Managing cultural diversity in high performance sports teams:

The role of cultural diversity and the relation to team outcomes moderated by multicultural personalities.

Student Name: Ilse Westera

Student Number: 660253

Supervisor: Dr. Joep Hofhuis

Master Media Studies - Media & Business

Erasmus School of History, Culture and Communication

Erasmus University Rotterdam

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MANAGING CULTURAL DIVERSITY IN HIGH PERFORMANCE SPORTS TEAMS: THE ROLE OF CULTURAL DIVERSITY AND THE RELATION TO TEAM OUTCOMES MODERATED BY MULTICULTURAL PERSONALITIES

ABSTRACT

This thesis analyses the impact of cultural diversity within high performance team athletes. The main research question examines the overall role of cultural diversity, and how this relates to the outcomes: performance, satisfaction, and cohesion, from an individual as a team perspective. Furthermore, this research analyses if these potential outcomes are moderated by athlete's multicultural personalities. Previous studies have shown that there is an extensive research gap about the effects of cultural diversity in the most high-pressured environment, that of high-performance sports teams. Which is also why this research is highly relevant and could also be applied to organizational psychology. This thesis uses a quantitative research approach, including a survey that is spread to high performance team athletes from countries and sports teams worldwide. After data collection, most participants happen to be female athletes, field hockey players, and with a Dutch nationality (N=157). The data was tested on regression and moderation analyses. Cultural diversity within a team was measured by the participants themselves and their own perspective on how diverse in terms of ethnicity and culture their team is. All outcome variables were run and tested through simple regression analyses, but no significance was found. When testing moderation analyses, also no significant moderation impact was found. Therefore, all hypotheses in this research were rejected. However, some multicultural personality traits do impact most of the outcome variables in a positive way. Also, professional athlete and gender were two controlled variables that were dummy coded and included throughout the whole analyses. Both showed some significant effects on the outcome variables. Professional athletes appear to score higher on individual performance, team performance, individual satisfaction, and team satisfaction. Gender showed significant results on cohesion, and men are scoring higher on this outcome variable compared to women. In sum, however not many significant effects were found, this study still provides a unique context of study. This research includes a sample not easily accessible to everyone and should be therefore more elaborated on in the near future. Future studies could expand on this research and focus more on a specific country or sport, to narrow the sample even more and get a better understanding in combination with different viewpoints.

KEYWORDS: *Cultural Diversity, High performance Athletes, Multicultural Personality, Sports outcomes, Performance outcomes, Satisfaction, Cohesion.*

LIST OF ABBREVIATIONS

ASQ =   Athlete Satisfaction Questionnaire

CE =   Cultural Empathy

ES =   Emotional Stability

FX =   Flexibility

H =   Hypothesis

MPQ =   Multicultural Personality Questionnaire

OM =   Open-mindedness

SI =   Social Initiative

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1. Introduction

Cultural diversity is everywhere, and as the world becomes more connected, we are often forced to work with people from diverse backgrounds (Kaur et al., 2022). In the workplace, employees nowadays are not only hired based on their intelligence and qualifications, but also on their personality traits and ability to collaborate in a team (Geetha & Bhanu, 2018; Lazear, 1999) Many of these organizations use team incentive schemes which help to bring the best characteristics out of each member within a team (Hamilton et al., 2003). Existing literature in the field of organizational behavior does not address team dynamics in much detail, and only over the past recent years the emphasis has been placed more on cultural diversity in relation to team performance. Stahl et al. (2010) conclude that cultural diversity in teams will lead to communication issues and overall inefficiency. But on the other hand, cultural diversity also broadens perspectives and capabilities among team members (Lazear, 1999). This could raise productivity and creativity and will eventually influence team performance positively (Hamilton et al., 2003). The different skill sets people bring to the table will also lead to learning effects and will inspire other members of the team to raise their individual performance levels (Lazear, 1999). In contradiction to this, communication barriers can hinder positive learning and contribute to lower social integration within the team, which potentially makes teams less effective. According to Towry (2003), it is important to specifically consider the positive and negative outcomes people bring to the team, that may result from variations in skills, but also effective communication.

In sports teams, players are usually recruited based on their skill sets and athletic abilities, rather than their social capabilities or overall intelligence (Den Hartigh et al., 2018). Just like companies nowadays, sports teams worldwide are not limited to one culture or one nationality anymore, instead athletes are brought together from diverse backgrounds and countries all over the world to form the best team. These athletes are required to work together in order to win games and achieve their collective team goals. Therefore, cultural diversity plays a critical role in shaping their performance and potential outcomes. Which is why high-performance athletes are providing a unique context to study the impact of cultural diversity on performance outcomes.

Despite the importance of cultural diversity in sports teams, there is little to no research in this particular area, and therefore, it remains a relatively unexplored topic. However, researchers in the field of sports psychology emphasize the importance of considering that cultural diversity is a critical individual trait in group contexts and group dynamics in all fields (Schinke & Hanrahan, 2009; Schinke et al., 2014). Most of the previous literature within sports teams, as well as organizational research, have findings that are contradictory. Both Maderer et al. (2014), Godfrey et al. (2019), and Stahl et al. (2010) researched the role of cultural diversity in teams by looking at previous empirical and theoretical research

already done in the field to find conflicting results. While some research shows a positive impact, others yielded negative outcomes. Most studies conclude that cultural diversity has a significant impact on groups and teams, both positive and negative (Van Knippenberg & Schippers, 2007). Culture in general is a strong source of stereotyping and categorization, which results that the effects of cultural diversity are stronger than other forms of diversity (Stahl et al., 2010). In sports teams specifically, athletes are forced to work together in a culturally diverse team to get the best outcomes - regardless of their teammates' backgrounds.

In addition to the direct influence of cultural diversity on team performance, researchers are wondering what other factors can contribute to this positive effect. One potentially key factor is the personality of the team member (Bradley et al., 2013). That is why within this research the impact of cultural diversity in sports teams may be moderated by the athletes' intercultural personality traits. These traits refer to an individual's ability to adapt and thrive in culturally diverse environments, and they play a crucial role in shaping how individuals interact with others from diverse backgrounds. The multicultural personality test or MPQ by van der Zee and van Oudenhoven (2013) was developed to predict how individuals behave and react to an intercultural context or environment like that of high-performance athletes. These athletes perform in a culturally diverse environment, where the effects of personality traits could play a role and might change their vision on performance, satisfaction, or cohesion. The five personality traits included in the MPQ are cultural empathy, open-mindedness, social initiative, emotional stability, and flexibility. The relationship between these intercultural personality traits and cultural diversity in sports teams has not been explored in-depth, and therefore, remains an open question.

The role of cultural diversity and multicultural personality in sports teams is especially relevant because the sample of this study performs in the most high-pressure environments, where athletes must perform despite the challenges they face. The pressure to perform in these environments can be overwhelming, and thus, understanding how cultural diversity and intercultural personality traits affect these outcomes is relevant. This research is academically relevant as it provides a unique perspective on the impact of cultural diversity and personality traits in sports teams, and as research shows, could also be applied in an organizational setting (Kahn, 2000). Which brings us to the overarching research question for this master thesis:

"How does cultural diversity relate to team and individual outcomes in sports teams, and how is this moderated by multicultural personality?"

2. Theoretical Framework

Intro

The goal of this research is to examine the effects of cultural diversity on team and individual outcomes, and more specifically: performance, cohesion, and satisfaction. And, to test whether multicultural personality plays a moderating role. To examine this, a theoretical framework provides an overview of existing literature regarding the main concepts of this study. Cultural diversity will be defined and explained, previous research and findings will be mentioned, and hypotheses will be presented. In addition to this, team outcomes as well as individual outcomes will be defined and further explained by each of the subcategories that is measured. For team- and individual outcomes these subcategories consist of performance and satisfaction, and besides these four, cohesion is also measured separately as a team outcome. Furthermore, the moderator of this research, multicultural personality, will be explained through the multicultural personality questionnaire and each of the five personality traits will be clarified. This will mark the end of this theoretical framework, and a conceptual model will be presented at the end.

2.1 Defining cultural diversity

Diversity underlines the differences between individuals in various ways and multiple factors, including culture (Jehn & Bezrukova, 2004; Williams & O'Reilly, 1998). Godfrey et al., (2019) investigated the impact of cultural diversity in small group settings such as sports teams and work groups. These researchers found out that cultural diversity in general is a complex area of study, and they conclude that there are a lot of inconsistencies in both the definition as well as ways to measure cultural diversity. Given the prominent level of diversity in sports teams and the potential impact of individual characteristics, it is important to have a clear and consistent understanding on how to define and measure cultural diversity in sports research. Hofstede (2011) defines culture as the collective mindset that members of a group or category differ compared to other members of the same or a different group. Schwartz (2006) identifies different value orientations that cultures can be positioned in, including embeddedness versus autonomy, mastery versus harmony and hierarchy versus egalitarianism, and positions different countries within each of these approaches. As previously mentioned, with globalization and the rise of multinational work environments, there is an increase in cultural diversity among employees (Zhou & Shi, 2011). When cultural diversity is present in the workplace, we refer to it as a multicultural work environment. According to Adler and Gundersen (2001), multicultural work environments come along with countless opportunities and challenges, such as creativity, innovation, stereotypes, group representations, communication barriers and negative emotions.

Current literature shows that several variables have been measured in relation to cultural diversity, including those that have been found to be particularly relevant in the context of sports research. For instance, Carron et al., (2002) found out that performance and cohesion are two very important factors that are influencing sports teams, while Spink et al., (2005) found out that overall satisfaction is an important factor to consider, and potentially affects team outcomes. These findings suggest that these variables are essential variables to study the impact of cultural diversity on group outcomes in a sports context specifically. Godfrey et al., (2019) also mention in their research that there is a lack of quantitative research on how cultural diversity affects group outcomes in sports teams, with most existing studies and literature focusing on organizational psychology. Therefore, the authors propose utilizing concepts and measurement approaches from organizational psychology and workplace settings. On the other hand, according to Kahn's (2000) perspective, sports economics provide a valuable basis for investigating business and organizational issues. Few studies have examined the relationships within professional sports, which could have relevance and practical implications for business research. That is why a lot of research in a sports environment is used for this thesis, but organizational research is also considered, as research shows it works both ways (Kahn, 2000). The next paragraphs will dive deeper into previous research done on cultural diversity in relation to performance and the impact of cultural diversity on sports teams.

2.2 Cultural diversity and performance

Multiple researchers have developed theories that help us explain productivity within teams looking at cultural diversity. Both Homan (2019) and Godfrey et al., (2019) show in their research an overview of existing literature by analyzing previous research about cultural diversity in workgroups as well as sports contexts and environments. Research shows that cultural diversity is a popular topic among researchers and academics, but surrounded by controversies and opinions (Homan, 2019).

Lazear (1999) was one of the first researchers who claimed that it takes three factors for a culturally heterogeneous team to be more successful than a homogeneous team. With the first requirement being that a new team member must be unique and should possess skills and knowledge that are different from those already present in the team, therefore they will contribute to the collective knowledge of the team. Secondly, their contributions should align with the team's culture, their objectives, and goals. And lastly, effective communication amongst team members is a crucial factor (Lazear, 1999). He concludes that diverse teams can significantly benefit from cultural diversity, but only if communication and language barriers are not at cost for this.

Another framework is provided by Hamilton et al. (2003), which is built upon the framework by Lazear (1999), to evaluate the effect of cultural diversity on team performance. They emphasize the

importance of two categories, learning and bargaining. When team members bring varying levels of technical skills or knowledge, mutual learning proves to be a big advantage. Berg et al. (1996) supports this evidence, and he suggests that informal training, which means that people unconsciously learn new things, is common in organizations. Therefore, it is highly likely that cultural heterogeneous teams may experience greater learning effects, which can benefit individual team members and will also create a more cohesive knowledge base for the team in general (Hamilton et al., 2003).

A third framework is by Kandel et al. (1992), to explain the impact of cultural diversity on productivity and costs. A challenge faced by many organizations is the issue of free riding, where some team members do not contribute the same way to shared objectives as others. To tackle this issue, these researchers suggest that motivating team members to work together could solve this. Additionally, creating a shared sense of belonging within the team can reduce the issue and improve productivity and performance. Homogeneous groups tend to share similar values and norms and form social bonds outside of work, leading to friendships that discourage free riding. This idea is supported by other studies that emphasize the importance of social ties and group cohesiveness in improving team productivity and performance (Reagans & Zuckerman, 2001; Spagnolo, 1999; Towry, 2003)

Timmerman (2000) agrees with the frameworks mentioned, and the impact that cultural diversity has on team outcomes and performance. However, he states that the effect of diversity on team performance depends on the type of task, for example whether it is cognitive or physical. For cognitive tasks such as generating innovative ideas and brainstorming together, a diverse team with different perspectives is more efficient compared to a homogenous group. On the other hand, physical tasks, like playing sports, require smooth and clear coordination, where homogeneous teams may be more effective. Timmerman (2000) also emphasizes the importance of interaction and effective communication between members of a team. He says that the relationship between cultural diversity and performance is moderated by the interdependence of the team members as well, referring to the ability of a member to work independently, which could relate to an athlete's personality. The frameworks above suggest that cultural diversity can positively impact a company's or sports team productivity and performance. Through different skill sets, knowledge, talented individuals, but also great learning opportunities within team members. However, challenges such as lack of effective communication can arise in physical and high interdependence tasks, but also due to cultural differences (Timmerman, 2000). According to Horwitz and Horwitz (2007), cultural diversity is related to a 'double-edged sword', as it has both positive and negative outcomes. They suggest that to really check the impact cultural diversity has, it should be assessed on a case-by-case basis (Horwitz & Horwitz, 2007). The frameworks presented above are used within this thesis to gain a better understanding of the current literature available and how cultural diversity impacts athletes and

teams, both on an organizational level as in a sports context. It's important to mention these frameworks as it shows that the research available is very divergent, and many factors are involved when researching the impact of cultural diversity in relation to performance outcomes.

2.3 Cultural diversity in sports team

Based on the frameworks above, a conclusion can be made that cultural diversity plays a role and has influence on performance in a corporate and workplace setting, but little research is known about the impact of cultural diversity in high performance sports teams. A few studies have measured the effects of cultural diversity among football teams in Germany, for example: Wulf and Hungenberg (2006), Teichmann (2007) and Brandes et al. (2009). Only Wulf and Hungenberg (2006) found significant results, concluding the higher the cultural differences within a team, the more successful they are. In a more recent study by Kahane et al. (2013) and Amodio et al. (2022), who used a dataset of the National Hockey League (NHL), to research the influence of cultural and language diversity on ice hockey team performance. The authors confirmed existing theories mentioned above and concluded that cultural heterogeneity can positively influence team performance. They came to this conclusion as teams with a higher percentage of European players showed better performance metrics than teams with fewer European players. The introduction of foreign players boosted the performance of NHL teams, which is played in the United States, but the effect was most significant for homogeneous groups of European players (Kahane et al., 2013). The study also revealed that European players' individual statistics improved when playing alongside other European players. Overall, the authors concluded that cultural diversity could have a beneficial impact on performance, but the benefits may be overshadowed by the integration costs of language and cultural differences, which is in line with Lazear's (1999) and Timmerman's (2000) theoretical frameworks previously discussed. However, other researchers contradict with the theories described above and show significant results on the more cultural diversity in teams, the less successful they are, both from a workplace perspective as in a professional sports setting (Cherian et al., 2020; Maderer et al., 2014). Horwitz and Horwitz (2007) conclude that it depends and should be measured case by case. So, does that mean cultural diversity benefits sports teams? Or does it hinder their performance?

2.4 Team and individual outcomes

Team outcomes in sports teams can be defined as the overall results achieved by a group of athletes working together in a team (Sakuda, 2012). These outcomes typically involve a combination of individual and team performance, as well as the satisfaction and cohesion experienced by team members (Sakuda, 2012). Within this research outcomes will be measured from an individual's perspective on their own team as a collective as well as their own personal performance and satisfaction. The measurement of

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sports team- and individual outcomes is an important research area in sports psychology, as it provides insights into the factors that contribute to the success of a sports team as well as a single player. As previously mentioned, studies have examined various variables in relation to cultural diversity, some of which are crucial in sports teams. Carron et al. (2002) highlighted the importance of performance and cohesion in sports teams, while Spink et al. (2005) identified the significance of satisfaction as an important factor that contributes to positive outcomes in sports teams.

It is already clear that cultural diversity has an impact on sports team outcomes. And as previously discussed, this is probably due to differences in values, beliefs, and communication styles between team members. However, studies that measured the relationship between cultural diversity and outcomes are showing different results (Cunningham & Sagas, 2004; Earley & Mosakowski, 2000; Jehn & Bezrukova, 2004; Kahane et al., 2013). Within this research is chosen to measure five different outcome variables, which is further explained in the following section, together with the hypotheses.

2.4.1 Performance

Previous meta-analyses have shown that performance is the most studied variable when examining the correlation between cultural diversity and team sports (Stahl et al., 2010). However, researchers have also looked at other factors that could mediate or moderate (e.g. diversity climate) this relationship (Ayoko & Konrad, 2012; Li et al., 2017). According to Cherian et al. (2020), who conducted research on the effects of cultural diversity in the workplace, they conclude that teams with high levels of cultural diversity encounter conflicts. This is due to differing opinions on desirable team behavior, as a result of culturally diverse backgrounds (Cherian et al., 2020). Moreover, poor communication and decision-making may lead to reduced satisfaction and performance levels for culturally diverse team members (Chevrier, 2003). Furthermore, Chevrier (2003) argues that multicultural teams may face issues such as uncertainty, confusion, and complexity that can hinder team effectiveness. Language, norms, and communication barriers may also arise, facing challenges for culturally diverse work teams and will negatively affect their performance (Cherian et al., 2020).

According to Carron and Brawley (2000), team performance refers to the collective achievement of athletes in a sporting activity, which can be evaluated using various metrics such as goals scored, points earned, or minutes played. Performance could be measured as an objective variable, but also subjective. A player could perform statistically very well, but it could just be that this doesn't match the teams' standards or satisfaction levels. That is why measuring team satisfaction as well as individual satisfaction is another important variable for this research. According to Maderer et al. (2014), who explored the relationship of cultural diversity, intercultural experience, and team performance in professional football squads. The authors researched the impact of cultural diversity on team performance and found that the

relationship is not straightforward. While cultural diversity can lead to increased creativity and innovation in a team, it also results in conflicts and decreased performance if not managed the right way (Maderer et al., 2014).

They suggest that effective management of cultural diversity can enhance team performance by combining the strengths of diverse team members and addressing any potential conflicts. Overall, little research is known about the effects of cultural diversity on individual performance because most studies focus on the effect of cultural diversity on a team as a collective, compared to how and individual will thrive in a culturally diverse environment. However, if a team performs well, individual players will also perform well and these outcomes are connected (Maderer et al., 2014). Intercultural experience was found to be a crucial factor in managing this cultural diversity and enhancing team performance (Maderer et al., 2014) Team members with intercultural experience and intercultural intelligence are better equipped to understand and appreciate cultural differences, which can lead to better communication, collaboration, and problem-solving. Intercultural experience can also facilitate the development of a shared team identity that transcends cultural differences and eventually promotes team cohesion and satisfaction (Maderer et al., 2014). Overall, most studies conclude that cultural diversity negatively influences performance (e.g., Filho & Rettig, 2018; Maderer et al., 2014). This brings us to the first two hypotheses of this research:

H1: Cultural diversity in high performance sports teams has a negative relationship with individual performance.

H2: Cultural diversity in high performance sports teams has a negative relationship with team performance.

2.4.2 Satisfaction

Within this research satisfaction is another outcome variable measured that is potentially impacted by cultural diversity. Satisfaction refers to the degree of enjoyment and fulfillment experienced by team members during sporting activity and is often linked to individual and team performance (Carron & Brawley, 2000). Within this study satisfaction is measured in two ways, team satisfaction as well as individual satisfaction. Both outcome variables are measured through the eyes of a single athlete and their perspective and satisfaction of their team as a collective, as well as themselves and their performance. It is generally accepted that higher levels of team- as well as individual satisfaction leads to an increased motivation and better overall team performance. Satisfaction can also have a positive impact on team cohesion, as they are all linked with each other. It also encourages team members to work together towards a common goal, which is also why cohesion is another important outcome variable to measure (Paradis & Loughead, 2012). Multiple articles have explored the connection between cultural diversity

and satisfaction, for example Cunningham (2009) and Martins et al. (2003). However, the relationship between cultural diversity and satisfaction is not straightforward. While it seems logical that cultural diversity is negatively related to satisfaction, given the link between cohesion and satisfaction in teams, a meta-analysis shows that the relationship is positive, with greater cultural diversity associated with higher levels of satisfaction (Stahl et al., 2010). Given that cultural diversity has been linked with lower cohesion (Stahl et al., 2010), and cohesion has been found to be positively related to satisfaction in sports teams (Williams & O'Reilly, 1998).

Then, are there any differences between team satisfaction and individual satisfaction in sports teams? According to Riemer and Chelladurai (1998), athlete satisfaction refers to ''a positive affective state resulting from a complex evaluation of the structures, processes, and outcomes associated with the athletic experience" (135). According to a study done by Onağ and Tepeci (2014), they examined the effects of team cohesion, intra team communication and team member satisfaction. In their research they found out that team cohesion, team norms and overall team communication have a significant impact on team members' overall satisfaction. The effects of cultural diversity on satisfaction remain a relatively unexplored topic. From the previous research mentioned the next hypotheses are formulated as follows:

H3: Cultural diversity in high performance sports teams has a positive impact on individual satisfaction.

H4: Cultural diversity in high performance sports teams has a positive impact on team satisfaction.

2.4.3 Cohesion

Moving on to the final outcome variable, cohesion. Cohesion refers to the level of unity and mutual support among team members, which is believed to play a particularly important role in achieving optimal team performance and satisfaction (Carron & Brawley, 2000). Cohesion can be measured by looking at the level of trust, communication, and cooperation among team members. A team with high levels of cohesion is more likely to work together effectively, communicate clearly and support each other, ultimately resulting in better team outcomes (Carron & Brawley, 2000). Research shows that cultural diversity could enhance cohesion, especially given the importance placed on diversity in sports contexts (e.g. CFL, 2018). Understanding the nature of this relationship is important because cohesion has implications for other outcomes, such as individual satisfaction and group collective efficacy, in sports contexts, where subgroups are easily formed (Maderer et al., 2014). According to Maderer et al. (2014), In football teams, it is common to observe the formation of subgroups due to the size of the team and the cultural diversity among players. For example, Teichmann (2007) observed the formation of subgroups looking at Spanish- or Portuguese-speaking players from South America. He found out that extreme examples of subgroups can negatively impact team communication, cohesion, and ultimately team

success. In the case of the German FC Hertha BSC Berlin, a group of young players with a migration background developed a secret language to distinguish themselves from their teammates, which ultimately led to negative team communication, cohesion, satisfaction, and performance (Priggemeier, 2007). A more recent study by Godfrey et al., (2021), examined the association between ethnic diversity and youth athletes' perceptions of cohesion in sports teams, mainly soccer. They tested ethnic identity as a moderator on this relationship and concluded that ethnic diversity negatively influences cohesion. Ethnic diversity did not show any significance as the moderating variable. The authors mention the importance of examining the effects of ethnic and cultural diversity on team functioning-outcome variables across various levels of sport competition, as findings show different results (Godfrey et al., 2021). This brings us to the fifth hypothesis of this research:

H5: Cultural diversity in high performance sports teams has a negative impact on overall cohesion.

2.5 Multicultural personality questionnaire (MPQ)

Performance, satisfaction, and cohesion are all outcome variables tested and possibly impacted by cultural diversity. But what about the athlete's multicultural personality traits, could these outcomes be moderated by these traits and what is the impact of cultural empathy, open-mindedness, social initiative, emotional stability, and flexibility on these outcomes?

Effective communication in a multicultural environment depends on multiple factors. The term "intercultural communication competence", formulated by Portalla and Chen (2010), refers to an individual's ability to successfully communicate with diverse cultural identities while meeting communication goals. Intercultural communication competence includes intercultural awareness, sensitivity, and effectiveness. Researchers, including Chen and Starosta (1996), Nadeem et al. (2020), Ihtiyar and Akmal (2015), Spencer-Oatey and Stadler (2009), and Yu et al. (2002), use similar definitions for intercultural competence and intercultural communication competence. Scholars often alternate between these terms (Portalla & Chen, 2010). To predict how individuals behave and react to an intercultural context or environment, Van der Zee and Van Oudenhoven (2000) have developed the Multicultural Personality Questionnaire (MPQ). The MPQ was based on the Five-Factor Model of Costa and McCrae (1992), which measures multicultural effectiveness by assessing five different personality traits: neuroticism, extraversion, openness, agreeableness, and conscientiousness. The MPQ aims to reveal possible links between personality traits and possible outcomes in a multicultural environment. The reason why the MPQ is preferred over the Five-Factor Model in this research is because of the intercultural nature of the study. It is recommended by several authors, such as Ashton (1998) and Hurtz and Donovan (2000), to approach personality in a cultural context as narrowly as possible in order to increase its validity. Wilson et al.'s (2013) meta-analysis supports this idea and suggests that culture-

specific personality traits are more effective for measuring intercultural effectiveness. Therefore, the MPQ is a better fit for this research than the five-factor-model, as it is more likely to reveal a possible relationship between personality traits and team outcomes in a multicultural high-pressure sports environment.

2.5.1 Diversity positive and negative effects

For this master thesis the MPQ will be used as a moderator, because existing research shows significant results that personality traits have influence on team cohesiveness and performance (Akmal, 2015). According to Akmal (2015), emotional intelligence plays a key role in building high performance teams. Findings from van der Zee et al. (2004) show that two of the five traits influence performance of a diverse group of employees, emotional stability and flexibility show significance. However, other studies present positive effects on team performance (van Woerkom & de Reuver, 2009).

According to a review article by Homan (2019), individual-level variables such as openness to experience and emotional intelligence can be beneficial in limiting subgroup formation and intergroup bias within teams (Homan et al., 2010; Wang, 2015). Openness to experience is a personality trait that reflects curiosity and open-mindedness, while emotional intelligence is the ability to understand and recognize one's own, but also others' emotions. These traits can make people more understanding and accepting of diverse others, limiting their tendency to place people inside a box and categorize groups (Homan, 2019).

Overall, the MPQ has been proven to be a valid tool in measuring multicultural effectiveness and has been used to predict students' openness to diversity, the adjustment of international students to university, and expatriates' personal, social, and professional adjustments (Kağnıcı, 2012; Leone et al., 2005; Leong, 2007; Van der Zee et al., 2013; Yakunina et al., 2012). In more recent studies, for example, Hofhuis et al. (2020) have researched the impact of the five personality traits on intercultural behavior. Based on these results and the findings of Chen and Gabrenya (2021), it is understood that the MPQ is a reliable instrument for evaluating cross-cultural effectiveness in various research methodologies. To conclude, people who score high on the MPQ, are more likely to positively adapt in culturally diverse situations. Which brings us to the following moderation hypothesis:

H6: The relationship between cultural diversity and the outcome variable is stronger among respondents who score high on the MPQ dimensions.

2.5.2 Five dimensions of MPQ

The five dimensions of the MPQ are: *Cultural Empathy, Open-mindedness, Social Initiative, Emotional Stability, and Flexibility* (Van der Zee & Van Oudenhoven, 2000). These dimensions will be further explained.

Cultural Empathy refers to the ability to empathize with members of diverse cultural groups, according to Van der Zee and Van Oudenhoven (2000) *"the ability to empathize with the feelings, thoughts and behaviors of members from different cultural groups"* (p. 294). It refers to the ability to demonstrate sincere curiosity in others but also the ability to comprehend their thoughts, emotions, and encounters accurately is a part of it (Van der Zee & Van Oudenhoven, 2000).

Open-mindedness is an attitude towards diverse cultural values and out-group members without having any bias direct judgement towards it. The term "open-mindedness" stands for a neutral stance towards diverse cultural values and individuals who belong to groups outside one's own (Van der Zee & Van Oudenhoven, 2000). It involves having tolerance, avoidance from making judgments, and being unprejudiced towards cultural values that are different from their own (Van der Zee & Van Oudenhoven, 2000). Those who have an open-minded character can approach certain cultural circumstances without any preconceived notions (Wang et al., 2022).

Social Initiative is straightforward and consists of taking the initiative during social interactions. The term "social initiative" describes the behavior of individuals who actively seek out and take charge in social situations and conversations (Van der Zee et al., 2013). Those who have this personality trait tend to easily build social connections and even initiate social movements and even long-lasting connections (Leone et al., 2005). Rather than passively observing social situations, they usually take the lead in starting a conversation (Hofhuis et al., 2020).

Emotional Stability is the ability to remain relatively calm and collected during intercultural interactions. The term "emotional stability" refers to an individual's capacity to remain confident and relaxed to perform effectively when faced with challenging environments or unexpected events (Leone et al., 2005). Those possessing emotional stability are inclined to maintain their composure in a stressful situation, instead of showing intense emotions such as nervousness.

Flexibility refers to adapting to different cultural norms and expectations. The dimension of "flexibility" in the MPQ refers to individuals who identify new situations as opportunities rather than threats and can adapt and respond to them quickly and accordingly (Van der Zee & Van Oudenhoven, 2000). According to Leone et al. (2005), a flexible person has the capacity to transition without anyone noticing from traditional patterns of behavior to new approaches in cultural settings.

Van der Zee et al. (2013) emphasized the importance of studying intercultural traits in diverse populations, including those with different ethnicities, nationalities, and social backgrounds. This

approach would provide a more in-depth understanding of intercultural competence and promote the development of effective training programs. Additionally, the authors highlight the need to investigate the impact of situational factors on intercultural competence, such as the level of cultural diversity in a given environment. Overall, Van der Zee et al.'s (2013) framework provides a valuable perspective on intercultural competence by highlighting the role of personality traits in promoting adaptation and positive responses to cultural differences. Therefore, the moderation hypothesis for the MPQ (H6), includes the following hypotheses.

a) *The relationship between cultural diversity and team performance is stronger among respondents who score high on the MPQ dimensions.*

b) *The relationship between cultural diversity and individual performance is stronger among respondents who score high on the MPQ dimensions.*

c) *The relationship between cultural diversity and team satisfaction is stronger among respondents who score high on the MPQ dimensions.*

d) *The relationship between cultural diversity and individual satisfaction is stronger among respondents who score high on the MPQ dimensions.*

e) *The relationship between cultural diversity and cohesion is stronger among respondents who score high on the MPQ dimensions.*
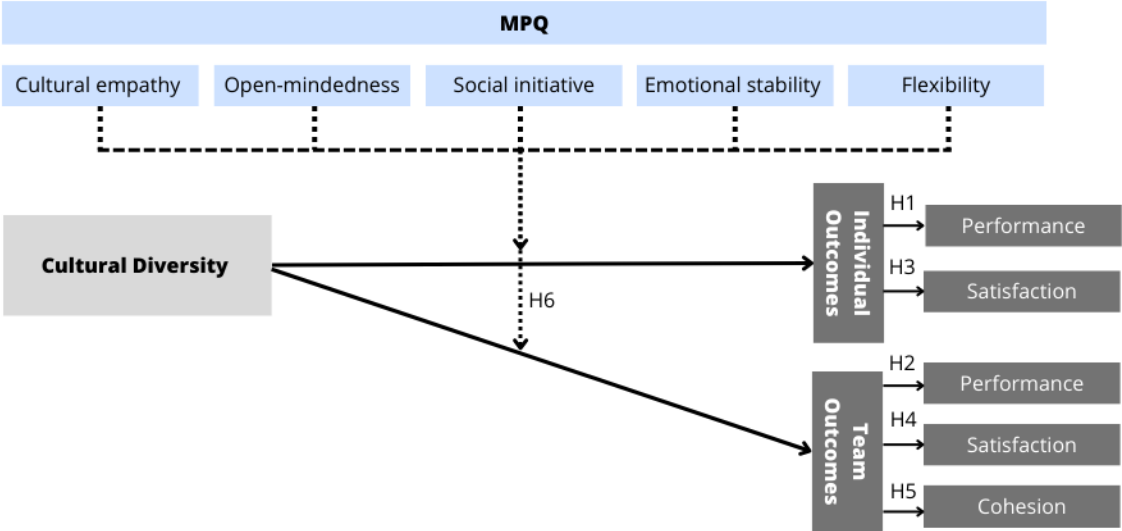
2.6 Conceptual Model

Figure 1: conceptual model including predicting hypotheses

3. Methods

The overall objective of this chapter is to look for a link between the research question and the outcomes, focusing on the methodological choices made by the researcher. This methodology chapter provides a clear overview on the research design, followed the survey procedures and sampling. Measures and scales are explained as well as a detailed descriptive statistics table near the end of this chapter.

3.1 Research design

This thesis focused on cultural diversity and how it impacts team and individual outcomes, with the MPQ playing a moderating role. This study uses a quantitative research approach that answers the following research question: *"How does cultural diversity relate to team and individual outcomes in sports teams, and how is this moderated by multicultural personality?"* To collect data and answer the research question formulated above, the chosen method for this master thesis is an online survey. As this research wants to find out the relationship between cultural diversity in relation to outcomes from an individual as well as a team perspective, this method is suitable (Lakshman et al. 2000). This method also gives the opportunity to spread this online survey easily throughout countries other than the Netherlands which makes it easier for international athletes to respond.

3.2 Procedures and Sampling

To gather quantitative data for this study, an online survey was made. The survey was made through Qualtrics, an online survey tool provided by Erasmus University Rotterdam and conducted between April 1st and May 18th, 2023. Respondents were able to participate using a laptop, smartphone, or tablet with an internet connection. The survey consisted of 30 questions and was estimated to take between 10 to 15 minutes to complete. In order to check if there were any misunderstandings of the questions, the survey was pilot tested by two Dutch speaking. No adjustments to the questions were made and everything seemed clear.

Prior to starting the survey, respondents were presented with an introductory page that introduced the researcher and explained the purpose of the study, which aimed to establish trust and generate interest (Porter, 2004). Additionally, respondents were provided with information about confidentiality and anonymity, informed of their voluntary participation, and given contact information for any further questions or concerns. Only after providing consent, respondents started filling out the survey. The target population of this survey were high performance team athletes, who sacrifice a lot of their time playing their sport and are extremely dedicated towards it. High performance was hard to clearly define since the survey was spread in countries all over the world and each sport and country has different measures of

being 'high performance', but in the context of this study and measuring potential team and individual outcomes, in combination with multicultural personality, the researcher decided that it could be interesting to let the participant decide for themselves if they are a high-performance athlete, yes or no. The level of motivation and dedication towards their sports is something that is important during this study and therefore the researcher let the participants decide for themselves. Besides this, the survey was only spread to athletes who were playing at a certain level noticed by the researcher, so it was somewhat controllable who was included in the sample and who was not.

The target population of this survey is high-level amateur athletes in team sports who experience or have experienced cultural diversity within their team. This included an athlete of any sport and also included retired athletes that do not necessarily play or perform at the highest level anymore but did in the past. To reach these athletes a non-probability sampling was used, followed by a snowball sampling. The survey was shared with people inside a network of athletes, through iMessage, Instagram, WhatsApp, and Facebook. The athletes were asked to fill out the survey themselves and share the link to the survey within their team to create an effective snowball sampling. Most of these athletes were part of the Kingstalent Instagram following list, Kingstalent is a Dutch agency who helps talented volleyball, football (soccer) and field hockey players to get an athletic scholarship in the United States. That is why a great amount of the survey participants are Dutch athletes playing college sports in the United States. To encourage participation and also solve the issue of low response rates, participants were offered an opportunity to enter their email address to win a €50 gift card of choice at the end of the survey.

At the end of data collection, a total of 246 responses were gathered. After data cleaning only 157 responses were included in the analysis because the least missing values were detected, and a lot of athletes decided to leave the survey early and therefore could not be included for further analysis. Out of these 157 participants only a couple missed some demographics, but all other scales were filled out. As a result, 157 responses (N = 157) were suitable for analysis.

The sample consisted of more female athletes (59.2%) compared to male athletes (40.8%). The age of the participants ranged from 18 to 61, with an average age of 23 (SD = 6.13). Among those who completed the demographic questionnaire, the majority had attained a bachelor's degree in college (35.0%), followed by college but no degree (21.0%), some master's degree (16.6%), and a couple high school graduates (14.0%). A small percentage of participants (6.4%) completed an associate degree in college, while two respondents (1.3%) received less than a high school degree, and only one respondent (0.6%) obtained a Doctorate degree.

Participants reported being born in 14 different countries, with the largest portion born in The Netherlands (48.4%), followed by the United States (35.0%) and Germany (3.2%). In terms of current

residence, respondents live in 12 different countries, with the United States being the most common (53.5%), followed by The Netherlands (33.1%), Belgium (2.5%) and Germany (2.5%).

In terms of international experience, 66 respondents (42.0%) have lived abroad for more than six months. And 63 of all respondents (40.1%) consider themselves a professional athlete.

Field hockey (35.7%) was represented by the majority of the respondents, followed by soccer (19.9%), volleyball (14.6%), baseball (9.4%), American football (5.8%), korfball (3.5%), basketball (2.9%), softball (2.3%) and lacrosse (2.3%)

Table 1: Descriptive statistics of respondents *(N=157)*

Variable	Value	Frequency	Percent
Gender	Female	93	59,2%
	Male	64	40,8%
Education	Bachelor's degree in college	55	35,0%
	College but no degree	33	21,0%
	Master's degree	26	16,6%
	High school graduate	22	14,0%
	Associate degree in college	10	6,4%
	Less than high school degree	2	1,3%
	Doctoral degree	1	0,6%
Country of birth	The Netherlands	76	48,4%
	United States	55	35,0%
	Germany	5	3,2%
	Other	21	13,4%
Country currently living in	United States	84	53,5%
	The Netherlands	52	33,1%
	Belgium	4	2,5%
	Germany	4	2,5%
	Other	13	8,3%
Country first parent born	Netherlands	74	47,1%
	United States	53	33,8%
	Germany	6	3,8%
	Other	24	15,3%
Country second parent born	Netherlands	73	46,5%

	United States	53	33,8%
	Germany	4	2,5%
	Other	27	17,2%
Lived abroad for more than six months?	Yes	66	42,0%
	No	89	56,7%
Professional athlete	Yes	63	40,1%
	No	94	59,9%
Sport playing	Field Hockey	61	35,7%
	Soccer	34	19,9%
	Volleyball	25	14,6%
	Baseball	16	9,4%
	American Football	10	5,8%
	Korfball	6	3,5%
	Basketball	5	2,9%
	Softball	4	2,3%
	Lacrosse	4	2,3%
	Other	6	3,5%
	Range	**M**	**SD**
Age in Years	18 – 61	23	6.13
Team size	8 - 126	28	22.35

3.3 Measures

In order to put the concepts into practice, the survey mainly uses scales that were already established. The survey used a 7-point Likert scale to measure the MPQ, the outcomes: satisfaction, cohesion, and performance, as well as control variables such as 'how often do you consume international media' and the athlete's interest in visiting other places or countries they have never been. First, the participants were asked about their sports career, and if they are currently an athlete, what sports they are playing, if they consider themselves a professional athlete and if they are performing at a high level. High level is in this survey defined by the participant itself, because different sports as well as different countries have different types of levels. If the participant defines their sport as one of the highest priorities in their life, they are considered a high-performance athlete in this survey. Furthermore, few questions are asked about cultural diversity within their team, how many players are a part of their team, and how many of those players have a different cultural or racial background. Subjective questions are also asked on how diverse

the participant thinks their team is. After these general questions, the 40 statements of the multicultural personality questionnaire (MPQ) are asked, developed by van der Zee & van Oudenhoven (2013). The statements were presented on each screen, with each screen displaying between eight to ten statements. After these 40 items, items from the SECTS scale are asked in order to measure cohesion. These consisted of 15 statements on a scale from 1-7 measuring: acceptance, distinctiveness, positive conflict, and negative conflict. Moving onto the final scale which is the athlete satisfaction questionnaire (ASQ), measuring satisfaction and performance. This scale consisted of 20 statements measured on a scale from 1-7. Lastly the participant was asked about standard demographics and 3 controlled variables asking the participants international interest such as: lived abroad, consuming international media and interest in traveling to various places and countries. Upon completing the survey, respondents had the option to provide their email address if they wanted to be considered for the gift card giveaway. It was emphasized that their email address would only be used for these purposes and would be deleted once the study ended.

3.3.1 Cultural Diversity

Cultural diversity is measured in this research by 5 different questions. Because this is a case-by-case analysis, and athletes from different sports and team sizes are included, the first question is about how many teammates they have, and how many players are currently (or in the last team they were a part of) on their team. Furthermore, they are asked how many of these teammates have a cultural background that is different from the country that the team is based in. Another question is about how many teammates of their current team have a different racial/ethnic background? Then finally two subjective questions are asked on how diverse the respondent finds their team is in terms of culture, and in terms of race/ethnicity. Further analysis was done by creating a new variable for cultural diversity, the answers from the question about how culturally diverse and how diverse in terms of race and ethnicity were added up and so a new variable of cultural diversity was created. This variable is used for all future analysis in this thesis. The mean score for this scale was 8.75 (SD = 4.06), showing an overall high level of cultural an ethnic diversity, with relatively spread-out answers, as the standard deviation seems to be high.

3.3.2 MPQ Scale

For the moderator, the short form of the Multicultural Personality Questionnaire (MPQ) by Van der Zee et al. (2013) is used as a scale to measure the intercultural capabilities of the athletes. This scale consists of 40 items, which measures participants in five different perspectives: Cultural Empathy, Open-mindedness, Social Initiative, Emotional Stability and Flexibility. This is the shorter version of the original scale by Van der Zee and Van Oudenhoven (2000). This scale is based on the Five-Factor Model

of Costa and McCrae (1992). This model is often used in academia and includes the dimensions: neuroticism, extraversion, openness, agreeableness, and consciousness (Costa and McCrae, 1992).

The MPQ has been proven to be a valid tool to measure multicultural effectiveness across different research designs. Van der Zee et al. (2013) proposed that personality traits can be categorized based on their sensitivity to challenges and threats. These traits can be distinguished using the ABC model of attitudes, which includes affect, behavior, and cognition, as explained by Ward et al. (2001) and Wilt & Revelle (2015). Stress-related traits such as Emotional Stability and Flexibility are perceived in intercultural situations as less threatening, and so promoting adaptation. In addition to this, individuals with high Emotional Stability and Flexibility experience less threat to their identity during culture shocks. Social-related traits such as Cultural Empathy, Social Initiative, and Open-mindedness enable individuals to perceive culture as a challenge rather than a threat. Individuals with this kind of perspective will be encouraged to react to cultural situations in a positive way that is filled with creativity and interest. Those individuals with high social-perceptual traits are able to recognize connections between multiple identities and adopt a complicated identity without fear of losing their individuality. Van der Zee and Van Oudenhoven (2013) suggested that research on intercultural traits should be conducted on target groups other than expatriates. This will be achieved by examining the five personality traits individually, using high performance athletes as the ideal sample for this study.

Cultural empathy (CE), open-mindedness (OM), social initiative (SI), emotional stability (ES), and flexibility (FX) were assessed during this survey by asking participants the extent to which certain statements applied to them. The responses were rated on a 7-point Likert scale ranging from 1 (totally not applicable) to 7 (completely applicable).

CE was evaluated using eight items, including statements such as "I enjoy other people's stories" or "I am a good listener." The final scale showed reliability, with a Cronbach's Alpha of .75. The mean score for the scale was 6.19 (SD = .66), indicating that participants generally exhibited a high level of cultural empathy.

OM was measured using eight items, such as "I have a feeling for what's appropriate in a culture" or "I have a broad range of interests" Unfortunately, the scale's reliability was not desirable, with a Cronbach's Alpha of .58. Since removing an item would not significantly improve reliability, the scale was not adjusted for further analysis. The mean score for the scale was 5.40 (SD = .67), indicating a relatively high average level of open-mindedness among participants.

SI was assessed through eight items, including statements like "I take initiative" or "I make contacts easily" To align with the scale, the items "I leave the initiative to others to make contacts", "I find it

difficult to make contacts," and "I am reserved" were reversed. After reliability analysis the scale demonstrated a Cronbach's Alpha of .69, but after removing the item "I leave the initiative to others to make contacts" a Cronbach's Alpha of .74 was detected, and a mean score of 5.36 (SD = .89). So, in total SI was measured though 7 items, after one was excluded from analysis.

ES was evaluated using eight items, such as "I am worried or "I am nervous" All items, except for "I am not easily hurt," and "I keep calm when things don't go well" were reversed. With all items included, the scale showed a Cronbach's Alpha of .58, but after deleting the item "I am worried", the scale showed a Cronbach's Alpha of .69 and a mean score of 4.66 (SD = .96), which indicates a fairly high score of emotional stability among participants. So, in total ES was also measured though 7 items, after one was excluded from analysis and showing higher reliability

FX was also measured by eight items in total. These items included statements like "I like routine" or "I want predictability" All eight items were reversed for the scale. The reliability of the scale was a Cronbach's Alpha of .70, and the mean score was 5.37 (SD = .86). All items were included in the analysis.

3.3.3 ASQ Scale – Satisfaction and Performance

Athlete satisfaction is defined as "A positive affective state resulting from a complex evaluation of the structures, processes, and outcomes associated with the athletic experience" (Riemer & Chelladurai, 1998, p. 135). Also explained as: to what extent someone's athletic experience meets its personal standards. Findings show, the larger the disparity between each, the more dissatisfied someone will be (Riemer & Chelladurai, 1998). This will be measured through Riemer and Chelladurai (1998) ASQ, which stands for the Athletic Satisfaction Questionnaire. This scale measures 15 factors of athletic satisfaction: team performance, individual performance, ability utilization, strategy, training and instruction, personal treatment, group's task contribution, team's ethics, group's social contribution, team integration, personal dedication, budget, medical personnel, academic support services, and external agents. In sum, it covers performance, leadership, the team, organization, and the individual athlete (Riemer & Chelladurai, 1998). However, for this research not all items from this scale were included for analysis, because they were not all needed to answer our hypothesis. The one's included in analysis are team performance, individual performance, group's social contribution, group's task contribution and team integration, which are together classified as team satisfaction, and finally the items from personal dedication and ability utilization are together classified as personal satisfaction.

Team performance was measured by three items, before the respondents answer the question they are given the statement "The following questions are about the satisfaction while playing your sport, (currently or in the past).", an item related to team performance is for example "The extent to which the

team is meeting (has met) its goals for the season" or "The teams overall performance this season", and answered on a Likert scale from 1 (not at all satisfied) to 7 (extremely satisfied). The scale showed a Cronbach's Alpha of .82, and the mean score was 4.62 (SD = 1.54), indicating an average satisfaction score.

Individual performance was measured the same way, and the items included in this variable were "The improvement in my performance over the previous season" and "The improvement in my skill level." This scale showed a Cronbach's Alpha of .75, and the mean score was 5.24 (SD = 1.41), indicating a high level of satisfaction on individual performance.

Individual satisfaction was measured by the subscale's ability utilization, which consisted of 4 items, and personal dedication, which was measured by 3 items. In total 7 items were included in the subscale individual satisfaction. The scale 'ability utilization' included items such as "The degree to which my abilities are (were) used" and showed a Cronbach's Alpha of .88, and a mean score of 4.82. The scale of 'personal dedication' included items such as "The degree to which I do (did) my best for the team" and showed a Cronbach's Alpha of .66, and the mean score was 5.92. Combining both scales showed a Cronbach's Alpha of .80, and mean score of 5.29 (SD = 1.10), again showing a relatively high level of individual satisfaction.

Team satisfaction was measured by three subscales, team's task contribution, which included two items, team integration which included 3 items and group's social contribution, which included two items. In total seven items were included in our subscale 'team satisfaction', and examples of these items are "The extent to which teammates provide (provided) me with instruction" and "The extent to which teammates play (played) as a team" each subscale was analyzed and showed reliability, with 'team's task contribution' having a Cronbach's Alpha of .77, and a mean score of 4.96, the scale of 'team integration' showed a Cronbach's Alpha of .73, and the mean score was 5.22, and 'group's social contribution' a Cronbach's Alpha of .79, and the mean score was 5.58. All these items put together showed a scale with a Cronbach's Alpha of .83, and a mean score of 5.25 (SD = 1.00).

3.3.4 SECTS – Cohesion

SECTS-2 was used to measure effective communication within a team. This scale by Sullivan and Short (2011) is an updated version of the original SECTS scale by Sullivan and Feltz (2003). The scale is created specifically to test intra-team communication in sports, and cohesion specifically (Sullivan and Short, 2011).

SECTS-2 measures 15 items including four factors of effective communication: acceptance, distinctiveness, positive conflict, and negative conflict. All the factors are measured by four items, except

distinctiveness, which is measured by three. Previous research showed that positive conflict has the strongest relationship with team cohesion (Sullivan and Short, 2011). The scale is based on the underlying theoretical framework social exchange theory by Foa and Foa's (Cropanzano & Mitchell, 2005). Previous research has shown that this scale is valid and reliable and could be used to measure cohesion specifically (Sullivan & Gee, 2007). It is a relatively new scale and is specifically developed because of the conceptual and applied needs of sport practitioners and scientists (Sullivan and Short, 2011).

Acceptance was assessed by four items. Items such as "When our team communicates, we ... - *Communicate our feelings honestly*" were included in this scale. The reliability of the scale was a Cronbach's Alpha of .67, and the mean score was 5.37. All items were included in the analysis.

Distinctiveness was measured by three items. An example item that was included in the survey is: "When our team communicates, we ... - *Use slang that only team members would understand."* The reliability of this scale was a Cronbach's Alpha of .61, and the mean score was 4.95.

Positive conflict was measured by four items again, "When our team communicates, we ... - *Get all problems out in the open"* was one of the items included in this scale. The reliability of this scale was a Cronbach's Alpha of .71, and the mean score was 4.80.

Negative conflict was also measured by four items, such as "When our team communicates, we ... - *Shout when upset"* were included in the analysis. The reliability of this scale was a Cronbach's Alpha of .74, and the mean score was 3.86.

Overall, all subscales mentioned above, and items were included in our SECTS-2 scale measuring cohesion. The scale showed a collective Cronbach's Alpha of .74, and the mean score was 4.73 (SD = .76).

3.3.5 International interest and control variables

As part of the survey the researcher will include several controlled variables in order to keep the study as reliable as possible. Controlled variables included are based on the international interest of the respondent. First the respondent was asked if they ever lived abroad for more than six months in order to determine the influence of previous cross-cultural experience. This question aimed to assess the potential level of intercultural competence resulting from their past experiences, rather than relying solely on their personality traits (Wilson et al., 2013). Furthermore, respondents were asked to respond to the following statements: "I like to travel a lot", "I like to go to places I have never been" and "I like to learn from different cultures" on a scale from 1 ("Not at all") to 7 ("Very much"), in order to determine the

respondent's international interest. And finally, the respondents were asked five questions about their interest in international media, and if they consume international media daily (meaning media not from their home country), such as: movies, books, sports, shows and news on a Likert scale from 1 ("Never") to 7 ("Always"). The scale for international interest showed a Cronbach's Alpha of .77, and the mean score was 6.36 (SD = .87), while the scale for media use showed a Cronbach's Alpha of .80, and the mean score was 6.61 (SD = 1.33), indicating a very high level of international interest and use of international media among the respondents.

3.4 Descriptive statistics and correlation matrix

Table 2 shows an overview of the descriptive statistics on the variables included in the conceptual model of this research. Furthermore, it shows the reliability overview of the main variables within this research.

Table 2: Descriptive statistics of measures (N=157).

Measure	M	SD	Min	Max	Cronbach's α
Cultural Empathy	6.19	.66	3.88	7.50	.75
Open-mindedness	5.40	.67	3.63	7.13	.58
Social Initiative	5.35	.89	2.43	7.14	.74
Emotional Stability	4.66	.96	2.14	6.71	.69
Flexibility	5.37	.86	2.88	7.13	.70
Individual satisfaction	5.29	1.10	2.00	7.00	.80
Team satisfaction	5.25	1.01	2.00	7.00	.83
Individual performance	5.24	1.41	1.50	7.00	.75
Team performance	4.62	1.54	1.00	7.00	.82
Cohesion	4.73	.76	2.67	6.60	.74

Table 3: Pearson correlation matrix between measures (N=157)

Measure	1	2	3	4	5	6	7	8	9	10
1. Cultural Empathy	1	.45**	.28**	.04	.18**	.12	.13	.18*	-.09	.12
2. Open-mindedness	.45**	1	.44**	.08	.00	.05	.18*	.14	.03	.27*
3. Social Initiative	.28**	.44**	1	.22**	-.07	.35**	.27**	.25**	.23**	.16*
4. Emotional Stability	.04	.08	.22**	1	-.19*	.20*	.12	.19*	.09	.11
5. Flexibility	.18*	.00	-.07	-.19*	1	-.10	-.05	.03	-.07	.05
6. Individual satisfaction	.11	.05	.35**	.20*	-.10	1	.49**	.50**	.43**	.14
7. Team satisfaction	.13	.18*	.27**	.12	-.05	.49**	1	.56**	.63**	.47**
8. Individual performance	.18*	.14	.25**	.19*	.03	.50**	.56**	1	.43**	.26**
9. Team performance	-.09	.03	.23**	.09	-.07	.43**	.63**	.43**	1	.26**
10. Cohesion	.12	.27*	.16*	.11	.05	.14	.47**	.26**	.26**	1

** Correlation is significant at the .01 level (2-tailed).
* Correlation is significant at the .05 level (2-tailed).

Controlled variables were also tested, and it was found that the item 'professional athlete' especially shows significance and is correlated to almost all outcome measures, except cohesion. (see Table 4). Therefore, the items 'professional athlete', as well as 'gender' are included in the corresponding regression and moderation analyses which will be analyzed and further expanded on in the next chapter, results.

Table 4. Significant Pearson correlations between outcome variables and control variables (N = 157).

	Lived abroad	Gender	International interest	International media use	Professional athlete	Age
Individual satisfaction	.01	.10	.14	.03	-.22**	.18*
Team satisfaction	.15	-.09	.09	-.04	-.25**	.15
Individual performance	.13	-.06	.04	-.04	-.20*	.11
Team performance	-.06	.05	.18*	.26**	-.27**	.26**
Cohesion	.01	-.32**	-.00	.05	-.13	.62

** Correlation is significant at the .01 level (2-tailed).
* Correlation is significant at the .05 level (2-tailed).

4. Results

To test the first five hypotheses, simple linear regression analysis was performed on all 5 outcome variables: individual performance, team performance, individual satisfaction, team satisfaction and cohesion. Furthermore, moderation analyses are conducted to test the other hypothesis. Gender and Pro athlete are the controlled variables included in each analysis and were both dummy coded before further analysis, for gender (female = 0, male = 1) and for pro athlete (amateur = 0, pro = 1).

4.1 Link between cultural diversity and performance

The first linear regression analysis was conducted with cultural diversity as independent variable and individual performance as dependent and outcome variable. The items: pro athlete and gender were included as controlled variables. The model shows significance (F (3, 151) = 2.69, $R2$ = .05, p = .048. Cultural diversity was found to not have a significant influence on individual performance (p = .257). H1 predicted a negative influence and is therefore rejected. However pro athlete, the control variable, does show significance (p = .013) as a dependent variable to individual performance (b* = .20), meaning that we can conclude that professional athletes significantly score higher on individual performance compared to amateurs.

Another linear regression analysis was conducted with cultural diversity as independent variable and now team performance as dependent and outcome variable. The items: pro athlete and gender were again included as control variables. The model again shows significance (F (3, 151) = 5.24, $R2$ = .09, p = .002. However, H2 is rejected as cultural diversity does not show a correlation to team performance (p = .100). The control item pro athlete does show significance again (p = <.001) as a dependent variable to team performance (b* = .27), meaning that professional athletes score a lot higher to team performance compared to amateurs, which seems logical.

4.2 Link between cultural diversity and satisfaction

Another linear regression analysis was conducted with cultural diversity as independent variable and now individual satisfaction as dependent and outcome variable. The items pro athlete and gender were again included as controlled variables. The model showed significance (F (3, 151) = 3.45, $R2$ = .23, p = .018. As predicted that cultural diversity in high performance sports teams has a positive impact on individual satisfaction, H3 is rejected as it does not show significant impact (p = .934) to individual satisfaction. However, pro athlete again shows significance (p = .004, b* = .23), meaning that professional athletes score higher to individual satisfaction compared to amateurs.

Another linear regression analysis was conducted with cultural diversity as independent variable and now team satisfaction dependent and outcome variable. The items pro athlete and gender were included again as controlled variables. The model shows significance (F (3, 151) = 3.68, $R2$ = .07, p = .014. However, H4 is rejected as predicted was that cultural diversity in high performance sports teams has a positive impact on overall team satisfaction, data tells us it has no significant impact (p = .774) Pro athlete again shows significance (p = .002, b* = .25), conclusion can be made that professional athletes score higher to team satisfaction compared to amateurs.

4.3 Link between cultural diversity and cohesion

The last linear regression analysis was conducted with cultural diversity as independent variable and now cohesion as dependent and outcome variable. The items pro athlete and gender were again included as controlled variables. The model showed significance (F (3, 153) = 6.99, $R2$ = .12, p = <.001. However, H5 is also rejected, as cultural diversity in high performance sports teams show no effect (p = .303) on overall cohesion. Gender, one of the other controlled variables does shows significance (p = <.001, b* = .29), since the controlled variables were dummy coded, as 0 = female and 1= male, the conclusion can be made that males score significantly on cohesion compared to females.

As shown in table 5, the first set of analyses showed that when controlling for gender and professional status, cultural diversity does not seem to directly impact the outcome variables, neither positively nor negatively.

Table 5: Simple regression analysis of all 5 outcome variables on cultural diversity

Predictors	Model			Coefficients		Control
	R2	*F*	*p*	*b**	*p*	*p*
Individual performance	.05	2.69(3,153)	0.48	.09	.257	.013*
Team performance	.09	5.34(3,153)	.002	-.13	.100	<.001*
Individual satisfaction	.23	3.45(3,153)	.018	-.01	.934	.004*
Team satisfaction	.07	3.68(3,153)	.014	-.02	.774	.002*
Cohesion	.12	6.99(3,153)	<.001	.08	.303	<.001**

Note: independent variable for all outcome variables is cultural diversity with pro athlete* and gender** as controlled variables.

4.4 Moderating effect of 5 MPQ personality traits

To analyze the moderating effect of the MPQ on the independent and dependent or outcome variables, a moderation analysis was run on each of the 5 multicultural personality traits in combination

with all 5 outcome variables. A total of 25 moderation analyses were done and the same controlled variables as before were added to the analyses gender and pro athlete.

The hypotheses for this moderation analyses are as follows:

a) *The relationship between cultural diversity and team performance is stronger among respondents who score high on the MPQ dimensions.*

b) *The relationship between cultural diversity and individual performance is stronger among respondents who score high on the MPQ dimensions.*

c) *The relationship between cultural diversity and team satisfaction is stronger among respondents who score high on the MPQ dimensions.*

d) *The relationship between cultural diversity and individual satisfaction is stronger among respondents who score high on the MPQ dimensions.*

e) *The relationship between cultural diversity and cohesion is stronger among respondents who score high on the MPQ dimensions.*

For the first 5 moderation analyses, cultural empathy was used as moderating variable, cultural diversity as independent variable and each of the 5 outcome variables were checked separately to see if there were any moderating effects on these variables. The scales all appear to be significant, which means that there are direct effects of cultural empathy on the outcome variables. However, the interaction effects did not show significance (see table 7, 8, 9, 10 and 11 in appendix B), which means that there is no moderating effect between cultural diversity and cultural empathy on the outcome variables. For the next 5 moderation analyses, the same actions were taken, except open mindedness was used as the moderating variable now. All scales appear to be significant (see tables 12, 13, 14, 15 and 16 in Appendix B), which means that there are direct effects of open-mindedness on the outcome variables, however no interaction or moderating effect was found. All the other 15 moderation analyses were run with social initiative, emotional stability, and flexibility as moderators, but no moderating effect was found in any of the analyses. Therefore, H6a, H6b, H6c, H6d and H6e are all rejected. And therefore, the general hypothesis H6 is rejected as the outcome variables are not moderated by the MPQ. We can conclude that the multicultural personality of a single athlete does not make the relationship of cohesion, satisfaction, and performance outcomes stronger.

In total all scales except for one (table 27) showed significance. An interesting finding is that the control variable 'pro athlete' showed significance across all scales for 4 out of 5 outcome variables. 'Gender' was significant in every scale with the outcome variable 'cohesion' (see table 11, 16, 21, 26 and 31 in Appendix B). Table 6 shows a clear overview and summary of all the measures that appear to be

significant. Looking at this table and as already mentioned, professional athletes score significantly higher on individual performance, team performance, individual satisfaction and team satisfaction compared to amateurs. However, they do not score significantly higher on cohesion, in fact men score higher on cohesion compared to women (p = <.001).

For individual performance, cultural empathy (p = .008, b* = .21), social initiative (p = .001, b* = .25), and emotional stability (p = .021, b* = .20), show significance, and have a positive impact on individual performance. For team performance, only social initiative shows a significant positive effect (p = .006, b* = .22) and positive impact on team performance. For individual satisfaction, social initiative (p = <.001, b* = .36), and emotional stability (p = .002, b* = .26), show a significant positive effect on individual satisfaction. Women score significantly lower on individual satisfaction compared to men (p = .011, b* =-.22). Looking at team satisfaction, cultural empathy (p = .031, b* =.17), open mindedness (p = .018, b* =.19), and social initiative (p = .003, b* =.24). Finally, Cohesion is impacted positively by cultural empathy (p = .018, b* = .18), and open mindedness (p = .004, b* = .22).

Table 6: Significant values of the MPQ moderation analysis on each of the outcome variables

		B	**S.E.**	**b**	**t**	**p**
		Individual Performance				
CE	Zscore	.30	.11	.21	2.68	.008
SI	Zscore	.36	.11	.25	3.25	.001
ES	Zscore	.27	.12	.20	2.33	.021
		Team Performance				
SI	Zscore	.33	.12	.22	2.78	.006
		Individual Satisfaction				
SI	Zscore	.40	.08	.36	4.84	<.001
ES	Zscore	.28	.09	.26	3.17	.002
		Team Satisfaction				
CE	Zscore	.17	.08	.17	2.18	.031
OM	Zscore	.19	.08	.19	2.33	.018
SI	Zscore	.24	.08	.24	3.06	.003
		Cohesion				
CE	Zscore	.14	.06	.18	2.40	.018
OM	Zscore	.17	.06	.22	2.91	.004

Note: For the full review and each moderation analysis, check appendix B with all the graphs separately.

4.5 Summary of results

Overall, the results from the analysis did not show significant relations between the variables measured. However, most scales appear to be significant, no significant effect was found between cultural diversity and each of the outcome variables. Therefore H1, H2, H3, H4 and H5 are rejected.

The moderation analysis measured a total of 25 moderations across all MPQ traits in combination with each outcome variable. No significant moderating effect was found and therefore H6 is also rejected. The MPQ traits do seem to influence most of the outcome variables directly as shown in table 6. Individual performance, individual satisfaction, team satisfaction and cohesion are influenced by at least two different multicultural personality traits. Social initiative appears to impact almost all outcome variables, except cohesion. Cultural empathy impacts individual performance, team satisfaction and cohesion. Emotional stability impacts only individual performance and individual satisfaction. Open mindedness impacts team satisfaction and cohesion, while flexibility appears to not have any impact on the personality traits. However, these traits do not moderate the effects of cultural diversity. So, in a sense, diverse teams do not perform better or worse compared to non-diverse teams. However, players who score high on certain MPQ dimensions are able to perform better, regardless of the type of team they are playing in due to their multicultural personality.
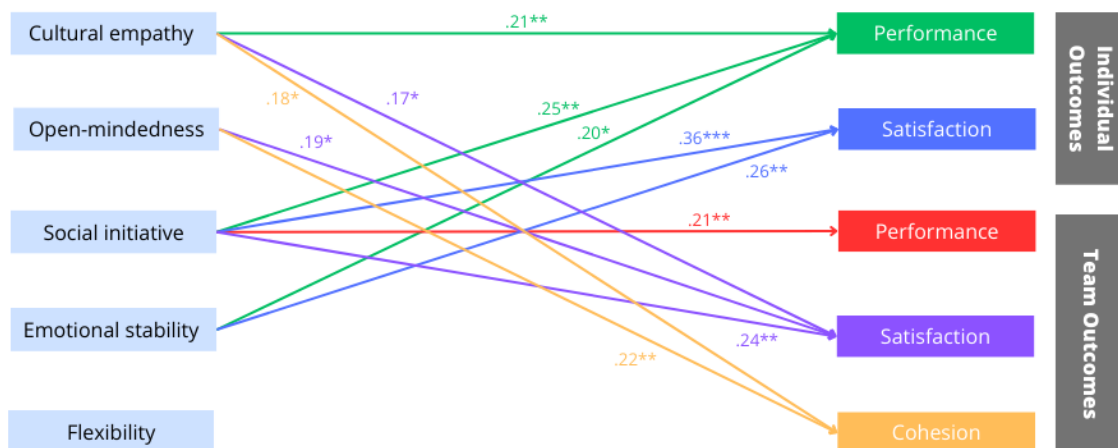
Figure 2: Impact of MPQ traits on outcome variables with b* (* p < .05, ** p < .01; *** p < .001)

5. Conclusion

This thesis aimed to test whether cultural diversity plays a role in sports outcomes within high performance athletes, and whether multicultural personality plays a moderating role in this. Cultural diversity is everywhere, and as the world becomes more connected it is not uncommon that we work with people from different backgrounds and nationalities. In the workplace this happens on a daily basis, but in sports teams this works the same way. Managing cultural diversity in the most high-pressure environment, such as that of high-performance athletes, gives a unique area of study, where currently there is a lack of knowledge about the effects of cultural diversity. Therefore, the overarching research questions was formulated as follows:

"How does cultural diversity relate to team and individual outcomes in sports teams, and how is this moderated by multicultural personality?"

To answer this question and find more about the relationship these variables have with each other, previous research was considered and analyzed, and 6 hypotheses were formulated that covered the key concepts of this research. By publishing an online survey through Qualtrics amongst high performance athletes who experience or have experienced cultural diversity, a total of 157 participations were included in the analysis. This concluding chapter includes a summary of the findings, theoretical implications on the research, limitations & suggestions for future research and practical implications.

5.1 Summary of findings

Unlike the predictions and expectations of this study, there is no significant effect of cultural diversity affecting performance, satisfaction, and cohesion outcomes on high performance athletes. With the MPQ used as a moderator, still no significant interaction effect is found and the personality traits, cultural empathy, open mindedness, social initiative, emotional stability and flexibility do not moderate the outcomes mentioned above.

The MPQ traits do seem to influence a lot of the outcome variables directly as shown in table 6. Especially individual performance and team satisfaction are influenced by three different multicultural personality traits. Social initiative appears to in fact impact almost all outcome variables, while flexibility appears to not have any impact on them. However, these traits do not moderate the effects of cultural diversity. So, in a sense, diverse teams do not perform better or worse compared to non-diverse teams. However, players who score high on certain MPQ dimensions, especially social initiative, are able to perform better, and are in general more satisfied regardless of the type of team they are playing in. See

figure 2 for a better visual overview and the effects of each of the 5 traits on each of the 5 outcome variables.

5.2 Theoretical implications

Speaking of theoretical implications of this research, it is intended to narrow the gap of how cultural diversity plays a role and has effect on outcomes in athletes. As mentioned in the theoretical framework, little research has been done in this area in general. Most of the previous literature done within sports teams, as well as organizational research, have findings that are contradictory. Both Maderer et al. (2014), Godfrey et al. (2019), and Stahl et al. (2010) researched the role of cultural diversity in teams by looking at previous empirical and theoretical research already done. While some research shows a positive impact, others yielded negative outcomes. However, most studies conclude that cultural diversity has a significant impact on groups and teams, both positive and negative (Van Knippenberg & Schippers, 2007).

Within this thesis, none of the hypotheses are accepted, however, this research is still valuable. The difference between these organizational research studies mentioned above, that might have caused differences in findings compared to this study, is that the sample of this study are high performance athletes, compared to employees. Besides looking at the sample, the ways of measuring cultural diversity should also be considered as an enormous difference and a possible reason why there are divergent results. As mentioned before as well, measuring cultural diversity is, according to Horwitz and Horwitz (2007), related to a 'double-edged sword', as it both has positive and negative outcomes. And suggested is to really check the impact of cultural diversity on a case-by-case basis (Horwitz & Horwitz, 2007).

Looking at previous research on cultural diversity in sports teams, Wulf and Hungenberg (2006) found significant results on, the higher the cultural differences within a team, the more successful they are. This research showed opposing results, and it has no significant impact. Differences could again be the sample, as well as ways of measuring cultural diversity. Same with Kahane et al. (2013) en Amodio et al. (2022), who used a dataset of the National Hockey League (NHL) to research the influence of cultural and language diversity on ice hockey team performance. They concluded that teams with a higher percentage of European players showed better performance metrics, than teams with fewer European players. Again, the difference in this study is that there is looked at performance metrics data like points scores, games won etc., within this study the data is based on subjective answers.

In terms of the impact of multicultural personality traits, Akmal (2015) suggested that emotional intelligence plays a key role in building high performance teams. Findings from van der Zee et al. (2004) show that two of the five traits influence performance of a diverse group of employees, emotional stability and flexibility show significance. Opposing these findings, this research did not show any significant results in flexibility, however emotional stability does impact individual performance.

Van Woerkom and de Reuver (2009), found out that cultural empathy, social initiative, and open-mindedness present positive effects on team performance. Within this research we can agree on social initiative to positively impact team performance, however the other two traits do not show significance. Again, the difference between these two studies is the sample used for this research.

According to a review article by Homan (2019), individual-level variables such as openness to experience and emotional intelligence can be beneficial in limiting subgroup formation and intergroup bias within teams (Homan et al., 2010; Wang, 2015). Openness to experience is a personality trait that reflects curiosity and open-mindedness, while emotional intelligence is the ability to understand and recognize one's own, but also others' emotions. These traits can make people more understanding and accepting of diverse others, limiting their tendency to place people inside a box and categorize groups (Homan, 2019). These perceptions are expanded on within this research as open mindedness has significant positive impact on overall cohesion within a team. Emotional stability shows a positive impact on individual performance and individual satisfaction.

5.3 Limitations & future research

When analyzing the results of this study, a couple of limitations should be considered.
First, the response rate of this survey was relatively low (N=157), and most of the respondents had a Dutch nationality (48,4%) and played field hockey (35.7%). To have a more diverse sample it is advised to ask participants from countries all over the world or just keep it within one country. For future studies it is also advised to stay within a country or maybe even within a specific sport, while analyzing the same outcome variables. This way a narrower sample could be created, and high-performance athletes could actually be defined by a factual statement, instead of deciding yourself if you're high performance, yes or no.

Another limitation to the fact that almost half of the participants were Dutch, is that the survey was completely in English. This might have caused some misunderstanding in the statements given in the survey and people might have not been able to understand it fully. On the other hand, most of the participants live abroad and consumed international media every day, so this isn't probably the biggest limitation. Also, during the pre-test both Dutch participants fully understood what was asked from them and so no changes were made to the survey.

Looking further at some sample limitations within this research is that most of the participants were a part of the 'Kingstalent' athlete's portal. Again, Kingstalent is an agency in the Netherlands that helps talented athletes in getting an athletic scholarship in the United States. These athletes are willing to live abroad for at least a full study year and get to experience college/university sports in the United States as student-athletes. This is such a big step and will probably need some sort of multicultural personality,

which could have influenced the result as most of the participants were former or current student-athletes living in the United States. This could have influenced the high MPQ scores significantly.

Another limitation to this research is that one of the MPQ scales, open mindedness, showed low reliability with a Crohnbach's alpha of .58, and excluding an item did not help to improve this reliability. However, the researcher decided not to exclude it from future analysis as it appears to be an important variable in the MPQ scale. Open mindedness is therefore still used as a moderator but should be considered when interpreting the results.

Furthermore, another limitation to this research is that cultural diversity is measured as a subjective measure, the respondent is asked 2 questions, how diverse they think their team is in terms of ethnicity, and another question is about how diverse they think their team is in terms of culture. For future studies, there could be a closer look at factual data. For example, this research also asked the respondents their team size in numbers, following up with a question on how many people have a different cultural or ethnic background than the team is currently based in. However, the researcher decided not to include these variables in the analysis.

For future research it is advised to also keep other moderators in consideration. Previous research for example mentions the important influence a coach or leader can have to a team and could be therefore used as a moderation variable in future studies. An approach could be to look at the MPQ score of a captain and/or a coach, in order to see the multicultural personality traits a coach and leader bring to the team, which could probably impact a team's approach significantly.

Another approach that could be looked at in future studies is the effect of mediators. As mentioned in previous research the outcome variables are all connected to each other, satisfaction, performance, cohesion. It would be interesting to see the mediating effect of these variables and how they impact each other.

5.4 Practical implications

Despite the limitations mentioned above, this study also shows some practical implications. However, no hypotheses were accepted, the conclusion can be made that the multicultural personality traits do impact our outcome variables and play a significant role in high performance athletes. Athletes who score high on *Social Initiative* especially will perform better and are more satisfied with themselves as well as their team. *Cultural Empathy* impacts individual performance, team satisfaction and cohesion. *Emotional Stability* impacts only individual performance and individual satisfaction. *Open Mindedness* impacts team satisfaction and cohesion. *Flexibility* appears to not have any impact on personality traits. However, these traits do not show any moderating effects on cultural diversity. Which means that heterogeneous teams do not necessarily perform better or worse compared to homogenous teams. However, as mentioned above,

players who score high on certain MPQ dimensions are able to perform better, regardless of the type of team they are playing in due to their multicultural personality. This is useful information and for coaches recruiting from different countries valuable information to consider.

The result of this study, and especially of the results of the MPQ, adds to academia's knowledge and could also be applied to an organizational and business setting. Employers or coaches should consider that employees or athletes who score high on certain MPQ dimensions, will perform better regardless of where or in which team they are performing.

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Appendix A – Survey Questionnaire

Welcome to this master thesis survey!

I am conducting a research study as part of my Master's thesis project. The purpose of this study is to gain insights into cultural diversity within high performance athletes and team outcomes. Your participation in this study is voluntary, and you have the right to withdraw at any time without penalty or loss of benefits to which you are otherwise entitled. This survey that will take approximately 5-10 minutes to complete.

To thank you for your participation, you have to chance to win a $50 or €50 giftcard of choice! If you wish to participate in the giveaway, please fill in your e-mail address at the end of the survey. You can only participate once.

Please read the following consent: I agree to voluntarily participate in this study. I am free to withdraw at any time, without giving a reason. If my answers are used in scientific publications, or are published in any other way, my data will be completely anonymous. My personal data will not be sent to third parties. My personal information will be stored in encrypted files until the end of the project, and then deleted. I understand that I will have access to my individual scores on this or future questionnaires upon request, for the duration of the project.

This study abides by the Netherlands' code of conduct for scientific research, as formulated by the VSNU – association of universities in the Netherlands (www.vsnu.nl), and the EU standards for privacy and data management. By clicking the arrow below, I state to have read the above statements, and to participate in this study voluntarily.

○ I do consent, begin the survey

○ I do NOT consent, I wish not to participate

Are you playing a team sport? (Only sports where multiple people are on the field/court at the same time are considered team sports, e.g. hockey, football, baseball etc.)

○ Yes I am

○ Not anymore but did in the past

○ No I am not

Are you currently a team athlete performing at a high level? (high level being defined by yourself, is your sport one of the highest priorities in your life) Then consider yourself an high performance athlete, performing at a high level.

○ Yes I am

○ Not anymore but did in the past

○ No I am not

What sports are or were you involved in on a high level?

☐ Soccer

☐ Field Hockey

☐ Baseball

☐ American Football

☐ Volleyball

☐ Basketball

- ☐ Dance
- ☐ Softball
- ☐ Korfbal
- ☐ Handball
- ☐ Waterpolo
- ☐ Ice hockey
- ☐ Lacrosse
- ☐ Rugby
- ☐ Other
  [   ]

What club (or university) + team are or were you enrolled in while playing sports? (e.g. "D1 Field Hockey at Old Dominion University" or "DMHC 1st ladies team")

[   ]

Do you consider yourself a professional athlete?

- ○ Yes
- ○ No

Cultural Diversity

How many athletes are currently on your team? (in numbers) - Or in the last team you were a part of?

[   ]

How many teammates of your current team have a cultural background that is different from the country that the team is based in? (in numbers) - Or in the last team you were a part of?

[   ]

How many teammates of your current team have a different racial/ethnic background? (in numbers) - Or in the last team you were a part of?

[   ]

How diverse do you find your team in terms of culture? - Or in the last team you were a part of?

- ○ Totally not diverse
- ○ Not diverse
- ○

○ .

○ Neutral

○ .

○ Diverse

○ Very diverse

How diverse do you find your team in terms of race/ethnicity - Or in the last team you were a part of?

○ Totally not diverse

○ Not diverse

○ .

○ Neutral

○ .

○ Diverse

○ Very diverse

MPQ

The following questions ask for specific characteristics on how you generally see yourself as a person.

To what extent do the following statements apply to you?

	Totally NOT applicable	Not applicable	.	Neutral	.	Applicable	Completely applicable
I pay a lot of attention to the emotions of others	○	○	○	○	○	○	○
I work according to strict rules	○	○	○	○	○	○	○
I take the lead	○	○	○	○	○	○	○
I am worried	○	○	○	○	○	○	○
I try out various approaches	○	○	○	○	○	○	○
I am a good listener	○	○	○	○	○	○	○
I work according to plan	○	○	○	○	○	○	○
I leave the initiative to others to make contacts	○	○	○	○	○	○	○

To what extend do the following statements apply to you?

	Totally NOT applicable	Not applicable	.	Neutral	.	Applicable	Completely apllicable
I get upset easily	○	○	○	○	○	○	○
I am looking for new ways to attain my goal	○	○	○	○	○	○	○
I sense when others get irritated	○	○	○	○	○	○	○
I work according to a strict scheme	○	○	○	○	○	○	○
I find it difficult to make contacts	○	○	○	○	○	○	○
I am nervous	○	○	○	○	○	○	○

	Totally NOT applicable	Not applicable	.	Neutral	.	Applicable	Completely apllicable
I can start a new life easily	○	○	○	○	○	○	○
I get to know others profoundly	○	○	○	○	○	○	○

To what extend do the following statements apply to you?

	Totally NOT applicable	Not applicable	.	Neutral	.	Applicable	Completely apllicable
I enjoy other people's stories	○	○	○	○	○	○	○
I look for regularity in life	○	○	○	○	○	○	○
I take initiative	○	○	○	○	○	○	○
I am apt to feel lonely	○	○	○	○	○	○	○
I like to imagine solutions to problems	○	○	○	○	○	○	○
I like routine	○	○	○	○	○	○	○
I am inclined to speak out	○	○	○	○	○	○	○
I keep calm when things don't go well	○	○	○	○	○	○	○

To what extend do the following statements apply to you?

	Totally NOT applicable	Not applicable	.	Neutral	.	Applicable	Completely apllicable
I am a trendsetter in societal developments	○	○	○	○	○	○	○
I notice when someone is in trouble	○	○	○	○	○	○	○
I want predictability	○	○	○	○	○	○	○
I am often the driving force behind things	○	○	○	○	○	○	○
I am insecure	○	○	○	○	○	○	○
I have a feeling for what's appropriate in a culture	○	○	○	○	○	○	○
I sympathize with others	○	○	○	○	○	○	○
I function best in a familiar setting	○	○	○	○	○	○	○

To what extend do the following statements apply to you?

	Totally NOT applicable	Not applicable	.	Neutral	.	Applicable	Completely apllicable
I make contacts easily	○	○	○	○	○	○	○
I am under pressure	○	○	○	○	○	○	○
I seek people from different backgrounds	○	○	○	○	○	○	○
I set others at peace	○	○	○	○	○	○	○
I have fixed habits	○	○	○	○	○	○	○
I am reserved	○	○	○	○	○	○	○
I am not easily hurt	○	○	○	○	○	○	○
I have a broad range of interests	○	○	○	○	○	○	○

The following items are concerned with how players on your team (and only the players) usually communicate with each other. They refer to any situation in which the team interacts, not just games or practices but also daily life activities. Please consider the team as a whole when answering these questions. Read each question and answer honestly. Thank you.

When our team communicates, we ...

	Hardly ever	.	.	.	.	.	Almost always
Use nicknames	○	○	○	○	○	○	○
Shout when upset	○	○	○	○	○	○	○
Get all problems out in the open	○	○	○	○	○	○	○
Trust each other	○	○	○	○	○	○	○
When disagreements arise, we try to communicate directly with those [with whom] we have a problem	○	○	○	○	○	○	○
Communicate our feelings honestly	○	○	○	○	○	○	○
Use slang that only team members would understand	○	○	○	○	○	○	○
Get in "each other's faces" when we disagree	○	○	○	○	○	○	○
Use gestures that only team members would understand	○	○	○	○	○	○	○
Communicate anger through body language	○	○	○	○	○	○	○
Share thoughts with one another	○	○	○	○	○	○	○
Show that we lose our temper	○	○	○	○	○	○	○
Are willing to discuss our feelings	○	○	○	○	○	○	○
Try to make sure all players are included	○	○	○	○	○	○	○
Compromise with each other when we disagree	○	○	○	○	○	○	○

Athletic Satisfaction Questionnaire (ASQ) – (satisfaction/performance)

The following questions are about the satisfaction while playing your sport, (currently or in the past).

	1. not at all satisfied	.	.	.	.	.	7. extremely satisfied
The team's overall performance	○	○	○	○	○	○	○
My commitment to the team	○	○	○	○	○	○	○
How the team works (or worked) to be the best	○	○	○	○	○	○	○
The extent to which teammates play (played) as a team	○	○	○	○	○	○	○
My social status on the team	○	○	○	○	○	○	○
The improvement in my skill level	○	○	○	○	○	○	○
The extent to which teammates provide (provided) me with instruction	○	○	○	○	○	○	○
The extent to which my role matches (matched) my potential	○	○	○	○	○	○	○
The extent to which all team members are (were) ethical	○	○	○	○	○	○	○
The extent to which the team is meeting (has met) its goals for the season	○	○	○	○	○	○	○
The degree to which teammates share (shared) the same goal	○	○	○	○	○	○	○
The degree to which I do (did) my best for the team	○	○	○	○	○	○	○

	not at all satisfied	.	.	.	.	.	extremely satisfied
The guidance I receive (received) from my teammates	○	○	○	○	○	○	○
The role I play (played) in the social life of the team	○	○	○	○	○	○	○
The amount of time I play (played) during competitions	○	○	○	○	○	○	○
The degree to which my abilities are (were) used	○	○	○	○	○	○	○
The team's win/lose record this season	○	○	○	○	○	○	○
The degree to which my role on the team matches (matched) my preferred role	○	○	○	○	○	○	○
My dedication during practices	○	○	○	○	○	○	○
The improvement in my performance over the previous season	○	○	○	○	○	○	○

Demographics

Please indicate your gender

- ○ Male
- ○ Female
- ○ Non-binary / third gender
- ○ Prefer not to say

Please indicate your age (in years)

[   ]

Please indicate your ethnicity

- ○ White / Caucasian / European
- ○ Black / African / Afro-Caribbean
- ○ American Indian or Alaska Native
- ○ Asian
- ○ Native Hawaiian or Pacific Islander
- ○ Hispanic / Latin American / Ibero-American
- ○ Arab / Middle Eastern / North African
- ○ Jewish / Hebrew
- ○ Mixed / Multiracial
- ○ Other

Please indicate the highest level of education you have completed or highest degree received

- ○ Less than high school degree
- ○ High school graduate
- ○ College but no degree

○ College but no degree
○ Associate degree in college (2 year)
○ Bachelor degree in college
○ Masters degree
○ Doctoral degree
○ Other

What country do you currently live in? (if you have multiple homes, choose the country you are in the most during the year)

In which country were you born?

Which country is your first parent born?

Which country is your second parent born?

Have you ever lived abroad for more than six months?

○ Yes
○ No

Please respond to the following statements:

	Not at all	.	.	Neutral	.	.	Very much
I like to travel a lot	○	○	○	○	○	○	○
I enjoy going to places I have never been	○	○	○	○	○	○	○
I like to learn from different cultures	○	○	○	○	○	○	○

How often do you consume international media (meaning not from your home country) such as...

	Never	.	.	Neutral	.	.	Always
News	○	○	○	○	○	○	○
Movies	○	○	○	○	○	○	○
	Never			Neutral			Always

	Never			Neutral			Always
Shows/series	○	○	○	○	○	○	○
Sports games	○	○	○	○	○	○	○
Books	○	○	○	○	○	○	○

End of survey

Do you have any additional comments or concerns you want to mention regarding this survey?

Thank you for your participation in this survey. Your valuable input is greatly appreciated and will contribute to the success of this research project.

I understand that your time is valuable, and I'm grateful for your willingness to take part in this study. If you have any additional questions or concerns about this survey or the research project, please feel free to contact me at 660253iw@eur.nl

If you wish to participate in the giftcard giveaway please fill in your e-mail address below! Your e-mail address will only be used to draw a winner and will be deleted later. Thank you again!

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Appendix B - Moderation analysis

Moderation analysis cultural empathy

Table 7. Moderation of cultural empathy on individual performance (N=157)

	B	*S.E.*	*t*	*p*
Zscore (cultural diversity)	.13	.11	1.19	.235
Zscore (cultural empathy)	.30	.11	2.68	.008
ZCDxZCE	.13	.11	1.19	.235
Gender	.12	.23	.52	.604
Pro Athlete	.63	.23	2.79	.006

R^2 = .104; $F(5,149)$ = 3.47 p = .005   (Note: DV = individual performance, IV = cultural diversity)

Table 8. Moderation of cultural empathy on team performance (N=157)

	B	*S.E.*	*t*	*p*
Zscore (cultural diversity)	-.20	.12	-1.65	.102
Zscore (cultural empathy)	-.09	.12	-.76	.450
ZCDxZCE	-.02	.12	-.13	.896
Gender	-.18	.25	-.69	.489
Pro Athlete	.84	.25	3.40	<.001

R^2 = .098; $F(5,149)$ = 3.23 p = .008   (Note: DV = team performance, IV = cultural diversity)

Table 9. Moderation of cultural empathy on individual satisfaction (N=157)

	B	*S.E.*	*t*	*p*
Zscore (cultural diversity)	-.01	.09	-.01	.930
Zscore (cultural empathy)	.14	.09	1.64	.104
ZCDxZCE	.01	.09	.16	.874
Gender	-.25	.18	-1.34	.182
Pro Athlete	.55	.18	3.10	.002

R^2 = .081; $F(5,149)$ = 2.63 p = .026   (Note: DV = individual satisfaction, IV = cultural diversity)

Table 10. Moderation of cultural empathy on team satisfaction (N=157)

	B	*S.E.*	*t*	*p*
Zscore (cultural diversity)	-.02	.08	-.29	.772
Zscore (cultural empathy)	.17	.08	2.18	.031
ZCDxZCE	.03	.08	.39	.695
Gender	.19	.17	1.13	.260
Pro Athlete	.54	.16	3.34	.001

R^2 = .098; $F(5,149)$ = 3.25 p = .008   (Note: DV = team satisfaction, IV = cultural diversity

Table 11. Moderation of cultural empathy on cohesion (N=157)

	B	*S.E.*	*t*	*p*
Zscore (cultural diversity)	.06	.06	1.05	.296
Zscore (cultural empathy)	.14	.06	2.40	.018
ZCDxZCE	.05	.06	.96	.340
Gender	.49	.12	4.10	<.001
Pro Athlete	.18	.12	1.53	.127

R^2 = .159; $F(5,151)$ = 5.72 p = <.001   (Note: DV = cohesion, IV = cultural diversity)

Moderation analysis open mindedness

Table 12. Moderation of open mindedness on individual performance (N=157)

	B	S.E.	t	p
Zscore (cultural diversity)	.10	.12	.83	.408
Zscore (open-mindedness)	.19	.12	1.60	.111
ZCDxZOM	.07	.11	.63	.530
Gender	.01	.23	.05	.963
Pro Athlete	.59	.23	2.57	.011

R^2 = .072; $F_{(5,149)}$ = 2.33 p = .045   *(Note: DV = individual performance, IV = cultural diversity)*

Table 13. Moderation of open mindedness on team performance (N=157)

	B	S.E.	t	p
Zscore (cultural diversity)	-.22	.13	-1.77	.079
Zscore (open-mindedness)	.12	.12	.94	.351
ZCDxZOM	-.02	.12	-.17	.864
Gender	-.17	.25	-.68	.499
Pro Athlete	.88	.25	3.57	<.001

R^2 = .100; $F_{(5,149)}$ = 3.29 p = .008   *(Note: DV = team performance, IV = cultural diversity)*

Table 14. Moderation of open mindedness on individual satisfaction (N=157)

	B	S.E.	t	p
Zscore (cultural diversity)	-.03	.09	-.28	.777
Zscore (open-mindedness)	.07	.09	.79	.434
ZCDxZOM	.10	.09	1.22	.224
Gender	-.28	.18	-1.56	.121
Pro Athlete	.51	.18	2.90	.004

R^2 = .080; $F_{(5,149)}$ = 2.59 p = .028   *(Note: DV = individual satisfaction, IV = cultural diversity)*

Table 15. Moderation of open mindedness on team satisfaction (N=157)

	B	S.E.	t	p
Zscore (cultural diversity)	-.06	.08	-.69	.493
Zscore (open-mindedness)	.19	.08	2.33	.021
ZCDxZOM	.03	.08	.39	.695
Gender	.12	.16	.70	.485
Pro Athlete	.52	.16	3.25	.001

R^2 = .105; $F_{(5,149)}$ = 3.50 p = .005   *(Note: DV = team satisfaction, IV = cultural diversity)*

Table 16. Moderation of open mindedness on cohesion (N=157)

	B	S.E.	t	p
Zscore (cultural diversity)	.03	.06	.51	.608
Zscore (open-mindedness)	.17	.06	2.91	.004
ZCDxZOM	.06	.06	1.13	.259
Gender	.43	.12	3.65	<.001
Pro Athlete	.17	.12	1.43	.154

R^2 = .182; $F_{(5,151)}$ = 6.74 p = <.001   *(Note: DV = cohesion, IV = cultural diversity)*

Moderation analysis social initiative

Table 17. Moderation of social initiative on individual performance (N=157)

	B	S.E.	t	p
Zscore (cultural diversity)	.11	.11	1.02	.311
Zscore (social initiative)	.36	.11	3.25	.001
ZCDxZSI	.22	.12	1.75	.082
Gender	-.03	.23	-.15	.885
Pro Athlete	.49	.22	2.22	.028

R^2 = .124; $F(5,149)$ = 4.23 p = .001   *(Note: DV = individual performance, IV = cultural diversity)*

Table 18. Moderation of social initiative on team performance (N=157)

	B	S.E.	t	p
Zscore (cultural diversity)	-.19	.12	-1.57	.118
Zscore (social initiative)	.33	.12	2.78	.006
ZCDxZSI	-.02	.13	-.16	.872
Gender	-.25	.25	-1.01	.317
Pro Athlete	.81	.24	3.36	<.001

R^2 = .140; $F(5,149)$ = 4.85 p = <.001   *(Note: DV = team performance, IV = cultural diversity)*

Table 19. Moderation of social initiative on individual satisfaction (N=157)

	B	S.E.	t	p
Zscore (cultural diversity)	-.00	.08	-.02	.982
Zscore (social initiative)	.40	.08	4.84	<.001
ZCDxZSI	.05	.09	.51	.611
Gender	-.39	.17	-2.25	.026
Pro Athlete	.45	.17	2.69	.008

R^2 = .191; $F(5,149)$ = 7.04 p = <.001   *(Note: DV = individual satisfaction, IV = cultural diversity)*

Table 20. Moderation of social initiative on team satisfaction (N=157)

	B	S.E.	t	p
Zscore (cultural diversity)	-.02	.08	-.23	.820
Zscore (social initiative)	.24	.08	3.06	.003
ZCDxZSI	.01	.09	.16	.877
Gender	.08	.16	.46	.647
Pro Athlete	.46	.16	2.90	.004

R^2 = .123; $F(5,149)$ = 4.20 p = .001   *(Note: DV = team satisfaction, IV = cultural diversity)*

Table 21. Moderation of social initiative on cohesion (N=157)

	B	S.E.	t	p
Zscore (cultural diversity)	.05	.06	.88	.378
Zscore (social initiative)	.10	.06	1.69	.094
ZCDxZSI	.09	.07	1.35	.180
Gender	.44	.12	3.60	<.001
Pro Athlete	.13	.12	1.08	.282

R^2 = .144; $F(5,151)$ = 5.09 p = <.001   *(Note: DV = cohesion, IV = cultural diversity)*

Moderation analysis emotional stability

Table 22. Moderation of emotional stability on individual performance (N=157)

	B	$S.E.$	t	p
Zscore (cultural diversity)	.18	.12	1.55	.123
Zscore (emotional stability)	.27	.12	2.33	.021
ZCDxZES	-.12	.11	-1.06	.290
Gender	-.13	.25	-.54	.592
Pro Athlete	.59	.23	2.63	.009

R^2 = .096; $F(5,149)$ = 3.16 p = .010   *(Note: DV = individual performance, IV = cultural diversity)*

Table 23. Moderation of emotional stability on team performance (N=157)

	B	$S.E.$	t	p
Zscore (cultural diversity)	-.18	.13	-1.45	.148
Zscore (emotional stability)	.15	.13	1.19	.238
ZCDxZES	.00	.12	.02	.983
Gender	-.26	.27	-.95	.342
Pro Athlete	.86	.25	3.50	<.001

R^2 = .103; $F(5,149)$ = 3.42 p = .006   *(Note: DV = team performance, IV = cultural diversity)*

Table 24. Moderation of emotional stability on individual satisfaction (N=157)

	B	$S.E.$	t	p
Zscore (cultural diversity)	.03	.09	.36	.720
Zscore (emotional stability)	.28	.09	3.17	.002
ZCDxZES	.07	.09	.77	.442
Gender	-.49	.19	-2.58	.011
Pro Athlete	.50	.17	2.90	.004

R^2 = .124; $F(5,149)$ = 4.21 p = .001   *(Note: DV = individual satisfaction, IV = cultural diversity)*

Table 25. Moderation of emotional stability on team satisfaction (N=157)

	B	$S.E.$	t	p
Zscore (cultural diversity)	-.01	.08	-.08	.936
Zscore (emotional stability)	.08	.08	.94	.347
ZCDxZES	-.10	.08	-1.25	.215
Gender	.11	.18	.59	.554
Pro Athlete	.52	.16	3.22	.002

R^2 = .086; $F(5,149)$ = 2.79 p = .019   *(Note: DV = team satisfaction, IV = cultural diversity)*

Table 26. Moderation of emotional stability on cohesion (N=157)

	B	$S.E.$	t	p
Zscore (cultural diversity)	.07	.06	1.13	.261
Zscore (emotional stability)	.01	.06	.08	.937
ZCDxZES	-.10	.07	-1.78	.077
Gender	.46	.13	3.62	<.001
Pro Athlete	.17	.12	1.45	.149

R^2 = .139; $F(5,151)$ = 4.88 p = <.001   *(Note: DV = cohesion, IV = cultural diversity)*

Moderation analysis flexibility

Table 27. Moderation of flexibility on individual performance (N=157)

	B	*S.E.*	*t*	*p*
Zscore (cultural diversity)	.14	.12	1.21	.229
Zscore (flexibility)	.06	.12	.54	.590
ZCDxZFX	.14	.12	1.19	.237
Gender	.06	.24	.24	.809
Pro Athlete	.60	.23	2.61	.010

R^2 = .062; $F(5,149)$ = 1.97 p = .086   *(Note: DV = individual performance, IV = cultural diversity)*

Table 28. Moderation of flexibility on team performance (N=157)

	B	*S.E.*	*t*	*p*
Zscore (cultural diversity)	-.21	.12	-1.69	.093
Zscore (flexibility)	-.06	.12	-.51	.615
ZCDxZFX	-.10	.13	-.78	.434
Gender	-.17	.25	-.67	.502
Pro Athlete	.84	.25	3.41	<.001

R^2 = .100; $F(5,149)$ = 3.31 p = .007   *(Note: DV = team performance, IV = cultural diversity)*

Table 29. Moderation of flexibility on individual satisfaction (N=157)

	B	*S.E.*	*t*	*p*
Zscore (cultural diversity)	-.00	.09	-.01	.990
Zscore (flexibility)	-.09	.09	-1.06	.292
ZCDxZFX	.07	.09	.70	.484
Gender	-.28	.18	-1.53	.127
Pro Athlete	.51	.18	2.86	.005

R^2 = .073; $F(5,149)$ = 2.36 p = <.043   *(Note: DV = individual satisfaction, IV = cultural diversity)*

Table 30. Moderation of flexibility on team satisfaction (N=157)

	B	*S.E.*	*t*	*p*
Zscore (cultural diversity)	-.02	.08	-.19	.854
Zscore (flexibility)	-.03	.08	-.41	.681
ZCDxZFX	.11	.09	1.32	.188
Gender	.15	.17	.92	.357
Pro Athlete	.51	.16	3.13	.002

R^2 = .080; $F(5,149)$ = 2.58 p = .029   *(Note: DV = team satisfaction, IV = cultural diversity)*

Table 31. Moderation of flexibility on cohesion (N=157)

	B	*S.E.*	*t*	*p*
Zscore (cultural diversity)	.07	.06	1.09	.280
Zscore (flexibility)	.05	.06	.86	.389
ZCDxZFX	.07	.06	1.17	.243
Gender	.47	.12	3.83	<.001
Pro Athlete	.17	.12	1.43	.155

R^2 = .133; $F(5,151)$ = 4.64 p = <.001   *(Note: DV = cohesion, IV = cultural diversity)*