

Between personal body, and body-for-others

Building erotic capital and other reasons to fitness in a possible democratizing fitness landscape

Abstract

The emergence of a fitness culture in The Netherlands marks the popularity of commercial sport, in which one is free to fitness alone or with others, at any place, and at any time. This study investigates the questions of whether the Dutch fitness sector becomes less selective in the period 2001 to 2016, and what kind of motivations prevail in the choice to either fitness or practice any other sport, with specific attention to the effect of erotic capital in the choice to fitness. The researcher found that democratization did not occur within the period of investigation and is not expected in the near future. Evidence suggests that erotic capital is an important motivation for both young people and men to participate in fitness. Nonetheless, the scale for measuring erotic capital is not yet optimal. Future research should focus on strengthening this scale, to increase the reliability of the results. Lastly, this study assumed that erotic capital has the same meaning for every individual, irrespective of the layer of society he or she comes from. This uniform meaning is however not a given. Future research needs to investigate if different societal groups assign a different meaning to erotic capital.

Keywords

Erotic capital, democratization, fitness, motives to fitness, gender, educational level, age

Master Thesis

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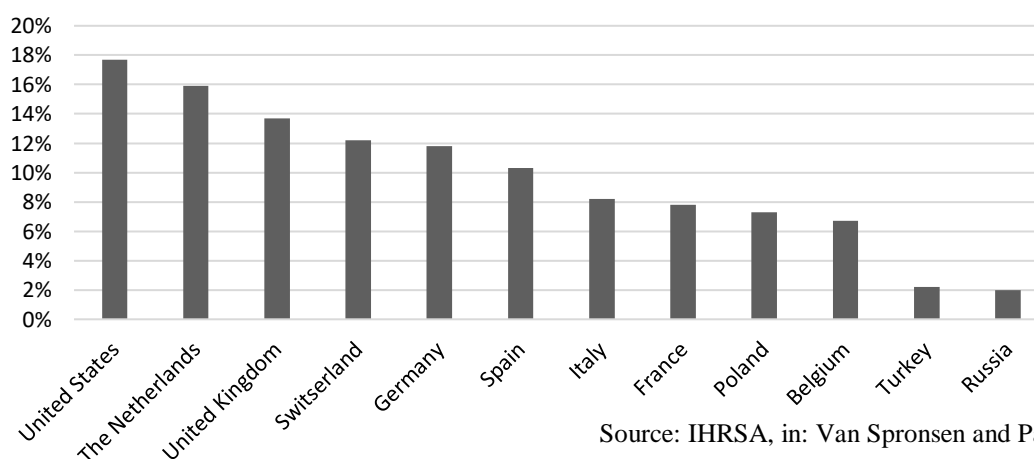
1 Introduction

Fitness as the centre of commercial sport

Non-profit sport clubs, or so-called ‘voluntary sport providers’ mark the organization of sport in most Western European countries (De Knop, Scheerder and Vanreusel, 2006; Vos, 2012). This foundation of non-profit sport provision figured as a starting point for a long-term monopoly situation, in which no other participants in the market challenged these clubs. This perspective changed by the entrance of *commercial sport providers* (such as fitness, squash courts and bowling centres) in the 1980s (Stokvis and Van Hilvoorde, 2008; Vos, 2012; Van der Roest, 2015). Since that decade, commercial sport organisations have grown significantly, becoming a serious rival to voluntary sport clubs. The fitness sector is the most prominent form of commercial sport provision (De Knop et al. 2006; Elling and Ferez, 2007; Downward, Dawson and DeJonghe, 2009; Vos, 2012; Van der Roest, 2015; EuropeActive and Deloitte, 2016). Other forms of commercial sport also exist, but they remain much smaller than the fitness sector (Hover, Hakkers and Breedveld, 2012). In this study, fitness is considered a form of sport that can be practiced in all social contexts¹.

The increasing popularity of fitness is characteristic for Western Europe (Elling & Ferez, 2007). A study in Germany found evidence for an enormous expansion of fitness centres in the 1980s and 1990s (Klein and Dietersen-Wieber, 2003). A French study concluded the same for their country (Mischler and Pichot, 2005). This Western European pattern is visible in other countries in the world as well. A recent publication of the International Health, Racquet and Sportsclub Association (IHRSA) estimated that, on a worldwide scale, 151 million people practice fitness in a total of 187.000 fitness centres (IHRSA, 2016). In Europe, around 52.4 million individuals practice fitness, with around 51.200 gyms. In addition, more than 70 thousand personal trainers are active in fifteen European countries (Edelhelder and EuropeActive, 2018). Figure 1.1 shows the percentage of the residents in eleven European countries and the United States with a fitness membership. The United States has the greatest proportion of residents with a fitness membership, followed by The Netherlands and the United Kingdom. In Turkey and Russia, only a very small proportion of the population participates in fitness.

Figure 1.1: Percentage of residents in eleven European countries and the US with a fitness membership in 2017.



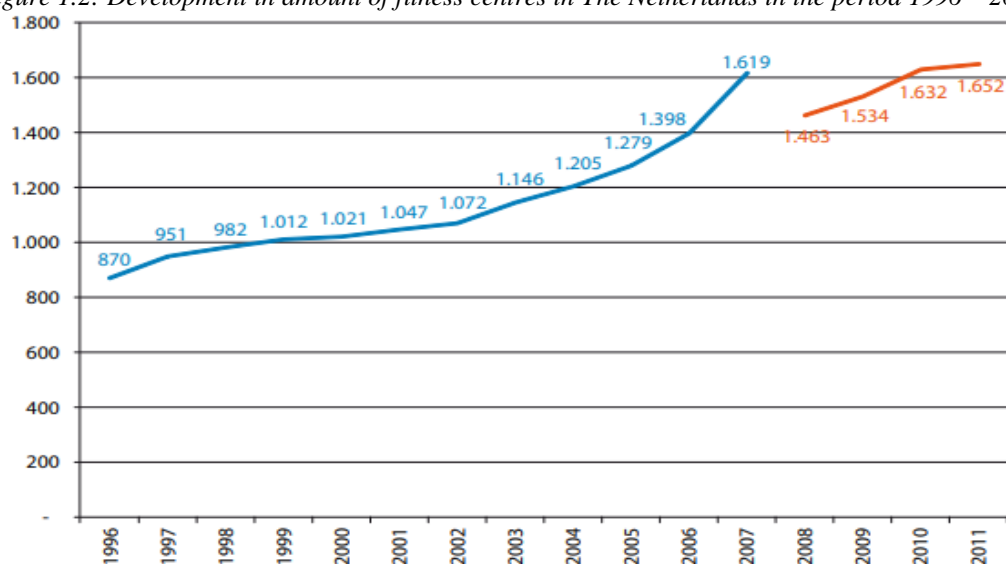
Source: IHRSA, in: Van Spronsen and Partners, (2017).

¹ In gyms (individually, or in group lessons as aerobics), but also outside the fitness centre (for instance in public areas, at home, or at the physiotherapist).

The latest report of EuropeActive and Deloitte (2018), showed a further rise in the popularity of fitness. Fitness strengthened its position as most popular European sports activity, with about 60 million members. Almost a quarter of these memberships was represented by the top thirty European fitness club operators. With a membership growth of 5.3% to 10.6 million members, Germany strengthened its position as the country with the most memberships, ahead of the United Kingdom (9.7 million), France (5.7 million), Italy (5.3 million) and Spain (5.2 million).

When it comes to the practice of fitness in absolute numbers, The Netherlands occupies the seventh position within Europe. The IHRSA (2016) found that 2.7 million Dutch people fitness, in approximately 1900 centres². The *fitness density* (IHRSA, 2017) indicates the number of fitness centres per 100.000 residents. This density is, on average, ten fitness centres per 100.000 inhabitants in The Netherlands (IHRSA, 2017). Figure 1.2 shows the development in the number of fitness centres in The Netherlands, in the period 1996 - 2011 in absolute numbers. From 1996 to 2001, the increase in centres seems to evolve quite steadily. After 2001, the figure illustrates a steeper growth curve, with the steepest increase between 2006 and 2007. The orange line (starting in 2008), indicates a new measurement method³ which explains the relapse in number of fitness centres⁴. With the new method of measurement, the pattern remains the same: a solid increase in number of fitness centres over the years. Fitness seems to have established itself as a meaningful activity in the everyday lives of many Dutch people. Especially considering the more recent numbers of the IHRSA (2016), and the CBS (2017), who reveal a continued expansion of fitness centres.

Figure 1.2: Development in amount of fitness centres in The Netherlands in the period 1996 – 2011.



^A In absolute numbers, with number of fitness centres on the vertical axis, and year on the horizontal axis.
Source: Chamber of Commerce, in: Hover, Hakkers and Breedveld (eds). (2012).

² For the year 2015, the Central Bureau of Statistics (CBS) reported a number of 2026 fitness centres and 2.2 million fitness practitioners (CBS, 2017). This difference is due to a discrepancy in measurement method and leading definitions.

³ The adaptation of the registration method of fitness centres by the Chamber of Commerce (Kamer van Koophandel / KVK) in 2008, resulted in a trend break between 2007 and 2008 (for that reason, both lines in the graph are not connected to each other). Request at the KVK reveals that this cannot be repaired retroactively.

⁴ Seeing the decline in the number of fitness centres, the new measurement method seems to include a stricter definition of the concept of fitness centre.

CBS (2017), reported that The Netherlands has the fourth position in Europe after Germany, Italy and Great Britain, with 4076 personal trainers working in the Dutch fitness sector. In 2015, a total of 26 thousand individuals worked in the fitness sector in Europe, pointing to ten thousand fulltime jobs (CBS, 2017). EuropeActive and Deloitte (2016) reported a total turnover of 1.4 billion euro in the sector, with an average membership fee of about 37 euros per month. Note that fitness participation is not always related to the fitness centre. In fact, practicing fitness occurs in one third of the cases in public space or for instance at the physiotherapist⁵ (Hover et al. 2012).

Elling and Ferez (2007) and Stokvis and Van Hilvoorde (2008) both indicated that the previously reported Dutch numbers show that fitness is deeply rooted in today's Dutch society. Later, Stokvis and Van Hilvoorde (2012) added that the fitness sector has developed rapidly into a large and meaningful segment of the Dutch sport and leisure industry, especially because it provided a means to combat social trends towards obesity in the population, and to realize the modern slender ideal. Middelkamp and Wolfhagen (2016) argued that the fitness sector continues to develop in a rapid pace, both in The Netherlands and in the world as a whole. This is supported by the finding of Hover et al. (2012), who found evidence that the fitness participation in The Netherlands has more than doubled between 1990 and 2005. Despite the growing importance of fitness in Dutch society, Middelkamp and Wolfhagen (2016) pointed to the fact that studies focusing on trends and market developments in The Netherlands are still scarce. Seeing the increasing influence of fitness in the everyday lives of so many individuals, its monitoring is key to understand societal developments and the meaning that people assign to fitness. Insights into its current state of affairs are therefore necessary, as the sector is dynamic and versatile (IHRSA, 2016). Hence, the first research question in the Master Thesis will be as follows:

- 1: *How did the demand and supply side of the fitness sector develop in The Netherlands from the 1990s until now and what are the expected trends and developments for the future?*

The overwhelming emergence of the fitness culture in a postmodern society

The upcoming of fitness can be attributed to the rediscovery of the *physicality* and the growing awareness for norms of *slimness*, *health* and *sexual attractiveness* (Crum, 1991). These norms have similarities with the so-called '*körperkultur*', the worship of the physical appearance (Stokvis, 2010). The *aesthetics* of the body is central in this culture, with considerable attention for the human ability to beauty. Van Bottenburg (2007) stated that slimness, muscularity and healthiness receive broad appreciation in contemporary society. Elling and Ferez (2007) wrote that the growth of fitness activities matches the postmodern, individualistic consumer service society. This type of society allocates a strong personal responsibility in receiving or maintaining a good health, uses a slim and vital appearance as an important status symbol and values the accomplishment of personal goals over solidarity and community values (Penz, 1998; Vanreusel and Scheerder, 2000; Stokvis, 2003). As stated by Green (1988), Smith

⁵ Fitness has had a major influence on the development of the treatment methods of physiotherapists. Physical exercise was limited in the repertoire of physiotherapists before the 1990s. Afterwards, and in a rather short amount of time, a change took place when bodily exercise on all kinds of fitness-derived equipment came to be of central importance (Stokvis & Van Hilvoorde, 2012).

Maguire (2001) and Hakim (2010), physical appearances are important for occupational success and social status in a consumer service economy. Attention for the body's form is viewed as a manner of maximizing one's competitive edge (Smith Maguire, 2008). The health and appearance as functions of the body have become 'fixed ideas' in consumer culture, making it possible for the field of fitness to establish a firm position in society (Featherstone, 1982; Bourdieu, 1984; Baudrillard, 1998; Wynne, 1998). Stokvis and Van Hilvoorde (2012) wrote that physical attractiveness, in the form of a slim and well-shaped body, is key for functioning in social life. A growing share of individuals receives jobs where the *first impression* is of central importance for the success of meetings and interactions. Stokvis and Van Hilvoorde stated that this increased the importance of the appearance. Furthermore, they pointed to the rise in divorces and, as a result, growing return to the dating market, as also contributing to the growing emphasis on appearance as well. Though, the developments in fitness cannot only be explained through shifting individual needs, wishes and contextual changes (Elling & Ferez, 2007). The rising importance of the meanings that individuals assign to fitness does also fit the expressions of a Western process of civilization, in which *body discipline* is an important aspect (Elias, 1982).

In fitness, working on the '*substantial body*⁶' (health, condition, strength and appearance) is one of the central elements (Tamboer and Steenbergen, 2000). Because ostentation is of key importance in contemporary service professions, it also implies for the personnel in fitness centres that they, except for having the specialist knowledge, need to satisfy the physical standards that are required to stay credible towards their exercising audience (Green, 1988; Smith Maguire, 2001). Moreover, appearance and attitude are necessary skills that must be produced through training and discipline (Foucault, 1977). This indicates a trend to self-investment of every worker in a service-specific working context.

Most persons train their bodies to stay (or become) fit, pretty and attractive (Featherstone, 1987, 1991; Markula, 1995). Fitness centres are therefore seen as places in which individuals pursue a sexually attractive body (Featherstone, 1982; Hargreaves, 1994). As said, muscularity, healthiness and slimness are highly valued in today's individualistic society, where a large proportion of the population works in the service industry. This makes fitness centres locations of the exchange and reproduction of social status (Crum, 1991; Vanreusel & Scheerder, 2000; Elling & Ferez, 2007). Status functions in contemporary culture not simply via the possession and display of exclusive positional goods, but through the cultivation and performance of a variety of capabilities and mentalities that are held in high esteem, and which cluster around notions of individualization and self-responsibility (Smith Maguire, 2008). The accomplishment of a youthful, attractive appearance brings status rewards. It is a sign of investment in the self, and thus can confer status in the sense that the body is a positional good (Hirsch, 1977). Stokvis and Van Hilvoorde (2012) added that physically strenuous labour (in the form of fitness participation) is nowadays even more valued, taking the tendency to an increasingly low-moving society into account. In the context of individualization, the body is the individual's primary and most important project. So, as Bourdieu (1986) and Smith Maguire (2008) argued, the role of status in the formation of the fitness field is not to be reduced to the competitive consumption habits of the professional / managerial class. The fitness field offers chances for the accomplishment of the all-consuming, lifelong task of the modern individual to develop oneself by investing in the body as a vehicle for self-expression and identity

⁶ The sum of mental and physical health (Tamboer & Steenbergen, 2000).

production, and as a status marker in itself. As Rose (1996) stated, individuals are encouraged to live their lives as if making “a project” of themselves. It is in the context of a labour market and consumer culture so attuned to images, that the fitness field emerged and continues to develop today, and may become even more important in the future (Stokvis & Van Hilvoorde, 2012).

The sexualization of the body in the context of the fitness centre

Within the private organised form of *physical culture*, which developed in the nineteenth century in Europe and the United States, the importance of outer, sexualized beauty and vitality have always played a central role (Stokvis, 2003; Stamschnieder, 2004; Stokvis & Van Hilvoorde, 2012). In fact, Stokvis and Van Hilvoorde (2012) even wrote that the social acceptance of (moderate forms of) bodybuilding in the twentieth century is due to the rising acceptance of revealing the physical forms and attractiveness of the body in the public sphere. This symbolic connection between being ‘fit’ and ‘sexy’ is nowadays further fuelled by the presence of many mirrors in fitness centres. The primary goal of these mirrors is to control whether certain exercises are executed in a correct way or not. Still, mirrors also create side-effects. Spielvogel (2002) and Bos (2006) both pointed to the almost inevitable tendency to self-reflection and the watching of others because of the presence of so many mirrors in fitness centres. Instead of the rivalry between opponents in competition sports, gyms face so-called *silent battles*, where people watch others and are watched by others.

The concept of *erotic capital* refers to the combination of one’s aesthetic, physical, visual, social and sexual attractiveness in comparison to other members in society, and the amount of resources that can be derived from it (Hakim, 2010). Considering the body as a form of capital, and thus as a site for investment and work, is to take account of its function and form (Smith Maguire, 2008). The *function* of the body is typically considered through the lens of health. The *form* of the body is typically associated with outer appearances. Growing Western prosperity led not only to increased obesity, it also formed the beginning of the ideal of a slim body for both men and women in today’s Western societies (Stokvis & Van Hilvoorde, 2012). Similar to the ideal men’s body, the female body is supposed to have a low fat percentage and a considerable degree of muscularity (Elling & Ferez, 2007). There are however clear differences in what is perceived normal for either of the sexes (Bordo, 1989; Markula, 1995; Elling, 2002). Attractive men and women are ‘slender and muscular’, but in contrast to men, women do not need to be too muscular as it diminishes their level of femininity (Markula, 1995). The instrumental interplay between participating in fitness, sexual attractiveness, and the silent battles in gyms is not limited to a game between bodies. The silent battle is also materialistic. That is, the commercialisation and sexualization of the body play a role in the production of *fitness outfits* (Featherstone, 1987). Gym suits do not only take care of body coverage, but they also shape which body parts are revealed and accentuated (Waalder-Loland, 2000). Accordingly, Elling and Ferez (2007) stated that fitness centres are semi-public places in which the revealing and concealment of body contours and specific parts of the body go hand in hand.

The literature reviewed in this section indicates a fitness culture where the body is seen as a form of capital, as well as to reach various personal goals and receiving valuable resources. Motives for practicing fitness indicate improving appearance and profits from this bodily distinctiveness in society. Stokvis and Van Hilvoorde (2012) even suggested that the enormous

expansion of the fitness market in the last decades is explained by fitness providers who contribute to the acquisition of societal, social and erotic capital⁷. However, before the focus will completely shift to a motive that solely points to erotic capital, it is necessary to take an intermediate step by looking at other motives for sport participation as well. Physical exercise and experiences of pleasure are the most important motives for sport participation in general (Van den Dool, Elling and Hoekman, 2008). Social interactions with other sport practitioners, working on one's physical condition and 'emptying the head and mind' are other important motivations (Hover et al. 2012). It is interesting to see if these considerations also apply to the specific group of people who fitness, or that their motives will deviate from individuals who participate in other types of sports.

As mentioned above, fitness centres are considered places for status accumulation. However, according to Bourdieu (1984, 1986), Hakim (2010), and Bovens, Dekker and Tiemeijer (2014), beauty, bodily distinctiveness and status are unequally distributed in society. Therefore, gyms might generate inequality even when everybody has the chance to practice fitness, but little is known about this subject yet (Smith Maguire, 2008). Also, there is still little knowledge on the social meaning that individuals attach to fitness and what kind of motives predominate in the choice of practicing this sport (Elling & Ferez, 2007). The study of Hover et al. (2012) was one of the latest investigations that focused on reasons to participate in fitness. Therefore, the second and third research sub questions⁸ in the Master Thesis are as follows:

- 2A: *To what extent does erotic capital play a role in the motivation for individuals to fitness?*
- 2B: *Are these motivations and outcomes of erotic capital socially stratified?*
- 3A: *To what extent does erotic capital play a role in the motivation for individuals to participate in a type of sport other than fitness?*
- 3B: *What are other differences in motives to practice a sport between those who fitness and those participating in any other type of sport?*

⁷ That is, maintaining a slim and physically attractive body in an obesogenic society, where a slender ideal is being promoted at the same time (Stokvis & Van Hilvoorde, 2012).

⁸ The focus will be on the fitness sector in The Netherlands.

2 Theory and hypotheses

The democratization of fitness in The Netherlands

While fitness used to be practiced by only a small portion of the Dutch population, it grew to be one of the most popular sport activities in The Netherlands (Lucassen, Van Schendel, Breedveld, Van Kalmthout and De Jong, 2008; Hover, Romijn and Breedveld, 2010). In the 1980s, the first few Dutch fitness centres were directed at those who were interested in bodybuilding and weight training. Mainly, the gyms were associated with two groups: lower educated alpha males and homosexual men were the primary groups that seemed to be interested in fitness (Stokvis & Van Hilvoorde, 2008). Since the creation of these first centres, the fitness sector slowly changed its image to fitness as a popular activity, embraced by all layers of society (Hover et al. 2012). Stokvis and Van Hilvoorde (2008) for instance stated that bodybuilding transformed from an activity that engages a rather small group, to a more mainstream form of physical exercise. However, there are still major differences. The group of elderly who participate in fitness seems to stabilize, and both higher educated people and women seem to participate more often than their counterparts (IHRSA, 2017). At the same time, Van den Dool and Kamphuis (2008) showed that the proportion of men participating in fitness grew considerably the last decades: in 1991 only 29 percent participated in fitness, compared to 41 percent in 2007. Moreover, Hover et al. (2012) also presented signs of *democratization* in their study: individuals with lower incomes or those who are lower educated are participating in fitness. In fact, they are more active in fitness centres nowadays than these groups have ever been. Besides, fitness as a sporting activity seems to attract precisely these specific groups that are underrepresented in traditional sports clubs (Hover et al. 2012). Fitness centres specifically offer an incentive to women, middle-aged people and homosexuals to increase their sport participation. Therefore, one can argue that fitness strengthens the democratization processes in overall sport participation.

Elling and Ferez (2007) stated that fitness centres reach a broad spectrum of people, with a high degree of accessibility for men and women of different age groups, people with different sexual preferences, and diverse social economic and ethnic backgrounds. According to Hover et al. (2012), this process of democratization will continue in the foreseeable future. The findings outlined in this paragraph seem to support their expectation. One might therefore expect that the democratization⁹ of fitness in The Netherlands will further develop.

H1: The difference in fitness participation in regard to age, gender and educational level will become smaller in the period 2001 – 2016.

⁹ Note that democratization is here seen as a decrease in difference in fitness participation levels between social groups (for example: men and women), when participation rates of all groups are increasing. Thus, when differences in the practising of fitness are decreasing due to a decreasing participation of one group, and a rising participation of another, it is not seen as democratization. The definition is therefore rather strict.

The individualization thesis

During the last decades, the process of *individualization* is one of the most prominent societal developments in Western countries (Giddens, 1991; Beck, 1992). Bauman (2000: 31-2) defined individualization as “transforming human ‘identity’ from a ‘given’ into a ‘task’ and charging the actors with the responsibility for performing that task and for the consequences (also the side-effects) of their performance”. According to the individualization thesis, several scholars argued that the individualization processes lead to a decline of participation in communities (Putnam, 2000). However, patterns of declining participation are exclusively found in churches and political parties in The Netherlands (De Hart, 2005). This decline can barely be found in the sport sector, as participation levels remained relatively stable over the period 1975 – 2005 (Van Ingen and Dekker, 2011). Moreover, Van Ingen and Dekker (2011) found that informal and individual sport activities, like fitness, are on the rise. In accordance, Hover et al. (2012) stated that fitness is considered one of the most individualized forms of sport activities¹⁰.

Different motives, different needs

While more organized forms of sport in The Netherlands are confronted with a steady decrease in the number of clubs and have experienced a stagnation in membership growth in the last couple of years, fitness centres became more popular over time. In this way, they have established a solid position in society (Elling & Ferez, 2007). Nonetheless, as Hover et al. (2012) argued, the rise of the fitness sector did not disrupt the market of organized sport. The possibility exists that these markets are two separate, independently functioning phenomena with members who have different motives and different needs (Stokvis & Van Hilvoorde, 2012). *Appendix I* supports this statement. The figure shows the fitness and overall sport participation in The Netherlands in the period of 1991 to 2011, with two different measurements (the *Additional Services Research*¹¹, or ASR, ending in 2007 and the *Accidents and Exercise in The Netherlands*¹², or AEiN, starting in 2006)¹³. Noteworthy is the rise in participation in both markets, followed by a period of stagnation or only small growth. The markets appear not to function dependently, and do not obstruct each other as a result.

A central feature of organized sports is the desire for a meaningful leisure activity with like-minded people (Hover et al. 2012). For fitness, the main focus is on the individual project of the body (Smith Maguire, 2008; Hover et al. 2012). This difference in approach and importance is reflected in the motivations that individuals mention in the choice to either fitness or practice another sport¹⁴. As working on the individual project of the body is an important motive, one might expect that motives of erotic capital predominate in the choice of participating in fitness. Creating a tight body is a popular motive to practice fitness, which supports the importance of the body as an initial motivation to fitness (Middelkamp & Wolfhagen, 2016; Van Spronsen & partners, 2017). The importance of appearance in the fitness sector is less dominant in other

¹⁰ Only running was seen as even more individualized (Hover et al. 2012).

¹¹ Aanvullend Voorzieningengebruik Onderzoek (AVO).

¹² Ongevallen en Bewegen in Nederland (OBiN).

¹³ This explains the difference in the outcomes in, for instance, the year 2007.

¹⁴ Important to mention is that motives between practitioners of various sports can differ, because the characteristics of those individuals can vary. For example, children who practice swimming have other motives to participate in their sport compared to (young) adult people who fitness, because children have different needs than (young) adults and might assign more importance to other aspects of playing sports.

types of sport (Smith Maguire, 2008; Middelkamp & Wolfhagen, 2016). In line with the individualized society, individual sport activities became more important and led to a strong rise in the number of participants. Among the important aspects that are related to this individualized society, are independence, affinity and unsociability (Van der Roest, 2015). Van der Roest (2015) also found that people who participate in fitness activities, had overall higher levels of independence, affinity and unsociability compared to individuals participating in other types of sport activities. This matches the findings of Gabriel and Lang (2006), who argued that the typical consumer (here: the individual who is participating in fitness) is not really embedded in a community. The contemporary individual who participates in sports seems to be involved in a sport without having to depend on others. This is confirmed by Hover et al. (2012) who found that, compared to those who engage in other sports, social contacts were less important for people in their choice of fitness. Elling and Ferez, (2007) stated that because of the strong individual character of fitness compared to other sports, social interactions and the occurrence of profound contacts is considered to be less-evident. There is more room for keeping a distance to other consumers, which attracts individuals with a low social motivation. As a result, fitness centres can best be considered as ‘light’ and ‘volatile’ communities (Elling & Ferez, 2007).

In comparison to other forms of sport, participating in fitness is not immediately perceived as fun for some, but can become more entertaining due to the input of its practitioners (Middelkamp, 2001; Elling, 2007; Hover et al. 2012). In a certain sense, fitness is a form of *delayed gratification*; it requires perseverance at first for some, but causes a satisfying feeling afterwards. Fitness is a sport focussed on long-term goals (a slim or muscled body / working on erotic capital requires time), which asks for dedication and setting aside activities that are more satisfying on the short term but do not fit the long-term targets (Stokvis & Van Hilvoorde, 2008). This is why having fun is a less prominent motive to practice fitness (Elling & Ferez, 2007; Van den Dool et al. 2008). Therefore, it is expected that motives of satisfaction or enjoyability will not be important in the motivation to fitness. Further, Elling and Ferez, (2007) and Hover et al. (2012) found that motivations of competition and being competitive did not predominate in fitness. Moreover, budgetary reasons (sport does not need to be expensive) are self-reported motives that were frequently mentioned. On top of this, money-driven considerations are one of the most prominent reasons for individuals who fitness to quit working out (Van den Dool et al. 2008; Hover et al. 2012). One of the most important incentives to fitness is to improve one’s level of health (Elling & Ferez, 2007; Smith Maguire, 2008; Van der Roest, 2015). Compared to other sports, health-related motivations prevail in the practicing of fitness (Van den Dool et al. 2008; Hover et al. 2012). Recently, physiotherapists have actively cooperated with fitness centres to improve processes of patient recovery (Smith Maguire, 2008).

Hover et al. (2012) conducted one of the latest studies in The Netherlands that compared motivations to participate in a sport (except for motives of erotic capital) between individuals who fitness and those who participate in other sports. However, the data was obtained from the *SportersMonitor* of 2008. This indicates that the results are based on data obtained almost a decade ago. Considering the ever increasing popularity of fitness (IHRSA, 2016; Middelkamp & Wolfhagen, 2016; EuropeActive & Deloitte, 2016, 2018) and the developing context of individualization, it is important to investigate the current situation. Additionally, it is the first time in The Netherlands that people who fitness and people who participate in another sport are compared in terms of their motives of erotic capital. The following set of hypotheses are formulated to further elaborate on these aspects.

People who participate in fitness ...

- H2: ... mention the desire to increase their erotic capital more often than people who participate in another type of sport.
- H3: ... mention the desire to maintain or increase social contacts less often than people who participate in another type of sport.
- H4: ... mention the desire to play sports for the sake of pleasure and joy less often than people who participate in another type of sport.
- H5: ... mention the desire to play sports for the sake of competition and performance less often than people who participate in another type of sport.
- H6: ... assign more importance to low costs than people who participate in another type of sport.
- H7: ... mention the desire to improve their health more often than people who participate in another type of sport.

Bourdieu: the forms of capital

Bourdieu (1970, 1979, 1986) states that different forms of capital play an important role in the emergence and reproduction of societal differences. All these different forms of capital are seen as resources through which individuals, groups and social classes acquire power (Vrooman, 2014). Bourdieu made a distinction between *cultural capital*, *social capital* and *economic capital*. Cultural capital points to shared tastes and preferences, attitudes, and use of language, which are linked to membership of certain social classes (Bourdieu, 1986). Social capital is the sum of resources, actual or potential, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition (Hakim, 2010). Economic capital refers to the access to economic resources. Later, Bourdieu (1994) added *symbolic capital* as a fourth dimension of capital. This refers to the amount of recognition someone obtains as a result of how others observe and value one's features (Vrooman, 2014). Examples of symbolic capital are reputations and the fame of war heroes, top athletes or movie stars. Within the context of a fitness centre, a slim and muscled body can be admired by other fitness practitioners. In this way, the body serves as a source of recognition that is given by others.

Bourdieu links the forms of capital to a theory of social behaviour. Individuals in various classes develop pre-reflexive behavioural tendencies, habits and lifestyles that coincide with the experiences gained by means of their own 'environment of origin' (Taks, 1994; Vrooman, 2014). While other forms of behavioural tendencies are regarded as unthinkable or unimaginable, this *habitus* makes certain behavioural choices normal for certain social classes. Once again, the social context is important, since the amount of appreciation of the habitus depends on the *field* in which the behaviour occurs (Bourdieu, 1979, 1986). Fields are in this case relatively autonomous social domains. This can either be school, art or work in which individuals use their capital to advance their position in society (Vrooman, 2014). A particular source of capital can be of use in one specific field, while it can be useless in another. The body

can also be used as a form of capital, for instance in the field of a fitness centre or the appearance-industry of the service economy (Smith Maguire, 2008). However, a slim and muscled body in itself does not lead to better achievements at school or a better understanding of art. Bourdieu's forms of capital are therefore context-dependent.

Erotic Capital

The concept of personal capital (Hakim, 2010) is derived from Bourdieu's symbolic capital. One of the foundations of personal capital is the *aesthetic capital*, referring to personal elements (body proportion, appearance) that are seen as attractive or admirable by others. Both these elements can be psychological and physical. Often, this form of capital is dependent on the context. When the psychological or physical elements coordinate with the norms of the environment, they become more valuable.

A far more comprehensive theory on bodily distinctiveness and rewards is developed by Hakim (2010), who introduced the theory of *erotic capital*. The concept of erotic capital points at an independent dimension of 'attractiveness' in capital. According to Hakim, erotic capital can be considered as a distinct type of capital, as it can lead to the emergence and reproduction of societal differences. The theory of erotic capital is multi-faceted, but considers *beauty* as a central element. The Western idea of beauty is what Elling and Ferez (2007) described as a body with a low fat percentage and a considerable degree of muscularity, with a moderate amount of muscles for women. *Sexual attractiveness* is seen as a second element of erotic capital. As sexual attractiveness is reasonably different from classic beauty, it is a feature that is makeable, for instance through exercising in a fitness centre (Hakim, 2010). The third element of erotic capital is undeniably the *social* aspect. Here, the social foundation points to the amount of grace, charm, and social skills in interaction with others and the ability to make people like you. Self-confidence is also at stake here (Hakim, 2010). *Liveliness* is another facet of erotic capital. This is a mix of both physical fitness and social energy. Hakim argued that liveliness is displayed in most cultures through sport activities (such as fitness) and dancing skills. A fifth factor concerns *social presentation*. This deals with the style of dress and the range of accessories that individuals wear to declare their style, distinction and social status to others (Bourdieu, 1979, 1986; Hakim, 2010). Fitness outfits are an important aspect of social presentation. As mentioned above, the commercialisation and sexualization of the body affect the production of fitness clothes (Featherstone, 1987). Gym suits do not only cover the body, but also reveal and accentuate specific parts of the body (Waler-Loland, 2000). The last element¹⁵ of erotic capital is *sexuality* in itself, which leans on sexual competence and the amount of energetic appearance (Hakim, 2010).

¹⁵ Hakim (2010) also spoke of fertility as a factor of erotic capital. Since this is a fixed aspect, unaffected by participating in fitness and only applicable to women, it will not be further used in this study.

Figure 2.1: Dimensions of erotic capital.

Dimension	Example
Beauty	Western idea: low fat percentage, women not too muscular.
Sexual attractiveness	Makeable feature, for instance via exercising in fitness centre.
Social competence	Amount of grace, charm and social skills in interaction with others.
Liveliness	Mix of physical fitness and social energy, for instance displayed via fitness.
Social presentation	Style of dress to announce social status to others.
Sexuality	Sexual competence and energetic appearance.

Therefore, erotic capital can be perceived as one's combination of aesthetic, physical, visual, social and sexual attractiveness compared to other members of society. Hakim (2010) wrote that in more affluent modern societies, higher levels of erotic capital can be achieved by means of fitness training, as fitness covers all of the six facets of erotic capital. Hakim also argued that erotic capital can achieve a higher level when it is linked to higher levels of economic, cultural and social capital (Bourdieu, 1986), because public display and social networking are prioritized. Erotic capital can therefore lead to a form of social stratification: it is more valuable in the *field* of the higher status public lifestyle, than for the lower status groups in society (Hakim, 2010). Smith Maguire (2008) stated that the post-industrial middle class is bound up with the growth of consumer service industries, which has created new occupations and expanded existing occupations throughout this entire class. As appearance is regarded highly in the service industry, the middle class has a strong incentive to work on their appearance for it generates valuable resources for them to move higher on the social ladder.

The theory of erotic capital as developed by Hakim is rather general, and not specifically elaborated on. Hakim (2010) argues that women generally have more erotic capital than men, because they work harder to obtain erotic capital, but she does not have any empirical results that support this proposition. An interesting finding is the so-called *Adonis complex*, presented in the book of Pope, Phillips and Olivardia (2000). These authors showed that 45 percent of the American men are unsatisfied with their muscularity, twice as much as was found in 1972. Moreover, men try to do everything they are capable of¹⁶ to look strong and masculine (Pope et al. 2000). While women have been insecure and unsatisfied about their appearance since the 1950s and 1960s, men have faced similar problems since the 1990s (Stokvis & Van Hilvoorde, 2008). Pope et al. (2000) argued that this Adonis complex arose in the 1970s. Stokvis and Van Hilvoorde (2008) as well as Pope et al. (2000) pointed to a rise in aesthetic motives for men to participate in fitness. In accordance, Smith Maguire (2008) wrote that women's rising labour market participation reshaped gender roles and norms for men as well. Similar to Smith Maguire (2008), other authors noted that the late twentieth century has witnessed an intensification of emphasis on men's appearances (Kimmel, 1996; Pope et al. 2000; Luciano, 2001; Stokvis & Van Hilvoorde, 2008). Economic security was no longer a unique selling point for men in the social market anymore, so financially independent women could now demand an attractive and attentive partner. In regard to occupation, men now had to compete not only with other men, but with women as well (Smith Maguire, 2008). All these developments led to an increase in the emphasis on men's appearances, and to a growing motive for men to participate in fitness (Smith Maguire, 2008). This might also explain democratization in fitness (Van den Dool & Kamphuis, 2008).

¹⁶ For example, participating in fitness, using anabolic steroids or using hair growth products (Pope et al. 2000).

One would expect that erotic capital decreases when one gets older, but of course erotic capital is not of direct importance in the very early stages of life. Erotic capital starts to play a more prominent role from puberty onwards (Hakim, 2010). Simultaneously, fitness starts to become popular among individuals in these years too, as fitness is typically not a sport that people pursue in the early stages of life (Hover et al. 2012; Middelkamp & Wolfhagen, 2016). Logically, fitness is less practiced among the youngest, because most fitness centres only allow individuals from sixteen years and older (IHRSA, 2017). IHRSA (2017), also revealed why fitness becomes more interesting in later stages of life. At the age of sixteen or younger, traditional (team) sports such as football are far more popular. Individual(ized), autonomous sports (in terms of where, when and how long they are practiced), particularly fitness, become popular when one gets older, because life events such as family formation and a professional career affect the options in choosing a sport. This asks for a 'flexible' sport such as fitness, which can be practiced at almost every part of the day, thereby accommodating the changing life stages of its users (Van Houten, Hermesen, Kraaykamp and Elling, 2014).

Bakker, Sieben, Nieuwbeerta and Ganzeboom (1997), stated that the educational level is a highly important factor in the determination of someone's social class. In this respect, it is of interest to see whether motives of erotic capital are more present at lower educated fitness practitioners or middle and higher educated ones. Stokvis and Van Hilvoorde (2008) wrote that, in the last decades of the twentieth century when a strong body was not important in the workplace anymore, men from the working class continued to cultivate and invest in a strong body. Their appearance became an example for many men from the higher layers of society, in order to distinguish themselves from others in the acquiring of status and / or new partners. This suggests that erotic capital may filter up¹⁷ through the class system, an expectation shared by Hakim (2010).

As previously stated, practicing fitness is one of the sports in which a certain sense of delayed gratification is present, as doing fitness is not seen as 'enjoyable' at first by every member. Participating in fitness is perceived as a sport of long-term goals (a slim or muscled body / working on erotic capital requires time), which asks for dedication and setting aside activities that are more pleasurable to do but do not fit any long-term goals (Stokvis & Van Hilvoorde, 2008). This indicates that norms of emotion management and delayed gratification are important in practicing fitness. Elias (1937/1994) argues that a central feature of the civilizing process in all societies was that individuals internalized norms and skills of self-control and emotion management towards others. These norms and skills become a 'second nature'; a part of one's ordinary social behaviour (Elias, 1937/1994; Ultee, Arts and Flap, 2009). Stokvis and Van Hilvoorde (2008) wrote that the self-discipline to exercise the body can be considered as an important part of the civilization process in contemporary prosperous societies. Elias argues, in a similar vein as Bourdieu (1986), that social habits and norms developed first in the upper classes, and then gradually trickled down to the lower ones. Stokvis and Van Hilvoorde (2012), argue that the middle class was more able to adapt to social habits and norms of slimness, health and sexual attractiveness, especially compared to lower social environments.

By way of contrast, Bourdieu (1984) wrote that it was important for understanding the development of the fitness field, that class mediates the ways in which individuals embark on

¹⁷ It suggests that the emphasis on erotic capital becomes the norm in the lower layers of society, and then gradually climbs up to the higher layers.

the project of the self. Bourdieu identifies a sense of unease or embarrassment in middle class people regarding their social position, which manifested as an uneasiness towards their bodies. As the middle educated possess little economic and cultural capital possessed by the higher educated people, the middle educated adopt a learning or investment attitude towards styles and lifestyles (Featherstone, 1987; Smith Maguire, 2008). Middle educated people are increasingly aware of their bodies as they watch others and correct themselves to this behaviour accordingly, particularly directed at those working in occupations of display and performance, for which social mimesis is a necessity (Featherstone, 1987; Smith Maguire, 2008). As a result, middle educated people are assumed to be disposed towards investing in the body-as-symbol, or what Bourdieu (1984) called the *body-for-others*, making this group consumers of the ‘appearance industry’ of the fitness sector (Smith Maguire, 2008; Stokvis & Van Hilvoorde, 2008). Thereby, the body of the middle educated is treated as a sign rather than an instrument (Bourdieu, 1984). In that way, status and social position may be communicated and reinforced. In this regard, the middle educated body is best understood as an enterprise, and fitness as a mode of investment in the corporation (Smith Maguire, 2008). As a result, Smith Maguire argues that the development of consumer culture and the field of fitness in the last decades, cannot be separated from the efforts of the middle educated to legitimate and advance its social position by means of these aesthetic motives of bodily distinctiveness.

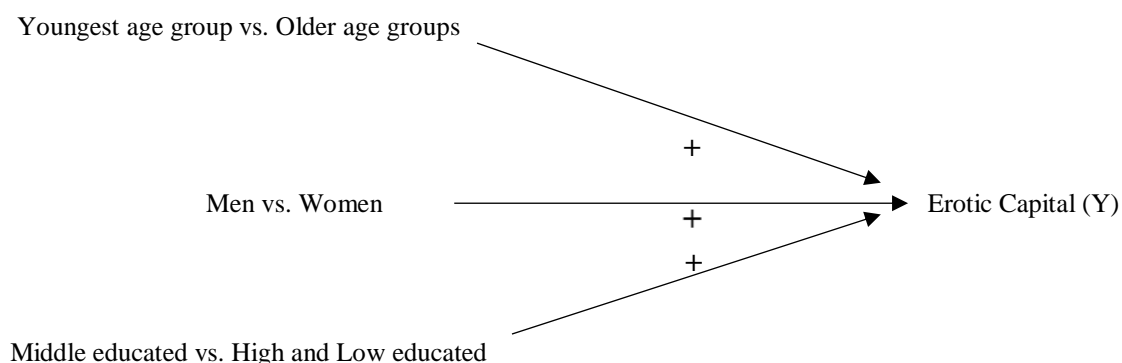
The theory of erotic capital seems promising, but it only considers differences in amount of capital between men and women (without presenting any empirical results). Furthermore, Hakim (2010) generalized the theory to any other social group in society. The following set of hypotheses¹⁸ enables the study to further develop and specify the theory. Besides, to the author’s knowledge this Master Thesis is the first study to apply the theory in The Netherlands and to a specific group of fitness practitioners.

H8: Middle educated mention the desire to increase their erotic capital more often than the higher and lower educated.

H9: Men mention the desire to increase their erotic capital more often than women.

H10: Individuals aged 15 through 35 mention the desire to increase their erotic capital more often than individuals aged 36 through 55 and 56 through 80.

Figure 2.2: Conceptual model of motive of erotic capital in the choice to fitness.



¹⁸ The focus in this set of hypotheses is solely on groups of people who fitness.

3 Data and operationalization

Data: National Health Survey

The data in this study is partly derived from the *Central Bureau of Statistics*¹⁹ (from now on: CBS). The *National Health Survey*²⁰ (from this point: NHS), is a longitudinal data source²¹ collected by the CBS since 1981. The survey is held on an annual basis and tries to give an adequate overview of developments in health, the medical situation, lifestyle and the (preventative) behaviour of the Dutch population. The target population consists of individuals of every age, living in private households. When respondents were younger than twelve years old, questions were answered by a parent or caretaker. The sample was drawn from the *Municipal Personal Records Database*²².

Annually, a gross sample of over fifteen thousand individuals was approached, of which the average response was 60% to 65%, which amounted to a net sample of approximately 9.500 respondents. This resulted in a total sample of 100.523 persons in the longitudinal dataset. The NHS data is collected from 2014 onwards using a so-called ‘mixed-mode’ design. First, the selected respondents are asked to fill in the questionnaire via the Internet. In the case of a nonresponse, potential respondents are re-approached for a face-to-face interview. The NHS questionnaire enables this study to shed light on the profile of the fitness practitioner; that is, the frequency of doing fitness in relation to background variables such as age, gender and educational level. Although the NHS started in 1981, questions related to fitness were only included since 2001. This is why this study uses a longitudinal dataset including data from 2001 to 2016.

To account for differences between the composition of the net sample and the total population, a correction is used by means of a weight factor. This factor is based on the following respondent characteristics: gender, age, origin, marital status, urbanity, province, part of the country, household size and income.

Data: National Sport Survey

The other dataset used for this study is derived from the Mulier Institute. The *National Sport Survey*²³ (from now: NSS) is developed by the Mulier Institute and provides information about various aspects of sports- practice and involvement of the Dutch population. The NSS has a cross-sectional design²⁴ and was collected in the autumn of 2017. Research agency GFK was responsible for the collection of data, with the use of their online panel. The gross sample

¹⁹ In Dutch: Centraal Bureau voor de Statistiek.

²⁰ In Dutch: Gezondheidsenquête. This dataset can be found online in the Data Archiving and Networked Services (DANS).

²¹ That is, a survey design in which the data is collected at more than one point in time (Singleton and Straits, 2011).

²² In Dutch: Gemeentelijke Basisregistratie Personen.

²³ In Dutch: Nationaal Sportonderzoek. This dataset can be found online in the Data Archiving and Networked Services (DANS).

²⁴ A survey design in which the data is collected at one moment in time (Singleton & Straits, 2011).

consisted of 2.750 respondents between 15 and 80 years old²⁵, and was composed in such a way that it formed a representative measure of the Dutch population in regard to age, gender, educational level and ethnicity. The response of the online panel from GFK was 56%, pointing to a net sample of 1.530 respondents²⁶ in the dataset.

A weight factor was created afterwards, to correct for gender, age, educational level and ethnicity. Age groups 15 to 29 years old, and 30 to 39 years old were underrepresented in the original dataset, and respondents aged 50 to 64 and 65 to 80 years old were somewhat overrepresented. Considering the variable ethnicity, natives were overrepresented and non-Western foreigners were slightly underrepresented. The weight factor corrects for these over- and under- representations in the dataset and has been used in this study.

Operationalization: National Health Survey

The dependent variable is *weekly fitness participation*, indicating that fitness participation is measured on a weekly basis. In the survey, respondents could select fitness as their first, second, third or fourth practiced sport (if multiple sports are practiced). For instance, if swimming was selected as one's first practiced sport and fitness was determined as third, the particular respondent was considered in the dataset as someone practising fitness, instead of just being a swimmer²⁷. With this method of selection, a total sample of 18.976 individuals who fitness was obtained. Individuals who did not select fitness as their first, second, third or fourth practiced sport (in case of multiple practiced sports) were excluded from the analysis.

Table 3.1 shows the descriptive statistics of the variables used in the analysis. Note that the distributions of independent variables *gender*, *age* and *educational level* are solely based on the group who is practising fitness. Thus, to test possible signs of democratization in the Dutch fitness field, fitness practitioners' gender, age and educational level are selected as personal background characteristics. With regard to gender, the table shows that more women are practising fitness on a weekly basis compared to men (58.3% against 41.7%). Taking the absolute numbers into account, the difference between the both sexes is about 3.000 cases. Even though respondents of every age were questioned in this survey, variable age has been recoded in three categories: 15 – 35 years old, 36 – 55 years old and 56 – 80 years old. This means that persons younger than fifteen and older than 80 are excluded from the analysis. Individuals younger than fifteen are not selected because fitness is typically not a sport that is practiced in one's early childhood. Besides, as said in the theory section, some fitness centres only allow people over the age of sixteen. Respondents older than 80 years are excluded because this group is very small due to the high age, and because this group experiences decreasing mobility due to, for example, physical discomfort. This discomfort might hinder them to practice fitness. The distributions of the age groups are quite equal: the middle aged form the largest group, closely followed by the youngest group. The oldest group encompasses about a quarter of the total. The variable 'educational level' is divided in three categories and shows a comparable distribution

²⁵ This indicates that motives to practice fitness were measured by means of individuals older than (or equal to) the age of fifteen, but evidence already suggested that the lack of younger respondents is not a problem, as fitness is typically not a sport practiced in the early stages of life (Hover et al. 2012; Middelkamp & Wolfhagen, 2016).

²⁶ The final number of 1,530 respondents was achieved after the removing of a few missing values (carried out by research agency GFK).

²⁷ In order to receive a higher sample of individuals who are doing fitness.

as the variable age, but with the difference that the lowest educated form about a quarter of the total amount. Note that this variable has missing cases (as the group consists of 15,581 persons), which is due to the fact that some respondents did not answer this question.

Table 3.1: Descriptive statistics of the variables used in the analyses derived from the National Health Survey, for those who fitness.

Variables	Reach	N (%)	N
Gender			18976
Men	0/1	7915 (41.7%)	
Women	0/1	11061 (58.3%)	
Age			18976
15 – 35	0/1	6902 (36.4%)	
36 – 55	0/1	7351 (38.7%)	
56 – 80	0/1	4723 (24.9%)	
Educational level			15581
Low	0/1	3662 (23.5%)	
Middle	0/1	5999 (38.5%)	
High	0/1	5920 (38.0%)	

Source: NHS, (2001-2016).

Operationalization: National Sport Survey

Factor analyses and reliability analyses were executed to create the scale of the dependent variable *erotic capital*²⁸. Originally, the factor analysis showed a one-factor solution with five items measuring erotic capital. However, the reliability analysis revealed that one item²⁹ undermined the reliability of the scale³⁰. As a result, this item has been removed. A new factor- and reliability analysis was performed, pointing to a one-factor solution with 4 items. This one-

²⁸ As mentioned before, the theory of erotic capital can be seen as a combination of aesthetic, physical, visual, social and sexual attractiveness to other members in society (Hakim, 2010). Nonetheless, two aspects predominate: an aesthetic value of the body and a symbolic value of the body (in the form of societal rewards derived by the body). As a result, I pursued to translate these facets of the theory into 5 items that aim to measure this versatile concept. On the one hand, the items question the aesthetic value of the body. On the other hand, the questions measure the symbolic value of the body resulting in possible social rewards or resources. The items are developed during two sessions with experts in the relevant field, and are designed in such a way that they cover the concept and at the same time allow for possible sensitivity of the subject.

²⁹ Specifically, the item: To be slim and / or muscular.

³⁰ The overall scale reliability was high (Cronbach's Alpha: .780), but as mentioned, one item did not contribute to the scale consistency. However, additional reliability tests revealed that the scale was not very robust for subgroups. The scale was for instance very reliable for men (Cronbach's Alpha: .833), and moderately reliable for women (Cronbach's Alpha: .735). This inconsistency was also visible for the different educational levels. For low and middle educated, the scale was reliable (respectively: Cronbach's Alpha of .761 and .750). However, the scale consistency was considerably higher for higher educated, with a Cronbach's Alpha of .836. With regard to the different categories of age, at last, differences in scalability were also present, but less sharp compared to the previously described variables. The scalability was high for all age groups (15 – 35 years, 36 – 55 years and 56 – 80 years), but with considerable differences (respectively: Cronbach's Alpha: .732, .791, and .759). Overall: the scalability was never only reliable or unreliable, but the scale robustness is somewhat inconsistent for subgroups.

factor solution explained about 62% of the total variance, and obtained an eigenvalue of 2.488. The reliability test showed a high scale reliability (Cronbach's Alpha: .794), with the notion that all items contributed to the scale consistency. Table 3.2 shows the factor loadings of the four remaining items. Item one, three and four ('to be sexually attractive for others', 'to receive more success in work or study', and 'to receive more appreciation from people around me') have a high correlation ($r = .775$, $r = .836$ and $r = .872$). The correlation of the second item ('to receive more self-confidence') is considerably lower compared to the other items ($r = .692$). Still, the factor loadings reveal that the items fit the concept of erotic capital rather well.

Table 3.2: National Sport Survey component matrix with the 'erotic capital' items.

Items	Factor 1
To be sexually attractive for others	.775
To receive more self-confidence	.692
To receive more success in work or study	.836
To receive more appreciation from people around me	.872

^A Factor loadings are Pearson correlations.

^B Extraction method: Principal component analysis.

Source: NSS, (2017).

Subsequently, the scores of the scale variables³¹ have been reversed. This indicates that the higher the score on the 7-point scale³² of the specific scale variable, the more the participant agrees with the statement. To receive a larger sample of the group who is practising fitness, three different forms of fitness have been merged. Indoor fitness, outdoor fitness (such as boot camp) and fitness in groups (for instance: group lessons) were taken together, leading to a sample of 483 persons participating in fitness.

Principles of linearity were tested afterwards. Since scale variables were compared with categorical variables, some linearity tests proved to be meaningless³³. However, testing the assumption of normally divided residuals on the scale variables revealed that these variables have rather normally divided distributions. Some of the distributions were slightly skewed to the right side of the axis, but not in a problematic manner³⁴. The distributions of normally divided residuals are presented in *Appendix II*.

³¹ The variables with a scale are presented at the bottom of Table 3.3: descriptive statistics.

³² The 7-point scale is chosen because it leads to more variance in the data than for instance a 5-point scale. As a result, the view of the results becomes more comprehensive.

³³ For instance the assumption of linearity between the variables educational level, age and gender in relation to the dependent variable erotic capital, as well as the assumption of homoscedasticity.

³⁴ 'Erotic capital' shows a rather normally divided pattern, although the pattern is a bit skewed to the left. 'Body shape' is normally divided, where 'sexual attractiveness' has a distribution that is very skewed to the left. 'Self-confidence' has a normal distribution, with an outlier on the left. 'Improving health' does not seem normally divided, for most of the distribution is skewed to the right. 'Social contact' has a quite normal distribution, with an outlier on the left side. 'For pleasure' has a distribution that is slightly skewed to the right. 'Financial costs' shows, except for an outlier on the left side, clear signs of normality and 'Competition / performance', at last, shows a normally divided pattern with some signs of skewness to the right.

Categorical variables: National Sport Survey

Next, the variable *age* has been recoded in three categories³⁵: 15 – 35 years old, 36 – 55 years old and 56 – 80 years old. Within the sample of 483 individuals who fitness, 202 persons belong to the group of 15 – 35 years, 161 individuals fall between the ages 36 and 55 and 120 respondents are aged 56 – 80. Table 3.3 shows the descriptive statistics of the variables used in the analyses, derived from the NSS. The table is arranged by a decreasing group size: the total sample in the survey was 1.530 respondents. Taken from this total, 1.150 individuals participated in a sport; fitness or any other sport than fitness. A total of 667 persons participated in another sport, and 483 individuals were practising fitness³⁶.

The distribution of men and women in the dataset is almost equal. As *gender* is a categorical variable, dummy variables were created using women as the reference category and men as a dummy variable in the analysis. As said, age has been recoded in three groups. In the total sample of 1.530 respondents, the three groups all occupy about a third of the total. The middle-aged form the largest group, but the difference with the smallest group (the youngest age group) is only 56 cases. The reference category is the youngest age group. The middle- and oldest-aged will be included in the analysis as a dummy variable.

Considering *educational level*, it is apparent that the ‘middle educated’ form the largest group. The ‘low educated’ fulfil one third of the total, compared to ‘high educated’ who only occupy a quarter. This points to an underrepresentation of the high educated, and an overrepresentation of the middle educated. Nevertheless, as said, the weight factor in the dataset will correct for these over- and under- representations. The middle educated will function as the reference category, the low and high educated will be used in the analyses as dummy variables. Variable fitness participation has a sample of 1.150 respondents, indicating that 380 of the 1.530 respondents did not practice any sport at all. From the 1.150 persons who practice a sport, 483 respondents are practising fitness, and 667 individuals are practising any other sport than fitness. Category ‘any other sport’ will be the reference category and ‘fitness’ will be a dummy variable in the analysis.

Control variables: National Sport Survey

The variables *ethnicity* and *lifestage* will be used as control variables in the analyses. Ethnicity affects the fitness participation (Janssens, Elling and Verweel, 2010; Van den Broek and Tiessen-Raaphorst, 2010; Veldboer, Boonstra, Krouwel and Duyvendak, 2010; Breuer, Hallmann and Wicker, 2011), and non-Western foreigners do not reveal their body demarcations in the same manner as Western individuals (Markula, 1995; Waaler-Loland, 2000). Hakim (2010) also described that erotic capital seems less important for individuals with a non-Western background, as erotic capital seems more present in individualized Western cultures. In the dataset, the group of individuals with a native background (or, ‘autochthonous’) form the majority. Almost four out of five respondents have a native background. As previously said, natives were overrepresented and non-Western foreigners were slightly underrepresented.

³⁵ The categories of age in the operationalization of the NSS are exactly the same as the age groups in the operationalization of the NHS.

³⁶ The questionnaire of the NSS was programmed in such a way that the sample of the group participating in any other sport than fitness, was about the same size as the sample of those practising fitness. Thus, the groups do not differ much from each other, as the groups are composed of 667 individuals and 483 individuals respectively.

The weight factor in the analysis will correct for these inconsistencies. Non-Western and Western foreigners will be used as dummy variables in the analyses, respondents with an autochthonous background will figure as the reference category.

The control variable 'lifestage' originally consisted of nine categories³⁷. These categories have been recoded into two: 'partner', and 'no partner'. Logically, when one has no partner, erotic capital seems more important in order to stay or become attractive at the market of singles. As a result, practicing fitness with an incentive pointing to erotic capital may prevail, as one is more willing to work on one's outer appearances. There are more respondents with no partner in the dataset, but the distribution is almost equivalent. Three persons have not answered this question in the survey, pointing to a sample of 1.527 respondents instead of 1.530. The category 'no partner' will be the reference category, while 'partner' will be included in the analyses as a dummy variable.

Scale variables: National Sport Survey

The variables *body shape*, *sexual attractiveness*, *self-confidence*, *improving health*, *social contact*, *for pleasure*, *financial costs* and *competition / performance* are scale variables with a sample of 1,150 respondents. These variables are used to test possible between-group differences in motivations to either fitness or practice any other sport, comparing the group of those who fitness and those who practice a sport other than fitness. Note that the higher the score on the scale from 1 to 7, the more one agrees with this particular motivation as a reason to practice their sport of interest. Two popular motivations to participate in a sport are to improve one's health and to experience pleasure, as these two motives have the highest score on the scale. Competition / performance is a popular motive as well, with the third highest scale score. A motivation pointing to sexual attractiveness is not frequently mentioned, as this variable has the lowest score. At last, the dependent variable erotic capital has a score of almost three on the scale ranging from 1 to 7. The scale of erotic capital will be used in the analysis within the group of 483 respondents who practice fitness.

³⁷ Young singles: household size: 1. Age: between 15 and 44 years old.

Mature singles: household size: 1. Age: older than 45 years.

Young couples: household size: 2. Age of the youngest family member: between 15 and 44 years old; no children in the household.

Empty nesters: household size: 2. Age of the youngest family member: older than 45 years; no children in the household.

Young families: household size: more than 2. Age of the youngest family member: between 0 and 4 years. Main breadwinner and housewife / houseman in the household (not the same person).

Maturing families: household size: more than 2. Age of the youngest family member: between 5 and 16 years. Main breadwinner and housewife / houseman in the household (not the same person).

Established families: household size: more than 2. Age of the youngest family member: older than 17 years. Main breadwinner and housewife / houseman in the household (not the same person).

Single parents, child(ren): Household size: more than 1. Age of the youngest family member: between 0 and 15 years old. Main breadwinner and housewife / houseman in the household (the same person); children in the household.

Single parent, adult child(ren): Household size: more than 1. Age of the youngest family member: older than 16 years. Main breadwinner and housewife / houseman in the household (the same person); children in the household.

The characteristics of the categories of the variable lifestage are obtained after inquiring with the GFK (the categories in the dataset itself did not reveal this specific information).

Table 3.3: Descriptive statistics of the variables used in the analyses derived from the National Sport Survey.

Variables	Reach	N(%)	N
Gender			1530
Men	0/1	762 (49.8%)	
Women (Ref.)	0/1	768 (50.2%)	
Age			1530
15 – 35 (Ref.)	0/1	479 (31.3%)	
36 – 55	0/1	535 (35.0%)	
56 – 80	0/1	516 (33.7%)	
Educational level			1530
Low	0/1	500 (32.7%)	
Middle (Ref.)	0/1	651 (42.6%)	
High	0/1	379 (24.7%)	
Ethnicity*			1530
Autochthonous (Ref.)	0/1	1202 (78.6%)	
Foreign, non-western	0/1	199 (13.0%)	
Foreign, western	0/1	129 (8.4%)	
Lifestage*			1527
No partner (Ref.)	0/1	852 (55.8%)	
Partner	0/1	675 (44.2%)	
Fitness participation			1150
Any other sport (Ref.)	0/1	667 (68.4%)	
Fitness	0/1	483 (31.6%)	
		Average (SD)	
Body shape	1-7	3.976 (1.817)	1150
Sexual attractiveness	1-7	2.482 (1.715)	1150
Self-confidence	1-7	3.664 (1.828)	1150
Improving health	1-7	5.415 (1.676)	1150
Social contact	1-7	3.948 (1.928)	1150
For pleasure	1-7	5.517 (1.674)	1150
Financial costs	1-7	3.858 (1.948)	1150
Competition / Performance	1-7	4.750 (1.670)	1150
Erotic capital	1-7	2.960 (1.369)	483

^A Ref: Reference category.

^B * Control variable.

Source: NSS, (2017).

Method

The NHS will be used in order to answer the first hypothesis. Developments in weekly fitness participation and weekly sport participation will be investigated, to monitor the gradient between 2001 and 2016. Subsequently, trends in fitness participation in regard to gender, age and educational level will be presented to explore whether there exists a pattern of democratization in the Dutch fitness field. Linear trend lines reveal the overall picture of the entire period of measurement. A chi-square³⁸ test will be executed to demonstrate if democratization actually occurs in practice. It investigates the possibility of statistically significant difference in fitness participation for the categories of gender, age and educational level. In this study, the 2x2 tables are isolated from a larger table. These tables³⁹ with bivariate analyses are presented in *Appendix III*. The first three years and last three years of measurement will be used for analysis⁴⁰.

The NSS is used to test hypotheses 2 to 10. First, respondents who either practice fitness or any other sport than fitness are asked about the importance they assign to the list of motivations as possible reason to practice their sport. Three items related to erotic capital (two of them are part of the scale of erotic capital, the third item was removed from the scale because it decreased scalability) are included as well. The last set of hypotheses (H7 to H10) refers only to the group of respondents practising fitness. The scale of erotic capital will be used, to assess if the background characteristics of fitness practitioners cause a difference in the importance that is assigned to erotic capital⁴¹ in the motivation to fitness. A logistic regression⁴² and linear sequential regression analyses will be performed to test hypotheses 2 to 10. The tables with bivariate analyses can be found in *Appendix IV*.

³⁸ This test is a control which measures whether the difference between two or more proportions really exists or is coincidental, and can be used to investigate whether the difference between two proportions in a classic 2x2 table is significant or not.

³⁹ In fact, the table with bivariate analyses consists of three separate tables: the proportion table, the chi-square test table and the table containing the actual sample per cell.

⁴⁰ The first three and last three years are systematically analysed, in order to exclude results that are based on chance as much as possible.

⁴¹ Important to note is that the statistical view hereby differs from the normal view. From a statistical point of view, one investigates the effect of fitness / any other sport on the motivations to play sports. The normal point of view, however, studies the effect of the motives on the choice to fitness / participate in any other sport. The coefficients can be interpreted in both ways.

⁴² A logistic regression will be performed to test the effect of the motivations on the choice to fitness / participate in any sport. In other words: the logistic regression measures the normal point of view, whereas the linear sequential regression analyses measure the statistical point of view (see previous footnote).

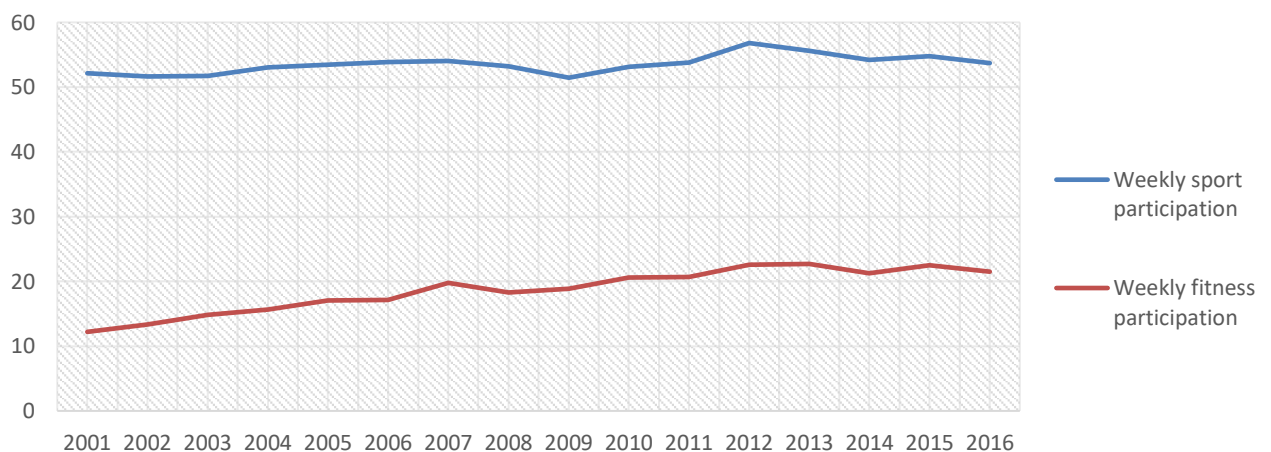
4 Results

Democratization, or separation?

First of all, the developments in weekly fitness participation and weekly sport participation will be investigated. Figure 4.1 presents the Dutch sport and fitness participation from 2001 to 2016 in percentages. Note that the data is derived from the population of individuals between 15 to 80 years old, who sport or practice fitness at least once a week. The weekly overall sport participation remains quite stable over the entire period. During the period 2007 to 2009, there is a decrease of a few percentage points. After 2009, the weekly overall sport participation considerably grows and peaks in 2012, for in this year about 58% of the population between 15 and 80 years practiced a sport at least once a week. After 2012, there is a slow decline (with a small revival in 2014-2015) to about 54%. There are some fluctuations within the period of analysis, but the pattern over the years remains stable.

The development in weekly fitness participation shows another perspective. There is a slight growth during the years 2001 to 2007, stagnation during the years 2007 to 2011 and fluctuation during the years thereafter. Nonetheless, the fitness participation on a weekly basis has been rising over the entire period. Whereas the weekly sport participation faces stagnation over the course of fifteen years, fitness participation is able to present a small, but mostly steady rise. In addition, fluctuations in fitness participation are only small, in contrast to the weekly sport participation. Especially during the years of 2009 to 2012, the increase in sport participation on a weekly basis has been remarkable. Nevertheless, we see a solid decline again in the years afterwards. Policy makers need to investigate the period from 2009 onwards, to explore whether policy decisions from 2012 onwards caused unwanted effects in the (weekly) sport participation.

Figure 4.1: Dutch sport and fitness participation from 2001 to 2016, in percentages.



^A Derived from the population between 15 – 80 years old, and solely for those who sport or practice fitness at least once a week.

Source: National Health Survey/Lifestyle monitor, CBS i.c.w. RIVM, 2001 – 2016.

Figure 4.2 presents the fitness participation for men and women from 2001 to 2016 in percentages. Again, and this also applies to figure 4.3 and 4.4, the results have been obtained from a sample of the Dutch population between 15 to 80 years old who practice fitness at least once a week. Note that the continuous line reveals the actual state of affairs, and that the trend line (the broken line) is derived from the continuous line to show the overall trend during the entire period. Taking the red continuous line of women into account, one can notice that there are two periods where the line ‘performs’ better compared to the trend line. This points to a larger growth than the average growth in female weekly fitness participation (as the trend line goes up), between 2005 and 2007, and 2009 and 2012. Over the last three years under investigation, however, the line performs below the trend line and faces stagnation.

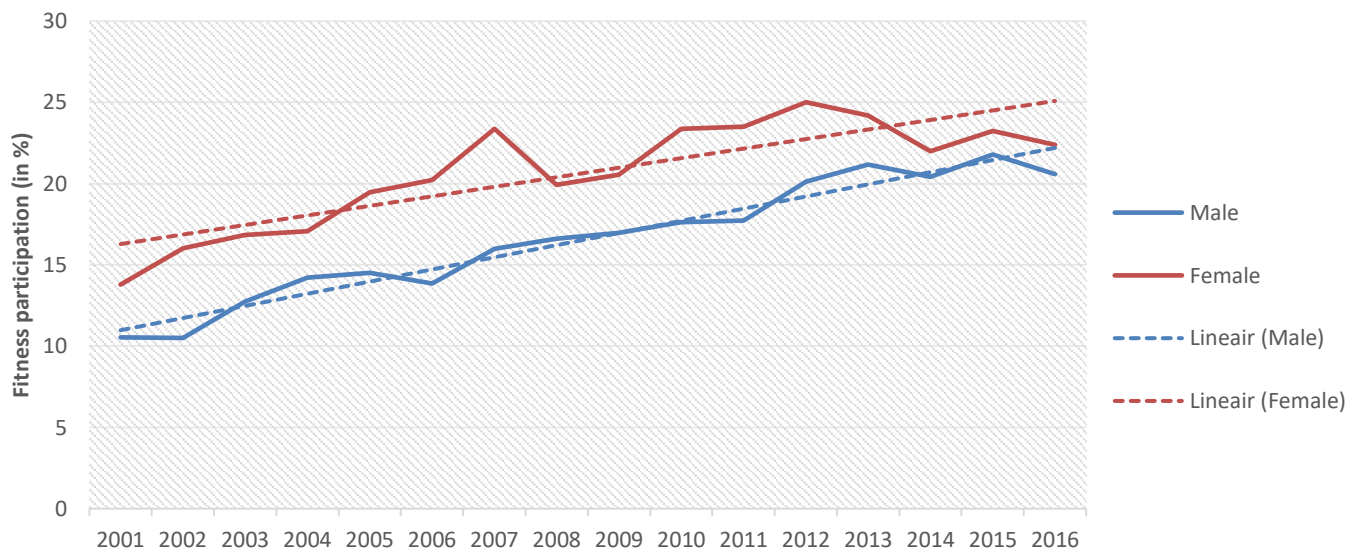
The blue continuous line of men is situated under the line of women, which indicates the lower weekly fitness participation of men, in accordance with the findings of the IHRSA (2017). The actual line and the trend line are very similar, including almost no fluctuations. This indicates a solid growth of male weekly fitness participation in accordance with the trend line, which entails a slight decrease during the final years and a deviation from the trend line. Despite the small decline during the final years, the result supports the claim of Van den Dool and Kamphuis (2008), who found that the share of men participating in fitness grew considerably over time. The findings in this study reveal a continuation of ‘the rise of men’ in the Dutch fitness landscape from 2009 onwards as well.

When looking at both trend lines, it is clear that the lines are approaching each other during the period of measurement. This might point to democratization at first sight, but a statistical test is needed to confirm this⁴³. The chi-square test is presented in the second table of *Appendix III*. The results are based on two-sided chi-square tests assuming equal variances. When the cell is empty, the particular category does not differ significantly from the other category. In the case of a letter in the cell, there is a significant difference between categories. With this in mind, the results show no democratization during the first three years. Though, the continuous lines of men and women do not differ from each other during the last three years, as the cells in the column of women in 2014, 2015 and 2016 are empty.

However, as previously said, democratization is seen as a situation in which the difference in weekly fitness participation between categories (for instance: male, female) is decreasing, while at the same time overall participation rates are increasing. In other words, the remaining group bridges the difference in fitness participation because of a larger growth than the ‘leading’ group. With this strict perspective in mind, democratization does not occur. The gender difference is diminishing from 2012 onwards, but this is due to a decline in the participation level of women. Males do not close the difference because of a larger growth. In contrast, the weekly fitness participation of females declines and almost approaches the participation level of men. The pattern in figure 4.2 does not fit the essence of ‘pure’ democratization, and is as a result not considered as such.

⁴³ Note that the chi-square test only tests the ‘actual’ continuous lines for (signs of) democratization, and does not take the trend lines into account.

Figure 4.2: Dutch fitness participation in categories of gender from 2001 to 2016, in percentages.



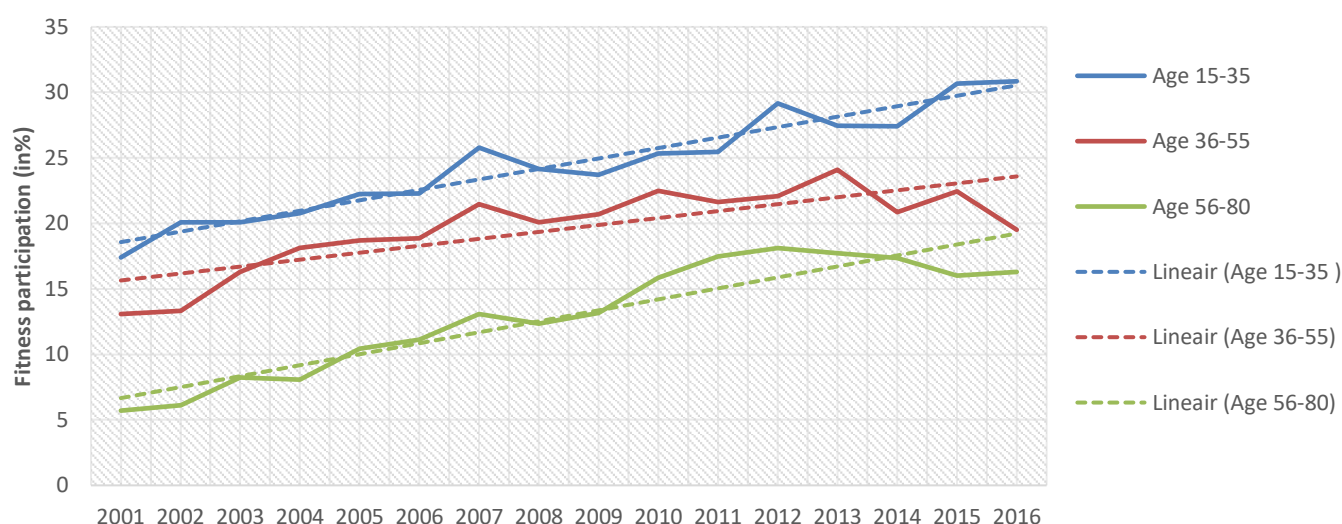
^A Derived from the population between 15 – 80 years old and solely for those who practice fitness at least once a week.

Source: National Health Survey/Lifestyle monitor, CBS i.c.w. RIVM, 2001 – 2016.

Figure 4.3 shows the fitness participation for the categories of age. In line with the IHRSA (2017), the findings in the figure show that the oldest aged have the lowest fitness participation. From the trend line it is clear that the deviations in the line initiate in the year 2009. A period of growth is then followed by a small decline and stagnation. Yet, the share of elderly practising fitness on a weekly basis has grown considerably over the years. The weekly fitness participation of the middle aged is characterized by an erratic pattern. The decrease in participation occurring after the year 2013 is steep, while this group almost approaches the fitness participation of the youngest group in 2009. In 2016, the difference in participation between the middle aged and the youngest group is the largest during the period of measurement. Moreover, the trend line of the middle aged shows the least growth of all the trend lines. The strong decline in weekly fitness participation in the recent years for those aged 36 to 55, raises the question whether fitness centres are able to fulfil the needs of this group. Customer surveys might be necessary to stay ‘on speaking terms’ with this group, and to halt the decline in participation rates. It is therefore necessary to adapt to an offer that fits the needs of the middle aged.

Finally, figure 4.3 presents the solid growth of the youngest aged. The trend line does not fluctuate often and reveals a similar growth curve as the oldest group. In contrast to both older groups, there exists no major deviation in contrast to the trend line during the final years. Furthermore, the youngest aged form the only group that is able to establish a growth in weekly fitness participation over the period 2014 to 2016. Considering *Appendix III*, the table shows that there is no democratization in regard to age. All groups differ significantly from each other in the first three and last three years of measurement.

Figure 4.3: Dutch fitness participation in age groups from 2001 to 2016, in percentages.



^A Derived from the population between 15 – 80 years old and solely for those who practice fitness at least once a week.

Source: National Health Survey/Lifestyle monitor, CBS i.c.w. RIVM, 2001 – 2016.

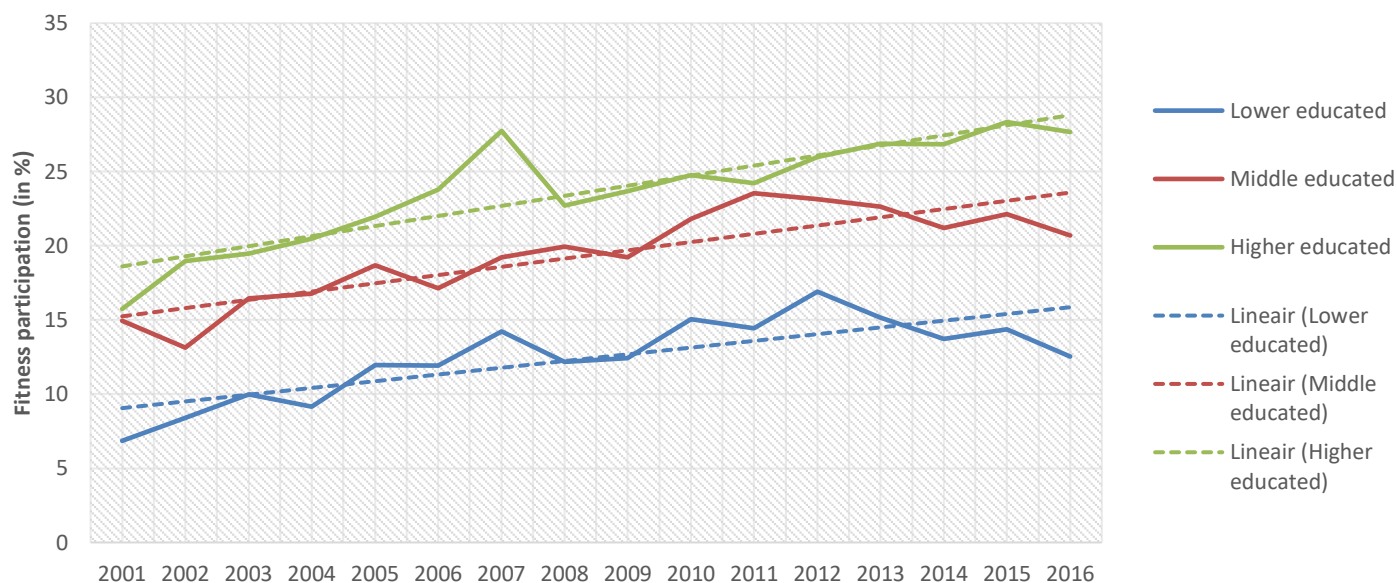
Figure 4.4 shows the weekly fitness participation for lower, middle and higher educated. Noteworthy is that the fitness participation between middle and higher educated was as good as equal in 2001 and 2011, while there is (large) fluctuation throughout the decade. After 2011, however, the difference grew considerably due to the steady growth of the higher educated and the diminishing participation rates of the middle educated. The rapid increase, and decrease, in the practicing of fitness for higher educated between 2005 and 2008 is noticeable. At the same time, the pattern is almost completely in line with the trend line. With regard to the middle educated, the development reveals more fluctuations. The weekly fitness participation of all groups declines near the end of the years researched, but the decline can first be observed in the middle educated group. There is a slight increase in the practicing of fitness from 2014 to 2015, but the period of 2011 to 2016 is mainly characterized by a decrease in fitness participation for middle educated. Whereas the practicing of fitness was highly comparable between middle and higher educated in 2001, in 2016 there are vast differences between the groups.

The weekly fitness participation of the lower educated remains far behind the participation levels of the other groups during the entire period. Despite the backlog, the lower educated demonstrate an increase in doing fitness, thereby confirming the finding by Hover et al. (2012), who state that more individuals with a lower educated background are participating in fitness. The declining fitness participation since 2012 (except for the year 2015) is not in accordance with the pattern from the years before. The trend line of the lower educated is, as a result of this period of decline, not very steep. This marks the precariousness of the situation: if the trend of decreasing fitness participation for lower educated continues, this group will return to their participation level in 2001.

Taking the results of the chi-square tests in *Appendix III* into account, one can conclude that there is no sign of democratization in the last three years. Middle and higher educated did not differ from each other in 2001, but that was the only year with groups being democratized.

Figure 4.4 visually confirms the ‘independence’, with particular weekly fitness participation levels for particular educational groups.

Figure 4.4: Dutch fitness participation in educational groups from 2001 to 2016, in percentages.



^A Derived from the population between 15 – 80 years old and solely for those who practice fitness at least once a week.

Source: National Health Survey/Lifestyle monitor, CBS i.c.w. RIVM, 2001 – 2016.

An investigation of the possible democratization in the Dutch fitness sector for the categories of gender, age and educational level in a time frame of fifteen years, shows a clear and unanimous pattern: the fitness sector in The Netherlands has not been democratized during the period of investigation. The weekly fitness participation of men and women became more equal, but the developments did not match the definition of democratization this study maintains. This similarity, to some extent, is not present when fitness participation is seen in the light of the different age and educational groups. Signs of a duality become apparent when the different groups of the variable age are analysed: the youngest group has a high level of practicing fitness, and the older groups lag behind. The trend lines seem to confirm this pattern, pointing to a fitness centre that becomes the ‘domain’ of the young adults. This might discourage the older groups to participate and, as a result, would undermine democratic processes in the fitness centre even more. It is an important task for fitness centres to prevent this, and to stay attractive to the middle aged and the oldest group. Signs of democratization are not present when the weekly fitness participation is investigated in the context of educational level. The division is obvious and the trend lines do not point to rapprochement in the near future.

Of particular importance are two observations. On the one hand, over the period of 2001 to 2016, the weekly fitness participation has been rising for all groups in this investigation. This underlines the growth of fitness in The Netherlands. On the other hand, it is remarkable that all the investigated groups stayed ‘in the same position’: females, the youngest aged and the higher educated had the highest weekly fitness participation during the entire period. The middle aged

and middle educated were, almost naturally, the middle group, and men, the elderly and lower educated stayed at the bottom in the whole period. This ‘robustness’ shows the social stratification of the fitness centre, including an autonomous division in participation level in light of the background characteristics.

The findings contradict the outcomes reported by Elling and Ferez (2007), and Hover et al. (2012)⁴⁴. Despite a social widely supported growth in fitness participation, the Dutch fitness field has not democratized in the period of 2001 to 2016. It is doubtful whether democratization will occur in the near future, for the trends outlined in the figures indicate that a turning point is not expected rapidly. As a result, hypothesis one is rejected.

Motivations to practice fitness or any other sport: uniformity or duality?

After this discussion of developments in weekly fitness participation, we investigate motivations to practice fitness, compared to motives to practice any other sport. Table 4.1 presents the odds ratios from the logistic regression⁴⁵ of participating in fitness on motivations to practice a sport. The variables *body shape*⁴⁶, *sexual attractiveness* and *self-confidence* belong to the scale of erotic capital, but are separately analysed in order to investigate mutual differences. The results show that if one is willing to sport to improve their *body shape*, odds are 1.162 times higher that one will practice fitness instead of any other sport. Practicing in a sport out of a motive of increasing *sexual attractiveness* and *self-confidence* leads to equal odds to either fitness or do any other sport. When *social contact* is an important motivation in the choice to sport, odds are 0.854 times higher that one will practice fitness. In other words: odds are higher to practice any other sport instead of fitness⁴⁷. Practicing a sport *for pleasure* leads to the same result: odds are 0.672 times higher to participate in fitness when the fun factor prevails in the choice to practice a sport. Participating in a sport to increase *performance* and *improve health* increases the odds to fitness with 1.151 times and 1.157 times, respectively. If *financial costs* are important in the choice to sport, the odds are 0.847 times higher that one will practice fitness instead of any other sport.

⁴⁴ Note that a strict definition of democratization has been used in this study, and that other authors might have used other perspectives to determine a certain development as democratization or not. This might lead to different conclusions and / or recommendations.

⁴⁵ As said, the logistic regression will be performed to test the effect of the motivations on the choice to fitness / participate in any other sport. In other words: the logistic regression measures the normal point of view, whereas the linear sequential regression analyses measure the statistical point of view: investigating the effect of fitness / any other sport on the motivations to play sports. The coefficients can be interpreted in both ways.

⁴⁶ The variable *body shape* was originally part of the scale of erotic capital. Though, it was removed from the scale after reliability analysis revealed that the variable undermined the scalability.

⁴⁷ As an odds ratio of 1 means equal odds, an odds ratio lower than 1 means lower odds and an odds ratio above 1 indicates higher odds.

Table 4.1: Odds ratios from logistic regression of participating in fitness on motives to practice a sport.

Explanatory variables	
Body shape	1.162 **
Sexual attractiveness	1.066
Self-confidence	1.008
Social contact	0.854 **
For pleasure	0.672 ***
Competition / Performance	1.151 **
Financial costs	0.847 ***
Improving health	1.157 **
Nagelkerke R ²	0.177
N	1150

^A Significance levels: ***p<.001 **p<.01 *p<.05.

^B Reference category: Any other sport.

^C When multiple sports (including fitness) were practiced, fitness had the priority over other sports to receive a larger sample.

^D Those who sport at least once a week.

Source: NSS, (2017).

Table 4.2 shows the linear regression analyses of the effect of practicing either fitness or any other sport on the motive to play sports. It may be clear that each variable is tested in an uncontrolled and a controlled model. The difference between the two models is that control variables ‘ethnicity’ and ‘lifestage’ are added to the second model, to test whether educational level, gender or age affect the relationship between the motives to fitness or the motivations to practice any other sport. Note that ‘fitness’ is included in the model, and ‘any other sport’ is treated as the reference category.

The motive to improve body shape is a desire that is more frequently mentioned by those participating in fitness, compared to individuals who practice another sport. The control variables explain a part of the relationship (as the strength of the effect decreases slightly), but it does not affect the significance. This indicates that people who fitness assign more importance to the shape of their body as a motive to practice the sport. The explained variability increases when control variables are added to the model (R²: 0.075), which points to significant contributions of these variables. Men, for instance, mention the motive to improve the shape of their body less often than women in the choice to play sports. In line with men, the elderly assign less importance to body shape as well. The motivation for playing sports to increase *sexual attractiveness* shows similarities with the motive of body shape. Again, this motivation is more often mentioned as a reason to practice fitness than to participate in any other sport. This result does not change when the control variables are added to the model. In contrast to the first observation, males now more often than females mention a motivation to enhance sexual attractiveness. Lastly, age shows a clear pattern: the middle aged and elderly are less likely to be motivated by increasing sexual attractiveness than the youngest group does.

Practising a sport to boost self-confidence leads, after the inclusion of the control variables, to an insignificant result. This indicates that this motivation is not more or less often mentioned by either people who fitness or by those who participate in another sport. Lower educated

indicated more often that their motivation to play sports is to fuel their self-confidence than individuals with a middle educated background, similar to the youngest group in comparison to the middle aged and elderly. In sum, people who fitness mention the desire to improve their body shape and sexual attractiveness more often than individuals participating in another sport. However, the groups did not differ in regard to the variable self-confidence. These mixed results were also visible in table 4.1, where only a desire to improve body shape led to increased odds to practice fitness. Therefore, hypothesis two is partly rejected.

Subsequently, social contact is investigated as a potential reason to practice a sport. In accordance with the expectation, and the outcome in table 4.1, social contact is less frequently mentioned as a motive to participate in fitness. Of further importance is the finding that the higher educated attach more importance to sociability than the middle educated do. The results mark the unsocial character of the fitness centre, considered as ‘light’ and ‘volatile’ communities by Elling and Ferez (2007), and confirmed in this study as well. The finding also fits the conclusion outlined by Gabriel and Lang (2006), who argued that the individual who is participating in fitness is not really embedded in a community. Fitness seems to be a type of sport in which a (large) dependency and social responsibility to others is not important. This might partly explain its popularity: it matches the individualized society, in which individual goals, individual distinction and autonomy are important pillars. The previously discussed *silent battles*⁴⁸ via mirrors further discourages verbal contact. On the basis of the foregoing, hypothesis three is accepted.

The next motivation to either practice fitness or participate in another sport investigated in this study is to do so for pleasure. The results are in line with the outcome in table 4.1 and reveal that individuals who fitness do not mention this reason frequently, especially compared to individuals participating in other sports, for whom this motive prevails much more. In fact, it is one of the strongest effects presented in table 4.2. The outcome supports the statement that fitness is not seen as fun through the lens of some of its practitioners, a conclusion also found by Elling and Ferez, (2007) and Van den Dool et al. (2008). The result also illustrates that fitness requires perseverance, and that gratification might come at a later point. Middelkamp (2001), Elling (2007) and Hover et al. (2012), already wrote that fitness is not pleasurable for some, especially compared to other sports. As fitness is not a sport that is practiced in the early stages of life, it is very likely that one can compare fitness to sports one has participated in before, or still participates in. This might (partly) explain the large difference in ‘fun factor’ between fitness and the other sports. Accordingly, hypothesis four is accepted.

The motivation sport for competition / performance has only a small effect ($p < .05$). Nonetheless, and in line with the result in table 4.1, people who fitness mention this motive significantly more often than those who participate in other sports. This seems to underline the *body discipline* that was described by Elias (1982). Because fitness is not arranged in a competitive form, one needs to derive the competitive element from the self: the own body and the desire to improve it. The silent battles via mirrors might contribute to a ‘taciturn’, non-existent competition between fitness practitioners. This is however merely an assumption and focused research on these silent battles is necessary to investigate its effect on feelings of competition between individuals practising fitness. The finding that fitness practitioners allocate more importance to the motive of competition and performance compared to those who

⁴⁸ Battles in fitness centres where people watch others and are watched by others.

participate in other sports, is neither in accordance with previous results reported by Hover et al. (2012) nor with the expectation of this study. As a result, hypothesis five is rejected.

The next motive investigated in this study are the financial costs that are necessary to practice a sport. People who fitness assign less importance to this motivation than those participating in any other sport. This is in accordance with the outcome of the logistic regression, which revealed that people who consider financial costs as important in the choice to sport, have lower odds to practice fitness. In imitation of individuals participating in fitness, men consider financial costs as less important than women (although the difference is small). Furthermore, the middle aged attach more importance to financial costs than the youngest do, perhaps because they are more aware of their expenses. Another reason might be that 'life' is more expensive for the middle aged (owning a house, having a mortgage and children), which could lead to a critical attitude to additional, sport-related costs. Once again, this outcome is not in line with the expectation of this study, and with the findings outlined by Van den Dool et al. (2008) and Hover et al. (2012). This leads to the rejection of hypothesis six.

Lastly, participating in sports to improve health is analysed as a motive. Individuals who fitness mention this motivation more frequently than people who participate in other sports. The result is in accordance with the outcome in table 4.1 and marks the 'healthy' image of fitness. Outcomes are also in line with findings from Smith Maguire (2008), Hover et al. (2012) and Van der Roest (2015). Taking the results of the control variables into account, one can notice that the different groups do not all assign equal importance to a health-related motive to practice a sport. Women mention this reason more often than men, and middle aged individuals and the elderly allocate more importance to this than the youngest group. These results may not be surprising, as physical problems normally occur more as one gets older. Practicing a sport is in that case (partly) rooted in the desire to stay fit, and to prevent physical decline. Note that physiotherapists nowadays actively cooperate with fitness centres to improve the recovery of their patients (Smith Maguire, 2008). This might reinforce the relation between fitness and health (care) as well. The effect of men is strong, perhaps because it is not seen as masculine to practice a sport mainly out of medical or health-related reasons. Since people who participate in fitness mention the desire to improve their health more often, hypothesis seven is accepted.

Considering the results of the motives to practice a sport, one cannot argue that people who fitness and people who do any other sport put an equal amount of importance to these reasons. There is not even one motivation that was equally often mentioned by people who fitness and by those who participate in another sport⁴⁹. It seems that the groups have different views with regard to the reason why they practice sports and assign an unequal importance to it. When looking at the control variables, it is noteworthy that educational level barely led to a difference. The educational level of an individual does not seem to have a significant influence on the motives to practice a sport. The effect of gender is larger considering that men attach more meaning to sexual attractiveness, and women to the shape of their body. Age is important as well, especially with regard to the motivations regarding body shape, sexual attractiveness and self-confidence. Despite their significant results, the control variables did not change the significance of focal variable 'fitness'. In other words: the 'fitness / any other sport' effect cannot be reduced to the control variables.

⁴⁹ However, the effect sizes ($p < .05$) measured by the motivations *self-confidence* and *competition / performance* were small.

Table 4.2: Relationship between fitness and motives to sport, derived from the National Sport Survey: unstandardized regression coefficients.

Explanatory variables	<u>Body shape</u>		<u>Sexual attractiveness</u>		<u>Self-confidence</u>		<u>Social contact</u>	
	Uncontrolled	Controlled	Uncontrolled	Controlled	Uncontrolled	Controlled	Uncontrolled	Controlled
Intercept	3.705 ***	4.176 ***	2.291 ***	2.708 ***	3.560 ***	3.838 ***	4.160 ***	3.956 ***
Fitness	0.645 (0.107) ***	0.544 (0.106) ***	0.455 (0.102) ***	0.397 (0.100) ***	0.248 (0.109) *	0.156 (0.109)	-0.506 (0.114) ***	-0.493 (0.115) ***
Low educational level		0.029 (0.126)		-0.153 (0.118)		0.319 (0.129) **		0.223 (0.137)
High educational level		-0.166 (0.141)		-0.344 (0.132)		0.332 (0.144)		0.429 (0.153) **
Men		-0.297 (0.106) **		0.420 (0.100) ***		-0.197 (0.109)		0.081 (0.015)
Age: 36 – 55		-0.089 (0.125)		-0.445 (0.118) ***		-0.506 (0.128) ***		-0.225 (0.136)
Age: 56 – 80		-0.717 (0.134) ***		-0.943 (0.126) ***		-0.660 (0.137) ***		0.061 (0.145)
R ²	0.031	0.075	0.017	0.082	0.004	0.038	0.017	0.030
Valid N	1150	1150	1150	1150	1150	1150	1150	1150

^A Significance levels: ***p<.001 **p<.01 *p<.05.

^B Reference categories: Any other sport (Fitness participation), Middle (Educational level), Women (Gender), 15 – 35 (Age).

^C When multiple sports (including fitness) were practiced, fitness had the priority over other sports to receive a larger sample of those practicing fitness.

^D Those who sport at least once a week.

Source: NSS, (2017).

Table 4.2 (continued): Relationship between fitness and motives to sport, derived from the National Sport Survey: unstandardized regression coefficients.

Explanatory variables	For pleasure		Competition / Performance		Financial costs		Improving health	
	Uncontrolled	Controlled	Uncontrolled	Controlled	Uncontrolled	Controlled	Uncontrolled	Controlled
Intercept	5.879 ***	5.867 ***	4.645 ***	4.627 ***	3.992 ***	3.763 ***	5.282 ***	5.252 ***
Fitness	-0.862 (0.097) ***	-0.848 (0.098) ***	0.250 (0.100) *	0.250 (0.101) *	-0.320 (0.116) **	-0.315 (0.117) **	0.317 (0.100) **	0.342 (0.100) **
Low educational level		-0.029 (0.116)		0.022 (0.120)		0.205 (0.139)		-0.065 (0.118)
High educational level		-0.053 (0.130)		0.079 (0.134)		0.208 (0.155)		-0.179 (0.132)
Men		0.003 (0.098)		-0.023 (0.101)		-0.268 (0.117) *		-0.391 (0.100) ***
Age: 36 – 55		-0.061 (0.116)		-0.024 (0.119)		0.387 (0.138) **		0.327 (0.118) **
Age: 56 – 80		0.178 (0.124)		0.019 (0.127)		0.260 (0.148)		0.664 (0.126) ***
R ²	0.065	0.068	0.005	0.006	0.007	0.019	0.009	0.040
Valid N	1150	1150	1150	1150	1150	1150	1150	1150

^A Significance levels: ***p<.001 **p<.01 *p<.05.

^B Reference categories: Any other sport (Fitness participation), Middle (Educational level), Women (Gender), 15 – 35 (Age).

^C When multiple sports (including fitness) were practiced, fitness had the priority over other sports to receive a larger sample of those practicing fitness.

^D Those who sport at least once a week.

Source: NSS, (2017).

Erotic capital: of decisive importance or 'just' a side note?

Table 4.3 presents the practising of fitness for reasons relating to erotic capital. Note that this analysis is solely directed to those practising fitness and that the scale of erotic capital is the dependent variable. The dummy variables of educational level are included in model 1. As shown, lower and higher educated do not differ from the middle educated in the relationship between erotic capital and the practising of fitness. As a result, the proportion of explained variance is low (R^2 : 0.002). In model 2, gender is added to the analysis. The effect of educational level did not change compared to the previous model. Moreover, men and women do not demonstrate a significant difference in erotic capital as reason to practice fitness. The explained variance increases slightly (R^2 : 0.009).

Table 4.3: Practicing fitness for reasons of erotic capital: unstandardized regression coefficients.

Explanatory variables	Model 1	Model 2	Model 3	Model 4
Intercept	3.034 ***	2.927 ***	3.269 ***	3.323 ***
Low educational level	-0.065 (0.150)	-0.055 (0.150)	-0.025 (0.144)	0.007 (0.146)
High educational level	-0.168 (0.169)	-0.170 (0.169)	-0.018 (0.164)	-0.021 (0.165)
Men		0.232 (0.121)	0.356 (0.121) **	0.362 (0.121) **
36 – 55 years			-0.549 (0.139) ***	-0.539 (0.139) ***
56 – 80 years			-1.074 (0.154) ***	-1.125 (0.177) ***
Foreign: non-western				0.217 (0.158)
Foreign: western				-0.214 (0.235)
Partner				-0.176 (0.138)
R^2	0.002	0.009	0.104	0.113
Valid N	483	483	483	483

^A Significance levels: *** $p < .001$ ** $p < .01$ * $p < .05$.

^B Reference categories: Middle (Educational level), Women (Gender), 15 – 35 (Age), Autochthonous (Ethnicity), No partner (Lifestage).

^C Fitness practitioners only, who practice fitness at least once a week.

Source: NSS, (2017).

Age is added to the analysis in model 3. The effect of educational level remains unaltered compared to model 2. In contrast to its effect in the second model, men now significantly allocate more importance to erotic capital as a reason to fitness than women. The dummy variables pertaining to age present significant results as well. The youngest group demonstrates a larger importance to erotic capital as a motive to practice fitness, whereas the middle aged and the elderly assign a significantly lower meaning to it. Moreover, the proportion of explained variability increases considerably (R^2 : 0.104). Last, the control variables are added in the final (fourth) model. Again, educational level shows no difference compared to the previous model, indicating that lower and higher educated do not assign more or less importance to erotic capital in the choice to fitness than middle educated do. Consequently, hypothesis eight is rejected. Considering gender, men mention the desire to increase their erotic capital more often than

women. Hypothesis nine is therefore accepted. As in the previous model, the youngest put more emphasis on erotic capital in the relationship to fitness than the middle aged and elderly. As a consequence, hypothesis 10 is accepted. No significant results are reported with regard to the control variables. This seems to indicate that natives and (non-) Western foreigners do not differ in the importance they assign to erotic capital in the reason to fitness. Likewise, individuals with or without a partner do not significantly differ as well. In this last model, the explained variance increases a little bit (R^2 : 0.113).

It is important to interpret the implications of the findings presented above. The categories of educational level showed no significant difference. Stokvis and Van Hilvoorde (2008) wrote that the appearance of working class individuals became an example for many men from the higher layers of society, in order to distinguish themselves from others in the acquisition of status and / or new partners. This suggests that erotic capital may filter up the class system. No evidence for this claim was found in this study, as lower- middle- and higher educated did not significantly vary in the importance they assigned to erotic capital. Moreover, figure 4.4 reveals that the fitness centre is not the 'domain' of the middle educated. In fact, their fitness participation has decreased over the last years and they have at no point been the 'leading' group between 2001 and 2016. This does not mean that the 'body-for-others' does not exist (Bourdieu, 1984), but it shows that it might not be only related to the middle educated anymore.

As expected, men emphasized erotic capital in the choice to fitness more than women. It is interesting to investigate what processes play a role in the rise of aesthetic motives for men to participate in fitness. Is the intensification of emphasis on men's appearances due to the women's rising labour market participation, which reshaped gender roles and norms for males as well. Historically, men could offer economic security to women, which can be seen as a distinctive advantage in their relationship with women. However, now that women are engaging in the labour market, a financially independent woman could demand an attractive partner as well.

The effect of age shows a clear pattern: the youngest group mentioned the desire to increase their erotic capital most frequently, followed by the middle aged and the elderly. This clear distinction seems logical: the youngest emphasize appearance and aesthetics most, because the majority of this group is (still) active on the marriage market, looking for a partner. It would make sense if such an attitude is replaced in the case of the elderly, as a health-related motive prevails much more in the choice to practice fitness. Evidence of this proposition can be found in table 4.2. Table 4.3 shows no difference in erotic capital as a reason to fitness between people with a partner and without one. Apparently, and perhaps most likely, erotic capital remains important even after a spouse has been found.

5 Conclusion and discussion

This study elaborates on the questions whether the Dutch fitness sector has democratized in the period 2001 to 2016, and what kind of motivations prevail in the choice to either fitness or practice any other sport, with specific attention to the effect of erotic capital in the choice to fitness. Findings in the literature indicated a trend to democratization (Van den Dool & Kamphuis, 2008; Hover et al. 2012). However, the fitness sector is dynamic and versatile, making a current state of affairs necessary to see if democratization actually has occurred. The National Health Survey is used to investigate this using data from 2001 to 2016, to test the relationship between fitness and gender, age and educational level. The National Sport Survey is used to assess the motives to practice fitness in contrast to other sports, and specifically the role of erotic capital as a reason to fitness. As far as is known, the most recent Dutch study that investigated motivations to fitness versus other sports was conducted in the year 2012. In the context of individualization and the ever-changing offer of different sports, it is important to paint a picture of the current situation. The theory of erotic capital (Hakim, 2010) is a combination of aesthetic, physical, visual, social and sexual attractiveness in relation to other members in society, and has so far never been tested in the Dutch fitness sector as a motive to practice fitness. The theory is rather new and can be strengthened, which has been attempted in this study. The theory concerning erotic capital is tested making use of a sample of 483 individuals who fitness on a weekly basis.

In contrast to the expectation, the Dutch fitness field has not become less selective in the period 2001 to 2016. Men and women had an almost equal fitness participation in 2016, but that is mainly due to a decline in participation level for females and is therefore not treated as a sign of democratization (as a strict definition of democratization was used in this study). With regard to age and educational level, differences remained intact. Two outcomes are of particular importance: the weekly fitness participation has been rising for all groups under investigation, which marks the growth of fitness in The Netherlands. Meanwhile, none of the groups were able to change position with each other regarding their participation rates. In fact, there has not been one switch in position during the entire period of investigation. This robustness reveals the social stratification of the fitness centre, with relatively fixed distinctions between the social groups. As such, it seems unrealistic that democratization will occur in the near future, since the trends outlined in this study indicate that a turning point is not expected rapidly. Future longitudinal research is necessary to further monitor this.

With reference to the motivations to practice fitness as opposed to the reasons to practice any other sport, the findings are not completely in line with the initial hypotheses. The unsocial character of the gym is confirmed, as social contact is a more important reason to practice other sports than fitness. It marks the light and volatile community of the fitness centre, where members are not very focused or interested in connecting to others, but focus solely on their own performance as part of their individualized 'tunnel vision'. The unimportance of social contact as a reason to participate in fitness might be due to the fact that fitness can be practiced alone. One does not need to rely (that much) on others to perform well, in contrast to for instance team sports. Moreover, the outcome that fun is not an important reason to fitness, underlines why fitness is distinct from other sports: attending the gym requires perseverance and is not immediately pleasurable for some, but it causes a satisfying feeling afterwards. The claim that fitness can best be considered a form of delayed gratification seems hereby supported. It is

interesting for future research to investigate the effects of the so-called ‘silent battles’ and its effects on the performance of fitness members. Silent battles occur via mirrors in the fitness centre, where members watch others and are watched by others. These interactional battles might explain the unexpected outcome that individuals who fitness assign more importance to competition or performance as a reason to practice their sport, compared to people participating in other sports than fitness. Alternatively, they may feel that they ‘compete’ against themselves and their past fitness performances: as also indicated by the increasing popularity of fitness trackers, and the tracked performance on fitness equipment in gyms. Important to note is that the control variables did not change the significance of focal variable ‘fitness’. In other words: the ‘fitness / any other sport’ effect cannot be reduced to the control variables.

No evidence was found that educational level played a role in the practicing of fitness for reasons related to erotic capital. Based on the literature, it was expected that the middle educated dedicated more importance to erotic capital, as they are the embodiment of the consumer service economy. Bourdieu (1984) introduced the term ‘body-for-others’, that he related to the middle educated with regard to their interplay between their personal body and public body (or body-for-others). Bourdieu pointed to the uncertainty of the middle educated towards their body because of a sense of unease or embarrassment about their social position, which manifested as an uneasiness towards the body. As a result, Smith Maguire (2008) argued that the development of consumer culture, and of the field of fitness in the last decades, cannot be separated from the efforts of the middle educated to legitimate and advance their social position through these aesthetic moves towards bodily distinctiveness. However, no evidence was found for this assertion, as the middle educated did not allocate more importance to erotic capital than the other educational categories. This does not mean that the ‘body-for-others’ does not exist, but it shows that it might not be only related to the middle educated anymore. As appearance is highly valued in the service industry, this middle educational group has a significant incentive to work on their appearances. Perhaps the growing awareness for norms of slimness and sexual attractiveness across all segments of society plays a role. The socialization seems nowadays developed to such extent that the awareness has reached most layers of society, and not the middle educated in particular anymore. This can be considered a new development in the Western civilization process of body discipline. However, cross national research is necessary to confirm this hypothesis.

Men participating in fitness mentioned the desire to increase their erotic capital more often than women. It is interesting to indicate if the intensification of emphasis on men’s appearances is due to women’s rising labour market participation, which reshaped gender roles and norms for males as well. This might explain the importance that males assign to erotic capital, but other reasons might also play a role. Future (cross national) research needs to focus on whether the American phenomenon in the form of the *Adonis complex*⁵⁰ has reached European societies, and which underlying reasons are at play. As expected, the youngest allocated more importance to erotic capital in their reason to fitness than older age groups. Presumably, this is because the majority of this group is active on the marriage market to seek for a partner. It is remarkable, in this respect, that fitness members without a partner do not assign more importance to erotic

⁵⁰ Pope et al. (2000) concluded that 45 percent of American men were unsatisfied about their muscularity, a doubling of the percentage which was found in 1972. This dissatisfaction and uncertainty is called the Adonis complex.

capital than those with a partner. Most likely, and specifically in the context of the service economy, erotic capital remains important even after a spouse has been found.

The expectation is that the fitness field in The Netherlands will continue to form a solid position in society. This is because fitness providers contribute to the acquisition of social and erotic capital in the community. This points to the realization (or continuation) of a slim and physical attractive body in a fattening (obesogenic) society, which propagates a slender ideal at the same time. In other words: fitness centres enable individuals to distinguish themselves from others through the cultivation of a fit and muscular body in a growing obesogenic society. This contribution is an important aspect of the lifeline of gyms and leads to the determination that the societal importance of fitness will certainly not diminish in the coming years. This proposition is in line with the thoughts of Stokvis and Van Hilvoorde (2012), who stated that the context of the labour market and consumer culture, heavily attuned to bodily images, will enable the fitness field to further develop and become even more important in the future.

A limitation of this study is that we only were able to focus on possible democratization in the market of those who practice fitness at least once a week. The structure of the data did not make it possible to investigate the trends for those who practice fitness less frequent, a market that is large as well (IHRSA, 2017). Next, possible democratization was investigated in relation to gender, age and educational level. It is a missed opportunity that democratization could not be tested for different income levels, as income was not included in the National Health Survey. Hover et al. (2012) stated that more individuals belonging to a lower income group participated in fitness. It was therefore relevant to test this finding in this study to see what pattern could be shown. As a result, future research should investigate whether democratization depending on income occurs or not. This is in particular interesting considering the context of the financial crisis and the economic growth afterwards. Did the financial crisis exclude the lowest income groups from the fitness market, and did the growth in the years thereafter lead to the re-entry of these groups? It is also important to note that the list of investigated motivations to either practice fitness or another sport is not exhaustive. Budgetary limits affected the amount of motives that could be researched. Besides, a respondent can be unaware of a motive as well.

Another limitation is that the scale of erotic capital seems incomplete so far. One item unexpectedly did not contribute to the scale consistency. As a result, this item was removed from the scale. Also, additional reliability tests revealed that the scale was not very robust for subgroups. Future research should focus on further strengthening the scalability, to make outcomes more reliable. Besides, this study assumed that erotic capital had the same meaning for every person of every layer in society. However, the inconsistency in scalability for subgroups might reveal that this is not a given. The scale of erotic capital was very reliable for men and higher educated, and somewhat less reliable for women, middle and lower educated. This might indicate that men view erotic capital with another perspective than women, and that higher educated shed another light on erotic capital than lower and middle educated. It is too early to argue that different erotic capital scales need to be used for different subgroups, but it is also too early to state that there is one construct of erotic capital that fits the meaning of everyone. Additional research is necessary to obtain more knowledge on this matter. Another interesting recommendation is to compare these Dutch outcomes with other Western European countries. Cross-national research can further deepen the theory of erotic capital in relation to fitness participation and might shine light on the importance of erotic capital in other countries. An added value is to investigate whether the scale of erotic capital is inconsistent for subgroups

in other countries as well, or that there is more uniformity in how, for instance, men and women perceive erotic capital.

Furthermore, one needs to keep in mind that some of the items of erotic capital address sensitive, intimate subjects. These sensitive questions might lead to socially desirable answers from respondents, as they might not be willing to reveal their true opinions out of shame or uncertainty. As a result, a degree of canniness is needed with regard to the conclusions in this study. Possible alternatives to avoid these socially desirable answers are the observing of the silent battles in fitness centres. Another option might be the use of an experiment. One group uses fitness devices with the following inscription: 'to improve health'. The other group uses devices with the inscription: 'to improve sexual attractiveness'. This experimental design enables the researcher to observe differences in use of the devices with particular inscription. If respondents use the device with inscription 'to improve sexual attractiveness', it might point to erotic capital as reason to fitness. Finally, this study selected fitness as such. Aspects of fitness such as aerobics, outdoor fitness (boot camp) and indoor fitness were lumped together in order to receive a larger sample. Future research can further elaborate the theory of erotic capital by looking at specific forms of fitness, to test possible variations in motivations of erotic capital for types of fitness.

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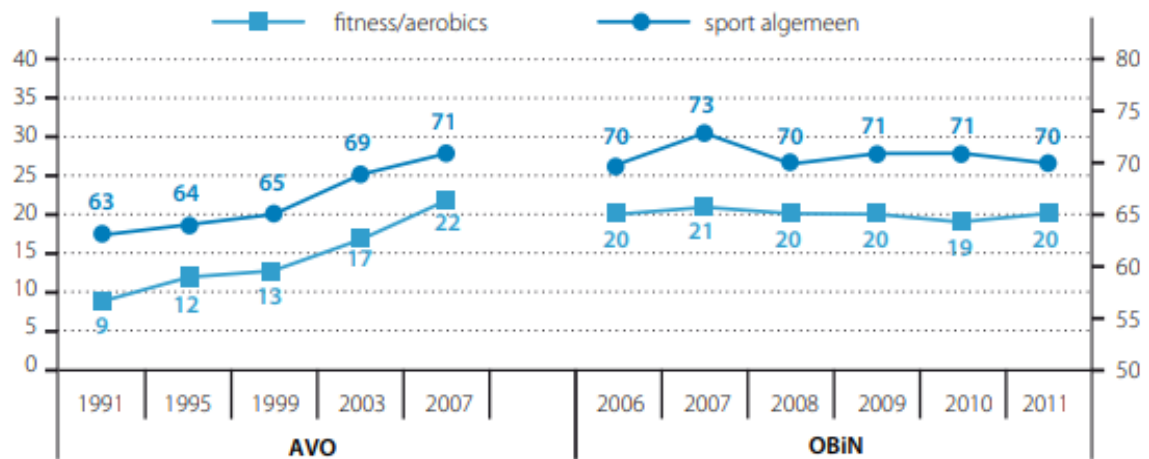
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Between personal body, and body-for-others. Building erotic capital and other reasons to fitness in a possible democratizing fitness landscape

Wynne, D. (1998). *Leisure, lifestyle and the new middle class: a case study*. London: Routledge.

Appendix

I: Fitness participation in The Netherlands from 1991 – 2011, in percentages.

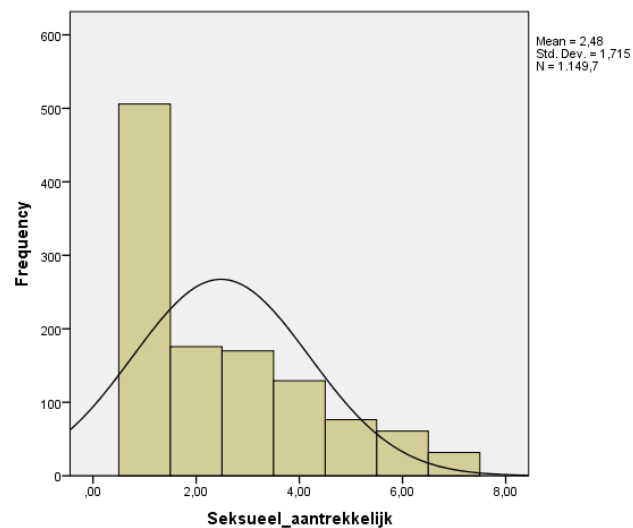
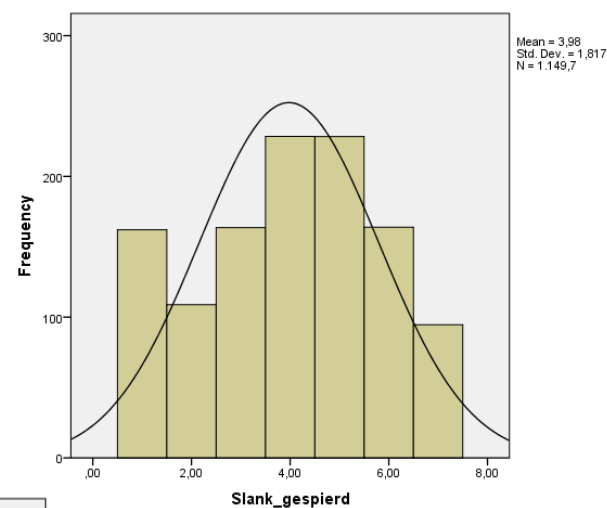
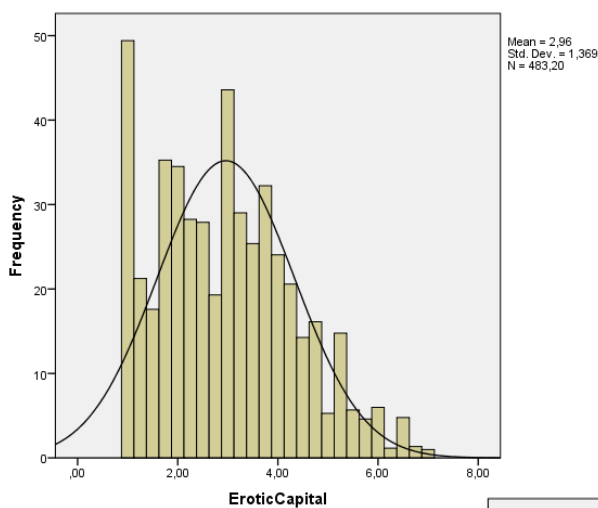


^A Practicing fitness at least one time a year.

^B Derived from the population of 6 – 79 years old (1991 – 2007), and from the population of four years and older (2006 – 2011).

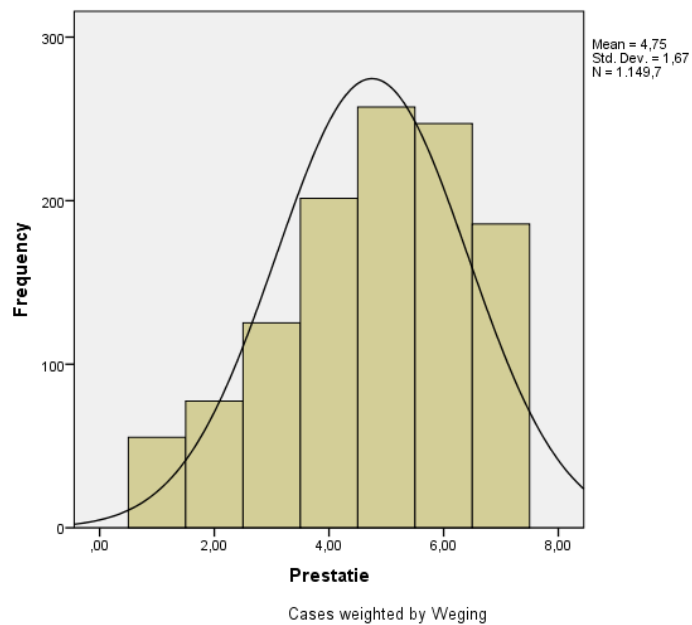
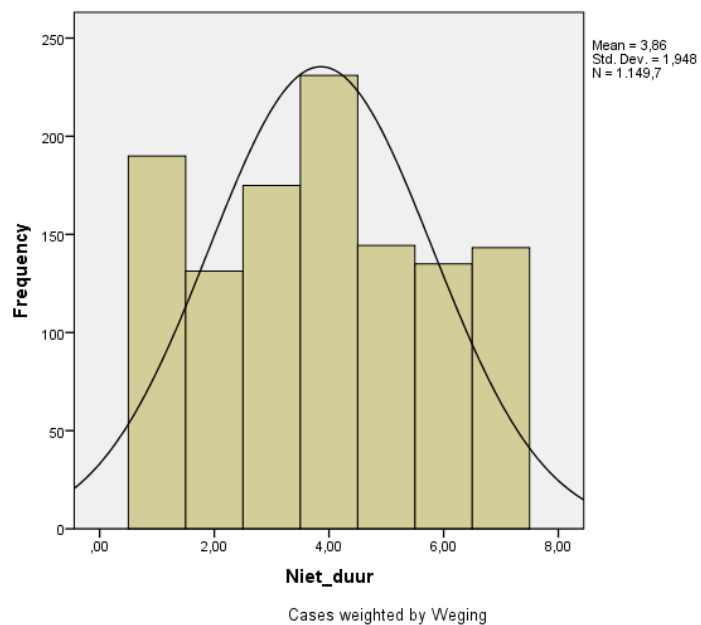
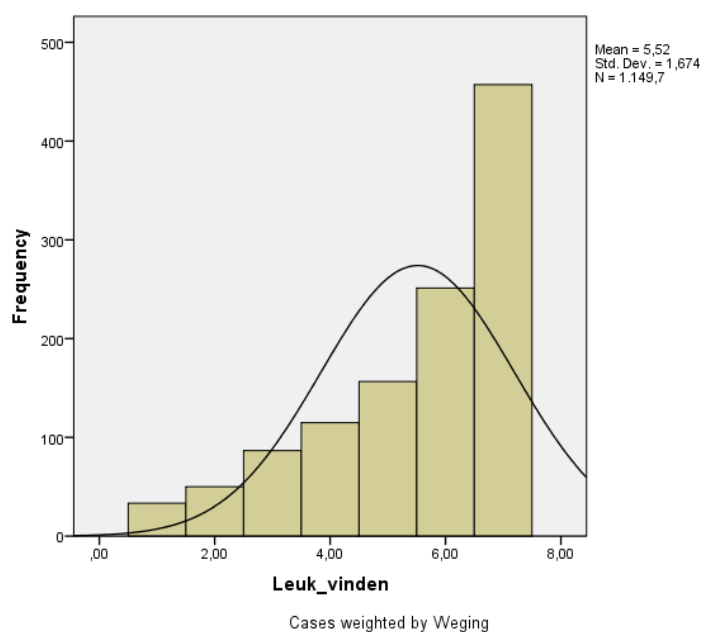
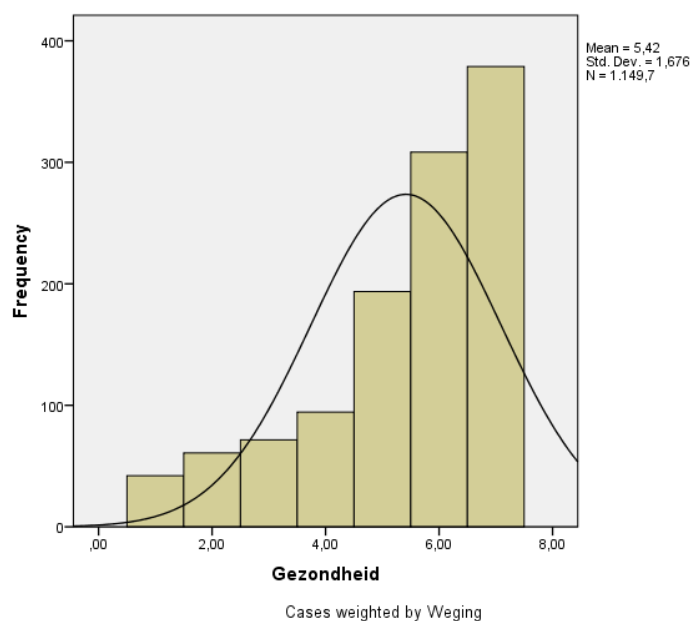
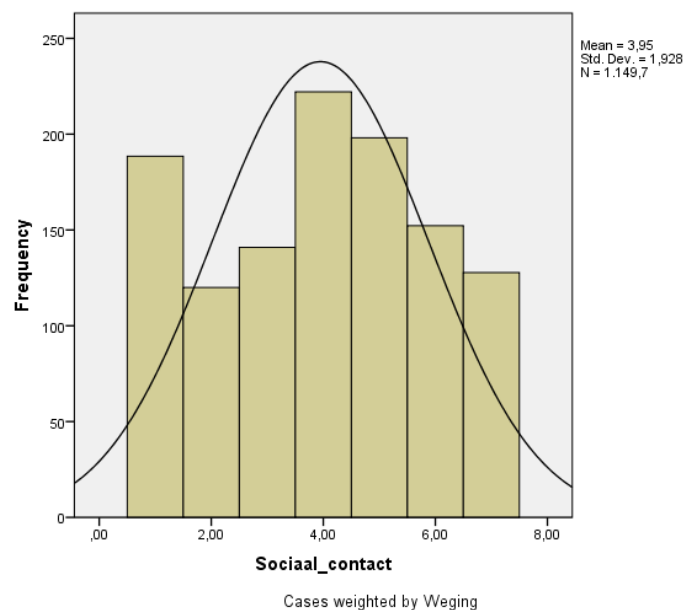
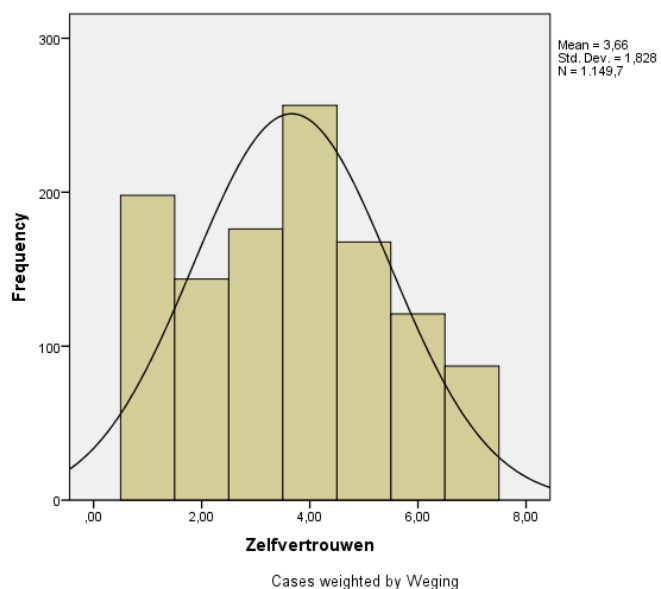
Source: AVO 1991 – 2007 (SCP) and OBIN 2007 – 2011 (TNO), in: Hover, Hakkers and Breedveld (eds). (2012).

II: Linearity test of normally divided residuals (National Sport Survey).



Cases weighted by Weging

Between personal body, and body-for-others. Building erotic capital and other reasons to fitness in a possible democratizing fitness landscape



III: Tables with bivariate analyses (National Health Survey).

Table: proportions of societal groups participating in fitness (in percentages).

	Gender		Age			Educational level		
	Male	Female	15-35 years	36-55 years	56-80 years	Low	Middle	High
2001	11	14	17	13	6	7	15	16
2002	11	16	20	13	6	8	13	19
2003	13	17	20	16	8	10	16	19
2004	15	18	21	18	8	9	17	20
2005	15	20	22	19	10	12	19	22
2006	14	21	22	19	11	12	17	24
2007	16	24	26	21	13	14	19	28
2008	17	20	24	20	12	12	20	23
2009	17	21	24	21	13	12	19	24
2010	18	24	25	23	16	15	22	25
2011	18	24	25	22	17	14	23	24
2012	21	26	29	22	18	17	23	26
2013	22	25	27	24	18	15	23	27
2014	21	23	27	21	17	13	21	27
2015	22	24	31	22	16	14	22	28
2016	21	23	31	20	16	12	21	28

Table: Comparison of column means^{AB}

	Gender		Age			Educational level		
	Male (B)	Female (C)	15-35 years (B)	36-55 years (C)	56-80 years (D)	Low (B)	Middle (C)	High (D)
2001		B	C D	D			B	B
2002		B	C D	D			B	B C
2003		B	C D	D			B	B C
2004		B	C D	D			B	B C
2005		B	C D	D			B	B C
2006		B	C D	D			B	B C
2007		B	C D	D			B	B C
2008		B	C D	D			B	B C
2009		B	C D	D			B	B C
2010		B	C D	D			B	B C
2011		B	C D	D			B	B
2012		B	C D	D			B	B C
2013		B	C D	D			B	B C
2014			C D	D			B	B C
2015			C D	D			B	B C
2016			C D	D			B	B C

Results are based on two-sided tests assuming equal variances. For each significant pair, the key of the smaller category appears in the category with the larger a. Pairwise comparisons are not performed for some subtables because of numerical problems.

b. Cell counts in some subtables are not integers. They were rounded to the nearest integers before performing pairwise comparisons.

Table: societal groups participating in fitness (in absolute numbers)

		Gender		Age			Educational level		
		Total	Male	Female	15-35 years	36-55 years	56-80 years	Low	Middle
Total	100.523	48.123	52.400	28.498	37.395	34.630	30.487	31.166	24.880
2001	5.662	2.687	2.975	1.844	2.265	1.553	2.053	1.678	1.142
2002	5.498	2.589	2.909	1.732	2.181	1.585	1.963	1.606	1.147
2003	6.164	2.960	3.204	1.954	2.347	1.863	2.169	1.835	1.316
2004	7.077	3.399	3.678	2.174	2.828	2.075	1.824	2.573	1.664
2005	6.686	3.230	3.456	2.049	2.585	2.052	2.368	2.004	1.412
2006	6.237	3.011	3.226	1.739	2.465	2.033	2.166	1.881	1.392
2007	5.440	2.586	2.854	1.510	2.146	1.784	1.875	1.625	1.241
2008	5.770	2.752	3.018	1.563	2.176	2.031	1.902	1.751	1.354
2009	5.293	2.530	2.763	1.445	1.986	1.862	1.637	1.585	1.358
2010	6.799	3.234	3.565	1.602	2.545	2.652	2.230	1.792	1.902
2011	5.923	2.829	3.094	1.423	2.137	2.363	1.947	1.513	1.673
2012	6.053	2.842	3.211	1.487	2.102	2.464	1.767	1.744	1.803
2013	6.099	2.827	3.272	1.525	2.200	2.374	1.341	2.226	1.814
2014	7.349	3.596	3.753	2.169	2.526	2.654	1.761	2.521	1.880
2015	7.322	3.603	3.719	2.183	2.499	2.640	1.753	2.514	1.855
2016	7.151	3.448	3.703	2.099	2.407	2.645	1.731	2.318	1.927

IV: Tables with bivariate analyses (National Sport Survey).

Table: motivations to sport according to gender, age and educational level

		Gender		Age			Educational level		
		Male	Female	15-35 years	36-55 years	56-80 years	Low	Middle	High
		%	%	%	%	%	%	%	%
To be slim / muscular	Agree	16	29	30	24	12	20	24	23
	Neutral	60	48	51	57	54	51	55	56
	Disagree	24	23	19	19	34	30	21	21
To be sexually attractive to others	Agree	9	7	11	9	3	4	9	11
	Neutral	36	29	42	30	25	32	31	35
	Disagree	55	63	47	60	72	63	60	54
To receive more self-confidence	Agree	17	20	24	15	15	21	19	14
	Neutral	51	53	54	53	50	50	54	52
	Disagree	32	28	22	33	35	29	28	34
To improve my health	Agree	54	65	54	59	68	59	60	60
	Neutral	36	26	35	33	25	32	30	33
	Disagree	9	9	11	8	8	9	10	7
For cosiness	Agree	34	34	35	31	38	44	33	27
	Neutral	46	43	43	46	44	41	46	45
	Disagree	20	22	22	23	18	15	21	28
Because of the social contacts	Agree	24	25	25	20	28	27	24	22
	Neutral	52	45	48	48	51	53	50	43
	Disagree	24	30	27	31	21	20	26	34

Because I like it									
	Agree	62	61	60	60	66	62	61	63
	Neutral	32	30	32	33	28	29	33	31
	Disagree	6	9	8	7	6	9	6	7
Because it is not expensive									
	Agree	20	29	21	26	26	26	25	21
	Neutral	53	43	49	47	47	46	49	49
	Disagree	27	29	30	26	27	28	26	30
To improve my performance									
	Agree	36	39	38	36	39	39	37	37
	Neutral	54	48	50	55	48	50	51	51
	Disagree	10	13	13	9	13	12	11	12
To receive more success in my work or study									
	Agree	10	7	15	5	1	9	7	10
	Neutral	39	31	37	39	24	34	36	32
	Disagree	52	61	47	56	74	57	57	58
To receive more appreciation from people around me									
	Agree	12	4	11	6	3	6	6	10
	Neutral	43	40	46	40	34	39	44	40
	Disagree	45	56	43	53	63	55	50	50

Table: Comparisons of Column Proportions^c

		Gender		Age			Educational level		
		Male (B)	Female (C)	15-35 years (B)	36-55 years (C)	56-80 years (D)	Low (B)	Middle (C)	High (D)
To be slim / muscular									
	Agree		B	D	D				
	Neutral	C							
	Disagree					B C	C D		
To be sexually attractive to others									
	Agree			D	D			B	B
	Neutral	C		C D					
	Disagree		B		B	B C	D		
To receive more self-confidence									
	Agree			C D			D		
	Neutral								
	Disagree				B	B			
To improve my health									
	Agree		B			B C			
	Neutral	C		D	D				
	Disagree								
For cosiness									
	Agree					C	C D		
	Neutral								
	Disagree							B	B C

Because of the social contacts								
	Agree				C			
	Neutral	C				D		
	Disagree		B		D			B C
Because I like it								
	Agree							
	Neutral							
	Disagree							
Because it is not expensive								
	Agree		B					
	Neutral	C						
	Disagree							
To improve my performance								
	Agree							
	Neutral							
	Disagree							
To receive more success in my work or study								
	Agree			C D				
	Neutral			D	D			
	Disagree		B			B C		
To receive more appreciation from people around me								
	Agree	C		D				
	Neutral			D				
	Disagree		B			B		

Results are based on two-sided tests. For each significant pair, the key of the category with the smaller column proportion appears in the category with the larger column proportion.

a. This category is not used in comparisons because its column proportion is equal to zero or one.

b. This category is not used in comparisons because the sum of case weights is less than two.

c. Cell counts of some categories are not integers. They were rounded to the nearest integers before performing column proportions tests.

Table: motivations to sport according to gender, age and educational level (in absolute numbers)

		Gender		Age			Educational level		
		Male	Female	15-35 years	36-55 years	56-80 years	Low	Middle	High
		N	N	N	N	N	N	N	N
To be slim / muscular									
	Agree	89	148	93	93	51	56	113	68
	Neutral	356	259	161	225	229	164	272	179
	Disagree	154	127	59	76	146	96	115	70
To be sexually attractive to others									
	Agree	51	34	34	37	14	13	40	32
	Neutral	203	150	132	116	105	97	147	109
	Disagree	345	350	147	241	307	206	313	176
To receive more self-confidence									
	Agree	95	100	76	58	61	65	86	44
	Neutral	306	280	168	205	213	158	265	163
	Disagree	198	154	69	131	152	93	149	110
To improve my health									
	Agree	338	353	170	234	287	193	303	195
	Neutral	208	136	109	130	105	95	149	100
	Disagree	53	45	34	30	34	28	48	22
For cosiness									
	Agree	208	185	109	121	163	142	167	84
	Neutral	273	231	134	183	187	129	231	144
	Disagree	118	118	70	90	76	45	102	89
Because of the social contacts									
	Agree	150	131	79	80	122	90	120	71
	Neutral	310	244	148	192	214	164	251	139
	Disagree	139	159	86	122	90	62	129	107

Because I like it									
	Agree	380	327	186	237	284	196	309	202
	Neutral	186	161	101	129	117	91	161	95
	Disagree	33	46	26	28	25	29	30	20
Because it is not expensive									
	Agree	118	158	66	102	108	87	124	65
	Neutral	318	226	153	187	204	145	243	156
	Disagree	163	150	94	105	114	84	133	96
To improve my performance									
	Agree	220	208	118	142	168	123	185	120
	Neutral	318	256	154	216	204	153	259	162
	Disagree	61	70	41	36	54	40	56	35
To receive more success in my work or study									
	Agree	17	17	24	8	2	9	13	12
	Neutral	80	75	58	61	36	40	74	41
	Disagree	119	155	75	88	111	72	127	75
To receive more appreciation from people around me									
	Agree	23	9	17	10	5	8	12	12
	Neutral	91	95	72	63	51	45	91	50
	Disagree	102	143	68	84	93	68	111	66