THE ANALYSIS OF CONTEXTUAL FACTORS IN YOUTH MARTIAL ARTS PRACTICE

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Jikkemien Vertonghen

Promotor: Prof. dr. Marc Theeboom

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Examination committee

Promotor:

Prof. dr. Marc Theeboom (Faculty of Physical Education and Physiotherapy, Vrije Universiteit Brussel)

Committee:

Prof. dr. Paul Wylleman (Faculty of Physical Education and Physiotherapy, Vrije Universiteit Brussel) - (Chairman)
Prof. dr. Kristine De Martelaer (Faculty of Physical Education and Physiotherapy, Vrije Universiteit Brussel)
Prof. dr. Abel Figueiredo (Sport Sciences and Motricity Department, Polytechnic Institute of Viseu, Portugal)
Prof. dr. Carlos Gutiérrez García (Faculty of Physical Education and Sport, University of León, Spain)
Summary

To date, conclusive evidence regarding the social-psychological outcomes of martial arts involvement on youngsters remains scarce. A literature review presented in chapter 1 revealed that a majority of the studies on the social-psychological outcomes of martial arts practice reported positive effects on several personality traits, though some studies referred to an association between martial arts practice and increased antisocial behaviour. The variations in these findings could possibly be due to the fact that most authors regarded martial arts as a unitary phenomenon and were primarily focused on measuring outcomes without considering the possible influence of contextual factors. Research regarding the underlying conditions that may explain these social-psychological outcomes is sorely lacking. The aim of this doctoral research was to determine and analyse the contextual factors that might have an influence on the social-psychological outcomes of martial arts practice among young participants. This should contribute to a better understanding of the true nature of these effects and will enable a more thought out and accurate approach when considering these outcomes. Based on the literature, these contextual factors are defined in this PhD study as (a) the structural qualities of the martial arts (i.e., type of martial art), (b) type of guidance, (c) characteristics of the participants and (d) their social context.

Given the lack of research regarding these factors, an exploratory study was first conducted (chapter 2). In this study, the views and experiences of 98 young martial artists aged between 8 and 13 years and practising judo, aikido or kick-/Thai boxing were analysed. Also, 15 trainers and 68 parents were involved to consider the type of guidance and children’s social context. Based on the literature and findings of this study, two hypotheses were formulated: (a) “Youth participating in a hard martial art will be more inclined to adopt an instrumental (external) orientation towards their bodies, while youth practising a soft martial art will be more inclined to adopt an intrinsic (internal) orientation towards their bodies” and (b) “lower social class youths will be more likely to choose a hard martial art, while higher social class youths will be more likely to choose a soft martial art” (chapter 3).

Finally, based on the results of this exploratory study and the classification system of Theeboom, De Knop and Wylleman (1995), a third hypothesis was also formulated: “The
traditional and sporting approach of martial arts practice will have more positive social-
psychological effects than the efficiency approach” (chapter 4).
The first hypothesis has not been further examined in this doctoral research, because of
methodological difficulties. Since a different research methodology was necessary to
examine the second and third hypotheses, they were analysed respectively in chapter 3 and
4.

The aim of chapter 3 was to investigate the structural qualities of martial arts, the
characteristics of participants and the social context. More specifically, it was examined
whether the characteristics of young participants and the social context vary as a function
of the type of martial art. In total, 477 youngsters aged between 11 and 18 years and practising
aikido, judo, karate or kick-/Thai boxing, as well as 307 parents were involved in this study.
Based on previous martial arts research, the characteristics of the young martial artists were
related to their goal orientations, psychosocial behaviour and aggressiveness. The social
context was measured by taking several social variables into account. With regard to the
characteristics of the young participants, findings revealed that kick-/Thai boxers showed
more physical aggression and conduct problems than participants of judo, aikido and karate.
Furthermore, kick-/Thai boxers and judoka were more ego-oriented than aikidoka, whereas
the latter were found to be more task-oriented than participants of judo and kick-/Thai
boxing. Regarding the social context, it was found, as hypothesised, that young people
practising kick-/Thai boxing were from a lower social class than participants in the other
three martial arts. Hence, it was concluded that different martial arts attract different
youngsters, which may produce different experiences and may have an impact on social-
psychological outcomes.

As it is believed that the type of guidance might also have an influence on social-
psychological outcomes of martial arts practice, in chapter 4, different teaching approaches
of martial arts teachers were analysed. Through the use of a qualitative design, 20 aikido,
karate or kick-/Thai boxing teachers were interviewed as well as observed. Moreover, it was
also examined how youngsters (N = 204) perceive the teaching approach of their martial arts
teacher by taking the perceived motivational climate into account. In this study, empirical
evidence was found for the classification system of Theeboom et al. (1995) (i.e., traditional,
sporting and efficiency approach). In short, in a traditional approach, traditional aspects and
pedagogically oriented aims are emphasised; in a sporting approach traditional aspects are
still important, but martial arts are considered rather more as a sport, and in an efficiency approach the focus is on competition and effectively performing a technique. Findings revealed differences in the teaching approach used by teachers of different martial arts (i.e., aikido teachers use a traditional approach and kick-/Thai boxing teachers an efficiency approach), as well as within one martial art (i.e., karate teachers use all three approaches). The results of this study also indicated that the participants perceived these teaching approaches differently. It was found that young martial artists within an efficiency approach perceive a more performance oriented climate compared to participants within a sporting or traditional approach. As in the literature higher perceptions of a performance climate are associated with more negative social-psychological outcomes, this might support the third hypothesis.

In conclusion, this doctoral research has provided a better understanding of several contextual factors that might influence social-psychological outcomes of martial arts involvement by young participants. Although further research would be relevant to examine the interrelationships between these and possible other contextual factors, this study indicated that in order to formulate statements regarding outcomes of martial arts practice by young participants, the structural qualities of martial arts, type of guidance, participants’ characteristics and social context have to be taken into consideration.
Samenvatting

Tot op heden is het afdoend bewijs voor de sociaal-psychologische effecten van vechtsporten bij jongeren schaars. Uit een literatuurstudie, weergegeven in hoofdstuk 1, bleek dat de meeste studies met betrekking tot sociaal-psychologische effecten aantoonden dat vechtsportbeoefening een positieve invloed heeft op verscheidene persoonlijkheidskenmerken. Toch werden tevens enkele studies teruggevonden die verwezen naar een associatie tussen vechtsportbeoefening en een stijging van het antisociaal gedrag. De variatie in deze bevindingen kunnen te wijten zijn aan het feit dat de meeste auteurs vechtsporten beschouwen als een unitair fenomeen. Ze waren voornamelijk gericht op het meten van effecten zonder rekening te houden met beïnvloedbare contextuele factoren. Er is een tekort aan onderzoek naar de onderliggende condities die aan de basis liggen van de sociaal-psychologische effecten bij jonge vechtsportbeoefenaars.

Het doel van dit doctoraatsonderzoek is om contextuele factoren te bepalen en te analyseren die een invloed kunnen hebben op de sociaal-psychologische effecten van vechtsporten bij jongeren. Dit zal bijdragen tot een beter inzicht in de aard van deze effecten, en, zal men de uitspraken met betrekking tot effecten van vechtsportbeoefening bij jongeren meer kunnen nuanceren. Op basis van de literatuur zijn deze contextuele factoren in dit doctoraatsonderzoek gedefinieerd als: (a) de structurele kwaliteiten van de vechtsport (d.w.z. de soort vechtsport), (b) het type van begeleiding, (c) de karakteristieken van de deelnemers en (d) hun sociale context.

Door het gebrek aan onderzoek naar deze factoren werd er eerst een verkennende studie uitgevoerd (hoofdstuk 2). In deze studie werden de visies en ervaringen van 98 jonge vechtsporters tussen 8 en 13 jaar (die judo, aikido of kick-/thaiboksen beoefenden) geanalyseerd. Ook 15 trainers en 68 ouders werden hierbij betrokken om rekening te kunnen houden met de begeleiding en de sociale context van de kinderen. Op basis van de literatuur en de resultaten van deze studie werden twee hypothesen geformuleerd: (a) “Kinderen die deelnemen aan een hardere vechtsport zullen meer instrumenteel (extern) georiënteerd zijn ten opzichte van het lichaam, terwijl kinderen die een zachtere vechtsport beoefenen meer intrinsiek (intern) georiënteerd zullen zijn” en (b) “jongeren van de lagere sociale klasse zullen meer geneigd zijn om te kiezen voor een hardere vechtsport, terwijl
jongeren van de hogere sociale klasse meer geneigd zullen zijn om een zachtere vechtsport te kiezen” (hoofdstuk 3). Ten slotte, op basis van de resultaten van dit verkennend onderzoek en het classificatiesysteem van Theeboom, De Knop en Wylleman (1995), werd een derde hypothese geformuleerd: “De traditionele en sportieve benadering van vechtsporten zal meer positieve sociaal-psychologische effecten hebben dan de efficiëntiebenadering” (hoofdstuk 4). De eerste hypothese is echter niet verder onderzocht in dit doctoraatsonderzoek omwille van methodologische problemen. Aangezien een andere onderzoeksmethode noodzakelijk was om de tweede en derde hypothese te onderzoeken, werden zij respectievelijk geanalyseerd in hoofdstuk 3 en 4.

Het doel van hoofdstuk 3 was de structurele kwaliteiten van vechtsporten, de karakteristieken van de deelnemers en de sociale context te onderzoeken. In het bijzonder werd onderzocht of de karakteristieken en de sociale context van jongeren variëren naargelang de soort vechtsport. In totaal werden 477 jongeren tussen 11 en 18 jaar die aikido, judo, karate of kick-/thaiboksen beoefenden alsook 307 ouders betrokken bij deze studie. Op basis van eerder vechtsportonderzoek werden de karakteristieken van jonge vechtsporters gerelateerd aan doeloriëntaties, psychosociale gedrag en agressiviteit. De sociale context werd gemeten door rekening te houden met verschillende sociale variabelen. Met betrekking tot de karakteristieken van de jongeren toonden de resultaten aan dat kick-/thaibokers meer fysieke agressie en gedragsproblemen vertoonden dan beoefenaars van judo, aikido en karate. Bovendien waren kick-/thaibokers en judoka’s meer ego-georiënteerd dan aikidoka’s, terwijl deze laatste meer taak-georiënteerd bleken te zijn dan beoefenaars van judo en kick-/thaiboksen. Met betrekking tot de sociale context werd teruggevonden, zoals vooropgesteld in de hypothese, dat jongeren die kick-/thaiboksen beoefenen afkomstig zijn uit een lagere sociale klasse dan de deelnemers van de andere drie vechtsporten. Aldus werd er geconcludeerd dat verschillende vechtsporten verschillende soorten jongeren aantrekken, die kunnen leiden tot verschillende ervaringen en een impact kunnen hebben op sociaal-psychologische effecten.

Aangezien men veronderstelt dat het type van begeleiding ook een invloed zou kunnen hebben op sociaal-psychologische effecten van vechtsportbeoefening en er bovendien amper onderzoek verricht is naar de rol van de vechtsporttrainer, werden in hoofdstuk 4 verschillende benaderingen van vechtsporttrainers geanalyseerd. Door gebruik te maken van een kwalitatief onderzoeksoptzet, werden 20 leraren in aikido, karate of kick-/thaiboksen
geïnterviewd en geobserveerd. Daarnaast werd nagegaan hoe jongeren (N = 204) de benadering, die gehanteerd werd door hun vechtsporttrainer, ervaren door rekening te houden met het gepercipieerd motivationeel klimaat. In deze studie werd empirisch bewijs gevonden voor het classificatiesysteem van Theeboom et al. (1995) (d.w.z. traditionele, sportieve en efficiëntie-benadering). Kort weergegeven, in een traditionele aanpak worden traditionele aspecten en pedagogisch georiënteerde doelstellingen benadrukt; in een sportieve benadering zijn traditionele aspecten nog steeds belangrijk, maar worden vechtsporten eerder beschouwd als een sport en in een efficiëntie-benadering ligt de nadruk op competitie en het effectief uitvoeren van een techniek. Uit de resultaten blijkt dat verschillende benaderingen gehanteerd worden door trainers van verschillende vechtsporten (nl. trainers van aikido gebruiken een traditionele en die van kick-/thaiboksen een efficiëntie-benadering), alsook binnen één vechtsport (nl. karate-trainers hanteren de drie benaderingen). De resultaten van deze studie hebben tevens aangetoond dat deze benaderingen verschillend ervaren werden door de deelnemers. Aangezien werd vastgesteld dat jonge vechtsporters binnen een efficiëntie-benadering een meer prestatiegericht klimaat perciëren dan de deelnemers binnen een sportieve of traditionele benadering en aangezien in de literatuur werd vastgesteld dat hogere percepties van een prestatiegericht klimaat geassocieerd zijn met negatievere sociaal-psychologische effecten, ondersteunt dit de derde hypothese.

Ten slotte kunnen we concluderen dat dit doctoraatsonderzoek heeft bijgedragen tot een beter inzicht in verschillende contextuele factoren die een invloed zouden kunnen hebben op sociaal-psychologische effecten van vechtsportbeoefening bij jongeren. Hoewel het relevant zou zijn om de onderlinge relaties tussen deze en eventuele andere contextuele factoren nader te onderzoeken, heeft deze studie aangetoond dat men rekening moet houden met (a) de structurele kwaliteiten van vechtsporten, (b) het type van begeleiding, (c) de karakteristieken van de deelnemers en (d) hun sociale context, wil men uitspraken formuleren over de effecten van vechtsporten bij jongeren.
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1. MARTIAL ARTS

Martial arts are among the most practised sports in many countries all over the world (e.g., Australia: Australian Bureau of Statistics, 2009; Canada: Ifedi, 2005; Europe: van Bottenburg, Rijnen & Sterkenburg, 2005). With regard to organised sports in particular, a participation study of countries in the European Union revealed that martial arts are situated in the top 10 of most practised sports in a club-related context in many European countries (e.g., France, Spain, Italy, Slovenia, Poland) (van Bottenburg et al., 2005). In a sports participation study in Flanders (Belgium) martial arts even came second after soccer (Scheerder & Vos, 2010).

Furthermore, in recent years martial arts are believed to create positive educational opportunities for youth in general and specific target groups in particular. Educators and welfare workers have increasingly made use of martial arts as an educational tool to work with socially deprived youth (Abrahams, 2004; Bosch, 2008; Theeboom, De Knop & Wylleman, 2008; Zivin et al., 2001). In addition, in physical education classes in secondary schools, martial arts have been introduced because they are also believed to provide an added value for pupils (Brown & Johnson, 2000; Theeboom & De Knop, 1999).

Although many believe in the positive influence that martial arts have on young people, others consider the practice of (some) martial arts among adolescents as problematic. In boxing, for example, there is a plea for banning youngsters under the age of 16 from participating in this sport because of its assumed negative influences based on medical, philosophical and ethical-social grounds (e.g., American Academy of Pediatrics, 1997; Gauthier, 2009; Pearn, 1998). Consequently, the involvement of young people in martial arts gives rise to mixed feelings. The contested position of martial arts in relation to youth has resulted in several studies on the outcomes of martial arts practices. However, conclusive evidence regarding this subject remains scarce, because while some studies referred to an increase in antisocial behaviour and higher levels of aggression among young martial artists (e.g., Endresen & Olweus, 2005; Reynes & Lorant, 2002), others described martial arts
practice as having a positive influence on social and personal development (e.g., Lakes & Hoyt, 2004: increased prosocial behaviour; Wargo, Spirrison, Thorne & Henley, 2007: increased self-esteem; Zivin et al., 2001: decreased violence level). These contrasting findings could possibly be due to the fact that most of these studies were primarily focused on measuring outcomes, whereas several contextual factors, which might also have an influence, were not taken into account.

2. OUTCOMES OF SPORTS PARTICIPATION IN GENERAL

It can be argued that it is important to consider possible influential contextual factors when examining outcomes of martial arts practice. The relevance of why it is important can be demonstrated by referring to Haudenhuyse and Theeboom (submitted). They illustrated the problem of focusing on outcomes without considering contextual factors by making reference to research examining the health-related benefits of sports involvement. It was indicated that no evidence exists regarding a direct causal relationship between doing sports and health benefits (Coalter, 2005; Murphy & Waddington, 1998). Being a member of a sports club will not automatically generate beneficial outcomes. Therefore, a great deal of research examined the conditions that have to be met in order to generate health benefits (Cavill, Kahlmeier & Racioppi, 2006). It was concluded that (a) doing a physical activity daily or three times a week (i.e., frequency), (b) with an average-to-vigorous intensity, (i.e., intensity), (c) for an accumulation of sixty minutes (i.e., time), (d) and involving continued, rhythmic, and aerobic movements of large muscle groups (i.e., type of activity) are essential to create positive health-related benefits. Consequently, many studies have already been conducted to identify the indicators necessary to produce health-related outcomes.

In contrast to the distinct interest among researchers in studying of health benefits, it has been argued that there is a lack of research examining the underlying conditions of social-psychological outcomes of sports involvement. In this context, Coalter (2007) formulated a comprehensive question which remains unanswered in many areas of sports research: “Which sports and sports processes produce which outcomes, for which participants and under which circumstances?”. Coalter also indicated that studies examining social-psychological outcomes can be compared with what is known in computer programming and
Software engineering as a “black box testing” approach. This implies that researchers concentrate on the outputs of a programme without analysing the programme’s content (Figure 1).

![Figure 1. Visualisation of the black box approach](image)

Moreover, Petitpas, Cornelius, Van Raalte and Jones (2005) argued that empirical evidence regarding the direct causal relationship between sports participation and social-psychological outcomes is sorely lacking. Most studies cannot ascertain that if a particular behaviour or attitude is observed among participants, it is solely the result of their sports involvement. It could also be due to a selection bias. This means that if youngsters’ characteristics are not in tune with those of a certain sport, he/she will not be attracted to it or will dropout. However, according to several authors, it might be inadequate or even unfeasible to determine a causal relationship, because certain kinds of sports in a specific context can lead to certain kinds of outcomes, while the same kind of sports in a different context will not necessarily lead to the same outcomes (Coalter, 2007; Petitpas et al., 2005; Theeboom, Haudenhuyse & De Knop, 2010).

Consequently, in order to formulate general statements regarding social-psychological outcomes of sports participation among youth, several possible influencing contextual factors have to be taken into account. In the literature, these contextual factors are described as type of guidance, social context, characteristics of participants and structural qualities of the sport (Coalter, 2007; Patriksson, 1995; Pawson, 2001; Shields & Bredemeier, 1995).

These issues are also evident in martial arts research since, as previously indicated, most studies that have been conducted regarding social-psychological outcomes of martial arts involvement have emphasised the measurement of effects, while research that examines possible influencing contextual factors, remains scarce. Such research might even be more complex in martial arts because of the wide variety of disciplines and styles which exists in this type of sport.
3. VARIETY OF MARTIAL ARTS STYLES

Different martial arts styles can be distinguished from one another based on several aspects, such as their cultural, historical and philosophical background, technical characteristics, and physical aspects. In the literature, a number of authors made an attempt to develop a classification system for martial arts. For example, martial arts can be classified according to technical characteristics such as “hard” versus “soft”, or “striking” versus “grappling” styles (Donohue & Taylor, 1994). The first mentioned classification system refers to the way techniques deal with the force of an attack. Brudnak, Dundero and Van Hecke (2002) indicated that soft martial arts (e.g., aikido) are based on redirecting an opponent’s energy or attack to neutralise him/her, while on the contrary, hard martial arts (e.g., kickboxing) do not use the strength of the opponent, but emphasise parrying an attack by the use of blocks and punches.

Furthermore, one of the most popular classification system divides martial arts according to their cultural differences, such as “Eastern” (e.g., aikido, judo and karate) versus “Western” martial arts (e.g., kickboxing, fencing and wrestling) (Donohue & Taylor, 1994). According to some authors, a highly developed teaching tradition and philosophy exists in Eastern martial arts, which fundamentally differ from Western martial arts (e.g., Cynarski & Litwiniuk, 2006; Förster, 1986; Hsu, 1986). Back and Kim (1979) indicated that the difference between Eastern and Western martial arts is that the former are believed to provide an added value besides learning fighting skills, such as artistic enjoyment and a non-violent attitude.

Furthermore, from the end of the 19th century, Eastern martial arts were introduced in the West (Green & Svinth, 2010). Over the years, the characteristics of Eastern martial arts have undergone several changes, because of cultural differences between Eastern and Western societies. As a result, Theeboom, De Knop and Wylleman (1995) argued that no clear and uniform concept exists regarding martial arts. Therefore, the authors described a classification system in which martial arts were divided according to three different approaches, namely traditional, sporting and efficiency approach. The traditional approach emphasises unity and coordination between internal (e.g., spiritual and mental) and external (e.g., physical) elements. In the sporting approach, martial arts are primarily regarded as sports with positive effects on the physical, mental and social state of its participants and
with technical restrictions according to specific competition rules. Finally, the efficiency approach emphasises the efficient application of techniques in a fight. Hence, martial arts cannot be regarded as a unitary phenomenon when examining social-psychological outcomes of martial arts practice among youngsters as, among other factors, the type of martial art and the teaching approach being used can have an impact on these outcomes.

4. PHD STUDY

4.1 Aim of this PhD study

In the beginning of this introduction, reference was made to the “black box approach” (see Figure 1) in which the outcomes of a programme are measured, while little is known about the specific content of the programme. As martial arts are often regarded as a unitary phenomenon when formulating statements with regard to social-psychological effects, it can be assumed that the “black box approach” is also evident in martial arts. There is a lack of research examining the underlying conditions and processes producing social-psychological outcomes in martial arts. As indicated in the literature, several contextual factors might be influential during these processes. However, in order to obtain more insight into the “black box” of martial arts, it might be relevant to examine these factors. Therefore, the aim of this doctoral dissertation is to determine and analyse several contextual factors which might have an influence on the social-psychological outcomes of martial arts practice among youth. Based on the literature, the factors examined in this PhD study are described as (a) structural qualities of the martial arts, (b) social context, (c) characteristics of participants, and (d) type of guidance. As presented in Figure 2, these contextual factors are considered as being part of the “black box”. The intention of this doctoral research is to obtain more insight into these four factors, which will provide a basis for further research to achieve a better understanding of the nature of the social-psychological outcomes of martial arts and to enable a more thoughtful and precise approach to consider these outcomes.
During the last four years, several stages were passed through to attain the aim of this doctoral research. First of all, a literature study was performed and several conversations were held with expert witnesses within different domains. For example, specialists in martial arts were contacted in order to become more familiar with the martial arts included in this study, namely aikido, judo, karate and kick-/Thai boxing. The motivation of the selection of these martial arts will be presented later in the introduction. During these conversations the researcher obtained more information regarding the practical aspects of this PhD study (e.g., the organisation and specific characteristics of the different martial arts, the martial arts teacher, the different teaching approaches, the participants, etc.). Also experts in statistics were consulted as to obtain advice regarding which research design and statistical tests would be most appropriate to attain the aim of this PhD study. Furthermore, through participations in several international and national scientific conferences, the preliminary findings of this PhD study were presented and discussed (see Appendix 11. List of publications and presentations). This provided the opportunity to establish an international network of researchers, which also resulted in some collaborations in publishing papers. Finally, the several stages that were passed through during this doctoral research have resulted in four papers of which two are published and two submitted at this moment. The first paper, presented in chapter 1, is a review of the literature regarding social-psychological outcomes of young martial artists. The second is a preliminary study in which views and experiences of children practising a martial art were analysed (chapter 2). And in the final two papers, the four contextual factors were examined which might influence the social-
psychological outcomes of martial arts involvement: (a) structural qualities of the martial arts, (b) type of guidance, (c) social context, and (d) characteristics of participants. As different research methodologies were necessary to analyse these contextual factors, the type of guidance was investigated in another paper, presented in chapter 4, while the other three factors are discussed in a study within chapter 3.

Below, a detailed description is given of the different studies that were conducted as a part of this doctoral research.

4.2 Outline of this PhD study

As indicated above, the findings of previous studies on social-psychological outcomes of martial arts practice have not always been consistent. Since only a limited number of literature reviews have been published regarding this research and since those reviews are more than 15 years old, it is relevant to explore more recent literature with regard to martial arts research, specifically studies focusing on social-psychological outcomes of martial arts practice among youth. The first chapter of this PhD study therefore provides a literature review to gain more insight into the results and methodologies of more recent studies in the field (study 1). Based on the findings of study 1, it is suggested that a better understanding can be achieved of the contrasting images that are evident in martial arts research, if possible influencing and contextual factors are taken into account.

Given the limited information available regarding these contextual factors, an exploratory study was first set up and presented in chapter 2 (study 2). The aim of this exploratory study was to gain more insight into specific contextual factors (i.e., structural qualities of martial arts, characteristics of participants, social context and type of guidance). In study 2, the views and experiences of young martial artists between the ages of 8 and 13 years were analysed (N = 98). Also, children’s parents (N = 68) and martial arts teachers (N = 15) were involved in this exploratory study. Interviewing teachers and parents ensured the consideration of the type of guidance and the social context. With regard to the latter, reference was made to Bourdieu (1984). In Bourdieu’s habitus theory, a link was made between a person’s social class position, his or her orientation to the body and his or her sports participation. More specifically, Bourdieu indicated that the social class position could have an influence on the specific choices of sports, because of differences in people’s orientation towards the body. The dominant classes would be more intrinsically oriented
towards the body, while the working classes are believed to be more instrumentally oriented. Those with an affinity to an intrinsically orientation treat the body as an end in itself, which means that they appreciate the ethical and mental aspects of their sports involvement. Instrumentally oriented individuals consider the body as a means to an end, which implies that they are particularly interested in the physical aspects of their sports participation. Based on Bourdieu’s theory and the results of our exploratory study (study 2), two hypotheses were formulated:

1. Lower social class youth are more likely to choose a hard martial art, while higher social class youth are more likely to choose a soft martial art.

2. Youth participating in a hard martial art would be more inclined to an instrumental (external) orientation to the body, while youth practising a soft martial art would be more inclined to an intrinsic (internal) orientation to their body.

In addition, a third hypothesis was formulated based on the preliminary findings and the fact that several others argued that the type of guidance is one of the important factors that should be taken into consideration when investigating the social-psychological effects of sports participation. The classification system of Theeboom and colleagues (1995), as indicated above, (i.e., sporting, traditional, efficiency approach) leads to the third hypothesis:

3. The traditional and sporting approach of martial arts practice will have more positive social-psychological effects than the efficiency approach.

The second hypothesis, however, has not been further examined in this PhD study. It is one of the directions that was abandoned during this doctoral research since to date no information is provided to make people’s orientation to their bodies operational. Later in this introduction this will be explained more in detail. The first and third hypotheses have been investigated, among other things, in chapter 3 and 4.

The results of the exploratory study led to a more in-depth research in which closer attention was devoted to the contextual factors. Figure 2 represents the factors examined in this doctoral research. However, it is not clear how the different factors have to be
positioned in relation to each other. In Figure 3, an overview is provided of how this is viewed in this PhD study.

**Figure 3. Representation of the contextual factors examined in this PhD study**

As indicated in Figure 3, chapter 3 provides a more in-depth analysis of the characteristics of participants, their social context and the structural qualities of the martial arts. The figure also suggests that the structural qualities of the martial arts have a more central role than the other two contextual factors. This perspective was used because in study 3 it was examined whether the first two contextual factors vary as a function of the type of martial art (i.e., structural qualities of the martial arts).

In study 3, a quantitative research design was used. To take the structural qualities of martial arts into account, 477 youngsters with an average age of 13.98 ±2.13 years participating in different martial arts (i.e., aikido, judo, karate and kick-/Thai boxing) were involved in this study. They were recruited from 59 martial arts clubs in Flanders, all of them were youth sports club and were selected based on the advice of the aikido, judo, karate and kick-/Thai boxing sports federations. Furthermore, in order to consider the social context of the young martial artists, their parents were also included in this study (N = 307). This contextual factor was measured by considering several social variables, such as socio-economic status, type of housing, cultural background, sports participation of the parents. As several martial arts studies on social-psychological outcomes referred to the personality traits of participants, to aggressive behaviour in particular, the present study examines the psychosocial behaviour
and physical aggressiveness of the young martial artists. Furthermore, it was intended to relate youngsters’ characteristics to their orientation to the body. As to date, this concept has not been made operational, similar variables examined in sports psychology were considered. This led to two studies, which investigated the goal orientations of martial artists (Gernigon & Le Bars, 2000; King & Williams, 1997). However, findings of these studies showed contrasting conclusions. Therefore, next to the psychosocial behaviour and physical aggressiveness of young martial artists, in the present study, participants’ characteristics were also related to their goal orientation. To examine these variables, three psychometric instruments were used: (1) Perception of Success Questionnaire (Roberts, Treasure & Balague, 1998) to measure the youngsters’ goal orientations, (2) the Physical Aggression subscale of the Aggression Questionnaire (Buss & Perry, 1992) to assess their physical aggression, and (3) the Strengths and Difficulties Questionnaire (Goodmann, 1997) to examine their psychosocial behaviour. Study 3 helps to understand whether differences exist in the characteristics and the social context of participants in different martial arts.

To date, numerous studies have highlighted the role the coach can play in influencing youths’ sports experience (e.g., Fraser-Thomas, Côté, & Deakin, 2005; Smith, Smoll & Curtis, 2007). Also in martial arts research, some authors pointed to the distinct influence of the martial arts teacher (e.g., Cox, 1993; Jones, MacKay & Peters, 2006). However, many studies on social-psychological outcomes of martial arts practice did not take the teaching method of the martial arts teachers into account (e.g., Daniels & Thornton, 1992; Endresen & Olweus, 2005; Steyn & Roux, 2009). And if the teaching approaches were considered, their description often remained too general. Besides, most of these studies are more than 20 years old. Therefore, as presented in Figure 3, the type of guidance is analysed in **chapter 4**. This figure also suggests a relation between the structural qualities of the martial arts and the type of guidance. This is proposed because in study 4 it was examined whether teaching approaches of martial arts teachers differ between different martial arts styles as well as within one martial art.

The purpose of study 4 is twofold. Firstly, through the use of a qualitative methodology, an analysis was made of different teaching approaches used in martial arts. Based on a classification system by Theeboom and colleagues (1995), a framework was developed in order to identify these teaching methods (i.e., “Teaching Approach in Martial Arts”, TAMA). TAMA consists of 7 items and was filled out by teachers of different martial arts (i.e., aikido,
karate and kick-/Thai boxing). In this study, 20 persons teaching a martial art in one of the 59 sporting clubs referred to in chapter 3 were involved in this study. Teachers were selected on the basis of the advice of expert witnesses and were all teaching a martial art in a youth sports club. Based on the total scores of TAMA, martial arts teachers were divided into three groups (i.e., traditional, sporting and efficiency). Furthermore, each item of TAMA was analysed more in-depth through the use of interviews with the martial arts teachers and observations conducted during different training sessions. As indicated previously, many different styles and disciplines exist within different martial arts as well as within one martial art. Two research questions were therefore formulated:

- Do teachers of different martial arts use different teaching approaches?
- Could different teaching approaches be distinguished within one martial art?

Secondly, a quantitative research design was set up to examine how youngsters experience the teaching approach of their martial arts teacher by taking the perceived motivational climate into account. To measure this variable the Perceived Motivational Climate in Sports Questionnaire-2 was used (Newton, Duda & Yin, 2000). In total 204 youngsters practising a martial art in a sporting club where one of the 20 interviewees was teaching martial arts were involved in this part of the study. Ames (1992) indicated that two motivational climates can be identified: a mastery climate, where self-referenced improvement and effort is focused, and a performance climate, where pupils are encouraged to perform better than others (which occurs more when teachers work primarily towards competition). It is believed that the characteristics of a mastery climate appear more in a traditional approach and those of a performance climate in a sporting and efficiency approach. Therefore, the following research question was formulated:

- Do youngsters practising a martial art within an efficiency or sporting approach perceive a more performance and a less mastery motivational climate than youngsters practising a martial art within a traditional approach?

The results of this study are used to gain more insight into different teaching approaches used by teachers of different martial arts as well as by teachers of one martial art, and how these teaching methods are perceived by the participants.

An overview of the operationalisation of the different contextual factors examined in study 3 and 4 is presented in Figure 4.
Finally, in the last chapter, a **general discussion**, conclusion, weaknesses, strengths as well as future research directions are provided.

**Figure 4. Operationalisation of the contextual factors analysed in this doctoral research**

4.3 **Encountered problems**

This doctoral research was a process in which choices had to be made, which had to be scientifically motivated and supported. These choices have pointed in certain directions. Throughout the process some of these directions had to be re-adjusted, while others were simply abandoned. Below, the problems that were encountered during this PhD study are described.
4.3.1 Orientation towards the body

In the literature an interesting concept was described regarding people’s orientation towards their bodies, their social class and influences on specific choices of sports (Bourdieu, 1984; Shilling, 2003). Initially, the plan was to determine whether the orientation of young people towards their bodies (i.e., instrumental vs. intrinsic) varies as a function of the martial art being practised. As indicated previously, a hypothesis was formulated regarding this issue, notably: “Youth participating in a hard martial art would be more inclined to an instrumental (external) orientation to the body, while youth practising a soft martial art would be more inclined to an intrinsic (internal) orientation to their body.” Unfortunately to date, the literature that refers to a person’s body orientation remains unclear regarding the operationalisation of this concept. Therefore, the hypothesis was not further examined in this PhD study. In future research, however, a specific investigation regarding people’s orientation towards their bodies is recommended to make this phenomenon operational. In this way, it can be examined whether a person’s body orientation can have an influence on social-psychological outcomes of martial arts practice.

4.3.2 Selection of kind of martial arts

Another problem that was encountered during this doctoral research was the selection of different martial arts. As indicated previously, many differences exist within martial arts, such as differences in the cultural background, technical characteristics and teaching approach being used. In order to provide the best opportunity to observe differences, martial arts were selected that feature differences in these aspects. First, a hard martial art was selected, notably kickboxing. This martial art, which found its origin in the West, is a full-contact sport and is characterised by kicking and punching techniques. Kickboxing shows many similarities with Thai boxing, only a distinct variation in the applied competition rules exists. While the latter allows kicks below the belt and strikes with knees and elbows, this is restricted in kickboxing (Delp, 2005). However, given the many resemblances, no distinction was made between kick-/Thai boxing. Second, a soft martial art was chosen, namely aikido.

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1 In order to obtain advice regarding people’s orientation towards their bodies, also an expert was contacted who referred to this concept in one of his publications. However, he could not clarify how it could be measured in practice.
This martial art originated in the East and strives for harmonious development between mind and body (Weinmann, 1997). An aikidoka strives to use the strength of the opponent to perform the techniques. Aikido is characterised by throws, pinning and joint locking techniques (Theeboom & Van Stiphout, 1993). Finally, in this type of martial art no sporting competition exists. Furthermore, a third martial art was selected, namely judo, a well-known oriental martial arts in the West. Judo is a derived form of jiu-jitsu and is characterised by grappling, throwing and unarmed techniques (Theeboom & Van Stiphout, 1993). Later in this doctoral research, karate was also selected because, as indicated in the literature, it is believed that differences could appear within one martial art (Theeboom et al., 1995). Karate is, like judo, a well-known oriental martial art in the West and is characterised by hand and arm techniques (punches and strikes), leg techniques (kicks and leg sweeps) and positions.

4.3.3 Target group

Finally, the target group was also adjusted during this doctoral research. It appeared, as was shown through research, that martial arts are particularly popular among children and adolescents. Evidence was found that half of the members of martial arts clubs are younger than 18 years (Breedveld, Kamphuis & Tiessen-Raaphorst, 2008; Scheerder & Vos, 2010; Terry, 2006). Scheerder and Vos (2010) even described martial arts clubs as “youth clubs”. This PhD study therefore specifically focused on young martial artists. Initially, it was intended to involve children between 8 and 13 years, because it was believed that most children start their martial arts practice at the age of 8 years, which would allow a comparison between beginning and more experienced martial artists. However, as research proceeded, it appeared that kick-/Thai boxers started their martial arts practice at an older age. The age of the target group was therefore increased to include young people up to 18 years. But, since the research methodology necessary to involve children differs from that needed for youth (e.g., the use of standardised questionnaire techniques are less appropriate with children) (Mayall, 2008), it was decided the study would focus on youngsters in the age bracket between 11 and 18 years.
5. REFERENCES


CHAPTER 1:
The social-psychological outcomes of martial arts practice among youth: a review

Jikkemien Vertonghen\(^1\) and Marc Theeboom\(^1\)

\(^{1}\)Vrije Universiteit Brussel, Belgium

The social-psychological outcomes of martial arts practice among youth: a review

1. ABSTRACT

Martial arts involvement among the youth has been described in controversial terms. Studies regarding the effects of martial arts practice on youth show contrasting images. While some refer to enhanced personal and social opportunities for those that participate, others warn against increased levels of aggressiveness and antisocial behaviour among its participants. The aim of the present review is to provide, firstly, an overview of the major findings of studies concerning the social-psychological outcomes of martial arts practice. Secondly, the limitations of those studies are discussed. From more than 350 papers, collected during a two-year lasting literature study, 27 papers met all criteria to be included in this study. This review revealed that even though a considerable amount of research on social-psychological outcomes of martial arts practice has been conducted over the years, to date, it has not brought clarity in the existing duality regarding the possible effects of martial arts involvement. It is proposed that a better understanding can be provided if specific influential factors are taken into account in future research (i.e., participants’ characteristics, type of guidance, social context and structural qualities of the sport).

Key words: Martial arts, youth, personality traits.