chance of success and low payroll, it was favored over the opposing team which had a 30% chance of success with a high payroll. Thus, a team with low expectations to prevail, but with abundance of resources, would lose both underdog status and support.

A second alternative that may propel underdog support could be rooted in the upward mobility bias (Davidai & Gilovich, 2015). This cognitive bias highlights people’s tendency to give considerable weight to a focal agent’s (i.e., the lowly ranked underdog) intentions and motivation but to give less weight to the intentions of competitors (i.e., the highly ranked favorite) that would thwart the focal agent’s improvement. As a result, one would predict an entity to rise in rankings rather than fall. The authors demonstrated the effect with both NBA and NFL standings (as well as with rankings unrelated to sport) and with participants who cared about the entities in question as well as those who did not.

Goldschmied and Vandello (2012) found that most participants recalled past underdog entities who prevailed (e.g., David vs. Goliath) as opposed to ones who ultimately lost (e.g., the Alamo) and focused on the availability heuristic at the root of the phenomenon. They argued that when having to make a decision whether to support an underdog entity or not, the unaffiliated attempt to recall past instances of underdog struggle. Since underdog stories often come to the forefront in those rare times when they prevail, while the majority of losing underdogs fall to the wayside, the non-aligned overestimate the likelihood of future underdogs to do better than the odds. This bias contributes to the observed underdog support.

Paharia et al. (2011) in their broad investigation went beyond merely exploring the defining features of the underdog construct and sought exemplars that fit these dimensions. According to their investigation, the fictional movie character, Rocky Balboa, scored high on

external disadvantage as well as passion and determination. In line with this, Allison and Goethals (2011) report that people root for underdogs who show superior effort; further, Vandello, Goldschmied and Michniewicz (2017) argue that underdogs who do not fully apply themselves should experience diminished support. The *Rocky* narrative has been used in past research in social psychology (Branscombe & Wann, 1992; Branscombe & Wann, 1994) to study aggression effects as well as implications emanating from social identity theory.

The present study goes beyond past research in arguing that the underdog narrative is so powerful that it can influence memories of underdogs observed. Early on, Bartlett (1932) asserted that memory was reconstructive in nature rather than photographic. Indeed, past research is rife with examples of relatively minor memory errors such as misattributions (Zaragoza & Lane, 1994), misleading accounts as well as false recognition (Schacter & Dodson, 2001), but also extends to the creation of false memories (Loftus & Pickrell, 1995; Roediger & McDermott, 1995).

We contend that embedded in the underdog construct is ultimate triumph, not merely performing admirably better than the initial low odds and coming only close to victory. We thus predicted that participants would incorrectly recall the ending of the movie *Rocky I* in which, Rocky Balboa, while fighting valiantly, loses the boxing match to the top-dog (i.e., underdog inconsistent plot). In contrast, participants would correctly remember the ending of another boxing movie *Cinderella Man*, in which the underdog, James Braddock, prevailed over the world champion, Max Baer (i.e., underdog consistent plot). False memory based on schema consistency has been supported empirically and the finding is well-grounded in the seminal work of Roediger and McDermott (1995), who demonstrated that false memories of words not presented in lists occurred consistently if they shared an associative network. Goldschmied and Vandello (2012) constructed exactly such a map and showed that ‘winner’ was the second strongest associate of the underdog construct.

Furthermore, based on Loftus and Pickrell’s (1995) seminal research on the formation of false memories, we predicted that those who did remember both films’ ending accurately would be able to provide more elaborate descriptions of the final fight scene, whereas those who did not accurately remember who won the fight would be more minimal in their descriptions.

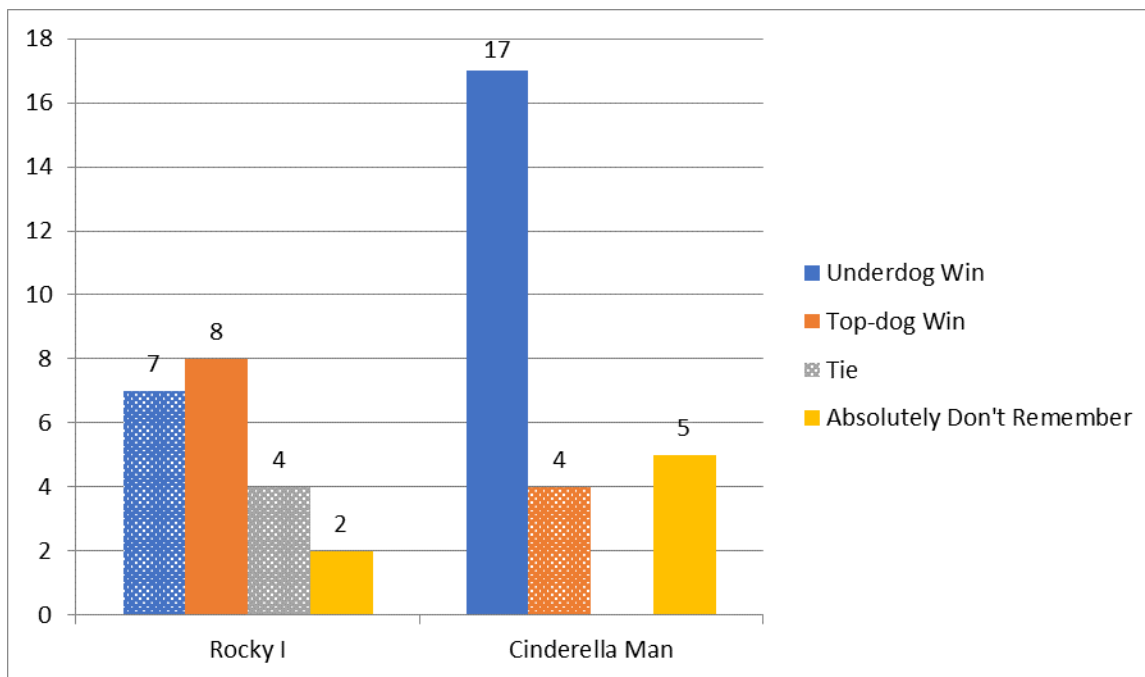
### Method

Passersby were approached in the vicinity of the school’s cafeteria and asked if they were willing to take part in a short film study. If they agreed, they were randomly assigned to be asked if they had watched either *Cinderella* or *Rocky I* (we bolded and underlined the ‘*I*’ to prevent participants mistakenly recalling memories from the *Rocky* sequels). If the participant did not watch the movie they were randomly assigned to, we did not inquire further about the second film in order to prevent demand characteristic problems. 52 participants (43 men, 9 women; mean age = 20.23 years old,  $SD = 2.81$ ) composed the sample of whom 22 were questioned about *Rocky I* (18 men, 4 women) and 30 about *Cinderella Man* (25 men, 5 women). We aimed for 20 participants in each condition and stopped gathering data when none of the cells had an expected count less than five. Five participants did not perceive the protagonist as an underdog and were excluded from the analysis.

Participants first indicated who won the fight at the end of the movie ('Rocky Balboa/ James Braddock,' 'Apollo Creed/ Max Baer,' 'Tie,' or 'Absolutely do not remember'); following this they were asked to describe the final fight scene in as much detail as possible. They were then asked whether they considered the protagonist an underdog (Yes/No), how much they liked the protagonist in the film, how much they wanted the protagonist to win the fight, and how much they liked the movie overall (0 = not at all, 6 = extremely). Finally, participants were asked to estimate when they had watched the movie first and how many times they watched it (open-ended).

## Results

We recoded the participants' recollections of how the final fights of the movies ended (see Figure 1) into true and false memories. Following this a 2X2 chi-square test of independence was performed to examine the relation between memory [correct vs. incorrect recollection] and film [*Rocky I* vs. *Cinderella Man*]. The test was significant,  $\chi^2(1, N = 40) = 6.42, p = .01$  (eta-squared = .4), as most participants correctly recalled the outcome of *Cinderella Man* (81%) while less than half (42%) correctly recalled the outcome of *Rocky I*.



**Figure 1. Frequency of participants' recollections of the final boxing match outcome in each film. The solid color bars represent the correct answer in each movie. The pattern-filled bars represent the incorrect answers in each movie. Those who 'absolutely did not remember' were not included in the analysis.**

We then conducted a letter count of the participants' open-ended descriptions. Participants who recalled the ending correctly were considerably more elaborate in their accounts ( $M = 217.24, SD = 116.44$ ) than those who misremembered who won the fight ( $M = 146.93, SD = 83.78$ ),  $t(38) = 2.04, p = .048$ .

We also conducted a series of independent t-tests to rule out emotional attachment as a reason for memory disparities between the movies. The participants equally liked Rocky ( $M = 4.62$ ,  $SD = 1.12$ ) and Braddock ( $M = 4.65$ ,  $SD = .98$ ),  $t(45) = -.11$ ,  $p = .91$ , and equally liked the movie *Rocky I* ( $M = 4.38$ ,  $SD = 1.07$ ) and *Cinderella Man* ( $M = 4.38$ ,  $SD = 1.3$ ),  $t(45) = -.01$ ,  $p = .99$ . Participants equally wanted Rocky ( $M = 5.29$ ,  $SD = .85$ ) and Braddock ( $M = 4.88$ ,  $SD = 1.18$ ) to win the fight,  $t(45) = 1.31$ ,  $p = .2$ . We also conducted two independent t-tests to rule out the passage of time as a reason for memory disparities. There were no significant differences between the times when *Rocky I* ( $M = 2007.33$ ,  $SD = 2.87$ ) and *Cinderella Man* ( $M = 2008.85$ ,  $SD = 2.57$ ) were first watched,  $t(45) = -1.90$ ,  $p = .063$ , nor between the number of times *Rocky I* ( $M = 2.26$ ,  $SD = 1.39$ ) and *Cinderella Man* ( $M = 2.02$ ,  $SD = 2.13$ ) were watched,  $t(45) = .45$ ,  $p = .66$ . These null effects were also maintained when participants who reported they could not remember the outcome of the fight were excluded from the analyses.

### Discussion

The participants recalled correctly the underdog winning in *Cinderella Man* but failed to recall the top-dog beating the underdog in *Rocky I*. The current study goes beyond the availability heuristic, which merely argues for selective recall of past events as the basis for underdog support to contend that participants would alter past memories to fit the underdog eventual triumph narrative, thus increasing its appeal. This pattern of skewed recall is especially impressive since we did offer the participants a way out if they were not thoroughly sure who won the fight, and we also did not furnish our participants with any false information as is common in much of the false memory research (for review see, Loftus, 2005).

Given that our memory is associative in nature (Deese, 1959) and schema driven (van Kesteren, Ruiter, Fernández & Henson, 2012) it may lead us astray at times. According to the activation-monitoring framework, false memories occur because information that is not directly given during the encoding segment of the experiment may still be inferentially activated and processed by the participant (Cann, McRae & Katz, 2011). Roediger, Meade and Bergman (2001) demonstrated social influences, similar to what is proposed in the current investigation, in the creation of false memories. In movies, Allison and Goethals (2013) demonstrated that we organize our memories of heroes and specifically what they say into neatly construed mantras, even if they are not always true.

Why is this finding of importance? This pattern of biased recollection may contribute to unfounded optimism in regards to underdogs whose fate has not been determined yet, which, in turn, may be translated into heightened support tendencies (after all we do like winning entities). For example, in the political arena voters in open elections may hedge their bets on a fringe candidate who is labeled as the underdog (Goldschmied & Vandello, 2009) rather than go with the established option, and by doing so undermine their cause as the split in the vote could propel the opposing political side into victory.

Regardless of the movie, participants who recalled correctly who prevailed in the final fight scene elaborated more in their descriptions than those who misremembered the outcome. This pattern is in line with past research (Loftus & Pickrell, 1995). Upon further analysis, we also found that the former group had more correct details in their description and less incorrect ones than the latter group about the scene in general.

Where do the results place the underdog in the context of general heroism research? Underdog stories put emphasis on competence in the face of adversity but do not stress the moral character of the protagonist as is the practice with other types of heroes (Franco, Blau & Zimbardo 2011; Goethals & Allison, 2012). It is not clear whether Truman was a better person than Dewey, his opponent, or if he promoted more pro-social causes than his one-time top-dog adversary (a hypothetical question of course). David who faced Goliath subsequently committed plenty of bad deeds, among which was seducing Bathsheba and sending her husband to die in war. Nothing is reported on the moral character of Goliath. Accordingly, Brown and Goldschmied (2015) who studied conceptions of underdog vs. top-dog using the semantic differential scaling technique, failed to find any differences along the moral dimension between the two entities.

So how does the underdog secure positive emotional attachment which all heroes require (otherwise they may even become villains)? Humility and effort come to mind. Rocky is depicted as humble (while his top-dog rival is not) which is a moral quality people hold dear (Wortman & Wood, 2011). In addition, humility has also been implicated as a source of competitive advantage (Vera & Rodriguez-Lopez, 2004).

The underdog is also perceived to be fighting hard. For example, Vandello et al. (2007) showed participants two previously unfamiliar European basketball teams competing against each other. About half of the sample was told that one team was the underdog while the rest was told the opposite. Participants attributed more effort to a team when they believed it to be an underdog (regardless of which team it was) and their perceptions of effort mediated liking. Other research demonstrated that we like those who try hard rather than the naturally gifted (Farwell & Weiner, 1996). Similarly, it seems that the director of *Rocky I* made every effort to showcase Rocky fighting tooth and nail against his mighty opponent, while Apollo Creed, the top-dog, hit hard; in his case performance seemed to be more an attribute of his natural physical strength rather than his will.

### Limitations and Future Research

The results obtained in this study are not definitive and should be taken with caution, and as such merit further rigorous investigation. It is important to point out that while thematically the two films are alike, there are some differences in how the plots unfold. For example, Rocky loses in a split decision while Braddock wins in a unanimous vote. Rocky is a rookie fighter and character of fiction while Braddock, a historical figure, is believed to be a veteran past his prime.

The main difference, though, between the stimuli is that *Rocky I* has several sequels while *Cinderella Man* does not. *Rocky I* is an iconic movie while its counterpart never reached the same stature. As such, the former is more likely to be discussed in post-viewing settings and thus more prone to influence (e.g., social contagion), whether biased or otherwise. Thus, it is conceivable that participants mistakenly remembered another *Rocky* sequel ending (in all of them despite hardship the protagonist prevails) and applied the winning incorrectly to the outcome of *Rocky I*. However, we argue that the mechanism is different whereupon as indeed viewers are somewhat unsure about the outcome of the movie, they base their judgement on the underdog schema. In other words, they tell themselves “there is no way Rocky, the underdog, went through all this trouble only to lose” and therefore conclude that he must have prevailed (or at least did not lose). This mistake can only occur in a messy, muddled memory “environment” as provided

by the *Rocky* genre. We doubt that this effect would take place when one's memory is clear and not in the least somewhat cluttered.

Since we did not exert control over the dissimilarities in the two movies we made sure to rule out other potential explanations such as emotional involvement as well as the passage of time as reasons for the detected memory disparities. Thus, the idea of distorted memories about the fate of the underdog (prevailing rather than losing) is an intriguing idea that should be further explored utilizing an experimental/lab approach with a strict random assignment component. Researchers may explore if participants reading a bogus sports article about a lesser boxer who was not labeled as an underdog initially, are more likely to recall him erroneously being described as such if they read about him winning rather than losing. While this kind of an experimental approach has a clear advantage in terms of the ability to infer causality, it is naturally lacking in external validity (e.g., emotional involvement, likelihood of participants discussing the story following exposure). It might therefore be amiss of vital components in the generation of the false recollection.

There is much research on the malleability of memory exploring diverse proximate factors (Carlucci, Kieckhafer, Schwartz, Villalba & Wright 2011; Payne, 2011). We propose that recollections can be shaped by a rather distal social schema with potentially far-reaching implications. How long it takes for a commonly shared script to influence memory cannot be determined from the current cross-sectional research design; a longitudinal approach should shed more light on its gradual progression, but it is clear from past research on sport fandom that the emotionally invested are more likely to rehearse events with a positive outcome rather than a negative one (Breslin & Safer, 2011). This makes *Rocky I* a prime target for memory distortions.

One additional limitation pertains to the composition and the size of the sample. The majority of our participants were males who generally seem to identify more with the sport of boxing (Woodward, 2006). Since we explored the underdog construct within this domain, it is important to note that the genders do not always treat the underdog alike (Ramirez & Goldschmied, 2015).

In sum, the current results provide an intriguing first step in the proposition that false memories are part of the myriad of factors behind underdog support. This is decidedly only a preliminary finding in establishing the effect – future investigations should focus on other domains such as history (rather than fiction) in replication, as for example, if American participants can be made to misremember the outcome of the Battle of the Alamo based on the saliency assigned to its underdog status.

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