The 'Trickle-Down-Effect': Should sporting heroes bare their souls?

A study on the role of storytelling in the effect of sporting heroes on the perceived sport participation behaviour.

TILBURG ◆ UNIVERSITY

School of Social and Behavioral Sciences

Michelle Hieltjes
790453

Tilburg School of Social and Behavioral Sciences
Department of Leisure Studies

Supervisor: Prof. Dr. Ir. J.T. Mommaas

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Preface

This dissertation aims at getting insight in the role of storytelling in the 'trickle-down-effect': the effect of sporting heroes on the perceived sport participation rate. The idea behind this research project is not only to fill the current gaps in literature, but also to provide both public and private organizations with information on how they can introduce sporting heroes to the audience in such a way that they can inspire behavioural changes with the aim of increasing the sport participation rate in The Netherlands.

In order to research this matter, the narratives of Bram Som and Ellen van Langen as appeared in the media have been analyzed. I want to thank both athletes for their inspiring stories that have allowed me getting a better insight in the differences between the appearance of athletes in the media as well as the effect of these different narratives. Furthermore, I want to express thanks to my supervisor, Hans Mommaas, whose encouragement, guidance and support has been of major importance for completion of this project.

Lastly, I am grateful for all the participants in the questionnaire or the quasi-experiment and the people that critically reviewed my work and provided me with thoughtful feedback.

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Abstract

Both public and private organizations (such as NOC*NSF or the Pieter van den Hoogenband swimming stadium) are utilizing sporting heroes as a catalyst for the sport participation rate. Nevertheless, scientific research seems to be unable to agree on the strength of the effect of sporting heroes on one's sport participation behaviour. To explicate, most research does not report any effect at all (e.g. Van Bottenburg, 2001, 2002, 2003; Tookey, 2007 in Van Bottenburg et al, 2011), whereas in other studies there has been found an effect (e.g. De Jong, Van Reusel and Van Driel, 2010) and others only report an indirect effect (Lyle, 2009; Handstad and Skille, 2010). Only a small amount of research has focused on circumstances of this so called 'trickle-down-effect', such as the traits of the hero or the characteristics of the audience. However, no research has been directed to the role of storytelling in this process, which could affect the 'trickle-down-effect' as research has proved the strength of storytelling in changing one's behaviour (Küpers, Mantere and Statler, 2012; Silverman, 2004; Van Hulst, 2008). Also, the inspiration-emulation-perspiration model (McKay et al, 1993 in Van Bottenburg et al, 2011) assumes that experiencing something similar to the hero is crucial to be inspired, in which storytelling could play a role in terms of involving the audience. Lastly, Van Bottenburg (2003; Van Bottenburg et al, 2011) discusses that the main problem these days is that sporting heroes become more alienated from the normal people, which holds them back from being able to inspire the mass population. Following this argumentation, storytelling might contribute to the heroes becoming more human, which could increase the identification, which in turn is expected to result in behavioural changes (inspiration-emulation-perspiration model). Due to this potential strength of storytelling, this research aims at getting a better insight in the role of storytelling in the effect of sporting heroes on the perceived sport participation rate (figure 1), which is connected to the following research question: *How can storytelling (in terms of context, content and form) contribute to the amplification of the role of sporting heroes as a catalyst for the sport participation rate among adults?*
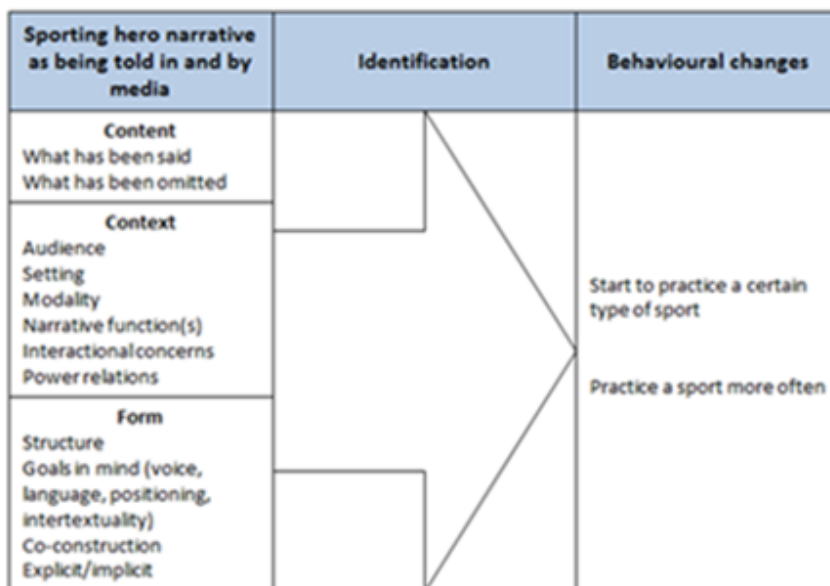
Figure 1: Conceptual model

In order to research this matter, this dissertation has been divided into three building blocks: a content analysis, a questionnaire among bootcampers and a quasi-experiment. First, the narratives of Bram Som and Ellen van Langen as appeared in the media have been positioned against each another in terms of content, context and form through a content analysis. Secondly, an online questionnaire has been conducted on the narratives of Bram Som and Ellen van Langen among bootcampers. In this questionnaire, bootcampers have been asked about their familiarity with both athletes. If they were familiar with the narrative of an athlete, they were confronted with several questions on the content, context, form of the narrative, their identification with the athlete as well as the influence of the narrative on their sport participation behaviour in bootcamp trainings. Lastly, a quasi-experiment was conducted for which the results of the content analysis on the narratives of Bram Som and Ellen van Langen has been used. Based on this content analysis, a selection of four media outputs for each narrative has been made that is representative in terms of content, context and form for the entire narrative as appeared in the media. The participants of the experiment were confronted with these media outputs during four weeks. In order to identify any behavioural changes, they were given the opportunity to sport (bootcamp trainings) for free during these four weeks. Nevertheless, as the odds that they actually participate in bootcamp trainings seems rather small, they have also been asked to fill out an online survey at the end of the experiment in which they were not only asked about their perception on the narrative (content, context and form), but also about their identification with the athlete as well as their view on the contribution of the narrative in their sport behaviour changes. Thus, whereas the questionnaire among bootcampers is based on a natural setting where bootcampers have to memorize the narrative as presented to them in preceding years, the participants of the experiment were forced to follow an artificially constituted narrative for four weeks.

The results of the content analysis indicate that there are a few major differences between the narratives of both athletes as appeared in the media. Concerning the content of the narratives, the successes of Ellen van Langen are more often discussed in the media compared to Bram Som, whereas the private life of Som appeared in the media slightly more often (12.5%) than the private life besides sport of Van Langen (9.38%). One of the differences within the context between the two narratives is related to the prime function: whereas Ellen van Langen has appeared in media sources with the main function to entertain, Bram Som was more often discussed in an informative setting. Additionally, whereas Som mostly showed up in articles (55%), Van Langen was more often visible in video's (43.75%). The last aspect of the context that contains a noteworthy difference was whether or not the media source was directed towards a sports audience or a much broader, general audience: Bram Som appeared more often in a sports directed media source (98%). Lastly, the form of both narratives in the media has been analyzed, of which the structure as well as the implicit-/explicitness seemed to be the most striking aspects. Bram Som has appeared in the media with his run towards his successes, whereas Ellen van Langen was mentioned in the media after her huge achievement. Also, the media sources in which Ellen van Langen is discussed contain strong implicit language, such as strong facial expressions, music and body language, whereas in the case of Bram Som, there was only little implicit language recognizable.

The outcome of the questionnaire has been compared with the outcome of the content analysis to verify the reliability of how the narratives have been positioned. No considerable differences between the outcomes have been found, which indicates that the content analysis is likely to be a

good representation of both narratives in the media. In total, 374 respondents filled out the questionnaire, of which 359 cases appeared to be valid. Out of these 359 cases, only 3.34% appeared to be familiar with the narrative of Bram Som and 24.51% said they were familiar with the narrative of Ellen van Langen. This results seems somewhat strange at first hand, as 200 media outputs of Bram Som have been analyzed in the content analysis, compared to 69 of Ellen van Langen, which indicated that Bram Som has appeared in the media more often. However, as people seem to be more familiar with Ellen van Langen, the media sources in which she appeared (with a broader audience) are probably more powerful compared to the sources in which Bram Som was discussed.

The outcome of the questionnaire shows that the only significant difference between the narratives of Bram Som and Ellen van Langen is the familiarity with the success. Concerning the relations between the content, context and form on the one hand and the identification and perceived behavioural changes on the other hand, the results indicate that for both Bram Som as well as Ellen van Langen, the emotion is significantly related to the identification. For Bram Som, there are no other items related, which can be explained by the small number of respondents that filled out the questions on the narrative of Bram Som. In the case of Ellen van Langen, also the familiarity with the run towards the success as well as the level of entertainment seems to have an effect on the identification, which in turn affects the perceived change in sport participation behaviour. Also, the entertainment and type of media (articles or video's) influences the level of emotional involvement. Furthermore, age seems to have a negative effect on the perceived behavioural changes of others, meaning that the older the respondent, the less likely he is to report any effect on the sport participation behaviour of others.

After finishing the experiment, the results of the experiment-questionnaire have been compared to both the outcome of the content analysis as well as the outcome of the questionnaire among bootcampers. The correlation between the three has been confirmed, meaning that in all three cases, the narratives were positioned against each other in a similar way. The results of the experiment further demonstrate that in all cases, the level of identification is positively related to the perceived change in sport behaviour. Additionally, this identification is influenced by the emotions involved in both the case of Bram Som as well as Ellen van Langen. The case of Bram Som also shows that women are more likely to feel emotionally involved and that the emotional involvement is influenced by the level of entertainment. In the case of Ellen van Langen, there have been other aspects that interfered as well: the type of media being sport oriented or regular, the function being informing, the familiarity with the life after and whether or not one engages in sports him/herself. These aspects, however, are not significantly related in the experimental case of Bram Som, neither are they related in the natural setting (questionnaire). Grouping the participants of the experiment together, thus looking at the results from both athletes together, the familiarity with the life after and the type of media (sports oriented or regular) remains significantly related and also the type of media in terms of articles or videos, the level of entertainment as well as the gender, age and whether or not people exercise are connected.

Comparing the results of the three building blocks of this dissertation resulted in a new model on the role of storytelling in the trickle-down-effect (figure 2). It can be concluded that the identification with the sporting hero is related to the perceived change in one's sport participation behaviour. Hence, this research confirmed the emulation-inspiration-perspiration model. However, the main question was related to the role of storytelling in the 'trickle-down-effect'. This dissertation indicates

that not the content of the narrative, but rather the form as well as the context of the narrative are important in order to increase the level of identification. The level of emotions involved by the audience influences their level of identification. Furthermore, the prime function of media sources seems to be related to this emotional involvement: when the narrative is perceived by the audience to be entertaining, their emotional involvement is higher. In addition, personal variables interfere in the process. To start, the gender is related to the emotional involvement: women are more likely to feel emotionally involved with the narrative compared to men. Secondly, whether or not a person exercises him- or herself influences the identification with the athlete: sport persons are more likely to identify with the athlete of the narrative. Next to that, sport persons are also more likely to perceive the narrative to be entertaining. Thirdly, the age is connected to the perceived behavioural changes: the older a person is, the less likely he is to feel that the narrative has influenced or can influence the sport participation behaviour. Besides all these items that interfere in the process, there is another item that did not appear to be significantly related in any sense, but still might be important in the entire process: the audience of the media source. To clarify, whereas Bram Som has appeared in the media more often, respondents appeared to be less familiar with him compared to Ellen van Langen, which indicates that the sources in which Ellen van Langen appeared must be more powerful, which is expected to be related the size of the audience of the media source.
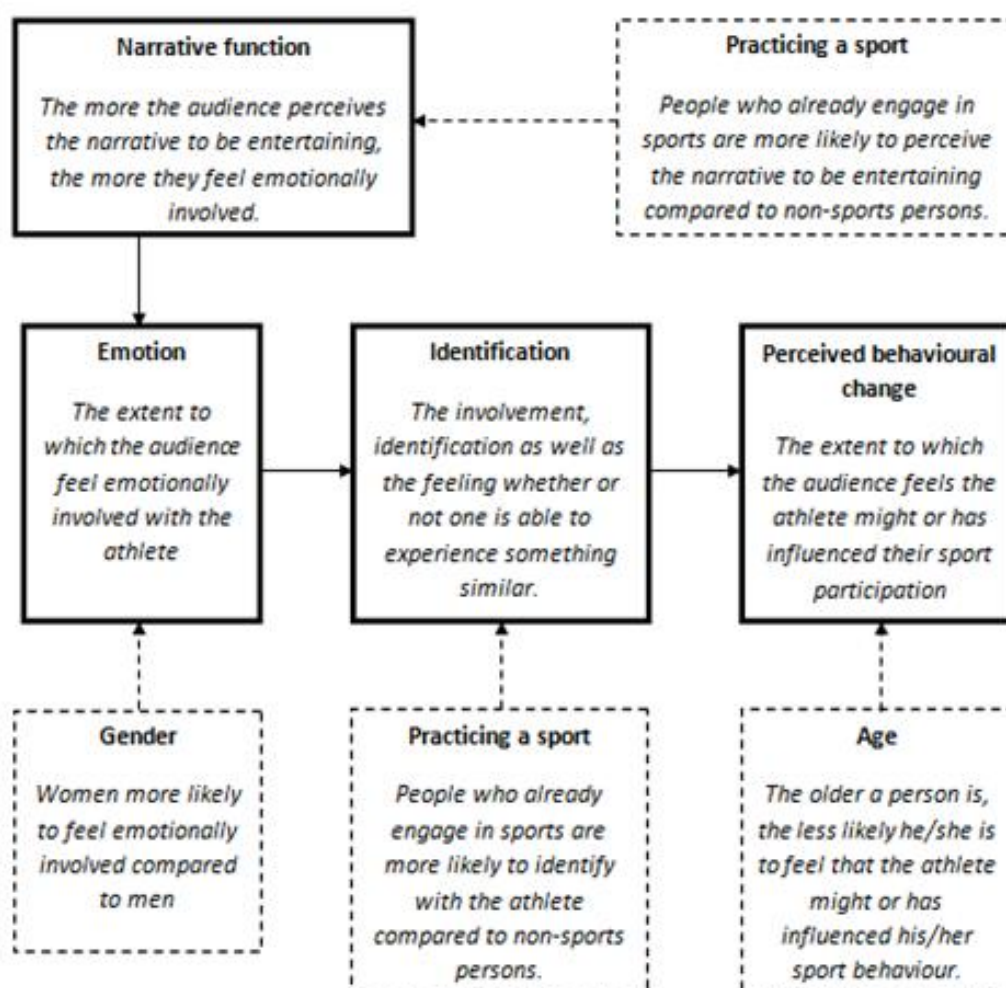
Figure 2: Adjusted conceptual model

The results of this study provide public and private organizations with a better insight in how they can utilize sporting heroes in an effective way. For sport organizations to take advantage of these athletes in terms of stimulating behavioural changes in the area of sport participation, it is recommendable to look for strategic alliances with media and entertainment companies. For the sport organizations, it is vital to search for a hero that displays expertness in the specific sports field the organization is engaging in. Furthermore, they should investigate the needs and wishes of their target group; especially in terms of what they perceive to be entertaining and how the target group becomes emotionally involved. The media and entertainment companies on the other hand, should create most potential for the athlete to stimulate the sport participation rate through the representation of the narrative in terms of context, content and form. For the context, they should present the narrative in media sources with a broad audience and an entertaining function. Concerning the content, the focus should not be on the specific technological aspects of the sport, but rather about emotions, experiences and feelings. Lastly, for the form, the explicit as well as implicit language are important with the main aim of increasing the emotional involvement of the audience.

In addition to this societal relevance of this research, it is also of scientific relevance as it opens up possibilities to further research in the area of storytelling, identification and (perceived) behavioural changes. It is recommended for future research to dive into the relationships between the media source's prime function, emotional involvement of the audience, level of identification and perceived behavioural change by means of qualitative methods.

1. Introduction

The organization NOC*NSF is the federation of sport associations, but also takes care of the transmission from the top sport towards the Olympics and Paralympics. NOC*NSF has formulated the ambition to increase the sport participation rate to 75%. This ambition can be divided into four sub-ambitions: 1) more people, 2) more often, 3) more active and 4) for a longer period of time[1]. The reason for this desire or concern about sport participation can be directed to the fact that sport inspires, unites and has the power to contribute to the development of the society as a whole, but also to each and every individual. Besides that, sport positively effects one's health and well-being. Currently, the largest fall in the sport participation rate can be found among adults aged between 18 and 40 years old (figure 3).
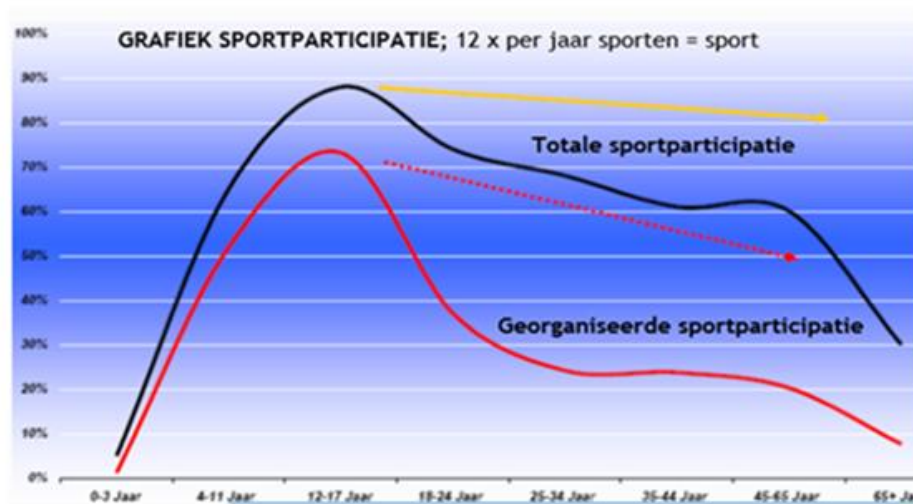
Figure 3: Graphical representation of sport participation in The Netherlands (source: SCP rapportage Sport 2010)

The question does remain how to achieve this ambition. One of the possible ways is to use sporting heroes in such a way that they inspire people to change their sport participation behaviour. Nevertheless, a large amount of research has indicated that there is no significant effect of role models in the top sport on the sport participation rate (e.g. Van Bottenburg, 2001, 2002, 2003; Tookey, 2007 in Van Bottenburg et al, 2011). On the other hand, a few studies do show a significant relationship (e.g. De Jong, Van Reusel and Van Driel, 2010) and a few others state that there is an indirect effect (Lyle, 2009; Handstad and Skille, 2010). As a result, the question can be asked why few studies did find a relationship and the large majority did not report one. Additionally, this also raises the question why NOC*NSF does establish projects such as Vlaggendragers and De Nationale Sportweek that are partly based on the assumption that role models can inspire other people to increase their sport participation? It is therefore expected that in some circumstances and conditions, the effect must be stronger than in others.

Some research did include circumstances, such as the nature of the sport, the nature of the hero and the nature of the observer, but no research has been found that focused on how the narratives on

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[1] Retrieved from: http://www.nocnsf.nl/sportparticipatie

sport successes have been presented by and in the media. This could be useful to research though, as the strategic use of narratives has proven to be effective in terms of its power to change behaviour among the audience in both organizations and governments (Küpers, Mantere and Statler, 2012; Silverman, 2004; Van Hulst, 2008). Then there is still the question how the narratives can be used in such a way that they are most effective in changing the observers' sport participation behaviour. A useful answer could derive from Van Bottenburg et al's (2011; Van Bottenburg, 2003) argumentation when they state that the gap between top sport and sport-for-all is getting bigger, as top sport is becoming more like a profession. For storytelling, this means that sporting heroes often do not return to the normal world after their quest (Hoebeke et al, 2011). Additionally, the inspiration-emulation-perspiration model (McKay et al, 1993 in Van Bottenburg et al, 2011) assumes that experiencing something similar as the hero is crucial to be inspired, in which storytelling could play a role in terms of involving the audience. As storytelling is a broad term and difficult to research, storytelling has been specified by means of the content, context and form (Pavlenko, 2007) of the sporting hero narrative as presented in the media.

The purpose of researching the relationship between storytelling and the perceived behavioural changes is to fill the gap within the research concerning the circumstances and conditions in which sporting heroes could change one's (perceived) sport participation behaviour. However, as one can notice, it is stated as perceived behavioural changes instead of actual change in behaviour, for the reason that it is difficult to measure if the behavioural changes in fact did occur due to the storytelling specifically. Besides this scientific relevance, this study is also of social relevance as it potentially offers organizations within the sports field a better insight in how narratives on sporting heroes can be used strategically in order to increase the sport participation behaviour.

2. Theoretical background

2.1. Trickle-down-effect

A considerable amount of research has been conducted on the influence of elite sport performances on sport participation; also known as the Boris Becker effect or the Ard-en-Keesie-effect. This effect is largely based on the Double Pyramid Theory (Coubertin in Van Bottenburg, 2003), which assumes that thousands of sports people produce a few champions that in turn stimulate or inspire thousands of 'normal' people (trickle-down-effect). The outcomes of these studies show very different results. The majority of the research did not find a significant relationship (e.g. Van Bottenburg, 2001, 2002, 2003; Tookey, 2007 in Van Bottenburg et al, 2011). Limited research on the other hand actually did report a significant effect, such as De Jong, Van Reusel and Van Driel (2010). Most of these studies did mention that the effect was only visible on a short term. Then, there is a very small group of researchers who reported a negative relationship (e.g. Weed et al, 2009 in Van Bottenburg et al, 2011). And finally, there is a last group who mentioned the likelihood of a secondary effect (Lyle, 2009; Handstad and Skille, 2010). One might wonder why these outcomes are so different and conflicting as in various non-sport settings a significant effect of role models on behavioural change has been found (Payne et al, 2003). Why are we unable to agree on a clear answer in the sport setting?

To start, the gap between top sports and sports for all is getting larger (Van Bottenburg, 2003; Van Bottenburg et al, 2011). To clarify, in these times people do not want to achieve the same as the sporting heroes. Being a top sports person becomes more like a profession, and something unrealistic to achieve for 'normal' people. According to Wann (2001 in Van Bottenburg, 2003), this can lead to both admiration and alienation. Becoming the best, or becoming a top sports person is also often not the objective of sports people. Instead, as Antonissen (2000, in Van Bottenburg, 2003) argues, it is rather health, adventure or social motivations that play a role. Thus, the motivations to play sports are differing as well as the world of the top sports which is becoming more alienated.

In addition, the different studies have used different research methods and different theories and frameworks in order to determine the effect of role models on behaviour. Examples of these frameworks are the social context framework and self-efficacy theory (Payne et al, 2003). Most common is Bandura's social cognitive theory (Payne et al, 2003; Van Bottenburg et al, 2011; Carr and Weigand, 2001), which distinguishes between four processes attached to social learning: attentional processes (model and observer characteristics and features of modelled behaviour), retention processes (medium of symbols, images and words), motor reproduction processes (Converting symbols into behavioural actions) and motivational processes (desire to commit). Bandura's social cognitive theory is often known in sports as the inspiration-emulation-perspiration model (McKay et al, 1993 in Van Bottenburg et al, 2011); a theory that assumes that if one can experience something similar as the hero, this person is likely to be inspired to exercise himself as well.

Another aspect that results in the large variety of outcomes is the fact that there could also be a secondary effect. To clarify, professional athletes generate sponsor money (Van Bottenburg et al, 2011) that can be used for that specific sport. This could result in development of the sport, which in turn could result in more applications for specific sport organizations within the sport. Furthermore, professional athletes could contribute to social cohesion (Bairner, 2001 in Van Bottenburg et al,

2011), and lastly, organizations could use the professional athletes for branding with the purpose of getting more media attention (Westerbeek and Smith, 2003 in Van Bottenburg et al, 2011). A consequence of this media attention could be an increase in the amount of participants of this organization. Thus, it is difficult to speak of an A to B relationship as the situation is more complex. To get a better understanding of what is going on, one could look at more 'actors' (persons or organizations cooperating in order to achieve the same or a similar goal), such as what has been named by Tomlinson (2011, in Van Bottenburg et al, 2011) as 'the golden triangle', consisting of sport organizations, the corporate companies and the media or the cooperation between public, private and potentially also the local residents (Field, 2006).

2.2.   Circumstances and conditions trickle-down-effect

A logical question would be why it is beneficial and relevant to research this topic again. Well, whereas the mainstream of this research has focused on finding a significant correlation, little research has focused on the specific conditions and circumstances in which this effect could, or has taken place. The research that did focus on these conditions, mostly emphasized the nature of the athlete (E.g. Fleming et al, 2005), nature of the sport (e.g. Van Bottenburg, 2003) or the target group for whom it did work out, thinking for instance about age and gender differences (E.g. Fung, 1992 in De Jong et al, 2010; Lyle, 2009; Vescio, Wilde and Crosswhite, 2005; Payne et al., 2003). From these studies, the following results can be reported:

First of all, research shows that the effect is most likely to occur in the case of media attention being directed to a unknown, new type of sport (Van Bottenburg, 2003). To clarify, Van Bottenburg (2003) has researched the nature of the sport as a variable to assess the existence of an Ard-en-Keesie, or Boris-Becker effect. He found out that when there was a small effect, this was mainly applicable to new sports. Examples are Anton Geesink and his success in judo and Raymond van Barneveld as a successful dart player. In both cases, Van Bottenburg (2003) argues that it was not necessarily an inspirational effect, but rather a method of spreading knowledge about the new, unknown sport which results in more people being aware of this new (type of) sport.

Secondly, studies reported that sporting heroes probably only influence people that already engage in that type of sport (E.g. EdComs, 2007 in Van Bottenburg et al, 2011; Biskup and Pfister, 1999; Lyle, 2009). This could be related to the accessibility of certain sports. For instance, for some sports, such as rock climbing or gymnastics, specific competences are needed one cannot learn overnight. Also, one might not recognize the excellence of a sporting hero if he or she does not engage in the sport. To clarify, running 400 meters in 45 seconds could not mean anything for people not engaging in running or athletics, whereas people who do practice this type of sport recognize this excellent achievement. Additionally, there are sports that require a high investment in order to practise or play, thinking about for instance car racing or horse riding. Thus, some people might simply not be able to engage in certain types of sports, even if they would want to.

Thirdly, studies show that long-term exposure to role models seems most beneficial (Lyle, 2009) and fourthly, that the role models are most effective when they share similarities with the 'observer' and when the success seems obtainable (Vescio et al, 2005; Lockwood and Kunda, 1997). In other words, the sporting hero in question should have some human side that allows him or her to connect with the observer instead of being a distanced unnatural superhero.

Fifthly, the nature of the observers in terms of gender and age play a role, even though research shows opposing results concerning the gender differences among observers. Most authors debate that males are more sensitive for the influence of sports role models (E.g. Payne et al, 2003), which could be a result of their stronger focus on achievement (Fung, 1992 in De Jong et al, 2010). However, Bush, Martin and Bush (2004) on the other hand discuss that females in their study agreed more than males that athlete role models influenced their behaviours. Additionally, Vescio et al (2005) indicate that a percentage of 8,4 chose a sports person as a role model, which was the most chosen person after family and friends. They also noted that girls are more likely to choose a sports person that practises a team sport, which might be due to the fact that this represents their social skills. In the case of gender differences among the heroes or role models, research does agree on the fact that male sporting heroes are more effective as they represent heroic images of men and masculinity, whereas females represent images of being sweet or either being a sex goddess (E.g. Lines, 2001; Biskup and Pfister, 1999; Vescio et al, 2005). Looking at the age of observers for which sport role models appear to be most effective, most research focused on children or youngsters (E.g. Carr and Weigand, 2001; Lines, 2001; Slender, 2006).

Lastly, Van Bottenburg (1994) has argued the determinants of a sport's popularity among different countries and cultures; in other words, what are the factors influencing the popularity of sport and the boom in practitioners in specific types of sports. He starts off with the influence of the climate and landscape, where he refers to the fact that ice skating is likely to be more popular in cold countries and mountain climbing favoured in a mountainous landscape. Nevertheless, the climate and landscape do not cover everything, as for instance one could then question why ice skating is so popular in The Netherlands whereas ice hockey and figure skating score relatively low in terms of its practitioners. Another determinant discussed by Van Bottenburg (1994) is the body type and sporting preferences. To clarify, soccer is expected to be very popular due to the fact that almost everybody can practice it, while in the case of partitioning basketball one's length can be a significant benefit. Furthermore, he discusses the importance of the availability of resources needed to practice a sport as well as the financial resources needed to practice a sport. Van Bottenburg (1997) continues with debating the influence of general human preferences in which he refers to psychologist Buytendijk who argues that a ball is simply a preferred play object and that kicking a ball is naturally more aggressive and masculine compared to throwing. Consequently, soccer is expected to be more popular for man than handball, which is in fact the case in most countries, but definitely not for all of them, thinking for instance about American Football in America (where barely any kicking is involved). Van Bottenburg (1997) continues his discussion on determinants for a sport's popularity and argues the importance of a nation's character (Handball in Germany due to the need for discipline and Rugby in France because of their temperament) which could implicitly still play a role even though Guttmann remarks that this is not very endurable. Other determinants discussed by Van Bottenburg (1997) are the individualization and belonging preference for individual sports (more among protestants) as well as the possibility to earn a lot of money with a certain type of sport and the influence of television. Nevertheless, it must be said that concerning the influence of television, it can be concluded that doing sports leads to watching sports, whereas this effect has not been proven the other way around. In other words, watching sports does not necessarily lead to practicing sports. Besides all of these specific determinants, Van Bottenburg (1997) also provides us with a useful general view on the increasing popularity of certain sports. He argues that the key lies in the changing social relations. According to him, these changing social relations could result in certain

sports spreading over different layers of society. The type of sport which is spreading is dependent on the social meaning attached to the sport through its practitioners and the country or countries of origin.

To summarize, the research that did focus on the conditions or circumstances in which the effect took or did not took place mainly focused on the traits of the hero, type of sport, popularity of the sport (cultural dimension) or the target group/observers. No research has been found that focused specifically on the content, context and form of what has been told or performed in the media concerning the sporting hero, which could be crucial considering the argument of Van Bottenburg et al (2011) and Van Bottenburg (2003) who state that heroes become more alienated, and considering the inspiration-emulation-perspiration model (McKay et al, 1993 in Van Bottenburg et al, 2011). So, this research does not attempt to give a clear-cut answer on the existence of a 'trickle-down-effect', but will rather be explorative in its nature and tries to frame this effect in the context of the narrative design.

2.3. Terminology

The term heroes can be explored from the Greek definition: "person distinguished for courage, fortitude or deeds, its meaning is adaptable between cultures and through time" (Lines, 2001, p287). Additionally, Hughson (2008) argues that heroes are great, but still have a human side which means that they also have their imperfections. Nevertheless, it can be questioned whether or not this definition can be applied to sporting heroes specifically, as the focus in case of sporting heroes is mostly on salary, media and marketability (Drucker and Cathcart, 1994 in Hoebeke, Deprez and Raeymaeckers, 2011), which could make them more sporting celebrities than sporting heroes. The difference between heroes and celebrities lies in the fact that heroes contribute to society, while celebrities have little (or no) impact on society (Hoebeke et al, 2011). According to Hughson (2008), sporting heroes like Christiano Ronaldo are still heroes, as he has made a distinction between two types of heroes. On the one hand he discusses the heroes that display expertness and from who achievements are visible for instance through television. These are the prowess heroes. On the other hand, there are the moral heroes that belong more to the original Greek definition of the word. However, in some cases, such as the case of Muhammed Ali, prowess heroes could become moral heroes when they use their status to communicate values (Hughson, 2008). Birrel and Hart (1981 in Lines, 2001) even argue that the cultural values of sporting heroes' achievements remain, whereas the names might be quickly forgotten, which is in line with Eisenberg (2012) who discusses that even with the newest technologies, the hero still exist in one's mind and that his fantasy image is much stronger than for instance photographs. It is often expected that sport heroes have more moral responsibility compared to other celebrities, due to the social values learnt on the playing field, but this image is becoming difficult to maintain due to the negative sides presented in the media (Lines, 2001) such as sporting heroes beating up their girlfriend. Nevertheless, Bush et al (2004) claims that "regardless of their public behavior, teenagers do consider athletes as important role models" (P114). Taking the definition of a role model as someone worthy of imitation (Yancey, 1998 in Payne et al, 2003) or as an individual who inspires people (Ingall, 1997 in Payne et al, 2003), this means that sporting heroes do not necessarily need to have a good reputation only in order for them to be inspirational. Also, referring back to Hughson's (2008) distinctions, both prowess heroes (Ronaldo) as well as moral heroes (Muhammed Ali) can be role models. In addition, both types of heroes always overlap to some extent. Thus, for this research, no distinction will be made between heroes and celebrities, or prowess and moral heroes.

In addition to the terminology on heroes, celebrities and role models, also a large amount of different terms on stories exist. Among literature, either storytelling or stories, narratives or antenarratives have been used as terms to describe texts or a follow up of events. Boje (2001) makes a distinction between the different terms when he refers to stories as simply the happening of several incidents or events in a certain period of time. This is in line with Bal (1999 in Hover, 2012) who states that a story is simply a history presented in a certain way. According to Boje (2001), a narrative comes after the story and here a plot and coherence is added, which is also linked to the Indo-European root 'gna' where the term narrative derived from. The root 'gna' means both to know and to tell (Hinchman and Hinchman, 1997 in Elliot, 2005). Thus, in a narrative the story is in fact contextualized; it got a certain meaning. Then, there is something in between a story and a narrative, which is defined as an antenarrative (Boje, 2001). This 'phase' is more speculative and guessing. One is not completely sure what exactly is happening. Plots have not been agreed on yet, such as in narratives, and people are still changing their stories. Gabriel's (2000 in Hover, 2012) definitions on stories and narratives are, however, almost the opposite of what Boje (2001) argues, as Gabriel defines a story as a narrative with plots and characters. This is in line with Hover's (2012) key aspects of 'story': process of ordering/framing, connections between events, emotionally/symbolically charged narratives and meaning (socially important). Hover (2012) also makes a useful distinction between stories and narratives when she describes the types of narratives in relation to their primary intent, for instance the news with the intention to inform and stories with the intention to entertain or to involve, to explain or educate, to stimulate imagination, to offer reassurance and lastly, to connect us with one another. Thus, the definitions on narratives and stories are contradicting. For the purpose of this research though it is clear that what is being told about sporting heroes has a plot and that they have a certain kind of meaning. Using Boje's (2001) definition, this would mean the story is an (ante)narrative, and concerning Gabriel's (2000) and Hover's (2012) argumentation, this would be a story. In order to appropriately define the texts on sporting heroes, the study of Hinchman and Hinchman (1997 in Elliot, 2005) can be useful, as they provided us with a definition on narratives in the human sciences. They state that narratives should be defined as discourses with a clear sequential order that connects events in a meaningful way and they offer insights about the world and/or people's experiences of the world. Elliot (2005) agrees with this sequential order and meaning, but discusses that in narratives there are no absolute causal explanations. It is rather an account of how one event followed another under a specific set of circumstances. Taken all of these definitions together, the term narrative seems most applicable for this research, as most studies agree on the fact that a narrative goes beyond a story in the sense that a narrative has an added plot and provides meaning. However, it must also be taken into account that Boje's (2001) notion of antenarratives might be even more applicable, as people could still change their perspective on stories when future events occur. For instance, the image of Lance Armstrong has definitely changed after his drug (ab)use came to light; he became less a hero (if he even still was one) than he was before.

Whereas narratives are characterized by the fact that they construct meaning, myths are all about social meaning (Hoebeke et al, 2011). Taking this into consideration, one might argue that narratives on sporting heroes are in fact myths as they are mainly about the social meaning they produce. Probably not, as myths standardize narrations and expressions of cultural values (Hoebeke et al, 2011). Also, considering the fact that myths are symbiotic and kept alive through repetition (even though the context can be adjusted to the current time), I would not consider the modern sporting

hero narratives as myths but rather as hero narratives, or more specifically, sporting hero narratives. However, taking it one step further, one might even discuss if the sporting hero narratives for this study are in fact narratives. Looking at Hover's (2012) framework, it could very well be a 'collective erfahrung', instead of collective stories as 'collective erfahrungen' are shared (cultural) frameworks. These 'collective erfahrungen' are based on shared experiences that could be culturally determined. Looking at Hoebeke et al's (2011) definitions, this would be somewhere in between myths and narratives as the narrations are not standardized, but the expressions of cultural values in fact are. For instance, when you show Dutch people a horizontal bar in the Olympic stadium in London, they are very likely to associate this immediately with Epke Zonderland, whereas a Chinese person would probably simply associate it with gymnastics or the Olympic games.

2.4.   Storytelling

The function of narratives is to provide meaning (Bruner, 1990 in Smith, 2000), construct knowledge (Bruner, 1990 in Smith, 2000), influence human action (McAdams, 1993 in Smith, 2000), change one's way of thinking about events (McAdams, 1993 in Smith, 2000) and finally to bring emotional regulation (McAdams, 1993 in Smith, 2000). Nevertheless, the narratives will not be able to provide meaning without 'casing' (Bearman et al in Elliot, 2005). Casing refers to the structuring of events and experiences into a story with a beginning, middle and end in order for them to impose meaning. In the case of fictional stories, these structures and meanings are not very likely to change, but for historical narratives the structure and meaning could change because of future events. These future events might change our interpretation of the meaning of events in the past (Elliot, 2005).

In the literature, numerous ways of analyzing the structure or design of narratives have been discussed. First of all, one might distinguish between first-order and second-order narratives (Elliot, 2005) in which the former refers to everyday stories that are personal and focused on a single individual whereas the latter is about accounts constructed by researchers to make sense of the social world. In addition, a distinction can be made between the types of stories, in which sporting hero narratives would be classified as a personal narrative (Cermák, 2004), narrative life history or a autobiography/biography narrative (Cermák, 2004; Elliot, 2005). For these types of stories, researchers could emphasize on the content or structure, for instance like Franzosi did when he differentiated between the subject, the action, and the object. Another way to describe the content of the story is to define it in terms of genres. A genre can be defined as a pattern of narrative and imagery which provides a framework that is culturally shared and therefore can be used to structure events and experiences so that they are meaningful and easily communicated (Elliot, 2005). The genres represent cultural resources available to individuals, and can be for instance either romance, comedy, tragedy or satire (Frye, 1957 in Cermák, 2004; Elliot, 2005). Another manner to research narratives could be by identifying its components, which according to Smith (2000) are context, perspective, pattern, coherence and (non)human characters. Also, Brown, Gabriel and Gherardi (2009) discussed another elements of stories or narratives: time. They state that stories link time and space, which could be the development of plot over time. Lieblich et al (1993 in Elliot, 2005) have defined three different plots: progressive narratives (emphasis on achievement and success), regressive narratives (decline) and stable narratives (no progression but also no decline). Within a narrative, differences in plots could exist from phase to phase. For instance, the beginning of the story could be progressive, whereas the middle part is stable. Though, narratives must add up to something, it is always more than simply the sum of its parts (Elliot, 2005), which means that events or phases are intertwined.

Then still, one could ask if we cannot distinguish a general plot or line in every story. Some authors did attempt to describe such a universal storyline. For instance Campbell (1993 in Hoebeke et al, 2011) discusses the structure of a monomyth, which is another term for hero narratives. According to him, a monomyth can be divided into three components, namely: departure, initiation and return. Then, there is another structure that could be recognized: the universal storyline (figure 4). The universal storyline has been described by Hover (2012) and consists of a beginning, middle and end, but also illustrates the generic order of events or experiences. To clarify, the story starts with a set up where the setting and character are introduced. This set up is followed by a motoric moment which is where the action starts; something happens and the story gets started. Then, there are the crises, or the turning points that happen during the entire story and which represent the turns or decisive moments within the story. These crises happen during the middle part of the story, which is also the part in which the tension is assumed to be at its highest. Subsequently, in every story there is a climax, a moment in time in which the problem is solved or the tension released, which is followed by a conclusion of the story where the ends are tied together and where the final image or moral is constructed that people will remember. These phases can also be categorized as the four stages of classical drama: exposé, dramatis personae, peripeteia and rite de sortie.
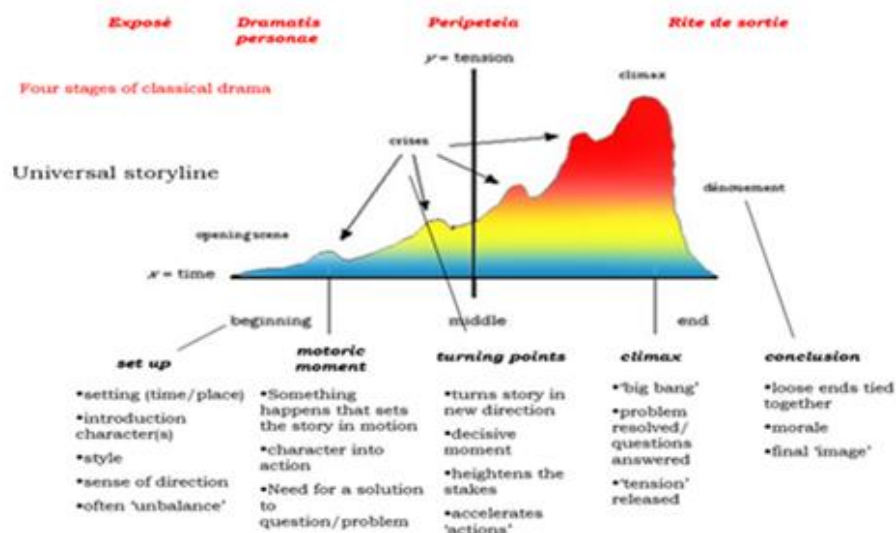
Figure 4: Universal storyline (Hover, 2012)

Whereas Hover is not specifically concerned with sporting hero narratives, the universal storyline described by her could be useful for these narratives as well. Nevertheless, one might question if a storyline in which the hero starts with a 'climax' would be better, as the heroes often are presented in the media when they already had their first major achievement with only a few exceptions where heroes are followed in their run towards a big success. In this case, the framework of Hoebeke et al (2011) on the sporting hero narrative could be more useful (figure 5). This frame provides a better understanding of the differences of plots from phase to phase within this specific type of narrative instead of just stories in general. The first phase is the rise, in which important victories occur. Translating this to sporting heroes specifically, this would be the phase in which a sports player or team would win an important match or would achieve something great. The second phase is the temporary fall from grace (trickster), in which the hero becomes a victim of something. In case of a sport hero narrative, this could be a sports injury due to failure or for instance becoming the 'victim'

of drugs such as doping. The third and last phase described by Hoebeke et al (2011) is the resurrection, in which they get a chance to defend and explain mistakes and return to the media positive again. This last phase is especially visible in the case of drug abuse for sport heroes as the moment when they start to explain and defend this mistake. As one can recognize in figure 5, Hoebeke et al (2011) also distinguish between the different status elements a sporting hero could have: celebrity status or role model. The difference lies in the fact that a role model is expected to contribute to society, whereas the celebrity has less (or no) impact on society (Hoebeke et al, 2011).
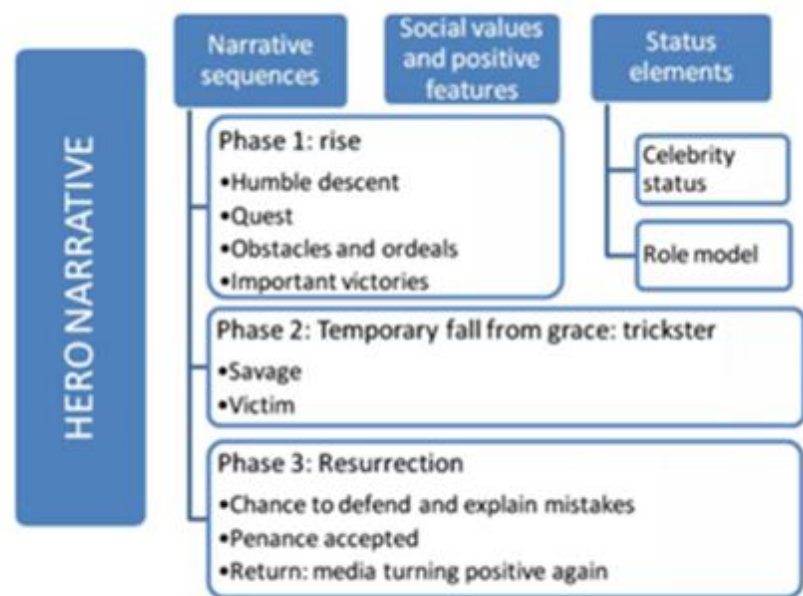
Figure 5: Phases hero narrative (Hoebeke et al, 2011)

Comparing the story structures/story lines of Campbell (1993 in Hoebeke et al, 2011), Hover (2012) and Hoebeke et al (2011) to Cermák's (2004) distinguished genre's among life stories, his storyline on the planned gain with appreciated risk (figure 6) seems most applicable. This genre is mostly about a certain gain being prepared, but where the risk of loss is not being excluded. The positive aspect of this storyline is mainly the resilience against disappointments, whereas the negative side could be instrumental relations to people, egoism and lack of spontaneity. This seems to be mostly applicable to sporting hero narratives, considering the terminology of Drucker and Cathcart (1994 in Hoebeke, et al, 2011) who state that the focus in the media is mostly on salary and marketability, which is related to the negative side of instrumental relations to people as part of the storyline 'planned gain with appreciated risk'. The described positive side, the resilience against disappointments, on the other hand is related to Hoebeke et al's (2011) definition of a prowess hero: the sporting hero that displays expertness. This is also visible in the storyline described by Hoebeke et al (2011), as they have identified the resurrection as an important aspect of the sporting hero narrative.
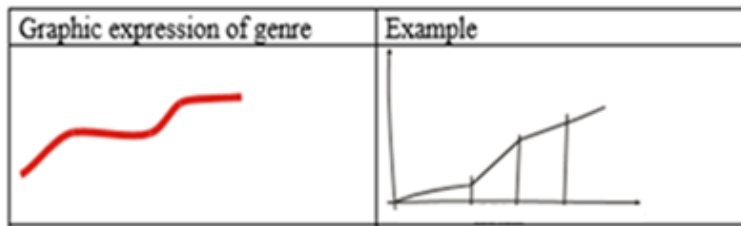
Figure 6: Planned gain with appreciated risk (Cermák, 2004)

Next to the research focus on content and/or form, there is a third focus which cannot be overlooked: the context, the performative or social dimension. Pavlenko (2007) refers to this context in addition to the previously mentioned content and context, of which the content includes what has been said and omitted and the context refers to for instance the narrative function and the audience. Lastly, she also discusses the form when talking about the structure as well as the goals in mind and language use. The context named by Pavlenko (2007) shows some overlap with the performative or social dimension, where one can either draw attention towards the conversation as a daily talk, where both the storyteller and the audience come together, or focus on the social role that stories play (Elliot, 2005). The former is more a micro level approach, whereas the latter can be seen as the function or social dimension on a macro level. For the purpose of this research, it seems more important to emphasize on narratives' function as transforming individual's lives and the wider culture, which is more the wider negotiated social world (Plummer, in Elliot, 2005). According to the Biography-Narrative-Interpretive-Method (BNIM), it is not necessarily a choice between one of the three dimensions (content, form and social dimension), the researchers should instead take into account the content and form as well as the performative/social dimension. This social dimension is thus more about transforming people's lives, which shows the strategic nature of storytelling. Adamson et al (2006) discuss that storytelling can be a good strategy due to its power to inspire instead of simply inform. They also argue that stories or narratives connect to your emotions, place you in the center and insert its meaning into your memory. Küpers et al (2012) even state that "the power of stories lies in their capacity to encompass thinking and feeling about issues and thereby to compel people to take certain actions and avoid others" (p96), which is in line with Silverman's (2004) argument that insights are always best absorbed through a stimulating story that demonstrates them. Thus, they basically all show us that stories are a strong source of power mainly because they have the ability of providing the audience with meaning or values that can be internalized and therefore can influence the audience's behavior. Several specific strategic functions in both government situations as well as business contexts for storytelling have been formulated, such as to create and to sustain meaningful action (Küpers, Mantere and Statler, 2012), to unite people, to contrast between right and wrong, to create focus and to expand meaning and enlarge relevant reality (Van Hulst, 2008).

2.5.   Role of media

An aspect that cannot be overlooked when looking at the content, context and form of a sporting hero narrative is the role of the media. As Lines (2001) argues, "the nature of what the reader gets to see, hear and read about is determined and amplified by camera angles, replays, gossip columns, photographic images, chat shows and other such professional practices which ensure that the sport star image develops through selected constructions of reality" (p287). He continues when he states that "what the audience know about and identify with certain sports stars is closely associated with the information that the media professional has selected to bring to their attention" (p300). In other words, the media basically determines how the sporting hero is projected, and not the hero him-/herself. This also makes it debatable whether or not the sporting hero narrative is an actual life history or (auto)biography narrative as the media does not project the complete life of the hero or the complete reality. Additionally, it could be beneficial to take a closer look at Hover's (2012) types of narratives in relation to their primary intent, in which she states that often the intent of news is to inform, whereas stories have the function to entertain or involve. Lines (2001) has a slightly different view when he states that the main concern of media is to ensure commercial success and interest to its audience. What we can recognize is that sporting hero successes in the news are not very likely to involve the audience as they are mainly concerned about providing the audience with information. However, considering Inside Sport's (1998 in Lines, 2001) argumentation that sport stars can be seen as entertainers with a primary task to enthral, the sporting hero narrative in the media might be more linked to Hover's (2012) notion of stories with the function to entertain or involve.

Considering the fact that the prime intent is either to inform or to entertain, it seems logical that sport stars switch between positive and negative roles as both large successes as well as scandals are greatly valued in the media (Lines, 2001). Referring back to the storylines described, this also could indicate that the media only shows the climax (and possibly crises with a high entertainment/information value) and ignores the run towards this climax as this might be too boring for its audience. Hence, for the purpose of this research, it is important to keep in mind the function of the media outputs and the basis of the selection of narrative fragments shown to the audience. Additionally, it is important to remember that the narratives in the media are not life stories of the sporting heroes, but only fragments of the life story.

2.6.   Conclusion/conceptual model

The literature on the effect of top athletes on sport participation is very diverse concerning its findings; whereas most of the research did not report a significant effect, some did. The reason for the majority of studies not reporting a significant effect could be that the worlds of top athletes and sport for all are becoming more and more distanced from one another (Van Bottenburg, 2003; Van Bottenburg et al, 2011). Also, conditions and circumstances play a role in whether or not the effect takes place, of which the type of sport in terms of its accessibility and popularity (Van Bottenburg, 1997) and the target group (E.g. Carr and Weigand, 2001; Lines, 2001; Slender, 2006) are probably the most influential ones. However, storytelling can be seen as another important condition, for two reasons. First of all, storytelling can contribute to creating an image in which the hero is more human-like instead of being alienated from the normal world. Secondly, the inspiration-emulation-perspiration model (McKay et al, 1993 in Van Bottenburg et al, 2011) assumes that if one can experience something similar to the hero, this person is likely to be inspired to do sport himself as well, and this involvement could be achieved through storytelling.

Storytelling or narratives have the power to change the behaviour of the audience (McAdams, 1993 in Smith, 2000), which could indicate that they might also have the power to increase the sport participation rate. Looking at the narrative structures or storylines described in the literature, the absence of a trickle-down-effect could be related to the lack of a 'return'. This return is part of the form as described by Pavlenko (2007). Additionally, Pavlenko (2007) refers to both content and context, of which the former includes what has been said and omitted and the latter refers to the context in terms of for instance the narrative function and the audience.

All of this has been illustrated in the conceptual model (figure 7), with an additional step called 'identification'. This step has been added considering the inspiration-emulation-perspiration model. To clarify, the identification is all about whether or not a person feels if he or she can experience something similar to the hero. The inspiration-emulation-perspiration model however does not refer specifically to either experiencing something similar on an emotional level or a physical level. For this research project experiencing something similar includes being able to practice the same sport as the sporting hero with a similar emotional experience. Thus, it does not mean people should be able to win the Olympic Games, but rather than they can have the same emotional experience with that type of sports. Looking at the behavioural changes, it can be noticed that only two out of the four objectives formulated by NOC*NSF have been taken into account. This choice has been made for practical considerations as well as methodological reasons, due to the limited time avaiable and these two are most easy to measure. An aspect that is slightly different from the literature, is the context. For the purpose of this research, the macro level (e.g. political and historical situation) has been left out, and only the micro level has been taken into account. The main reasons for ignoring the macro level are both time limitations as well as the assumption that the macro level of both narratives will be almost identical. Personal differences have not been presented within the conceptual model, but are expected to play a role. Besides the general variables (age, gender and educational level) also whether or not people exercise as well as their place of birth/residence are part of this research, as research has indicated that the trickle-down-effect seems most likely to occur when the observer shares similar characteristics to the hero (Vescio et al, 2005; Lockwood and Kunda, 1997). The variable on whether or not people exercise is directed towards the fact that people with a primary interest in sports are expected to identify more easy with the hero and, consequently, will also be more likely to show behavioural changes. The place of birth/residence is included as it is expected that observers who are from the same region as the hero can better relate to the sporting hero compared to observers who live in a completely other region.

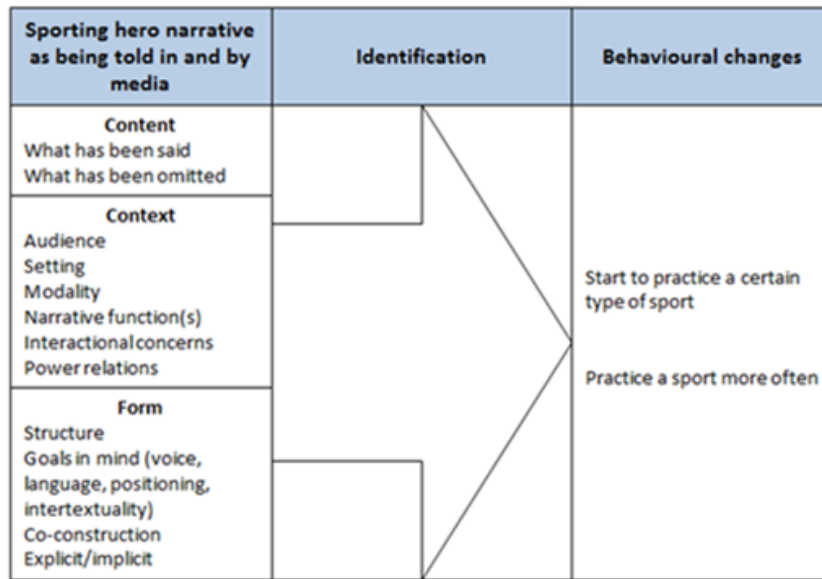| Sporting hero narrative as being told in and by media	Identification	Behavioural changes
Content What has been said What has been omitted		
Context Audience Setting Modality Narrative function(s) Interactional concerns Power relations		Start to practice a certain type of sport Practice a sport more often
Form Structure Goals in mind (voice, language, positioning, intertextuality) Co-construction Explicit/implicit		

Figure 7: Conceptual model

Based on the literature as well as the above described conceptual model, the following research question can be formulated: *How can storytelling (in terms of context, content and form) contribute to the amplification of the role of sporting heroes as a catalyst for the sport participation rate among adults?*

2.7.   Research design, sub-questions and hypotheses

In order to get a better insight in the role of storytelling in the trickle-down-effect, two athletes that share similar characteristics, but differ in the sense that their narrative has appeared in the media in different ways have been selected: Bram Som and Ellen van Langen. Both athletes engage in running (800 meters), but whereas Bram Som has appeared in the media with his struggles and his private life, Ellen van Langen is presented as the mythical sporting hero that achieved something unrealistic. First, the narratives of both athletes have been positioned against each other from the researcher's point of view. Secondly, people who already participate in bootcamps were asked to fill out a questionnaire on their view on the two narratives based on their memories. Lastly, a quasi-experiment was conducted in which the narratives of the two athletes as appeared in the media were artificially reconstructed and presented to the participants of the experiment. In contradiction to the second part, were the population includes people who have already participated in bootcamps before, the participants of the experiment have never participated in bootcamps before, in order to find out if a sporting hero narrative can stimulate them to start participating in bootcamp trainings. Nevertheless, it is expected that finding a causal relation towards actual behavioural changes is too ambitious. Therefore, the behavioural changes have been mainly measured through asking the participants about their opinion on the effect of the athlete on their sport participation behaivour. This makes the variable more 'perceived behavioural change' instead of actual behavioural change. This research project has been divided in the following three building blocks (part I, II and III) connected to three sub-questions:

Part I: Content analysis on the stories of both Bram Som and Ellen van Langen

Research question: How can the narratives on Bram Som and Ellen van Langen as appeared in the media be positioned against one another on the basis of content, context and form?
Hypothesis: It is expected that the narrative of Bram Som in terms of context also includes his private life besides the sport. Concerning the context, it is expected that Bram Som has appeared in more regional sources, whereas Ellen van Langen has been discussed in national sources. Lastly, for the form, the expectation is that the narrative of Bram Som is less formal and contains more implicit language. All expectations have been based on the global, qualitative comparison of few media outputs on which the selection of both athletes have been based.

Part II: Retrospect questionnaire for bootcampers

Research question: To what extent could storytelling (in terms of context, content and form) contribute in stimulating adults to practice a certain type of sport more often?
Hypothesis: It is expected that a narrative in which the human side (e.g. family and work) is included, that appeared in powerful media sources and where popular, implicit language is used is most successful when it comes to the perceived behavioural changes of observers.

Part III: Quasi experiment with non-bootcampers

research question: To what extent can storytelling (in terms of context, content and form) stimulate adults to start to practice a certain type of sport?
Hypothesis: The expectation for this third research question is similar to the hypothesis of the second part. The difference between the two is that for the bootcampers (part II), the role of storytelling is expected to be more powerful than for the non-bootcampers, due to the fact that all bootcampers already engage in sports and because they have seen, read or heard the narrative voluntarily, whereas participants of the experiment were forced to follow the narrative.

PART I

'How can the narratives on Bram Som and Ellen van Langen as appeared in the media be positioned against one another on the basis of content, context and form?'

3. Method

3.1. Population and sample

In order to get a better insight in the effect of the type of narrative, two cases have been selected that share similar characteristics, but differ in the way their narrative was presented by the media (table 1).

	Bram Som	Ellen van Langen
Gender	Male	Female
Date of birth	20-02-1980	09-02-1966
Place of birth	Terborg	Oldenzaal
Discipline	800m	800m and 1000m
Participation Olympic Games	Twice (2000, 2004)	Once (1992)
Best result	Gold at European Championship 800m (2006)	Gold at Olympic Games 800m (1992)
Records	Dutch record 800m	Dutch record 800m and 1000m
Sporting career	At the moment not active in top sport/large championships, but did not quit completely (yet)	Quitted top sport
Narrative in media	Emphasises on Som's total carreer, also for instance on his son as a source of inspiration, his resolution after sports injuries and his choice to train less as he does not want to be a 'training machine' anymore.	Focus in the media is mainly on the one big moment at the Olympic Games in 1992. Story takes a mythical form of a hero who did something unthinkable, something extraordinary.

Table 1: Comparison narratives Bram Som and Ellen van Langen

Both athletes engage in running, which is the sport chosen considering Van Bottenburg's (2007) argumentation on the accessibility as well as the cultural aspect of sports. To clarify, running can be easily done in the Dutch landscape and climate, there are enough resources available (routes, training groups, etc), the investments are rather low and it is an individual sport.

3.2. Research instruments

The narratives as appeared in the media were analyzed for both cases through a content analysis (appendix A1). The operationalization of the concepts mentioned in the coding schedule are described in table 2.

Concept	Meaning
Content	
What has been said	What has been told around the sporting hero in the media (successes and/or private life)

What has been omitted	What has not been told in and by the media (successes and/or private life).
Context	
Audience	This concerns the audience the media is directed towards. For instance, a television show like 'Zappsport' is directed mainly towards children, a running magazine specifically towards runners and the general news basically towards all (Dutch) adults.
Setting	The setting includes the time and place as well as the type of media (for instance, 01-01-01, 'Algemeen Dagblad', article).
Modality	Modality refers to the comparison between what has been said by the speaker and the reality. In other words, it is all about the subjectivity of the speaker. Yet, as the 'real' story is not known, this concept might be rather difficult to explore. However, a presenter of the news or an author of the newspaper is likely to be more objective compared to a speaker whose main purpose is to entertain rather than to inform. This concept is thus closely linked to the narrative function(s).
Narrative function(s)	The narrative function(s) is mainly explored using Hover's (2012) distinction of narratives in relation to their primary intent. She distinguishes between the news with the intention to inform, advertisements with the intention to persuade and stories with the intention to entertain or to involve. The different narrative functions are thus to inform, to persuade and to entertain/to involve.
Interactional concerns	Interactional concerns includes the possibility that narratives are shaped through interactions. This might for instance be an article on losseveter.nl that refers to an online video of the NOS.
Power relations	Power relations means whether or not an individual or group has the ability to influence the lives of other individuals or groups. For the purpose of this research, power relations refers to the power of the speaker (media).
Form	
Structure	The structure of the story is basically defined as the storyline of the narrative as being told in the media. It could be the case that the narrative in the media only includes a climax. However, it could also be the case that the run towards this climax/success is followed, or maybe some background information is given after the climax.
Goals in mind	The goals in mind is slightly connected to the narrative function(s) described in the context. Nevertheless, the difference between the two that concerning the concept 'goals in mind', the emphasis is more on the language used, positioning, intertextuality etcetera. It takes the function or goals in mind thus one step further into how this is shown within the form of the narrative.
Co-construction	At first hand, co-construction might seem to be closely linked to the interactional concerns described in the context. However, the interactional concerns include the wider context, for instance the reaction of the media on another media output, whereas co-construction only includes the interaction within the narrative (e.g. interviews).
Explicit/implicit	Explicit and implicit language is also expected to link in to the function of the narrative. For instance, a narrative with the intention to entertain or to involve is likely to have higher degree of implicit language, whereas more formal outputs, such as the news, are expected to have a higher degree of explicit language (Pavlenko, 2007).

Table 2: Operationalization of concepts

3.3. Data collection

In order to compare the narratives on Bram Som and Ellen van Langen as appeared in the media, several media outputs on the internet have been analyzed. Besides search engines such as Google, the most used websites have been: losseveter.nl, nos.nl, telegraaf.nl, degelderlander.nl, youtube.com and tvblik.nl. The only criteria for the media outputs has been the fact that either Bram Som or Ellen van Langen should be the main topic, and not be mentioned once (having a minor role / supporting role). All outputs that were found and that fitted this criteria were analyzed using the coding schedule (appendix A1), until the data was saturated. As there are probably over a thousand media outputs on both athletes, the point of saturation was not the point where all outputs had been taken into account. Instead, the point of saturation in this case was when the media outputs were not extremely different from the analyzed outputs anymore in terms of content, context and form. In total, this resulted in exactly 200 media outputs on Bram Som and 69 media outputs on Ellen van Langen. However, out of the 69 media outputs on Ellen van Langen, 38 represent the column she has written for a few years for a Dutch newspaper. Considering all these items separately would bias the results. Consequently, her column has been analyzed as one entity, which resulted in a total number of 32 media outputs.

3.4. Data processing and analysis

In total 200 media outputs on Bram Som and 32 media outputs on Ellen van Langen had been analyzed using the coding schedule. The next step was to summarize all data for both cases, which has been done through constant comparison between the different outputs on the basis of content, context and form. This has led to a table that summarizes both cases (table 4), after which the two cases were compared with one another.

The positioning of both narratives based on the content, context and form in this case is primarily based on the researcher's view. To validate the findings of this content analysis, bootcampers have been asked about their view on most of the aspects of content, context and form (part II), which was used to test if their opinion is not significantly different from the researcher's point of view. Not all of the aspects, however, have been included in the questionnaire, as the respondents are probably not aware of for instance the degree of implicitness as well as the modality.

4. Results

4.1. Content

The content has been distinguished in both what has been said and what has been omitted. Comparing the narratives on Bram Som and Ellen van Langen as appeared in the media, for Bram Som, his private life apart from his sport successes is included in 12.5% of the cases, whereas this percentage is only 9.38% for Ellen van Langen. To specify, concerning Bram Som, the birth of his child (Seb) in 2009 and him being a new source of inspiration was presented in the media. Furthermore, few times, death cases that have effected Som's trainings or achievements (both in 2002 and the winter 2009/2010) were named in the media. In case of Ellen van Langen, there are only a few exceptions where the audience gets to know about her private life. The large majority focuses on her one moment in history: The Olympic Games of 1992. This can also be seen when comparing the percentage of media outputs that includes the large successes (table 3). In 51% of the cases, the media talks about Som's large successes. For Ellen van Langen this percentage is 75%.

4.2. Context

The context involves the audience, setting, modality, narrative function(s) and power relations. Comparing the media in which the narratives of Bram Som and Ellen van Langen, one can recognize the fact that the narrative of Bram Som has mainly appeared in media being directed towards sports persons (sports pages of Telegraaf, losseveter.nl), whereas Ellen van Langen mostly appeared in media with a broader audience (table 3). Furthermore, Ellen van Langen has appeared slightly more often in regional media (9.38%) compared to Bram Som (8.5%). Additionally, the prime function of the media in which Bram Som has appeared was often either to inform or to involve, whereas the media outputs on Ellen van Langen seemed to have a more entertaining function. Most of the times, the media refers to the enormous achievement of Ellen van Langen and searches for anecdotes that will be appealing to the audience (which in case of Ellen van Langen is broad and often includes all Dutch people), which makes the function in many cases more entertaining. Looking at the narrative of Bram Som, the function is more often to inform. To specify, whenever he has appeared in the media, this was related to a recent important happening in his life. The media informed the audience (mostly sports persons) about a race he ran, an injury he suffered or a happening concerning his private life besides the sport. Considering the power relations, the media outputs on Som have little power to Dutch people compared to the media Van Langen appeared in. However, to the specific audience (sports persons / local people), the narrative of Bram Som could have a lot of power.

4.3.   Form

The form of the two narratives has been compared considering the following items: structure, goals in mind, co-construction and the explicit-/implicitness. Most remarkable is the difference concerning the structure. It is striking to see that in the case of Bram Som, the media has focused on the run towards the success, the success itself as well as the crises and a final conclusion. In the case of Ellen van Langen on the other hand, the media did not focus on the run towards the success, but she appeared in the media only when she won the Olympic Games in 1992 and after this moment, the media almost always referred to this climax. Thus, whereas one can recognize a clear time line in the narrative of Bram Som, this is not clearly visible for Ellen van Langen (appendix A2). Besides the structure, another aspect that stood out is the fact that the narrative of Ellen van Langen is often more directed to the audience's emotions. The language is more popular with lots of adverbs and the emphasis is on implicit language.

	Bram Som	Ellen van Langen
% that includes private life	12.50 %	9.38 %
% that includes major successes	51.00 %	75 %
% that is from regional sources	8.50 %	9.38 %
% that is from national sources	91.50 %	90.63 %
% that is from sources directed towards sports	65.00 %	31.25 %
% that is from sources with a special sports part (for instance in newspaper)	33.00 %	46.88 %
% that is from common / regular sources	2.00 %	21.88 %
% articles	55.00 %	43.75 %
% video's	37.50 %	43.75 %
% audio fragments	7.00 %	12.5 %
% other (social media)	0.50 %	0.00 %

Table 3: Differences between narratives expressed in percentages

4.4. Summary and conclusion

The results of the content analysis have been summarized in table 4. The most important findings from this first part of the study are the following differences between the two narratives in the media: what has been omitted, audience, setting, function, structure and implicit-/explicitness. The content analysis has indicated that the narrative of Bram Som in the media is more directed towards its private life, mostly visible in articles directed towards sport persons and with an informing function. The form of the narrative in terms of its structure is clearly a story line, with a beginning, climax and end. The case of Ellen van Langen on the other hand, shows completely different results. Ellen van Langen's narrative in the media is most often presented in video's of media sources with a lot of power to a large audience. However, her private life has been omitted and also in terms of the structure, it is only here big achievement which is presented in the media: it lacks a clear beginning and end. The form in which the narrative on Ellen van Langen is presented is more entertaining with a lot of implicit language.

	Bram Som	**Ellen van Langen**
Content		
What has been said	Trainings, challenges, private life, large successes .	Olympic games '92.
What has been omitted		Trainings, private life, challenges.
Context		
Audience	Mainly runners / sports persons.	Everybody (slightly more often regional)
Setting	Majority articles, spread over years since 2001, but whenever he had a break, there was nothing in the media.	Majority videos/television shows, spread over years ever since 92 (even though in 92 there was not a lot of mass media output yet).
Modality	Combination objective/subjective.	Combination objective/subjective.
Narrative function(s)	To inform.	To entertain.
Interactional concerns	Sporadically a reference towards a race video, site Atletiekunie or Som's own website.	Almost every single media output refers to the video of the Olympic Games in 1992.
Power relations	Relatively little.	A lot for the Netherlands as a whole.
Form		
Structure	Run towards success, success in 2006, slowly going down with several crises, conclusion.	Climax as well as the life after.
Goals in mind	Most often third person and more formal language.	Most often first person and informal language. Also often popular and with lots of adverbs.
Co-construction	Interviews.	Interviews (more often than in the case of Bram Som).
Explicit/implicit	Mostly explicit, but also some degree of implicitness.	Combination of explicit and implicit, emphasis on the latter; lots of emotions involved.

Table 4: Summary of results content analysis

PART II

'To what extent could storytelling (in terms of context, content and form) contribute in stimulating adults to practice a certain type of sport more often?'

5. Method

5.1. Population and sample

In order to research the effect of a sporting hero on people already engaging in that type of sports, people participating in bootcamp trainings of OUT!Sport have been researched. At first, bootcamp trainings might seem completely different from athletics, yet, the bootcamp trainings are mostly concerned with running elements. Also, video's that have appeared in the media concerned with Bram Som's training schedule, mostly show training elements that are closely related to bootcamp trainings. Lastly, Van Bottenburg (1994) has argued that the accessibility of a sport is important, and whereas athletics might seem a bit difficult for an adult to start with, bootcamp trainings are accessible for everybody being physically fit. Thus, the population of this study includes people who have participated more than once in bootcamp trainings of OUT!Sport (an organization that offers bootcamp, mountainbike and running trainings all around The Netherlands). Consequently, the findings cannot be generalized to people who participate in bootcamps in general (thus also other organizations except from OUT!Sport); this makes the size of the population the 2785 people that participate in bootcamp trainings of OUT!Sport. Calculating the required sample size with a margin of error of 5% and a confidence level of 95%, it is calculated that the minimum sample size should be 338. This minimum sample size is met, as in total 374 people responded.

Out of the valid responses, 24.84% was male and 75.16% female. In terms of age and educational degree, the respondents range from 18 to 61 years old, and 92.3% of them have a MBO and above degree, with the majority having a HBO degree (48.39%).

5.2. Research instruments

In order to get a better insight into the question on whether storytelling can contribute to people practicing a sport more often, quantitative research in the form of an online survey was conducted. The survey involved a retrospective on the respondents' knowledge of the narrative and the influence this narrative had on their sport behaviour. Thus, for this method, the outcome of the content analysis was not used. Instead, it is all about the 'natural setting' and what the respondents remember. The operationalization of terms used in order to conduct the questionnaire can be found in appendix B1.

The survey was sent to all bootcamp participants by OUT!Sport on the 25th of April 2013. Unfortunately, no reminder has been sent, as OUT!Sport stated they do not want to send a reminder as this might cause irritation among their participants. In order to ensure that the amount of participants that respond the first time was as high as possible, the Tailored Design Method of dr. Dillman has been used, which assumes that respondents want their reward to outweigh their effort. Regrettably, this research project did not have any budget to provide the respondents with any kind of financial reward. However, dr. Dillman also discusses other aspects: personalization, interest,

emphasize importance of response and express appreciation. Additionally, the effort should be minimalized in terms of time and anonymity. All of this has led to the questionnaire as presented in appendix B2.

5.3.   Data collection

The questionnaires for the bootcampers were conducted online, using thesistools.com. On the 25th of April, 2785 bootcampers were approached via e-mail by OUT!Sport and asked to fill out the online survey. After two weeks, 374 (13.43%) people responded. 15 out of these 374 respondents dropped out during the survey in an early stage, which equals 4.01%. Consequently, there are 359 valid cases. Among these 359 cases, only 3.34% appeared to be familiar with the narrative of Bram Som and 24.51% said they were familiar with the narrative of Ellen van Langen. 2.79% of the 359 valid cases was familiar with both narratives.

5.4.   Data processing and analysis

First of all, the data has been checked on drop outs, missing values and valid responses. Unfortunately, the data could not be checked on generelizability, as no data was available on the gender, age and educational level of the population (bootcampers of OUT!Sport). After cleaning the data, for the questions that are expected to group together, such as the items on identification, a factor analysis has been conducted together with a reliability test (Cronbach's Alpha).

Next, it was important to extract the respondents that were familiar with both Bram Som as well as Ellen van Langen. Only 12 out of the 374 respondents were familiar with Bram Som, and 10 out of these 12 respondents were also familiar with Ellen van Langen. Using these 10 respondents, a Paired-Samples T-test has been conducted in which both cases have been compared in terms of the items on storytelling, identification as well as the effect on sport participation behaviour. This indicated whether or not the cases were significantly different. However, it might also be the case that one narrative was slightly more effective than the other. In order to compare the effect, for both cases, a multiple regression has been done in which the dependent variable is the level of identification and the independent variables the items on the narrative. Subsequently, a regression has been conducted on the items on content, context and form to the level of identification on the one hand and the identification (independent) to the sport participation behaviour (dependent) on the other hand. Both regressions showed a beta value for each factor or item that indicates the increase in the dependent value when the independent value increases with one unit. Yet, as the number of respondents being familiar with Bram Som is extremely small, it is difficult to conduct quantitative analyses. Therefore, the data on the narrative of Bram Som has been analyzed in a qualitative way, which results in implications rather than clear cut conclusions.

6.   Results

6.1.   Identification

A principal component analysis (PCA) was conducted on the 3 items on identification with Bram Som with orthogonal rotation (varimax). The Kaiser-Meyer-Olkin measure indicated that the sample was not adequate for the analysis, KMO = .33, and all KMO values for individual items were < .5, which is below the acceptable limit (Field, 2009). Thus, in the case of Bram Som, the sample size was too small (only 10 respondents), for the items on identification to group together as a factor.

Another principal component analysis (PCA) was conducted on the 3 items on identification with Ellen van Langen with orthogonal rotation (varimax). The Kaiser-Meyer-Olkin measure confirmed the sampling adequacy for the analysis, KMO = .58 (mediocre according to Field, 2009), and all KMO values for individual items were > .55, which is slightly above the acceptable limit of .5 (Field, 2009). Barlett's test of sphericity X^2 (3) = 80.08, p < .001, indicated that correlations between items were sufficiently large for PCA. Only one factor had an eigenvalue over Kaiser's criterion of 1 and explained 73.54% of the variance, but as the items were forced into one factor, all three items are obtained. The resulting factor, 'identification Van Langen' had high reliability, Cronbach's alpha = .82.

6.2. Differences between narratives

By means of a Paired-Samples T-test, it was analyzed whether or not the narratives on Bram Som and Ellen van Langen are significantly different in terms of content, context and form. Whereas at first hand, the scores for the questions seem to be similar to the outcome of the content analysis (for instance people being more familiar with Som's private life than Van Langen's private life and people expecting to be more likely to experience something similar to Som than Van Langen), only one item appeared to be significantly different: familiarity with successes. On average, respondents indicated that they were significantly more familiar with Van Langen's sport successes (M = 6.2, SE = 0.25) than with Som's sport successes (M = 4.7, SE = 0.26), t(0.79) = 4.03, p < .01, r = .07.

Another Paired-Samples T-test has been conducted to find out whether or not people identify more with Bram Som compared to Ellen van Langen. In this case, all three items have been included separately, as the sample size of respondents being familiar with both narratives (10) is too small to extract a factor (KMO < .5). Also in this case, the analysis indicated that the identification with both athletes was not significantly different from one another. Lastly, a Paired-Samples T-test also indicated that the influence on sport participation behaviour was not significantly different between both narratives.

6.3. Model narrative Bram Som

In case of Bram Som, only the emotional aspect as part of the form of the narrative appeared to be significantly (p < .001) related to the involvement with Bram Som. 72% of the total variance in involvement with Bram Som is explained by emotions (R2 = .72, p < .001). With one unit of increase in the emotions involved, the involvement with Bram Som increases with 0.91 units (table 5). Other aspects considering the content, context and form of the narrative appeared to be not significantly related to the involvement. Then, one might wonder what aspects of content, form and context might lead to this emotional involvement. Unfortunately, no significant relations have been found as a result of the disappointing number of respondents. Also in case of the identification and having a similar experience, the items on the content, context and form appeared to be not significantly related. A regression has been done on the items on identification and change in sport participation behaviour. Again, no significant relationship has been found. However, this is probably due to the small amount of respondents (12) that filled out the questions on the narrative of Bram Som. Lastly, the interference of personal variables has been analyzed by means of regression (age) as well as independent t-tests (region, gender and sports/non sport person). Again, because of the small number of the sample, no significant relations or differences have been found.

	B	Std. Error	Beta
(Constant)	,51	,60	
Emotion Som	,91	,18	,85*

*Table 5: R² = .72, * p < .001.*

6.4. Model narrative Ellen van Langen

The same regression analyses have been conducted for the questions on the narrative of Ellen van Langen. However, in this case, the factor 'identification Van Langen' is used that has been extracted from the factor analysis. Concerning the narrative on Ellen van Langen, there are three items that are significantly related to the identification (table 6), together explaining 37% of the total variance in identification (R2 = .37, p < .05). The first item is the familiarity with the run towards her success: with one unit of increase in the familiarity with the run towards the success, the identification increases with 0.16 units (p < .05). Secondly, the item on emotions concerned with the narrative is significantly related to the level of identification: with one unit of increase in the emotions, the identification increases with 0.18 units (p < .05). Lastly, the item on whether or not the respondents thought the narrative was entertaining is related to the identification: when the narrative is one unit more entertaining, the identification increases with 0.16 units (p < .05).

	B	Std. Error	Beta
(Constant)	-1,61	,30	
Run towards success Langen	,16	,07	,26*
Emotion Langen	,18	,08	,29*
Entertaining Langen	,16	,08	,25*

*Table 6: R² = .37, * p < .05.*

As the emotional involvement might be strongly linked to the three items of identification, the items on content, context and form have also been regressed towards the emotional involvement in order to find out what exactly leads to this emotional involvement. Two items appeared to be related: the type of media in terms of articles or video's and the entertainment value (table 7). Together, they explain 34% of the variance in the emotional involvement. For the type of media, when the respondents thought the narrative was more represented through video's (one unit), their emotional involvement increased with 0.25 units. Furthermore, when respondents thought the narrative was one unit more entertaining, their emotional involvement increased with 0.55 units. Though, the level of entertainment appeared to be also significantly related to the identification (table 6), but when comparing both beta levels, the effect of the entertainment value on the emotional involvement seems stronger than its effect on the identification.

	B	Std. Error	Beta
(Constant)	,13	,69	
Type media articles/video's	,25	,09	,29*
Entertaining Langen	,55	,11	,52*

*Table 7: R² = .34, * p < .01.*

The extracted factor on identification has been regressed toward the change in one's own behaviour and the change in behaviour for other bootcampers. Concerning the change in one's own sport participation behaviour, the identification is significantly related (table 8) and explains 24% of the variance ($R2 = .24$, $p < .001$). With one unit of increase in identification, the change in sport behaviour increases with 0.4 units ($p < .001$). Furthermore, the factor identification is also significantly related to the respondents' view on the change in sporting behaviour of others (table 9). More specifically, the identification explains 8% of the total variance of the change in sporting behaviour of others ($R2 = .08$, $p < .05$). When the identification increases with one unit, the perceived change in sport participation behaviour of others increases with 0.32 ($p < .05$). However, the former, the change in one's own sport behaviour seems more important, as the latter is rather indirect.

	B	Std. Error	Beta
(Constant)	1,36	,09	
Factor identification Langen	,40	,09	,49*

*Table 8: R² = .24, * p < .001.*

	B	Std. Error	Beta
(Constant)	1,92	,14	
Factor identification Langen	,32	,14	,28*

*Table 9: R² = .08, * p < .05.*

Thus, the familiarity with the run towards the success, the emotions involved and the entertainment value are the items that influence the level of the identification which in turn influences the change in sport participation behaviour. Subsequently, a multiple regression has been conducted in order to find out the relationship between the perceived change in sport participation behaviour and each of the four predictors. The outcome of this multiple regression indicated that the three items on the context, content and form of the narrative do not make any significant contribution to the change in sport participation behaviour. The identification on the other hand remains significant ($p < .001$).

Lastly, it has been analyzed whether or not individual differences affect the above mentioned models. Surprisingly, the age does not influence the experienced change in sport participation behaviour of oneself, but it does have an effect on the perceived behavioural changes of others (table 10). The age explains 7% of the total variance, and with one unit of increase in the age, the perceived behavioural changes of others decreases with 0.04 units. Hence, the older the bootcampers were, the less they felt that the narrative on Ellen van Langen influenced other bootcampers' sport participation behaviour.

	B	Std. Error	Beta
(Constant)	3,41	,70	
Age	-,04	,02	-,27*

*Table 10: R² = .07, * p < .05.*

6.5. Summary and conclusion

The first thing to notice from this study is the fact that few respondents were familiar with the narrative of Bram Som, whereas a substantial amount was familiar with Ellen van Langen, indicating that the sources in which Van Langen appeared must have been more powerful. The results of the retrospect questionnaire among bootcampers further show that the narratives of Bram Som and Ellen van Langen differ significantly in the familiarity of the audience with their successes: the bootcampers were significantly more familiar with the successes of Ellen van Langen. Furthermore, the level of identification is related to the perceived change in sport participation behaviour, indicating that the more one can identify with the athlete, the more likely one is to perceive the hero has changed one's sport participation behaviour. In addition, the emotional involvement influences this identification positively: the more one feels emotional involved, the more one identifies with the hero. Besides this emotional involvement, the results also shows strong implications that the familiarity with the run towards successes as well as the entertainment value are related to the identification, but unfortunately this could not be confirmed by means of statistics in the case of Bram Som, due to the little amount of respondents. Furthermore, the emotional involvement seems to be higher when one got familiar with the narrative mainly through videos and when the audience perceived the narrative to be entertaining. Lastly, of all personal variables, it is only the age that seems to play a role: the older the respondents were, the less likely they were to report any sport participation changes due to the narrative of the sporting hero.

PART III

'To what extent could storytelling (in terms of context, content and form) contribute to stimulating adults to start to practice a certain type of sport?'

7. Method

7.1. Research strategy

In order to get a better insight in the contribution of storytelling to whether or not people start with a certain type of sport, a quasi-experiment was conducted. It is a quasi-experiment instead of an experiment, due to the social setting which makes it almost impossible to randomly assign participants (Bryman and Bell, 2007). Participants were included based on their willingness to participate, and the majority of the respondents were approached via Facebook, which means that not everybody within the population had an equal chance of inclusion (non-probability sampling). One of the major issues in doing an experiment are the threats of validity (Cook and Campbell, 1979 in Bryman and Bell, 2007). Hence, the potential threats have been named, together with the control measures in appendix C1.

The design of the quasi-experiment is presented in figure 8. The pretest presented in the experiment design is basically zero for all participants, as they were selected on the fact that they had never participated in bootcamps (of OUT!Sport) before. The population is thus completely different from the population from part II: whereas the population of part II consisted of people who have already participated in bootcamps more than once, the population of part III consisted of people who have never participated in bootcamps before. The treatment encompasses exposure to fragments of either the case of Bram Som or the case of Ellen van Langen, which have been selected based on the content analysis of part I. Both groups received four emails (once a week) with a link to a mass media output on their sporting hero .The narrative was spread over four weeks, as Lyle (2009) discusses that a long-term exposure to role models seems more beneficial than a single 'contact'. The respondents were asked to watch or read this item alone, at a quiet, tranquil place with their full attention. The post-test included whether or not people actually participated in a bootcamp. Additionally, as behavioural changes seem unlikely to occur, respondents received a link to an online questionnaire that contained items on the content, context and form of the narrative, as well as their identification and their view on the power of the narrative to change sport participation behaviour (appendix C2).
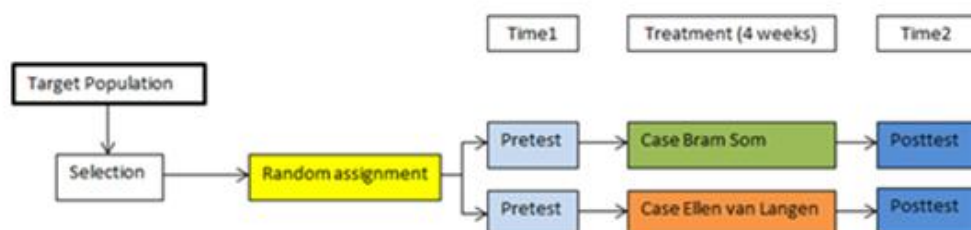
Figure 8: Experiment design

7.2. Population and sample

The population for the experiment was people aged between 18 and 40, as this is the group where the biggest decrease in sport participation is taking place. The age in the sample also varied from 18 to 40 years old, with a mean age of 24. Considering the population, this means the participants are rather young, which can be explained by the sampling method for which Facebook has been used. In selecting the participants, the following criteria played a role (besides the age criterion):

- Participants should be in The Netherlands during the experiment (week 16 until 19)
- Participants should be able to exercise if they want to (mentally and physically fit)
- Participants should be Dutch
- Participants should have the opportunity to participate in a bootcamp training of OUT!Sport at the most 15 kilometers from the place they live

The participants were asked to apply with the following information: name, email address, gender, age, place of birth, residence and whether or not they practice a sport more often than 12x a year. At the end of the experiment, in the final questionnaire, also the educational level has been asked. Out of the 61 participants that successfully ended the experiment, 50.8% was male and 49.2% female. In terms of educational degree, 59% of the participants have a MBO and above degree, with the majority having a HAVO/VWO degree (36.1%).

7.3. Research instruments

Based on the content analysis of Part I, the fragments for the experiment have been selected (table 11). To specify, the results of the content analysis show that in the case of Bram Som, the private life is more often included than in the case of Ellen van Langen (12.5% compared to 9.28%) and that he is more often discussed in articles than Ellen van Langen (55% compared to 43.75%) which is also the case in the experiment.

	Bram Som	Ellen van Langen
Week 1 (15-04-'13)	Article in Telesport (sports pages in national newspaper) of 2001 in which the problems Som faces are described.	Video on losseveter.nl (with a reference towards NOS) of 2008 about the Olympic Games in 1992 where Ellen van Langen wins the 800m.
Week 2 (22-04-'13)	Video from the NOS of 2006 about the European Championship in 2006 (posted in 2009) where Bram Som wins (which is also his biggest achievement).	Written interview on the website of Runner's World on how and when she started running and about running techniques.
Week 3 (29-04-'13)	Video from NOS (2009) in which Bram Som is interviewed during his training on his drastic training method changes. They also talk about his failures and successes.	Video (2009) of RTV-Oost in which Ellen van Langen gets her own street in Oldenzaal.
Week 4 (06-05-'13)	Article of Topsport Gelderland (2012) in which Som's career is summarized, but where also his private life is discussed.	Video on YouTube (2007) with a reference to Tros (national television) where Ellen van Langen returns to the Olympic stadium and relives her Olympic moment.

Table 11: Selection of fragments for both narratives based on content analysis

The questions in the questionnaire that has been sent at the end of the experiment (appendix C2) are almost identical to the quesitons for the bootcampers (part II). Therefore, the same operationalization of terms was used for this questionnaire.

7.4. Data collection

The initial list of potential participants that have applied via email consisted of 83 respondents. This list was first checked on their fit with the target group as well as on their residence, as they should have been able to participate in a bootcamp training less than 15 kilometers from their residence. 12 respondents (14.46%) did not fit the target group due to their residence, which resulted in 71 potential participants being left. Afterwards, the appropriate participants were emailed with the final invitation in which they were told what exactly was expected from them. Additionally, they were asked about their familiarity with the cases Bram Som and Ellen van Langen. Answering this question with a reply-email was a sign of their definite participation. 4 out of the 71 appropriate participants (5.63%) did not reply to this email, which resulted in 67 participants being left. These participants were assigned to the case they did not know. Participants that were not familiar with both cases, were randomly divided into the two groups. In total, 34 people were assigned to the case of Ellen van Langen and 33 were confronted with the narrative of Bram Som. Consequently, the assumption of normality was met due to the Central Limit Theorem (Field, 2009). During the experiment, there were two participants (2.99%) that dropped out; one of them argued that he was not able to view the video's on his mobile phone and did not have access to a computer and the other one was not able to finish the experiment due to time issues. Consequently, the link to the online survey was sent to 65 participants on the 6th of May, together with the last media output. After this first request, 23 participants (35.38%) failed to fill out the questionnaire and these participants received a reminder at the 14th of May. After this reminder, the number of participants that completed the experiment was 58 (89.23%), which increased to 61 (93.85%) after the second reminder. The respondent list with information of participants that finished the experiment as well as the information of participants that failed to finish the experiment can be found in appendix C3.

7.5. Data processing and analysis

After cleaning the data, the results of the experiment in terms of whether the participants in one group were more likely to start to practice a certain sport should have been analyzed by means of a Pearson's chi-square test, together with the effect size being measured by means the odds ratio. Nevertheless, due to the disappointing amount of participants that have actually participated, these analyses could not have been processed. Actual behavioural changes might have been too ambitious, thus participants have also been asked on their perceived and expected behavioural changes. As there are only two questions on the behavioural changes, no factor analysis will be conducted. Instead, an independent t-test for both items determined whether or not the type of narrative had an influence on the stance.

Furthermore, the role of identification has been be analyzed. Concerning the identification, there are basically three questions (involvement, identification and similar experience) that attempt to measure a similar concept. A principle component analysis was conducted to find out if these items group together, after which the means of both narratives were compared (independent t-test) to find out if one case is more successful in terms of identification compared to the other. Furthermore, as the participants have been asked about their perception on the narrative (in terms of content, context and form), these items have been regressed to the mean identification. Additionally, the

mean identification has been regressed to the question whether or not they feel it has influenced their sport behaviour. All of these regressions have been done on the selection of participants that were confronted with the narrative of Bram Som, the participants that had the case of Ellen van Langen as well as all participants together as a whole. The reason for doing the regression analysis also separately, is that if for instance the participants identify more with Bram Som, the total regression might show that if the participants felt the narrative consisted of mostly articles, this affected the identification. However, this regression might only be significant because Bram Som's narrative was represented trough articles, while the narrative around Ellen van Langen was mostly presented through video's. It is then not the type of media that explains the variance in the identification, but rather the athlete that is 'coincidently' linked to this type of media.

Lastly, groups were compared on the basis of other variables that could interfere, such as gender, but also the place of birth and residence to see if there is a regional effect (the variables on place of birth and residence were translated into dichotomous variables where '1' equals that they are from the same region as the hero and '0' that they are from any other region).

8. Results

8.1. Identification

A principal component analysis (PCA) was conducted on the 3 items on identification with orthogonal rotation (varimax). The Kaiser-Meyer-Olkin measure confirmed the sampling adequacy for the analysis, KMO = .63 (mediocre according to Field, 2009), and all KMO values for individual items were > .58, which is fine considering the limit of .5 (Field, 2009). Barlett's test of sphericity X^2 (3) = 42.08, p < .001, indicated that correlations between items were sufficiently large for PCA. Only one factor had an eigenvalue over Kaiser's criterion of 1 and explained 65,45% of the variance, but as the items were forced into one factor, all three items are obtained. The resulting factor, identification had high reliability, Cronbach's alpha = .73. Cronbach's alpha did not increase when one of the items would be deleted.

8.2. Differences between narratives

By means of an independent T-test, it was analyzed whether or not the narratives on Bram Som and Ellen van Langen in the experimental setting are significantly different in terms of content, context and form. There were three items that differed significantly: the familiarity with the run towards the successes, the type of media in terms of articles/videos and whether or not the respondents perceived the narrative to be informative. On average, respondents indicated that they were significantly more familiar with Som's run towards his sport successes (M = 4.3, SE = 1.26) than with Van Langen's run towards her successes (M = 4, SE = 1.13), t(59) = -1.2, p < .001. Also, respondents indicated that they had the idea that the narrative of Ellen van Langen was more shown through videos (M = 5.55, SE = 1) compared to the narrative of Bram Som (M = 4.57, SE = 1.55), t(59) = -2.96, p < .005. Lastly, on average, the respondents had the idea the narrative of Bram Som is more informing (M = 5.27, SE = 1.20) than the narrative on Ellen Van Langen (M = 4.58, SE = 1.34), t(59) = 2.11, p < .05.

Additionally, comparing the items on the identification separately as well as the factor that has been extracted, it can be concluded that on average, respondents have the feeling they are more likely to

experience something similar to Bram Som (M = 4.3, SE = 2.09) compared to Ellen van Langen (M = 2.97, SE = 1.66), t(59) = 2.23, p < .05.

Moreover, the narratives have been compared in terms of their strength in changing one's sport participation behaviour. The participants of the experiment had been told that they can sport for free during the experiment. In total, only one participant did actually participate in a training, and two other participants informed the researcher that they indented to go (one of them lives in The Hague and mentioned the training was on the other side of The Hague, which is too far from her place, and the other one mentioned he got a sport injury during the experiment). As Field (2009) discusses, in order to do a proper Chi-square test, the expected frequency must be at least five. Even when considering the other two participants, which would add up to a total of three participants that showed behavioural changes, the expected frequency would still be too low to have a reliable Chi-square test. Additionally, the odds ratio cannot be calculated either, simply because the odds for participating because of the narrative of Som will be zero as zero people participated in the trainings. The outcome of the odds ratio will thus also be zero.

8.3.   Model participants Bram Som

In order to find out to what extent storytelling can lead to identification and stimulate adults to practice a certain type of sport, several regression analyses have been conducted. To start, in the case of Bram Som, the content, context and form seem to have no influence on the change in sport participation behaviour. The extracted factor concerning identification on the other hand does have a significant (p < .001) effect on the sport participation behaviour (table 12). To specify, 54% of the total variance in the sport participation behaviour is explained by the identification (R2 = .54, p < .001). With one unit of increase in the identification, the perceived change in sport participation behaviour increases with 1.13 units. Looking at the relation between the content, context and form on the one hand and the identification on the other hand (thus leaving out the change in participation behaviour), the emotions involved in the narrative are significantly related to the level of identification (table 13): 53% (R2 = .53, p < .001) of the variance in the identification is explained by the emotions involved. When the emotions involved increases with one unit, the identification increases with 0.52 units.

	B	Std. Error	Beta
(Constant)	2,87	,22	
Factor identification	1,13	,20	,73*

*Table 12: R^2 = .54, * p < .001.*

	B	Std. Error	Beta
(Constant)	-1,52	,32	
Emotional involvement	,52	,09	,73*

*Table 13: R^2 = .53, * p < .001.*

Regressing the other items of the content, context and form on the emotional involvement, there is one item that appears to be significantly related: level of entertainment (table 14). The level of entertainment explains 35% of the variance in the emotional involvement and with one unit of increase in the entertainment value, the emotional involvement increases with 0.62 units.

	B	Std. Error	Beta
(Constant)	,63	,68	
Entertainment	,62	,16	,59*

*Table 14: R^2 = .35, * p < .001.*

Looking at the individual differences that might affect the models described above, an independent t-test indicated that women are more likely to feel emotionally involved (M = 3.73, SE = 0,38) compared to men (M = 2,4, SE = 0.39), t(28) = -2.44, p < .05. As the regression analysis has shown that the emotional involvement explains 53% of the variance in the identification, one might expect the gender differences also to occur in the identification, but this difference appeared to be not significant. Also whether or not participants were from the same region, as well as the age and whether or not the participants practiced any sport, were not significantly related to the identification or the change in sport participation behaviour.

8.4. Model participants Ellen van Langen

Concerning the narrative of Ellen van Langen, the familiarity with the life after her successes, the extent to which the respondents find the narrative informing as well as the identification seem to play a role in the change in sport participation behaviour (table 15). In total, the identification accounts for 25% of the variation in change in sport participation behaviour. The two other predictors, familiarity with life after the successes and the function of the narrative (informing) account for an additional 28%. The model in total can be defined as follows:

Change in sport participation behaviour = 3.46 + (0.85 identification) + (0.55 knowledge life after success) + (-0.46 narrative being informing).

Whereas the identification as well as knowledge on the life after the success are positively related towards the change in sport participation behaviour, the opinion on whether or not the narrative is informing influences the change in sport participation behaviour negatively. In other words, if people perceive the narrative to be one unit more informing, their change in sport participation behaviour decreases with 0.46.

	B	Std. Error	Beta
Step 1			
(Constant)	3,51	,26	
Factor identification	,97	,31	,50**
Step 2			
(Constant)	3,46	,86	

	B	Std. Error	Beta
Factor identification	,85	,26	,44**
Familiarity life after	,55	,15	,51*
Informing	-,46	,18	-,37***

Table 15: R^2 = .25 for step 1, ΔR^2 = .28 for step 2. * p < .001, ** p < .005, *** p < .05.

In the case of Ellen van Langen, there are two factors concerning the content, context and form of the narrative that appear to be significantly related to the level of identification: the type of media in terms of being directed towards sports or a regular media source and the level of emotions involved (table 16). In total, 38% of the variance in the identification is explained by these two factors. The type of media (sports related or regular) is negatively related, meaning that when the participants perceived the media to be more directed towards a regular audience (with one unit increase), their identification decreased with 0.16 units. The emotional involvement on the other hand was positively related, meaning that with one unit of increase, the identification increased with 0.24 units. Regressing the other variables of the context, content and form on the emotional involvement did not lead to any significant relationships.

	B	Std. Error	Beta
(Constant)	-,45	,36	
Type of media sport regular	-,16	,07	-,35**
Emotional involvement	,24	,07	,52*

Table 16: R^2 = .38, * p < .005, ** p < .005.

Looking at the individual differences that might affect the models described above, an independent t-test indicated that sport persons scored higher on the separate item of identification (not the extracted factor, but the item as part of the factor). When a person practiced a type of sport, he was more likely to identify more with Ellen van Langen (M = 3.4, SE = 1.08) compared to people not practicing a sport (M = 1.83, SE = 0.48), t(29) = 2.74, p < .01. The gender, age as well as whether or not participants were from the same region appeared to have no significant effect on the model.

8.5. Model participants both Bram Som and Ellen van Langen
When including both the participants that were exposed to the narrative of Bram Som as well as the participants that were exposed to the narrative of Ellen van Langen, the familiarity with the life after the successes as well as the identification are the predictors of the change in sport participation behaviour (table 17). The identification accounts for 38% of the variance in the change in sport participation behaviour and the familiarity with the life after the successes accounts for an additional 4%. When the identification increases with one unit, the change in behaviour increases with 1.07 units and in the case of familiarity with the life after successes, this change will be 0.21 units.

	B	Std. Error	Beta
Step 1			
(Constant)	3,20	,17	

Factor identification	1,05	,18	,61*
Step 2			
(Constant)	2,42	,40	
Factor identification	1,07	,17	,62*
Familiarity life after	,21	,10	,21**

Table 17: R² = .38 for step 1, ΔR² = .04 for step 2. * p < .001, ** p < .05.

There are three items that are significantly related to the identification: the type of media being sport related or regular, the type of media in terms of articles or video's and lastly, the level of emotions involved (table 18). In total, these three items explain 43% of the total variance in the identification. The model for the identification can be defined as follows:

Identification = 0.13 + (-0.13 type media sport / common) + (-0.16 type media articles / video's) + (0.33 emotional involvement).

	B	Std. Error	Beta
(Constant)	,13	,49	
Type of media (sports or regular)	-,13	,05	-,25**
Type of media (articles / video's)	-,16	,07	-,22**
Emotional involvement	,33	,06	,58*

Table 18: R² = .43, * p < .001, ** p < .05.

Regressing the variables on the content, context and form towards the emotional involvement resulted in one significantly related item: the level of entertainment (table 19). The opinion of the participants on whether or not the narrative was entertaining, explained 22% of the total variance in their emotional involvement. More specifically, with one unit of increase in the level of entertainment, the emotional involvement increases with 0.54 units.

	B	Std. Error	Beta
(Constant)	1,19	,60	
Entertainment	,54	,13	,47*

Table 19: R² = .22, * p < .001

Looking at the individual differences that might affect the models described above, an independent t-test indicated that women are more likely to be emotionally involved (M = 3.93, SE = 0.29) compared to men (M = 3, SE = 0.33), t(59) = -2.14, p < .05. Additionally, women are also more likely to feel involved (one item of the factor identification) with the athlete of the narrative (M = 4.4, SE = 0.3) compared to men (M = 3.48, SE = 0.34), t(59) = -2.03, p < .05.

Additionally, whether or not the participants practiced any type of sport appears to have an influence on their identification. This is both the case for the item on identification as well as the

factor that has been extracted from the PCA. Concerning the item separately, the sports persons identify more (M = 3.15, SE = 0.21) compared to non sports persons (M = 2, SE = 0.31), t(59) = 2.74, p < .005. In case of the factor extracted, the difference was a little bit less, t(59) being 2.16, p < .05. Furthermore, an independent t-test indicated that whether or not people practice a sport is related to their idea on the type of media being directed to sports or being a regular source, where non sports persons were more likely to have the idea the media source was a regular one (M = 4.64, SE = 0.50) compared to sports persons (M = 3.26, SE = 0.27), t(59) = -2.44, p < .05. Lastly, the sports persons were more likely to perceive the narrative as entertaining (M = 4.45, SE = 0.20) compared to non sports persons (M = 3.36, SE = 0.46), t(59) = 2.46, p < .05.

A regression analysis has indicated that the age is significantly related to the change in one's own sport participation behaviour (table 20). The age explains 7% of the total variance in the change in one's own sport participation behaviour and with one unit of increase in age, the behavioural change decreases with 0.09. In other words, the older the participants, the less likely they were to perceive changes in their sport behaviour because of the narrative.

	B	Std. Error	Beta
(Constant)	5,47	1,11	
Age	-,09	,05	-2,09*

*Table 20: R² = .07, * p < .05.*

8.6. Summary and conclusion

The results of the comparison of the two narratives for the experiment is less interesting compared to the questionnaire of bootcampers, mainly because for the experiment, the narratives were artificially put together. The differences concerning the opinion on whether or not having a similar experience would be achievable is interesting, as this has not been an item that could have been controlled. On average, the respondents that were confronted with the narrative of Bram Som were more likely to answer that they might experience something similar. Then, the regression analyses was done for both athletes separately as well as including all participants together. The results indicate that besides the relation between the identification and behavioural changes, also a causal relation exists between the emotions involved and the identification. Also, whether or not the narrative was perceived to be informing influences the level of identification negatively. Furthermore, the familiarity with life after sport successes could be related, but more evidence is needed to support this potential relationship. In addition, the items on context, content and form have been regressed to the emotional involvement to find out what exactly might lead to this emotional involvement. Both in the case of Bram Som separately as well as when analyzing all participants together, the entertainment value appears to be significantly related. Lastly, personal variables interfere in different manners: women are more likely to feel emotionally involved, sport persons are more likely to identify with the hero, sport persons are more likely to perceive the narrative to be entertaining, non-sport persons are more likely to perceive the media source as a sports-directed one and the age affects to what extent participants feels the narrative influences their sport participation behaviour negatively.

9. Discussion and conclusions

9.1. How can storytelling (in terms of context, content and form) contribute to the amplification of the role of sporting heroes as a catalyst for the sport participation rate among adults?

This research project consisted of three building blocks that aim to get a better insight into the question to what extent storytelling can contribute to the amplification of the role of sporting heroes as a catalyst for the sport participation rate among adults. The first part, the content analysis, revealed differences between narratives in the media on two sporting heroes: Bram Som and Ellen van Langen. Concerning the content, the private life of Som is more often discussed in the media compared to van Langen, but on the other hand, the major success of van Langen is more often discussed than in the case of Bram Som. Looking at the context, the most striking differences are the fact that the narrative of Ellen van Langen is more often shown in videos and that these media sources often have a broader audience (compared to Bram Som who is often discussed in media directed towards a sports audience). Lastly, the narrative of Bram Som as presented in the media is more informing in its nature and its structure is similar to what has been named by Cermák (2004) as the planned gain with appreciated risk (figure 9) as the media has followed him towards his major achievement with all the problems he faced. The narrative of Ellen van Langen is completely the opposite in its structure (descending), as she mainly appeared in the media after her achievement (climax). Also, the function of Van Langen's narrative in the media seems to be more entertaining, which might be connected to the form as the narrative of Ellen van Langen in the media often includes a lot more adverbs as well as implicit language compared to Bram Som.
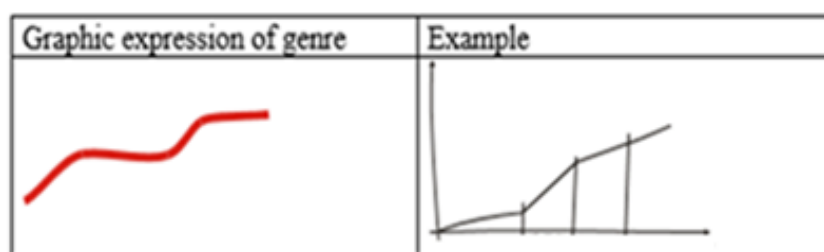
Figure 9: Planned gain with appreciated risk (Cermák, 2004)

The second building block included the retrospect questionnaire among bootcampers. Comparing their view on the narratives to the researcher's view based on the content analysis (appendix D1), the positioning of both narratives seems to be exceptionally similar. This validates the outcome of the content analysis. The questionnaire also indicated that the familiarity with successes between both narratives differs significantly: participants are more likely to be familiar with the successes of Ellen van Langen.

The third, and last, building block included a quasi-experiment where respondents were confronted with the narrative of either Bram Som or Ellen van Langen in an experimental setting. The decision for the mass media outputs that presented the two narratives has been based on the content analysis of part I. Additionally, the view on the narratives of the participants of the experiment has been compared to the results of the natural setting (appendix D1), in which no outstanding

differences have been found, which indicates that the narrative as presented in the experiment is probably a good representation of the narratives as appeared in the media in its natural setting. Concerning the narratives in the experimental setting, the following aspects are significantly different: run towards the successes (more in the case of Som), type of media in terms of video's or articles (Van Langen more video's), informing (more in the case of Som) and the likeliness that one is able to experience something similar (more in the case of Som).

Besides presenting the differences between the two narratives, the main purpose of this study was to identify relations between storytelling and the effect of sporting of sporting heroes on changing one's perceived sport participation behaviour. The outcome of the regression analyses in the natural setting and the experimental setting differed, which might be due to the dissimilar contexts. Yet, there are some items that were significantly related in both settings. The comparison of the regression analyses in both settings resulted the model presented in figure 10.
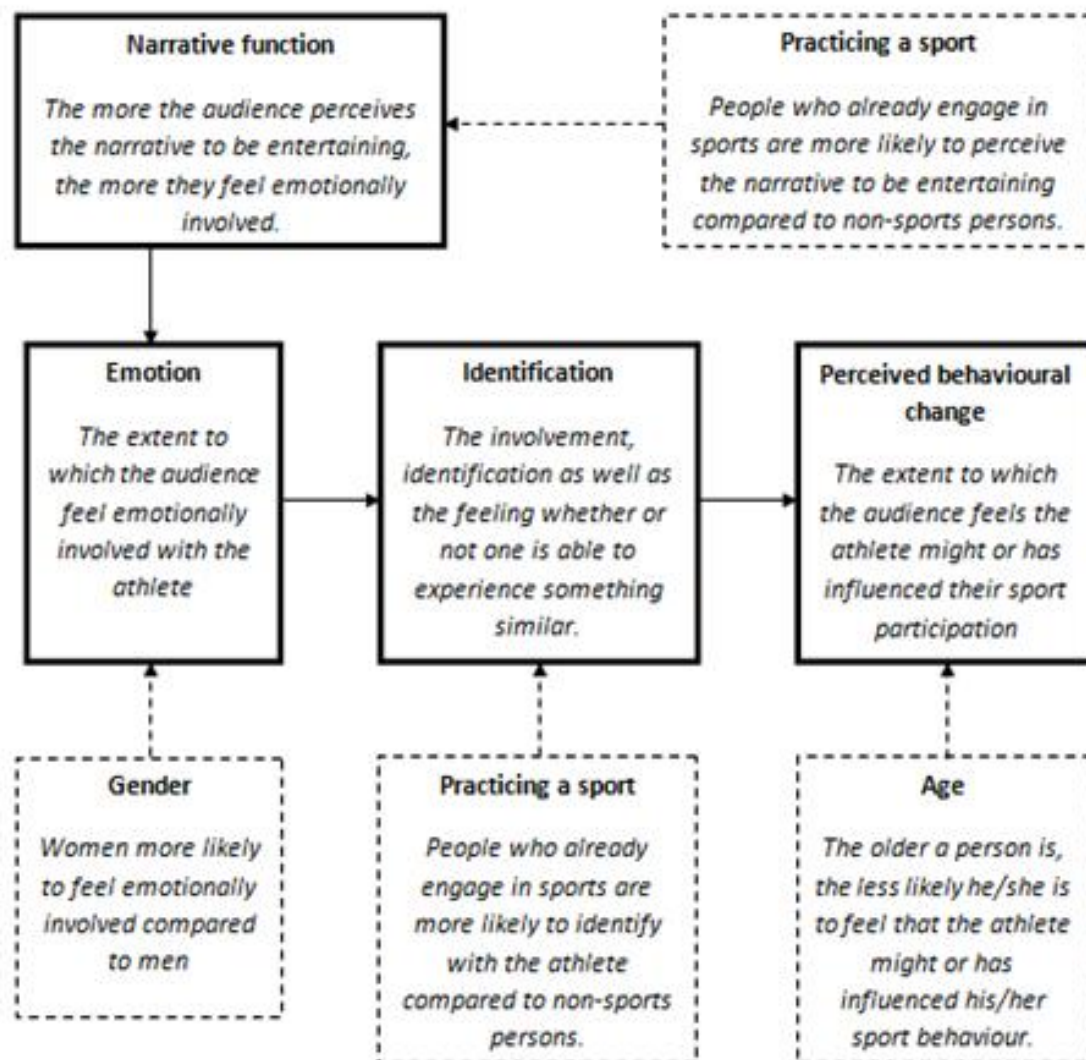
Figure 10: Adjusted conceptual model

The elements of the model in figure 10 are aspects that appeared to be significantly related frequently. There are two more elements that seem very likely to interfere in the process, but are not included in the model as they only appeared to be significantly related once: the run towards successes to the level of identification and the type of media (articles/video's) to the emotional involvement. These items were significantly related in the natural setting (part II) for the narrative of Ellen van Langen, but not for Bram Som, probably due to the small number of respondents. Thus, further research into the relation between familiarity with run towards successes to identification as well as the type of media to emotional involvement is needed.

Considering the theoretical debate and the belonging conceptual model of chapter 2 (figure 11), several aspects stand out. First of all, the theory behind the inspiration-emulation-perspiration model seems to be partially correct, as this model assumes that the identification is crucial for the (perceived) behavioural changes. However, the theory behind the IEP model mainly argues the importance that people should have the feeling they might experience something similar, which is in line with Vescio et al (2005) and Lockwood and Kunda (1997) who argue that role models are most effective when they share similarities with the observer and when the success seems obtainable. This research project cannot completely confirm this argument. To clarify, being able to have a similar experience was in fact part of the identification which appeared to be significantly related to the perceived change in sport behaviour. Though, the participants of the experiment that were confronted with the narrative of Bram Som were more likely to feel that they might have a similar experience compared to the people who were confronted with the case of Ellen van Langen (p < .05), but this was not visible in the perceived behavioural changes anymore, which one would expect if these two items would correlate. As a result, one could debate what experiencing something similar actually means. On the one hand, it might be all about having a similar physical experience like being able to win the Olympics, but on the other hand it could be more about having a similar emotional experience. To clarify, for people not engaging in running yet, being able to run for half an hour straight on might be similar in terms of emotional experience to Bram Som's European Championship or Ellen van Langen's Olympic Games. As the results of this study do show a relation between the emotional involvement and the identification, it seems to be the case that having a similar emotional experience is more important than having an equal physical experience.
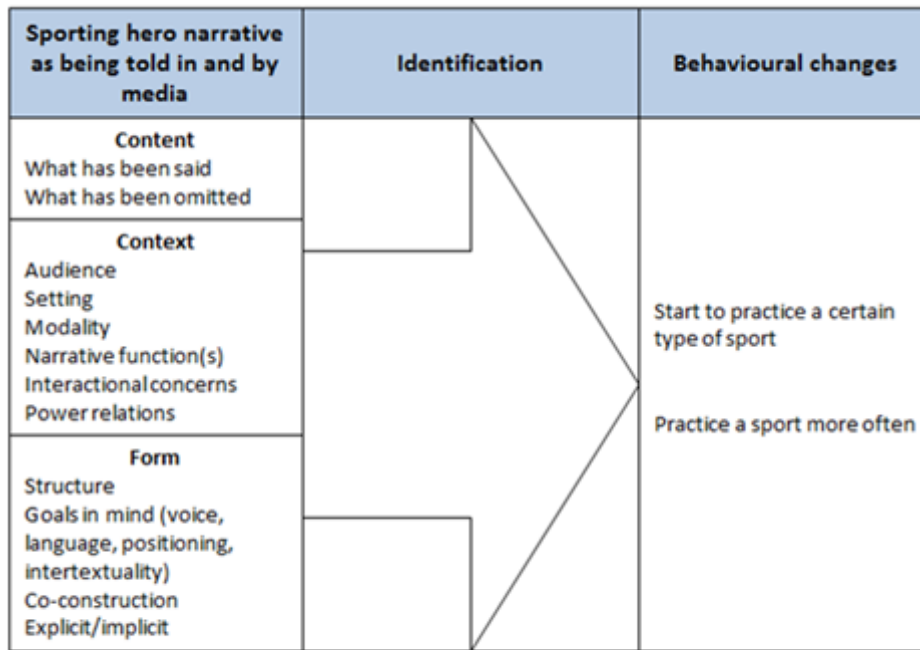
Figure 11: Conceptual model before carrying out research

Furthermore, the argument of Van Bottenburg (2003; Van Bottenburg et al, 2011) that sporting heroes become more alienated and thus often fail to influence one's behaviour cannot be completely confirmed by this research project. To explain, following this argument raised the expectation that people would be able to identify easier with someone who has been more in the media with his/her private life: in this case Bram Som. However, the content of the narrative seems to play no role in the trickle-down-effect, it is rather the context and form that have the biggest influence (the function of the narrative, the goal and the implicit/explicitness). This study implies that sporting heroes can perform on a high level; they can be the mythical sport figures of our society. Crucial is the form of the narrative as presented by the media: the sporting hero should be presented as a sport celebrity (Druker and Cathcart, 1994 in Hoebeke et al, 2011) or a prowess hero (Hughson, 2008). This is in contradiction to what has been reported in most of the literature: most authors debate that the heroes with imperfections, a human side and moral responsibility make the largest contribution to society (e.g. Hoebeke et al, 2011 and Hughson, 2008). Nonetheless, this research indicates that it is not the moral hero, but rather the prowess hero who displays expertness through television and where the focus lies on media and marketability who has the largest inspirational effect. In order for these heroes to make a significant contribution, it is crucial for the media to display feelings and emotions in order to get the audience involved.

Furthermore, Hoebeke et al (2011) discussed the general storyline of sporting heroes with the following phases: rise, fall from grace and resurrection. Similar to Hover's (2012) notion of the conclusion in which the final image exists, Hoebeke et al (2011) discusses the importance of the hero's return from quest. The findings of this research imply that this return from quest or conclusion is not vital at all; heroes can, and should, remain in their quest as long as this is perceived by the audience to be entertaining and as long as their feelings are clearly displayed in the media.

Several studies have reported the ideal circumstances and conditions of the trickle-down-effect. A considerable amount discussed the phenomenon that sporting heroes are most effective in inspiring

people who already engage in (that type of) sports (E.g. EdComs, 2007 in Van Bottenburg et al, 2011 and Biskup and Pfister, 1999). This can be confirmed by this study, as people who already engage in sports are more likely to identify with the hero, which in turn influences the probability that the hero could affect their perceived sport participation bahaviour. Also, studies have shown that long-term exposure to role models seems most beneficial (Lyle, 2009), but unfortunately this cannot be confirmed or rejected by this dissertation as no information on the duration of exposure to the narrative of bootcampers was available. Concerning the gender, most authors debate that males are more sensitive to the influence of sport role models (E.g. Payne et al, 2003), whereas Bush et al (2004) argue that females in their study were more likely to agree that athlete role models influenced their behaviours. The outcome of this study only indicated that women are more likely to be emotionally involved, which leads to identification, but did not provide evidence that either males or females are more sensitive to athlete role models as sources of inspiration for behavioural changes. For the age, this study debates that the athletes as role models are most effective for younger people, which is in line with other research (E.g. Carr and Weigand, 2001; Lines, 2001; Slender, 2006) who argue that sporting heroes are most effective for youngsters ore children.

The results of this research project indicate that whether or not people perceive the narrative to be entertaining is influencing the level of emotions involved which in turn is influencing the identification. This is similar to Küpers et al's (2012) argumentation that stories with the intention to involve are the stories that have the power to change behaviour as the emotional involvement is probably linked to narrative with a function to involve. In addition, Hover (2012) stated the functions 'to involve' and 'to entertain' are very alike, which might also be a reason for the strong correlation between the entertainment level and the emotional involvement. Going back to Van Bottenburg's (2003; Van Bottenburg et al, 2011) argumentation that heroes become more alienated, this project did not confirm this, but neither did it reject his argumentation. To specify, it was expected that the alienation would be a result of the content (only focusing on the sport career), but it seems to be the case that it is rather about the emotional involvement of the audience and function of the media source that results in the alienation or identification. If sporting heroes are presented in the media in an informative way, this might make them more alienated from the mass audience. Yet, if feelings and emotions of the sporting hero are presented (often more in case of an entertaining function), the audience is more likely to feel closely connected to the hero. Also, this study has shown implications (but lacks hard evidence) that the structure of the narrative in terms of the run towards the success as well as the type of media in terms of more video's are important in order to influence the perceived behavioural changes. If the run towards the success(es) is not described within the media, this might result in the hero becoming more alienated from its audience. Also, video's are likely to contribute to heroes becoming less alienated, as video's have the power to display emotions and feelings of the hero to the audience.

9.2. Reflection research process

One of the most important questions related to this study to reflect on is whether or not behavioural changes that occurred because of storytelling can be measured. In other words, how can we be sure a person acted the way he/she did because of the type of story specifically, instead of other variables that might interfere in this decision making process (for instance family, sporting facilities available, personality, other sporting hero narratives known by the person, stance towards sports in general, background). Probably, one cannot isolate the relationship between storytelling and real behavioural changes from all other interfering aspects. Therefore, the focus of this study has been mainly on the

perceived behavioural changes, meaning that respondents have been asked about their idea on to what extent the sporting hero narrative has influenced their sporting behaviour. Even though real behavioural changes was too ambitious and this has been spun to perceived behavioural changes, it can still be questioned whether or not the results of this study provide clear cut answers to the question whether or not narratives on sporting heroes can influence one's perceived change in sport participation behaviour. For the second part, the questionnaire, the respondents have been asked about their perception on to what extent the narrative has influenced their behaviour. However, the formulation of the question might have influenced the answer. In addition, the respondents might have provided the researcher with a socially acceptable answer, instead of a real answer. Lastly, respondents might have been simply not aware of the effect and just filled out the questions randomly. Also within the experiment, the expectations that storytelling might influence actual behavioural changes was too ambitious. Even if more participants would have participated in the bootcamp trainings, it is still difficult to draw hard conclusions that these behavioural changes occurred because of the sporting hero narrative specifically and not because of other factors that interfere in the process. All of this influences the internal reliability of this study, as one cannot guarantee respondents' scores on perceived behavioural changes are in fact related on the other indicators. Also the stability of this study can be questioned, as the variation is likely to fluctuate over time as a result of the directive questions as well as socially accepted answers. Nevertheless, this study did satisfy curiosity and created possibilities for further research.

In addition, the choice has been made to use three different methods: a content analysis, a questionnaire (natural setting) and a quasi-experiment. Reflecting on this process, this has contributed in getting a full picture, but it might have been better to leave out the experiment and focus completely on what people remember of the narrative (the narratives in a natural setting), because of the following reasons:

- Within the experiment, the participants were <u>forced</u> to follow an athlete, which probably results in a different view compared to someone who follows the narrative around an athlete voluntarily. It is expected that somebody who follows the narrative voluntarily is more involved with the sporting hero and the sport he or she engages in specifically. This person will therefore be more concerned with the details of the narrative compared to someone who watches media outputs because he or she feels obliged to do so. As participants were forced to follow an athlete, the ecological validation and external validation of the experiment is questioned. In other words: are the findings of the experimental setting applicable to natural settings and, thus, can we generalize these results?
- The <u>context of the media outputs</u> got lost to some extent as the media outputs were presented to the participants in the experiment as links to websites. Thus, all media outputs were viewed online, instead of for instance read in a newspaper or watched on television, which is likely to result in a different stance towards the narrative. Also, there are probably considerable differences in watching a live video of Ellen van Langen winning the Olympics in 1992 compared to viewing this same video more than twenty years later whilst knowing she is going to win the race. All of this influences the external validation as well as the ecological validation of the experiment.
- Within the experiment, there was <u>little variation</u> between athletes as well as the dependent and independent variables, which resulted in little significant relationships. Due to this little variation it is hard to tell if causal relations between the mentioned variables are real. For

instance, as there are only two athletes, the differences might have not occurred because of the narrative, but rather because of the gender difference between the two athletes. Also, for the dependent variables, only one simple question about their perceived behavioural changes have been asked. 'Perceived behavioural changes' is a broad concept though and might have been better differentiated. Due to the little variation, the measurement (construct) validity is questioned; one can debate whether or not the measures reflect the concepts well enough.

- The experiment was <u>difficult to control</u> in a sense that the researcher cannot be sure the participants have actually viewed the media outputs. Participants might have felt reluctant to say they had not watched all media outputs and just decided to fill out the questions about the narrative randomly. Also, there are probably large differences in the way participants viewed the media outputs. Whereas some might have spend a lot of time and attention and even might have watched the output more than once, others might have watched the output without actually paying attention. As a result of this control issue, the external validity of the experiment is questioned. Results of the experiment might have been affected by participants not watching the media outputs (well enough), and therefore the results cannot be generalized beyond the research setting.

- Lastly, a considerable amount of <u>time</u> has been spent on the experiment, whereas this time could have been better spent on finding respondents that are familiar with Bram Som. For this study, there were only 12 respondents of the bootcamp questionnaire (part II) that were familiar with Bram Som, with the consequence that there were barely any significant results. As the small amount of respondents could have been forecasted due to the little power of media sources Bram Som has appeared in, it would have been better to focus completely on respondent's retrospect and find more people being familiar with the narrative of Bram Som. Hence, it is recommended for further research to emphasize on respondents' retrospect with the aim of getting a larger sample that is familiar with two different narratives of athletes (for instance, Bram Som and Ellen van Langen) in order to be able to clearly indentify differences between narratives and their effect.

To summarize, the reliability of this study is questioned mainly due to the difficulty of exploring the relationship between storytelling specifically and perceived behavioural changes. Moreover, the validity of the experiment is questioned because of various reasons, such as the difficulty to control and the context that got lost to some extent. Consequently, it is recommended for further research to strengthen both the reliability as well as the validity by focusing on the stance of people who have seen a narrative in the natural setting. The researcher should then only focus on what people remember of the narrative in the media, instead of providing them with an artificially reconstructed narrative. In order to get a full picture of the effect of this narrative on their perceived behavioural changes, the researcher should emphasize on qualitative methods, such as qualitative interviews, over quantitative methods. Using qualitative interviews, the researcher can go more in depth in the issues of entertainment value, emotional involvement, identification and perceived behavioural changes whilst being able to respect the differences between people and the objects of the natural sciences.

9.3. Recommendations

The title of this dissertation is: The 'trickle-down-effect': Should sporting heroes bare their souls? This study has proven that indeed sporting heroes should bare their souls, but is has been refined in the sense that sporting heroes should not bare themselves about what happens besides their sport careers in their private life. Instead, they can remain in their quest and be the mythical sporting heroes, as long as the main focus within the media is not on the technical aspect of the sport, but rather on feelings, emotions and experiences belonging to the sporting hero's sport career. Now, considering Lines' (2001) statements that "the nature of what the reader gets to see, hear and read about is determined and amplified by camera angles, replays, gossip columns, photographic images, chat shows and other such professional practices which ensure that the sport star image develops through selected constructions of reality" (p287), and that "what the audience know about and identify with certain sports stars is closely associated with the information that the media professional has selected to bring to their attention" (p300), the power of enhancing the so called 'trickle-down-effect' seems to be not in the hands of the sporting heroes themselves, but rather a task of the media that presents these figures.

The aim of this study was to provide both private and public organizations with recommendations in what would be the best way to utilize top athletes in a sense that they can stimulate the population to engage more (actively) in sports. The main power seems to be in hands of the media, as they have the power to bring across feelings and emotions to get the audience entertained and emotionally involved. Hence, it is recommended for sports organizations that want to utilize sporting heroes to enhance the sport participation rate to look for strategic alliances with media and entertainment organizations. In these strategic alliances, the sports organization can do the following: first, it is vital for them to select an appropriate sporting hero. The hero should fit the sports offered by the organization(s) and should be an expert in that specific type of field. Also, these sport organizations should bear in mind their ideal audience: young adults, female, already engaging in sports. The results of this study indicate that for this target group, using top athletes as a role model to stimulate more (active) sport behaviour appears to be most effective. This does not mean that organizations should limit themselves to this audience neither does it mean that the 'trickle-down-effect' is not applicable to for instance older, male adults not engaging in sports. Instead, organizations should spend time in getting familiar with their target group in terms of what they perceive to be entertaining in a sporting hero narrative in the media as well as their needs to become emotionally involved.

A much bigger task though, lies in hands of the media. The media can optimize the power of an athlete to change the sport participation rate through the presentation of the hero's narrative in terms of content, context and form. To start, concerning the content, they should present the hero as the prowess hero or the sport celebrity. The role model or inspiring figure can be a top athlete who remains in the quest, as long as the focus lies on expertness on the field and marketability. One should recognize that the expertness on the field does not include the technical side of the specific type of sport, but the feelings and emotions involved with this expertness instead. The media should thus focus on the humanity and go beyond the facts and figures. For the context, it is of importance in what type of media source the athlete is discussed. The best source would be one with a broader audience, and most importantly, one with the prime function to entertain. An athlete being discussed in the news is not very likely to make a significant contribution to the sport participation rate. Presenting the narrative in television shows that entertain and involve its audience on the other

hand, will get the audience emotionally involved, which results in a better identification with the sporting hero and a higher likelihood that this hero will change the observer's (perceived) sport participation behaviour. Most important however seems to be the form of the narrative. Both the explicit language in terms of usage of popular language and lots of adverbs, as well as the implicit language (the expression of feelings through for instance images, music and atmosphere) have the power to get the audience emotionally involved. As the implicit language seems to play a big role as well, it is recommended to display the narrative mainly through video's.

Linking all of this to the project 'Vlaggendragers' of NOC*NSF, for which they tend to prefer celebrities who practice sports as a hobby over real sporting heroes, this seems to be the wrong direction. NOC*NSF can, and should focus on the sporting hero who displays expertness on the field, but should look for strategic alliances with media and entertainment organizations in order to position these heroes correctly. Instead of emphasizing on the technical aspect of their sports career, they should convince media and entertainment organizations to present the sporting hero narrative in sources with a broad audience and an entertaining function where the focus lies on the human side: the emotions and feelings involved. Also, the media organization should strive to make optimal use of both explicit as well as implicit language in order to get the highest emotional involvement of the audience.

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APPENDIX

Appendix A1: Coding Scheme

	1	2	3	4	5
Content					
What has been said					
What has been omitted					
Context					
Audience					
Setting					
Modality					
Narrative function(s)					
Interactional concerns					
Power relations					
Form					
Structure					
Goals in mind					
Co-construction					
Explicit/implicit					

Appendix A2: Time frames Bram Som and Ellen van Langen

Bram Som	
2000	Olympic Games (excluded in First round)
2001	Several times not placed for WC, but finally in Monaco placed for World Championship Edmonton.
	4 times 400m Universiade in Peking.
2002	6th European Championship München (lack of experience / tactic)
	European Championship Wenen → Did not make the series
	Roommate (NOC*NSF sport house) passed away
	Start with education millitary
2004	Olympic Games (semi-finals)
2005	Sports injuries
2006	First match (in May) after almost two years
	2th place at Grand Prix
	European champion in Zurich! Threat of disqualification.
	Nomination best European athlete
	New Dutch record (in Zurich)
2007	Going to WC in Osaka (exception rules)
	Surgery Achilles' Tendon (went well)
	Participation Golden League Rome
	Switch from Hoedt to Koens
	Goal: no sports injuries
2008	Not participating in the FBK games
	Not participating in the Dutch Championship (because of an ideal route towards the Olympic Games)
	9th in Madrid
	Did not reach the limit for the Olympic Games (after several tries in for instance Monaco and Leverkusen).
	Wins the 400m in Leiden.
	New Personal Record at the 200m in Gateshead (2nd place)
	Start his own company with cooperation with his brother in law Ruben Jongkind and Marco Hoogerland.
	Did not participate in the European Championship in Turin.
2009	Goal: no sports injuries, but also the Olympic Games 2012 in London.
	Lots of critisism on the new training method.
	Won a match in Lisse (1000m, Ter Specke Bokaal)
	Won the 1500m in Drachten (new personal record)
	3th in Rabat
	FBK games (4th)
	Won the millitary World Championship
	PR 400m
	Qualification WC Berlin
	2th in series Berlin (placed for the semi-finals)
	Fell in the semi-finals, but still went to the finals
	Became 7th in the finals
	Birth of his son Seb (new source of inspiration)
	Won the 5 kilometres in Voorthuizen
	5th at Grand Prix Monaco

	Won Dutch champtionship 1500m
	4th at World Athletics Final in Greece
	4th in Zurich (Weltklasse)
	9th at Ivo van Damme
	Grand Prix Reiti
	Arena Games
	Pre-championship's meeting Daegu
	Moved from Arnhem to Gaanderen
	Volvo commercial
2010	Winter 2009/2010; death cases
	Won Paasloop 5km
	Won 1500m
	Won 1000m Ter Specke Bokaal
	Participated in the FBK games
	Placed for European Championship Barcelona
	Participated in the Diamond League in Oslo
	Ear infection
	Criticism on new training method (less trainings, more short distances)
	Diamond League Parijs 800m
	Because of a bacterial infection (fever) not able to participate in the European Championship in Barcelona
	Wrong diagnosis in Barcelona: it appeared to be a bacteria instead of a virus
	Going directly to the finals of the Dutch Championship (without series; programme changed because of his ear infection)
	Won the Dutch Championship
	1th in Dubnica
	Last place in Diamond League Brussels
	Debut duathlon (Groesbeek)
	800m in Dortmund
2011	2010/2011 no indoor season because of afterglow bacterial infection / sinusitis
	5th Diamond League New York
	FBK Games
	Doha cancelled
	Diamond League Londen (Did not pass the limit for the WC)
	Diamond League Lausanne (fell two seconds short for the WC limit)
	Difficulties in passing the limit
	Passed the limit in Madrid
	Semi-finals 800m WC Daegu, eliminated
	Qualification Dutch Championship
	1500m Dutch Championship Amsterdam
	Papendal cross
2012	Did not participate in the FBK games in Hengelo
	Did not pass the limit for the Olympic Games, decided not to undertake any more actions for qualification.
	No foundation of the military (top sport) anymore (stop employment)
	Won 10km in Aalten
	Organisatation of Westrandweg Run

Ellen van Langen	
2002	Biography: Olympic Games '92, European Championship '90, World Championship '96, stopped with athletics in '98
2005	Van Langen not chosen in council IAAF
2007	Flashback race '92 TROS (back to the stadium) Starts with her column (Telegraaf) Article concerning her 'socks issue' at losseveter.nl
2008	Andere Tijden: back to the stadium with other athletes Column Telegraaf Video NOS of the Olympic finals
2009	Column Telegraaf Van Langen gets her own street in The Netherlands Gives her opinion on Bram Som at NOS Interview concerning the FBK games
2010	Column Telegraaf Audio NOS on the Olympic Games ' 92
2011	Column Telegraaf Flashback ' 92; what else happened during that year (1vandaag) Opinio non athletes and matches (Volkskrant)
2012	At Pauw & Witteman 'Sport in beeld: Goud, en dan..' Interview NCRV Expectations Olympic Games London (Youtube)
2013	Article Runnersworld

Appendix B1: Operationalization for questionnaire

Concept	Presentation in literature	Questions questionnaire
Content	Pavlenko (2007) discusses that what has been said and what has been omitted are the main aspects of content. Linking this to the literature on the trickle-down effect, van Bottenburg (2003; Van Bottenburg et al, 2011) discusses that sporting heroes are presented as being alienated from the normal people, it is something other people cannot achieve, it is a profession.	To what extent are you familiar with the following aspects of the narrative of NAME HERO?* Sport success(es) Life besides professional sport *Using a 7point likert scale ranging from not at all to completely
Context	Audience, setting, modality, function, interactional concerns and power relations are the aspects of context (Pavlenko, 2007). Basically, the context links well into the role of the media described in the theoretical framework. More specifically, Lines (2001) argues that the media selects what to bring to the attention of the audience and that what the observer gets to see or hear is depended on for instance camera angles and replays.	Via which media did you get familiar with the narrative? Mostly regional media – mostly national media Mostly media focused on sports – mostly common/regular media sources Mostly articles – mostly video's/television To what extent are the following statements applicable to you?* I thought the narrative was entertaining I thought the narrative was informing *Using a 7point likert scale ranging from not at all to completely
Form	Concerning the form of a narrative, Pavlenko (2007) discusses the structure, goals in mind, co-construction and explicit/implicit as the main aspects.	To what extent are you familiar with the following aspects of the narrative?* Run towards sport success(es) Life after sport success(es) To what extent are the following statements applicable to you?* The narrative touched me emotionally *Using a 7point likert scale ranging from not at all to completely
Identification	The inspiration-emulation-perspiration model (McKay et al,	To what extent do you identify with NAME HERO?

	1993 in Van Bottenburg et al, 2011) assumes that if one can experience something similar to the hero, he is most likely to show behavioural changes. Furthermore, it is expected that when people feel involved, they will be most likely to show behavioural changes (Küpers et al, 2012).	To what extent do you feel you would be able to experience something similar to NAME HERO? To what extent did the narrative of NAME HERO involve you?
(Perceived) behavioural changes	The literature has not discussed anything concrete on the behavioural changes. As people might be resistant to admit that the narrative had an effect on themselves, there will be also asked about effects that took place on others.	To what extent do you think the narrative of NAME HERO contributed to your participation behaviour in bootcamp trainings? To what extent do you think the narrative of NAME HERO contributed to the participation behaviour in bootcamp trainings of other people?
Regional aspect	The literature does not emphasize the importance of a regional aspect. However, it might be the case that people easier relate to sporting heroes that are from the same region.	Due to privacy reasons, the respondents are not asked about their place of birth or residence. Instead, the following (open) question was asked: In what region do you train most often?
Training information		In addition to the questions on the narrative and the personal variables, respondents will also be asked about the challenge, skills and improvements as perceived by them (on a 7 point scale). The reason for adding these questions is because these are valuable for the organization OUT!Sport and as they approach their participants, they also want to add some meaningful questions for them to the questionnaire.

Appendix B2: Questionnaire bootcampers

Dear bootcamper,

I would like to ask only 10 minutes of your time to fill out a few questions on sporting hero narratives. By answering these questions, you would be of great help for both OUT!Sport as well as my graduation research project. I am really interested in your opinion and would very much appreciate your response.

Your information will be handled confidentially and will be only used for research purposes.

Thank you in advance,

Kind regards,

Michelle Hieltjes
Student Tilburg University
Master Leisure Studies

Are you familiar with the athlete Bram Som?	0 Yes*	0 No
Are you familiar with the athlete Ellen van Langen?	0 Yes*	0 No
*Only if the respondents answer one or both of these questions with yes, they will be confronted with the following questions.		

To what extent are you familiar with the following aspects of the narrative on NAME HERO?									
Sport success(es)	Not at all	0	0	0	0	0	0	0	Completely
Life besides professional sport	Not at all	0	0	0	0	0	0	0	Completely
Run towards sport success(es)	Not at all	0	0	0	0	0	0	0	Completely
Life after sport success(es)	Not at all	0	0	0	0	0	0	0	Completely

Via which media did you get familiar with the narrative of NAME HERO?								
Mostly regional media	0	0	0	0	0	0	0	Mostly national media
Mostly media focused on sport	0	0	0	0	0	0	0	Mostly common / regular media sources
Mostly articles	0	0	0	0	0	0	0	Mostly video's / television

To what extent are the following statements applicable to you?									
The narrative touched me emotionally	Not at all	0	0	0	0	0	0	0	Completely
I thought the narrative was entertaining	Not at all	0	0	0	0	0	0	0	Completely
I thought the narrative was informing	Not at all	0	0	0	0	0	0	0	Completely

To what extent did the narrative of NAME HERO involve you?	Not at all	0	0	0	0	0	0	0	Completely
To what extent did/do you identify with NAME HERO?	Not at all	0	0	0	0	0	0	0	Completely
To what extent did/do you feel you would be able to experience something similar to NAME HERO?	Not at all	0	0	0	0	0	0	0	Completely
To what extent do you think the narrative of NAME HERO has had any contribution to your participation in bootcamp-trainings?	Not at all	0	0	0	0	0	0	0	Completely
To what extent do you think the narrative of NAME HERO has had any contribution to other people's participation in bootcamp-trainings?	Not at all	0	0	0	0	0	0	0	Completely

To what extent are the bootcamp trainings of OUT!Sport challenging for you?	Not at all	0	0	0	0	0	0	0	Completely
How skilful do you feel during the bootcamp trainings of OUT!Sport?	Not at all	0	0	0	0	0	0	0	Completely
To what extent do you have the feeling that your endurance/staying power increases during the bootcamp trainings of OUT!Sport?	Not at all	0	0	0	0	0	0	0	Completely
To what extent do you have the feeling that your physical strength increases during the bootcamp trainings of OUT!Sport?	Not at all	0	0	0	0	0	0	0	Completely

In what region do you train most often?	
What is your gender?	0 Male 0 Female
What is your age?	……
What is your educational level?	0 Primary school 0 VMBO 0 HAVO/VWO 0 MBO 0 HBO 0 WO

Appendix C1: Validity threats experiment (Cook and Campbell, 1979 in Bryman and Bell, 2007)

Threat	Explanation	How to solve/control
Internal validity		
Testing	Participants being sensitized to the aims of the experiment	Control group
History	Events in the experimental environment may have caused the changes	Control group
Maturation	People change, so changes would have occurred anyway, with or without manipulation	Control group
Selection	Differences between the two groups	Random process of assignment to the experimental groups
Ambiguity about the direction of causal influence	Might be unclear which variable affects the other (temporal sequence)	Control group
External validity		
Interaction of selection and treatment	To what social and psychological groups can a finding be generalized	Check generalizability of sample based on statistics of The Netherlands with chi-square or binomial test
Interaction of setting and treatment	How confident we can be that the results of a study can be applied to other settings	Choice for OUT!Sport, as they provide trainings in almost the entire country.
Interaction of history and treatment	Whether or not findings can be generalized to the past and to the future	Media, stories in the media as well as cultural preferences change, so unfortunately, this validity threat cannot be solved/controlled.
Interaction effects of pre-testing	Which subjects respond to the treatment based on pre-test sensitization	This threat is mainly solved as no real pretesting occurs. From the people who already participate in bootcamp trainings, data is already available. Additionally, participants who do not practice this sport yet are also not consciously pre-tested.
Reactive effects of experimental arrangements	Awareness of being part of an experiment might influence how they respond to the treatment and therefore affect the generalizability of the findings	In the case of this experiment, this can be solved with a control group, as both groups are assigned to a certain story without being aware of which one is the 'good' story and which one the 'bad'.

Appendix C2: Questionnaire experiment

Dear participant,

First of all, thank you for your participation in the experiment. However, your participation will be only of value if you answer the following questions on the narrative you have followed the last couple of weeks. Filling out this questionnaire will take a few minutes.

It is important to note that you do not watch or read the articles / videos again while answering the questions. There are no correct or wrong answers; it is all about how you see the narrative and what you remember.

Thank you in advance,

Kind regards,

Michelle Hieltjes
Student Tilburg University
Master Leisure Studies

| Which narrative did you follow the last couple of weeks? | 0 Bram Som |
| | 0 Ellen van Langen |

To what extent are you familiar with the following aspects of the narrative?									
Sport success(es)	Not at all	0	0	0	0	0	0	0	Completely
Life besides professional sport	Not at all	0	0	0	0	0	0	0	Completely
Run towards sport success(es)	Not at all	0	0	0	0	0	0	0	Completely
Life after sport success(es)	Not at all	0	0	0	0	0	0	0	Completely

Via which media did you get familiar with the narrative?								
Mostly regional media	0	0	0	0	0	0	0	Mostly national media
Mostly media focused on sport	0	0	0	0	0	0	0	Mostly common / regular media sources
Mostly articles	0	0	0	0	0	0	0	Mostly video's / television

To what extent are the following statements applicable to you?									
The narrative touched me emotionally	Not at all	0	0	0	0	0	0	0	Completely
I thought the narrative was entertaining	Not at all	0	0	0	0	0	0	0	Completely
I thought the narrative was informing	Not at all	0	0	0	0	0	0	0	Completely

To what extent did the narrative of the athlete involve you?	Not at all	0	0	0	0	0	0	0	Completely
To what extent did/do you identify with the athlete?	Not at all	0	0	0	0	0	0	0	Completely
To what extent did/do you feel you would be able to experience something similar to the athlete?	Not at all	0	0	0	0	0	0	0	Completely
To what extent do you think the narrative of the athlete has had any contribution to your sport participation behaviour?	Not at all	0	0	0	0	0	0	0	Completely
To what extent do you think the narrative of the athlete has had any contribution to other people's sport participation behaviour?	Not at all	0	0	0	0	0	0	0	Completely

What is your name? (I will only use this to connect the answers of this questionnaire to other information of you application; information will be handled confidentially)	
What is your educational level?	0 Primary school 0 VMBO 0 HAVO/VWO 0 MBO 0 HBO 0 WO

Appendix C3: List of participants experiment

Gender	Age	Place of birth	Residence	Plays sports (Yes / No)	Familiar Som (Yes / No)	Familiar Van Langen (Yes / No)	Case assigned	Finished or dropped out (with reason)
F	25	Doetinchem	Arnhem	Y	N	N	Langen	Finished
M	24	Doetinchem	Doetinchem	Y	N	N	Langen	Finished
F	21	Wisch	Doetinchem	N	N	N	Langen	Finished
F	22	Venlo	Venlo	Y				Inappropiate residence
M	21	Zelhem	Zelhem	Y	N	N	Langen	Finished
F	24	Apeldoorn	Apeldoorn	Y	N	N	Som	Finished
F	21	Doetinchem	Utrecht	Y	N	N	Langen	Finished
F	22	Doetinchem	Zeddam	Y	N	N	Langen	Finished
M	32	Warnsveld	Deventer	Y	N	N	Som	Finished
F	21	Delft	Maastricht	Y				Inappropiate residence
M	21	Eindhoven	Eindhoven	Y	N	N	Langen	Dropped out during experiment because of time issues
F	28	Arnhem	Velp	Y	N	Y	Som	Finished
F	22	Didam	Maastricht	Y				Inappropiate residence
M	22	Nijmegen	Nijmegen	N	N	N	Som	Finished
M	25	Brunssum	Sittard	Y				Inappropiate residence
M	23	Zeddam	Breda	Y	N	N	Langen	Finished
M	21	Bussum	Breda	N	N	N	Langen	Finished
F	40	Zeddam	Zeddam	N	N	Y	Som	Finished
M	23	Wanssum	Breda	N	N	N	Som	Finished
F								Did not respond to the email for definite application

M	37	Bennekom	Arnhem	Y					Did not respond to the email for definite application
F	24	Eindhoven	Eersel	Y	N	Y		Som	Finished
F	24	Den Bosch	Schijndel	Y	N	N		Som	Finished
F	25	Helmond	Eindhoven	Y	N	N		Langen	Finished
M	21	Doetinchem	Doetinchem	Y	N	N		Som	Finished
F	20	Doetinchem	Enschede	Y	N	N		Langen	Finished
M	24	Sittard	Eindhoven	Y	N	N		Som	Finished
M	20	Doetinchem	Zeddam	Y	N	N		Som	Finished
M	23	Doetinchem	s-Heerenberg	Y	Y	N		Langen	Finished
M	29	Zeddam	Zeddam	Y	N	Y (only name)		Som	Finished
M	29	Doetinchem	Zelhem	N	N	N		Langen	Finished
M	32	Arnhem	Megchelen	Y	N	N		Som	Finished
M	30	Zevenaar	Didam	Y	N	N		Langen	Dropped out during experiment because was not able to view video's on mobile phone
F	22	Oosterhout	Oosterhout	Y	N	N		Som	Finished
F	21	Rotterdam	Den Haag	Y	N	N		Langen	Finished
M	29	Borculo	Doetinchem	N	N	Y		Som	Finished
F	18	Doetinchem	Zeddam	Y	N	N		Som	Finished
F	21	Wehl	Wehl	N	N	N		Som	Finished
F	21	Doetinchem	s-Heerenberg	Y	N	N		Langen	Finished
M	24	Vlissingen	Vlissingen/Tilburg	Y					Inappropiate residence
F	23	Groningen	Haarlem	Y					Inappropiate residence
M	20	Eersel	Maastricht	Y					Inappropiate residence
F	25	Helmond	Eindhoven	Y	N	N		Som	Finished
F	19	Molenhoek	Nijmegen	Y	N	N		Langen	Finished
M	21	Doetinchem	Zeddam	Y	N	N		Som	Did not fill out questionnaire

F	22	Varsseveld	Maastricht	Y					Inappropiate residence
F	23	Aalten	Utrecht	Y	N	N		Langen	Finished
F	21	Doetinchem	Zeddam	Y	Y	N		Langen	Finished
F	39	Doetinchem	Ulft	Y	N	Y		Som	Finished
F	19	Doetinchem	Wehl	Y	N	N		Langen	Finished
F	21	Wehl	Wehl	Y	N	Y		Som	Finished
F	21	Melderslo	Melderslo	Y					Inappropiate residence
F	22	Dinslaken (DU)	Enschede	Y	N	N		Som	Finished
M	21	Doetinchem	Enschede	Y	N	N		Langen	Finished
F	21	Venray	Swolgen	Y					Inappropiate residence
M	24	Someren	Rotterdam	Y	N	N		Langen	Finished
F	22	Heeswijk	Heeswijk/Breda	Y	N	N		Som	Finished
M	18	Berlijn (DU)	Nijmegen	Y	N	N		Langen	Finished
M	22	Leidendorp	Tilburg	Y					Inappropiate residence
M	34	Arnhem	Zevenaar	N					Did not respond to the email for definite application
M	31		Zevenaar	N					Did not respond to the email for definite application
M	19	Zevenaar	Zevenaar	N	N	N		Som	Finished
M	24	Terneuzen	Breda	Y	N	N		Som	Did not fill out questionnaire
F	28	Azewijn	s-Heerenberg	N	N	N		Langen	Finished
F	24	Doetinchem	s-Heerenberg	Y	N	N		Langen	Did not fill out questionnaire
F	23	Doetinchem	Doetinchem	N	N	N		Som	Finished
F	19	Doetinchem	Azewijn	Y	N	N		Langen	Finished
M	24	Nijmegen	s-Heerenberg	Y	N	N		Som	Finished
F	22	Zeddam	Zeddam	N	N	Y		Som	Finished
M	25	Doetinchem	Lengel	Y	N	N		Langen	Finished
M	22	Doetinchem	Arnhem	Y	N	N		Som	Finished

M	39	Anholt (Du)	Ulft	Y	Y	N	Langen	Finished
M	30	Wehl	Doetinchem	Y	N	N	Som	Did not fill out questionnaire
M	21	Doetinchem	Zeddam	Y	N	N	Langen	Finished
M	24	Doetinchem	Amsterdam	Y	N	Y	Som	Finished
F	23	s-Heerenberg	Amsterdam	Y	N	N	Langen	Finished
M	24	Doetinchem	Zeddam	Y	N	N	Langen	Finished
M	23	Doetinchem	s-Heerenberg	Y	N	Y	Som	Finished
M	28	Apeldoorn	Deventer	N	N	N	Langen	Finished
M	28	Doetinchem	Beek	N	Y	N	Langen	Finished
M	24	Dinxperlo	Gaanderen	Y	N	N	Som	Finished
M	25	Eindhoven	Maastricht	Y	N	N		No appropiate residence
M	30	Nijkerk	Nijkerk	Y	N	N	Langen	Finished

Appendix D1: Comparison positioning of the two narratives

Outcome content analysis (part I)

	Bram Som	Ellen van Langen
% that includes private life	12.50 %	9.38 %
% that includes major successes	51.00 %	75 %
% that is from regional sources	8.50 %	9.38 %
% that is from national sources	91.50 %	90.63 %
% that is from sources directed towards sports	65.00 %	31.25 %
% that is from sources with a special sports part (for instance in newspaper)	33.00 %	46.88 %
% that is from common / regular sources	2.00 %	21.88 %
% articles	55.00 %	43.75 %
% video's	37.50 %	43.75 %
% audio fragments	7.00 %	12.5 %
% other (social media)	0.50 %	0.00 %

Outcome bootcampers narrative Van Langen (part II)

		Successes	Private life	Run towards successes	Life after successes	Type media national/regional	Type media sport/regular	Type media article/video	Emtion	Entertaining	Informing	Involvement	Identification	Similar experience	Influence own behaviour	Influence other's behaviour
Statistics																
N	Valid	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		5,52	1,71	2,50	2,55	6,29	5,03	5,44	3,53	3,73	3,82	3,00	2,05	1,97	1,35	1,92
Median		6,00	1,00	2,00	2,00	7,00	6,00	6,00	4,00	4,00	4,00	2,50	2,00	1,00	1,00	2,00
Mode		6	1	1	1	7	7	7	4	5	4	2	1	1	1	1
Sum		342	106	155	158	390	312	337	219	231	237	186	127	122	84	119

Outcome bootcampers narrative Som (part II)

		Successes	Private life	Run towards successes	Life after successes	Type media national/regional	Type media sport/regular	Type media article/video	Emtion	Entertaining	Informing	Involvement	Identification	Similar experience	Influence own behaviour	Influence other's behaviour
								Statistics								
N	Valid	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		4,67	2,33	3,50	2,25	6,00	4,67	4,83	2,83	3,17	4,17	3,08	2,42	2,67	1,42	1,92
Median		5,00	2,00	4,00	2,00	6,50	5,00	5,50	2,50	3,50	4,00	2,00	2,00	2,50	1,00	2,00
Mode		5	1	5	1	7	6	6	1	5	4	2	1	1	1	1
Sum		56	28	42	27	72	56	58	34	38	50	37	29	32	17	23

Outcome experiment narrative Van Langen (part III)

		Successes	Private life	Run towards successes	Life after successes	Type media national/regional	Type media sport/regular	Type media article/video	Emtion	Entertaining	Informing	Involvement	Identification	Similar experience	Influence own behaviour	Influence other's behaviour
Statistics																
N	Valid	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		5,71	3,03	4,00	3,97	5,10	3,29	5,55	3,84	4,45	4,58	4,06	2,94	2,97	3,45	4,58
Median		6,00	3,00	4,00	4,00	5,00	3,00	6,00	4,00	5,00	5,00	4,00	3,00	3,00	4,00	5,00
Mode		6[a]	2	5	5	5	4	5[a]	6	5	5	5	3	3	4	4
Sum		177	94	124	123	158	102	172	119	138	142	126	91	92	107	142

a. Multiple modes exist. The smallest value is shown

Outcome experiment narrative Som (part III)

		Statistics														
		Successes	Private life	Run towards successes	Life after successes	Type media national/regional	Type media sport/regular	Type media article/video	Emtion	Entertaining	Informing	Involvement	Identification	Similar experience	Influence own behaviour	Influence other's behaviour
N	Valid	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		5,57	3,20	5,30	3,43	5,40	3,87	4,57	3,07	3,93	5,27	3,80	2,83	4,03	2,93	4,27
Median		6,00	3,00	5,50	3,50	6,00	3,00	4,00	3,00	4,00	5,00	5,00	2,00	5,00	2,50	4,00
Mode		6	3	6	2[a]	6	2	4	5	4	5	5	2	6	1	5
Sum		167	96	159	103	162	116	137	92	118	158	114	85	121	88	128

a. Multiple modes exist. The smallest value is shown

Comparison of the view on narratives in the separate three building blocks

	Content analysis		Natural setting mean values*		Experimental setting mean values*	
	Bram Som	Ellen van Langen	Bram Som	Ellen van Langen	Bram Som	Ellen van Langen
Sport successes	51%	75%	4.67	5.52	5.57	5.71
Private life	12.5%	9.38%	2.33	1.71	3.2	3.03
Run towards	Expected more	Expected less	3.5	2.5	5.3	4
Life after	Expected less	Expected more	2.25	2.55	3.43	3.97
Media regional/national	91.5% national, 8.5% regional	90.63% national, 9.38% regional	6	6.29	5.4	5.1
Media sport/regular	98% sport, 2% regular	53.12% sport, 46.88% regular	4.67	5.03	3.87	3.29
Media article/video	55% articles, 37.5% video's (7% audio)	43.75% articles, 43.75 video's (12.5% audio)	4.83	5.44	4.57	5.55
Emotions involved	Expected less	Expected more	2.83	3.53	3.07	3.84
Entertaining	Expected less	Expected more	3.17	3.73	3.93	4.45
Informing	Expected more	Expected less	4.17	3.82	5.27	4.58
Involvement	Expected more	Expected less	3.08	3	3.8	4.06
Identification	Expected more	Expected less	2.42	2.05	2.83	2.94
Similar experience	Expected more	Expected less	2.67	1.97	4.03	2.97
Influence own behaviour	Expected more	Expected less	1.42	1.35	2.93	3.45
Influence other's behaviour	Expected more	Expected less	1.92	1.92	4.27	4.58
*Measured on a 7-point likert scale						