

# Are *you* regretting your Tattoo?

*The effects of demographical variables, initial motivations, impulsiveness, tattoo characteristics, daily events and the decision-making process on having regrets about a tattoo*



**Bachelor Thesis**

A.F. van Oosterzee – S0114456

Supervised by:

dr. C.H.C. Drossaert

dr. L.M.A. Braakman-Jansen

Psychology - Faculty of Behavioral Sciences  
University of Twente, Enschede

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## **Abstract**

**Background.** As our society is becoming more tattoo-acceptant, having tattoos is a growing phenomenon among people of all ages, cultures and ethnic groups. The number of people that have regrets about a tattoo is also increasing. Regretting tattoos causes considerable psychological burden, which could have been avoided or reduced if certain factors had been considered more thoroughly. Unfortunately, there are many gaps in the existing (Dutch) literature about this topic. Therefore, this article covers an explorative research about tattoos and tattoo-related regret.

**Aim.** The purpose of the present study is to examine why and how badly people regret their tattoos, and what factors differ between the regret and the non-regret group. Also, gender-related effects are studied.

**Method.** To answer the research questions by addressing the concepts mentioned above, a Dutch cross-sectional online survey was performed. All participants were Dutch individuals that were over sixteen years of age, who had received a tattoo at least once in their life. The following variables are examined: demographics, characteristics of the tattoo, impulsiveness, initial motivations for having the tattoo, tattoo-related stressors in daily life and the length and the intensity of the decision-making process that participants underwent before making the decision to have a tattoo.

**Results.** Results of the 392 fully completed questionnaires showed that 55 individuals (14.0%) experienced tattoo-related regret. No significant relationship between demographical variables and regret was found, apart from 'Age' (the older the individual, the less regret was experienced). More impulsive people generally experienced more tattoo-related regret. Tattoo characteristics such as size, number of colors or location of the tattoo on the body had no significant effect on regret. The length and intensity of the decision-making process proved to be important variables in this context: the no regret group paid more attention to certain facets of the decision-making process, e.g. searching for information about reliable tattoo shops and health risks. Certain initial motivations might cause more chance of regret (e.g. having a tattoo for social/group cohesion reasons, such as 'wanting to fit in'). The 'best' motivations for having a tattoo have to do with conveying a personal message, for example, a spiritual meaning. Tattoo-regretting individuals struggle significantly more with daily tattoo-related hassles, such as changed attributed meaning of a tattoo, and experiencing health problems and insecurity, as well as career-related problems.

**Conclusion.** The decision-making process, initial motivations, impulsiveness and daily tattoo hassles have a strong effect on experiencing regret. These findings could be important when providing the public with information or when designing interventions to reduce or avoid regret. Further scientific research on this phenomenon should be performed in order to fill the gap in tattoo and regret-related literature in the Netherlands and to create more understanding of this problem.

## Samenvatting

**Achtergrond.** Onze maatschappij staat steeds meer open voor tatoeages, waardoor steeds meer mensen van alle leeftijden, culturen en etnische groepen een tatoeage laten zetten. Terwijl het aantal mensen met tatoeages stijgt, is er ook een stijging in het aantal mensen dat spijt heeft van één of meer tatoeages. Spijt hebben van een tatoeage kan een significante psychologische last veroorzaken, die vermeden of verminderd had kunnen worden als bepaalde factoren beter waren overdacht. Helaas zijn er tot op heden vele hiaten in de (Nederlandse) literatuur over dit onderwerp. Om deze redenen beschrijft dit artikel een exploratief onderzoek over tatoeages en spijt.

**Doel.** Het doel van deze studie is het onderzoeken hoeveel mensen spijt hebben van hun tatoeage(s), waarom ze spijt hebben, en wat de verschillen zijn tussen de groepen die wel en geen spijt hebben. Ook geslachtseffecten worden hierbij bestudeerd.

**Methode.** Een Nederlandse cross-sectionele online vragenlijst is afgenomen. Alle deelnemers aan het onderzoek zijn Nederlands, ouder dan 16 jaar, en in het bezit van een tatoeage. De gemeten variabelen tijdens dit onderzoek zijn: demografische variabelen, de kenmerken van de tatoeage, impulsiviteit, initiële motivaties voor het laten zetten van een tatoeage, tatoeagegerelateerde stressoren in het dagelijks leven en de lengte en intensiteit van het besluitvormingsproces.

**Resultaten.** Uit de resultaten van de 392 volledig ingevulde vragenlijsten bleek dat 55 respondenten (14.0%) spijt had van een tatoeage. Er was geen significant verband tussen demografische variabelen en spijt, afgezien van 'Leeftijd' (hoe ouder de persoon, hoe minder spijt). Karakteristieken van de tatoeage zelf (grootte, aantal kleuren, locatie) hadden geen verband met spijt. Impulsiviteit had wel een belangrijk effect: impulsievere mensen ervoeren over het algemeen meer spijt van hun tatoeage. De lengte en intensiteit van het beslissingsproces voorafgaand aan het nemen van een tatoeage bleek belangrijk bij het al dan niet ervaren van spijt: mensen zonder spijt hadden hier significant meer aandacht aan besteed (bijvoorbeeld door informatie te zoeken over gezondheidsrisico's en betrouwbare tattoo shops). Het hebben van bepaalde initiële motivaties kan de kans op spijt vergroten (bijvoorbeeld sociale/groepscohesie-redenen, zoals 'erbij willen horen'). De spijtgroep heeft meer last van dagelijkse tatoeage-gerelateerde problemen, zoals onzekerheid, gezondheidsproblemen en carrièrestrubbelingen.

**Conclusie.** Tatoeage-stressoren in het dagelijks leven (met name op psychisch en arbeidsvlak, en dat de betekenis van een tatoeage kan veranderen), initiële motivaties, impulsiviteit en het beslissingsproces hebben sterk effect op het al dan niet ervaren van spijt. Deze concepten kunnen gebruikt worden bij het ontwerpen van tatoeage-gerelateerde interventies of bij het verstrekken van informatie. Meer wetenschappelijk onderzoek op dit gebied moet uitgevoerd worden om het 'gat' in de Nederlandse literatuur te dichten en meer begrip voor dit probleem te kweken.

## Table of Contents

<b>Abstract</b> .....	2
<b>Samenvatting (Dutch)</b> .....	3
<b>1. Introduction</b> .....	5
1.1 The phenomenon ‘tattoo’ .....	5
1.2 Motivations for getting a tattoo.....	6
1.3 Why are tattoos a problem? Regretting your tattoo.....	8
1.4 Research goals, relevance and concrete research question....	10
<b>2. Method</b> .....	12
2.1 Study design.....	12
2.2 Participants and procedures for data collection.....	12
2.3 Questionnaire.....	12
2.4 Data analysis.....	14
<b>3. Results</b> .....	15
3.1 Response rates, regret prevalence and demographical variables .....	15
3.2 Tattoos and daily life.....	17
3.2.1 Factor analysis ‘Tattoos and daily life’ .....	17
3.2.2 Tattoos and daily life – further examined.....	18
3.3 Characteristics of the tattoo.....	19
3.4 Initial motivations for having the tattoo.....	19
3.4.1 Factor analysis ‘Initial motivations’ .....	19
3.4.2 Initial motivations – further examined.....	21
3.5 Decision-making process.....	22
<b>4. Discussion</b> .....	24
4.1 Study findings.....	24
4.2 Limitations, practical implications and recommendations.....	27
4.3 Conclusion.....	29
<b>5. Acknowledgements</b> .....	30
<b>6. References</b> .....	31
<b>7. Appendices</b> .....	33
Appendix A. Online questionnaire ‘Tattoos’ .....	33
Appendix B. List of used forums and websites.....	40
Appendix C. Factor analysis ‘Tattoos and daily life’ .....	41
Appendix D. Factor analysis ‘Initial motivations’ .....	42

# 1. Introduction

## 1.1 The phenomenon 'tattoo'

A tattoo is a form of permanent body adornment for which needles are used to place an ink-based drawing underneath the skin. By moving a (usually) electrically driven needle over the skin, a drawing is created in the dermis. This process is called 'tattooing'. Tattoos have a long and rich history, going back to at least 12.000 years ago. The roots of tattooing can mainly be found in Egypt, Greece, Japan and Polynesia. In more recent history, tattoos were used to mark slaves, to indicate blood types for soldiers during the World Wars and the Cold War (to enhance quick at-the-scene blood transfusions) and during nuclear threatening situations in the United States of America (Wolf & Laumann, 2008). The word 'tattoo' has probably been derived from the Tahitian sound for 'marking the skin with pigments', 'tatau' (Goldstein, 2007). It is also thought that the word 'tattoo' stems from the Dutch word 'taptoe', which, according to Chambers Dictionary of Etymology, is a 'signal on a drum which calls soldiers to their quarters at night'. Tattoos were and are still often associated with sailors and other seamen, gang members, people in the 'motor' scene, criminals and other similar subgroups in society (Benson, 2000).

Tattoos can be put on virtually every body part, but the arms, the shoulder-blades, the (lower) back and the ankles are considered the most popular. Probably the most important feature of a tattoo is its *permanence*: it will remain in the skin unless steps are taken to remove the tattoo from the body, which may be a difficult process.

Over the past decade, tattoos have become very popular again, and having a tattoo is now seen as more 'mainstream' and 'hip' across a broader audience (Laumann & Derrick, 2006). Tattooing has become more prominent, especially among adolescents and young adults. We can even speak of a 'tattoo kind of culture': children are raised with 'temporary tattoos' in cereal boxes and gum packages, and cartoon characters have tattoos on their bodies. New generations of children are growing up in an environment that is more 'tattoo-acceptant' than ever before (Kosut, 2006). Actors, musicians and athletes proudly show off their tattooed bodies in the media, making it a desired 'item' for the general public. Also, cosmetic tattooing (including permanent make up, or PMU) is becoming more and more popular.

The modern tattoo has become known and available to all groups, ages and classes and society: men and women, young and old, white or blue collar workers. In a very large survey, executed by the University of Connecticut (2002), it was found that about 20% of the American population had at least once received a tattoo. Other surveys in America showed a prevalence of 16% among adults (The Harris Poll, 2001), and among adolescents 10% (Farrow, Schwartz & Vanderleeuw, 1991), 12% (Houghton, Durkin, Parry, Turbett & Odgers, 1996), Farrow, J.A., Schwartz, R.H. & Vanderleeuw, J.

(1991) and 13% (Armstrong & Murphy, 1997). It can be seen that there is a clear growth in the number of tattoos since the early '90s, especially among the 18-35 age group (Atkinson, 2001). While recent studies do not present definitive figures, Forbes (2001) states that most studies suggest that between 14 and 35% of adolescents and young adults (the age group that seems to be most willing to get a tattoo) in the Western world have a tattoo. When taking a look at these estimations, it is very likely that these trends passes over (or has already passed over) to Europe as well, although there has not been nearly as much research as in the United States. Apart from the fact that tattoos are becoming more popular, the sole notion that the number of people that get a tattoo greatly exceeds the number of people that deacease or have a tattoo removed, can explain this growth (Anderson, 2006).

### 1.2 *Motivations for getting a tattoo*

The subgroup of the population that is most influences by trends, media and other factors, are adolescents and young adults (16-25 years). The reasons for having a tattoo in this group vary individually. Another recent development is that, over the past few decades, women are catching up on men when it comes to tattoo prevalence. Tattoos used to be more of a 'guy thing', but nowadays, the number of men and women with tattoos are roughly the same (Laumann, 2006). However, women have a lesser percentage of body surface area covered by tattoos, which means that men usually have bigger tattoos (Laumann & Derick, 2006).

In tattoo literature, common and some less common reasons for having a 'modern' tattoo (hereby excluding Permanent Make Up) have been explored. (For further reading on this topic, please examine the reference list). A short overview of the most important motivations that are mentioned in scientific tattoo-related literature are:

- *Aesthetics* - liking the way tattoos look, sometimes associated with the notion of 'art' on the body (Leonard, 1998);
- *Media influences* - many tattooed movie, sports, fashion and music idols create an example for the 'mass' (Kosut, 2006). Also, unpopular subgroups that were used to be known for extensive tattooing are ignored by media to maintain the popular image of the tattoo (DeMello, 1995).
- *Fashion trend* - Tattoos are now often seen as a fashion trend or craze (Armstrong, 1996; Martin, 1997), which is enhanced by the media as well. However, the main difference with a usual trend, is that tattoos are worn *in* the body, whereas other trends are worn *on* the body and can be easily changed. Kosut (2006) even goes as far as to describe the tattoo as 'an ironic fad', because of its permanent character, which may be the cause of regrets later in life.

- *Expressing yourself/Uniqueness* - Tattoos can create a sense of uniqueness, a way of being able to distinguish oneself in society (DeMello, 1995). It can be a way to express yourself and to show what your ideas and ideals are (McAuliffe, 1990). The tough, 'macho' character of the tattoo makes it appealing for youngsters to differ from the established order (and to upset their parents). A research that was performed in 2006 (Tiggeman & Golder, 2006) shows that tattooed individuals have a greater 'Need for Uniqueness' (a construct from the 'Theory of Uniqueness' by Snyder & Fromkin, 1977).
- *Tattoo and group cohesion* – Tattoos may enhance group cohesion, for example, in a supporter group of a soccer club, or in gang life. It can also be the result of peer pressure (Wohlrab et al., 2006).
- *Personal growth, spirituality and religion* - A reason for having a tattoo can be 'the marking of a period of personal growth'. Having a tattoo can have a very mystical and spiritual meaning to a person, which can add substantial meaning to his or her life or identity (McAuliffe, 1990). Coming up with a design, undergoing the (often painful) application of a tattoo, and bearing it for the rest of one's life can certainly have a spiritual meaning (DeMello, 1990). Religious tattoos manifest some kind of religious devotion. Although tattoos are banned by the Bible (Leviticus 19:28) and the Koran, tattoos are, since the beginning of time, often used to honor gods and spirits (Scheinfeld, 2007).
- *Status symbol* - A tattoo can be a status symbol, analogous to having a good job or a lot of money (DeMello, 1990). Because of the fact that wealthy, prominent people, such as actors, athletes and musicians, show the world their tattoos through the media, it could be possible that 'normal people' will start to see tattoos as a status symbol as well.
- *Cosmetic aid* - Cosmetic tattoos have been made since 1984 and can be subdivided into Permanent Make Up (PMU), which can be used to define or redefine eyebrows, lips and other (facial) features, and a more medical approach, such as the camouflaging of skin problems, for example, hypo-pigmentation (light spots on the skin), scars, and other skin problems. A well-known example of tattooing in the medical world is the reconstruction of a nipple after breast surgery.

Wohlrab, Stahl & Kappeler (2006) state that there are even as much as ten categories of motivational factors for getting a tattoo: beauty, art and fashion; individuality; personal narrative; physical endurance; group affiliation and commitment, resistance; spirituality and cultural tradition; addiction; sexual motivation and no specific reason. These categories are quite similar to the categories stated above, apart from 'physical endurance' (taking pride in enduring the pain of

getting a tattoo), 'addiction' (being addicted to tattoos or the process of getting tattoos) and 'sexual motivation' (expressing one's sexuality or sexual preference through tattoos). The most frequently mentioned motivations in literature are 'the expression of individuality' and the 'embellishment of the own body' (Wohlrab et al., 2006), and motivations that have to do with 'uniqueness' and 'self-expression' (Armstrong et al., 2008).

### 1.3 *Why are tattoos a problem? Regretting your tattoo.*

It seems that quite a large percentage of tattooed persons regret their tattoo(s). A large American study found a regret prevalence among tattooed adults of 17%, but nobody of the research group actually had the tattoo removed (Laumann & Derick, 2006). A research by Anderson (2006) suggests that in the United States, about 12 million adults (which is about 4 percent of the total population) regret their tattoo and consider getting it removed, but actually do not. This suggests that dermatologists do not really serve a widespread need to remove tattoos, although the reasons for this are not entirely clear. Possibly, not many tattoos are removed due to financial reasons or the fact that it is a big (psychological/physical/financial) step to actually remove a tattoo.

Regret is not the same for men and women. An American study among dermatology clinics found that more women (69%) than men (31%) regretted their tattoo and opted for removal, possibly because women are more susceptible to comments of other people (Armstrong et al., 2008). Tattooed women are rated as less physically attractive, more sexually promiscuous and heavier drinkers than women without tattoos, with more negative ratings when the number of tattoos increases, even when male participants who rated the women wanted or had a tattoo themselves (Swami & Furnham, 2007). This shows that people can negatively judge people with tattoos, compared to the self, which is an example of pervasive stereotyping.

In the Netherlands, far less is known about the prevalence of and the reasons for regrets among tattooed individuals, which actually is the cause of a gap in literature. According to Varma (1999), the most regrettable tattoos were applied for the sake of fashion, and were applied impulsively and inexpensively at a young age. The main reasons for removal were 'enhancement of self-esteem and social, domestic and family reasons'. The tattoos were often regretted for decades and created significant psychological, social and financial burden (Varma, 1999). Again, there is not much known about why people regret their tattoos in the Netherlands, but it may be assumed that these reasons for regret do not differ much across (Western) cultures. The main reasons for regret that were found in literature, are:



- *Impulsiveness* – Impulsiveness is a facet of one of the Big Five personality dimensions, Neuroticism, as described in the NEO-Personality Inventory-Revised (NEO-PI-R, Costa & McCrae, 1992). Impulsiveness has to do with 'impulsive decision-making, poor planning skills and poor control of impulses and craves'. This trait can be associated with regret because an individual might not have paid enough thought to the fairly difficult choice of adding a permanent adornment to the body (and all of its physical and psychological risks). Yet, according to Forbes (2001) body modifications like tattooing are rarely performed impulsively and tend to be carefully planned in advance, especially among adults. Also, the Dutch government takes precautions to minimize impulsive acts, such as filling in forms, and not letting children have tattoos. Nonetheless, poor decision making and subsequent personal regrets seem to be a frequently occurring motivation for removal (Burris & Kim, 2007; Armstrong, 1996), which makes impulsiveness an interesting concept in the context of tattoo-related regret.
- *How the tattoo affects one in daily life*, such as the experience of *health issues*. It is possible that an individual becomes physically ill due to the (application of a) tattoo: infections can cause inflammation, HIV, Hepatitis B and C (Anderson, 1992; Janier et al., 1996), and on very few occasions even syphilis or tuberculosis. Contracting such serious illnesses may cause an individual to regret his or her choice for a particular tattoo. Tattoo health risks increase dramatically when tattoos are placed under less hygienic or sterile conditions, such as in prison (Braithwaite et al., 1996). Also, there are *professional reasons for regret* - Many companies do not want to be associated with tattoos, especially visible tattoos (in the face and neck, and on hands and wrists). One could consider to remove or at least hide tattoos in order to have a greater chance to succeed on the job market. According to a survey for a career information website, reviewed by Gibbons (2003), 58% of managers were less likely to offer an applicant with a piercing or tattoo a job. Another study showed that about 18% of employees felt that they had been hindered during their career by their tattoos (Mallory, 2001).
- There might be more, still unknown reasons for regretting a tattoo, such as the characteristics of the tattoo itself (size, location on the body), differences in initial motivations for having a tattoo or demographical variables. These notions have not been researched so far but might prove to play a role in having regret.

There are several actions that one could undertake when there are regrets about a particular tattoo. The tattoo could be accepted, meaning that the individual acknowledges the tattoo as being part of his or her body and no further (invasive) action is taken. The tattoos could be covered up in a non-invasive way, for instance by using clothing or make up. Having a 'cover-up' tattoo is another

possibility. This means that another tattoo is placed over an existing tattoo. The procedure and costs of having a 'cover-up' tattoo are similar to having a 'normal' tattoo, but results may be less satisfying.

The last and most invasive option is the removal of the tattoo. This can be done in several ways, such as mechanically, chemically or thermally (Burris & Kim, 2007). The most common way of removing tattoos is by using a laser pen that breaks down pigment particles in the skin. As was mentioned earlier in this chapter, not many people actually have their tattoo removed because this seems to be a significantly large step, due to financial and possibly emotional reasons (Varma, 1999). The treatments are risky and often painful: scarring or whitening of the dermis is quite common, and there is never a full guarantee that the tattoo will be completely gone.

#### 1.4 Research goals, relevance and concrete research question

As stated above, tattoos are becoming more accepted and prominent in our culture, and more and more people decide to have a tattoo. Therefore, the prevalence of persons that regret one or more tattoo is presumably becoming larger as well. As stated above, tattoos are often regretted for a long period of time and may create significant psychological, social and financial burden (Varma, 1999).

Another problem is that not much research about tattoo-related regrets has been done in the Netherlands. Because of this, not much is known about prevalence, and why people might come to regret their tattoo. Therefore, the goal of this study is to perform an explorative research on tattoos and regrets, linking regrets to demographics, characteristics of the tattoo, impulsiveness, initial motivations for having the tattoo, tattoo-related stressors in daily life and the length and the intensity of the decision-making process. Also, gender-related effects are studied for some of the variables, because due to the literature that was studied, there is reason to believe that regret is not the same for men as for women (Armstrong et al., 2008).

Concretely, the next two issues are being researched:

1. *How badly do people regret their tattoos?*
  - How many people regret their tattoos, and to what extent do people have regrets?  
This research question will demonstrate the gravity of tattoo-related regret in this study sample.
2. *Why do people regret their tattoo(s)?* This question provides an insight in the process of and the reasons for having regrets. To answer the 'why', this research question focuses on the differences between the regret and the no regret group, as well as gender-related differences. The following concepts are addressed:

- *Demographical variables*: do people of different gender, age, or educational level regret their tattoo more often than others? Does one regret a tattoo more if he or she received their first tattoo at a younger age? Part of the demographical variables is *Personality*: do individuals that score higher on impulsiveness (as defined by Costa & McCrae, 1992), and therefore, make more impulsive decisions and have poor impulse control, regret their tattoo more often?
- *The impact of the tattoo on daily life*: does the regret group differ from the non-regret group in how their tattoo plays a role in their lives? What about gender-related effects? Can the ways in which one is influenced by a tattoo in daily life, be categorized like the reasons for regret that were mentioned in paragraph 1.3?
- *Characteristics of the tattoo*: do the size, the location, the number of colors or the number of tattoos have any effect on tattoo-related regret?
- *Motivations*: do people with regrets have different initial motivations for having a tattoo than people with no regrets? And do initial motivations differ between men and women? Can these motivations be categorized in a way they were categorized in literature in paragraph 1.2?
- *Decision-making process*: do people that have lengthier and more thorough decision-making processes, regret their tattoo less often? Decision-making process will from now on be defined as: 'the cognitive and behavioral process of making a decision' (in this case: deciding to receive a tattoo). Do men and women differ in their decision-making process?

These concepts, demographics; personality; characteristics of the tattoo; initial motivations and the decision-making process, will provide a possible explanation for what causes regret. Furthermore, if the differences between the two groups are determined, one could deduce the factors that cause the most regret from the obtained data.

Due to the fact that this research is explorative, no assumptions about the answers to these research questions are made in advance, which allows the research to be open-minded. The information that is obtained by this research may be the start of 'filling the gap' in Dutch tattoo-related literature, as well as a possible starting point for future tattoo (information)- and regret-related interventions.

## 2. Method

### 2.1 Study design

The design of the study was a cross-sectional, explorative research of the current Dutch tattooed population. A website link to a self-report online questionnaire was made available via the Internet during the spring and summer of 2009. After results were obtained, all website links were removed and the questionnaire was closed.

### 2.2 Participants and procedures for data collection

The participants of the study included five hundred fifteen (N=515) Dutch individuals that were over sixteen years of age. All the participants had received a tattoo at least once in their lives, and either did or did not regret their tattoo.

The participants were asked to fill out an online questionnaire of which the website link was made available via pro, neutral and anti tattoo website, 'hyves' and forums. Twenty-five websites, hyves and forums were used for data collection. For a complete list of the used forums and websites, please examine Appendix B. Also, the link was emailed to the researcher's acquaintances. Therefore, the data collection was partially a convenience sample, although the participants always chose for themselves whether they filled out the questionnaire or not. A small reward was offered to increase participant motivation.

Because there was a reasonable drop-out rate (23,9%) over the course of filling in the questionnaire, three hundred ninety-two (N=392) fully completed questionnaires were used in the final data analysis.

### 2.3 Questionnaire

An online, author-constructed (but literature-based) questionnaire was created on the research website [www.surveymonkey.com](http://www.surveymonkey.com). Here, participants received instructions about how to fill out the questionnaire, and what was to be expected of them. The questionnaire reflected the literature that was mentioned above and operationalized the concepts that were included in the research questions. The full version of the used questionnaire can be found in Appendix A.

In short, the questionnaire was a way of operationalizing the research questions by presenting researchable questions to the respondents. The concepts in the research questions were operationalized in the following manner:

#### Regret:

The participants were asked to rate how much tattoo-related regret they had experienced by answering four questions about regret and the intensity of their regret. For the first three questions,

a four point Likert scale (ranging from 1 (Not at all) to 4 (All the time)) was used. The fourth question measured the *amount* of regret on a five-point Likert scale, on which the 'Neutral' option was added.

#### Demographics:

Demographical information was collected by operationalizing the following concepts: age (ranging from 16 to >65), gender (male or female), level of education (primary school, secondary school, 'MBO' ('vocational education'), college and university), and the age on which the participants received their first tattoo (ranging from 14 to >65). Also, Impulsiveness was assessed by the final eight questions in the questionnaire. These questions combined formed the Impulsiveness scale (facet N5 of the Neuroticism dimension) of the NEO PI-R (Costa & McCrae, 1992), to measure this personality trait and their relation to tattoo-related regret. These questions had a five point Likert scale. Assessments of Impulsiveness are based on a cumulative score, ranging from 8 to 40, with higher scores indicating more Impulsiveness in an individual. The NEO-PI-R is a personality measurement instrument that has been used in numerous research studies, with an internal consistency (Cronbach's Alpha) of .92 *for the whole Neuroticism dimension* (consisting of forty questions). Cronbach's alpha for the 8-item Impulsiveness (N5) subscale is unknown. Differences in demographics (including Impulsiveness) will only be assessed for the regret and no regret group.

#### The effect of the tattoo on daily life:

The respondents were asked to rate 18 items that assessed the influence of the tattoo on daily life on a four-point Likert scale (ranging from 1 (Not at all) to 4 (All the time)). Participants could achieve a cumulative score ranging from 18 to 72 for that part of the questionnaire, with higher scores indicating more effect of the tattoo on daily life. One item was reversed ('My tattoo has not had any effect on my daily life at all') – and therefore, lower scores on this particular item indicated more effect of the tattoo on daily life. Differences in effects of the tattoo on daily life will be assessed for the regret and no regret group, but also for men and women.

#### Characteristics of the tattoo:

Participants' tattoo characteristics were assessed by the following questions: the number of tattoos (ranging from one to more than ten tattoos), the location (categorized by six general locations on the body, multiple answers possible), the size (which could be categorized in small (about 3 x 3 cm) medium (about 8 x 8 cm) and large (larger than 8 x 8 cm), and the number of colors (one, two to three or more than three)). Also, respondents could, if they wanted, provide a short description of their tattoo. Differences in tattoo characteristics will only be assessed for the regret and no regret group.

#### Initial motivations:

Initial motivations for having a tattoo were measured by 29 motivational statements that reflected the most common motivational categories stated in the first chapter. Again, a four-point Likert scale was used (ranging from 1 (Not at all) to 4 (All the time)). A cumulative score ranging from 29 to 116 could be achieved, with higher scores for a particular item (or factor) indicating a higher level of that initial motivation before having the tattoo. Differences in initial motivations will be assessed for the regret and no regret group, but also for men and women.

*Decision-making process:*

The length and intensity of the decision-making process was measured by six statements with a four-point Likert scale, ranging from 1 (Not at all) to 4 (All the time). A cumulative score ranging from 6 to 24 could be achieved for this particular subscale of the questionnaire, with higher scores indicating a more thorough and lengthier decision-making process. Differences in the decision-making process will be assessed for the regret and no regret group, but also for men and women.

Text boxes were often added so participants could comment on or specify their answer. All questions were formulated in Dutch due to the nationality of the participants. The final questionnaire can be found in Appendix A.

The questionnaire was fully anonymous, to respect the privacy of respondents and to encourage them to be open about their tattoo experiences. There was a possibility to fill in an email address at the end of the questionnaire to win a small reward, but to ensure privacy, this was not obligatory.

## *2.4 Data analysis*

In order to gain insight in the obtained data, and to answer the research questions stated in the previous chapter, a distinction was made between a regret and a no regret group. A participant belonged to the no regret group if he or she answered 'No, never' to the following question: 'Have you ever regretted your tattoo?' A participant belonged to the regret group if he or she had answered 'Now and then', 'Often', or 'All the time'.

Factor analyses (Principal Component Analyses, Varimax rotation) were then used to create factors for the initial motivations for having a tattoo and the items that concerned how the tattoos affected the participant in daily life. Then, the survey data were analyzed by calculating means, standard deviations and frequency distributions (for factors, cumulative scores on subscales and for separate items). Also, ANOVA and Chi Square tests were used to analyze differences between regret and no regret participants (on demographics, impulsiveness, daily life experiences, characteristics of the tattoo, initial motivations, and the decision-making process), as well as to analyze gender-related differences for the same variables. A two-tailed p-value of .05 was the threshold for significance.

The SPSS statistical software package version 16.0 was used for all statistical analyses.

### 3. Results

#### 3.1 Response rates, regret prevalence and demographical variables

Five hundred fifteen participants filled in the questionnaire. However, only three hundred ninety-two participants managed to fully complete the questionnaire, leaving a drop-out rate of 23.9% (N=123). Due to the fact that it is unknown how many potential participants were exposed to the website link, response rates are unknown.

Of the final 392 participants, the obtained data of the regret prevalence and intensity subscale is displayed in Table 1.

**Table 1. Intensity of participant regret (N=392)**

Item description	Mean (SD)	Answer tendency N(%)				
		No, never	Now and then	Neutral	Often	All the time
Ever regretted your tattoo?	1.2 (0.5)	337 (86.0)	46 (11.7)	NA	6 (1.5)	3 (0.8)
Regret your tattoo right now?	1.2 (0.5)	354 (90.3)	19 (4.8)	NA	14 (3.6)	5 (1.3)
Ever considered having it removed?	1.1 (0.4)	373 (94.2)	13 (3.3)	NA	5 (1.3)	3 (0.8)
How much do you regret your tattoo? <sup>1</sup>	1.2 (0.7)	342 (87.2)	26 (6.6)	12 (3.1)	7 (1.8)	5 (1.3)

Note: all scores are based on valid cases, and operationalized by a Likert scale ranging from 1 to 4

<sup>1</sup>Operationalized by a Likert scale ranging from 1 (I never regret it) to 5 (I regret it all the time)

As this table displays, the prevalence and intensity of participant regret were measured by four questions. The first three of these questions could be rated with a four point Likert scale ranging from 1 ('No, never') to 4 ('All the time'). The third question, 'Did you ever consider having your tattoo removed?' was intended to reflect (severe) participant regret. The last question, 'How much do you regret your tattoo?' (also reflecting intensity of regret) was operationalized by using a five point Likert scale (with a 'Neutral' option added). Table 1 displays descriptive statistics, showing means, standard deviations, frequencies and percentages. As can be seen, the majority of the participants (86.0%) indicate that they have never experienced tattoo-related regret. A very small group (0.8-1.3%) indicates that they regret their tattoo 'all the time'. A cumulative of 21 (5.4%) of the participants say that they have (at least once) considered having their tattoo removed. Based on the question 'Have you ever regretted your tattoo?', fifty-five respondents (the respondents that answered 'Now and then', 'Often' or 'All the time') were assigned to the regret group, whereas the other 337 were considered to be part of the 'no regret group'.

After the distinction between the regret and the no regret group had been made, demographical variables of both groups were assessed. The characteristics included: gender, age, education, the age when the (first) tattoo was received, the character trait Impulsiveness, and the time that had passed since the first tattoo was received. These variables were compared between the regret and no regret group. The results are displayed in Table 2.

**Table 2. Demographical variables of research participants (N=392)**

Characteristic	Total N(%) (N=392)	Regret N(%) (N=55)	No regret N(%) (N=337)	Sign.
<b>Gender</b>				
Male	35 (8.9)	7 (12.8)	28 (8.3)	NS <sup>2</sup>
Female	357 (91.1)	48 (87.2)	309 (91.7)	
<b>Age (years)<sup>1</sup></b>	27.4	27.1 (8.3)	27.8 (6.9)	<b>P&lt;0.01<sup>2</sup></b>
<b>Education</b>				
Primary	8 (2.0)	2 (3.6)	6 (1.8)	NS <sup>3</sup>
Secondary	123 (31.4)	17 (30.9)	106 (31.5)	
"MBO"	193 (49.2)	23 (41.8)	170 (50.4)	
"HBO"	57 (14.5)	9 (16.4)	48 (14.2)	
University	11 (2.8)	4 (7.4)	7 (2.2)	
Characteristic	Total N(%) (N=392)	Regret N(%) (N=55)	No regret N(%) (N=337)	Sign.
<b>Age of first tattoo (yrs)</b>				
14-20	252 (64.3)	43 (78.2)	209 (62.0)	NS <sup>3</sup>
21-30	113 (28.8)	10 (18.2)	103 (30.6)	
31-40	23 (5.9)	2 (3.6)	21 (6.2)	
41-50	3 (0.8)	0 (0.0)	3 (0.9)	
>51	1 (0.3)	0 (0.0)	1 (0.3)	
<b>Impulsivity<sup>1</sup></b>	23.7 (4.9)	24.3 (5.0)	23.1 (4.8)	<b>P&lt;0.05<sup>2</sup></b>
<b>Time since 1st tattoo<sup>1</sup></b>	6.97	6.23	7.70	NS <sup>3</sup>

Note: all percentages are based on valid cases

<sup>1</sup>Mean score (SD)

<sup>2</sup>Significance was calculated using t- test for independent samples

<sup>3</sup>Significance was calculated using Mann-Whitney test

Thirty-five men participated in this research (8.9%) and 357 women (91.1%). As is shown in Table 2, there is no significant difference between the regret and the no regret group when considering gender, the elapsed time since the first tattoo was received, educational level and the age when the participant received his/her first tattoo. There is a significant difference for the demographical characteristic 'Age': the higher the age, the less the tattoo is regretted ( $p<0.05$ ). Also, there is a significant difference between the regret and the no regret group on the personality trait 'Impulsiveness': the regret group scored significantly higher on Impulsiveness (a subscale of the questionnaire with a Cronbach's  $\alpha$  of 0.73 for this study).



### 3.2 Tattoos and daily life

#### 3.2.1 Factor analysis 'Tattoos and daily life'

A factor analysis was performed on the 18 items that reflected ways in which the participants could be influenced by their tattoo(s) in their daily lives. Table C1, the table displaying the results of this factor analysis, can be found in Appendix C. For this entire subscale of the questionnaire, a cumulative score of 18 to 72 – with higher scores indicating more struggles in daily life – could be achieved. One item, 'My tattoo has not affected me at all' was reversed (but data analysis had taken this into account by re-reversing item scores). Cronbach's  $\alpha$  for all 18 items was .782. Five factors were determined by the statistical analyses. Based on the items that defined the factors, names for the factors were created. Factor A contains items that reflect 'Social influences', factor B contains items that reflect 'Changed attributed meaning of the tattoo', factor C contains items that reflect 'Health and self-awareness', factor D has items that reflect 'Non invasive cover up'. The last factor, factor E, contains items that reflect 'Career-related problems'. Factor D and E are both small factors that contain only two items of the 18-item total.

Table 3 displays the five factors that were found, their Cronbach's  $\alpha$  for internal consistency, mean scores, standard deviations and significant differences between men and women, and the regret and no regret group. This was done per factor *and* per item, of which the factors are considered more important when it comes to assessing differences between groups.

**Table 3. The effects of tattoos in daily life**

Factor/item description	Gender - Mean Score (SD)		Sign. <sup>1</sup>	Group - Mean Score (SD)		Sign. <sup>1</sup>
	Men (N=35)	Women (N=357)		Regret (N=55)	No regret (N=337)	
<b>A. Social influences (<math>\alpha=.720</math>)</b>	<b>8.7 (3.3)</b>	<b>8.3 (3.2)</b>	<b>NS</b>	<b>10.0 (3.5)</b>	<b>8.1 (3.0)</b>	<b>NS</b>
Others prejudice me due to my tattoo	2.2 (1.1)	2.1 (1.1)	NS	2.5 (1.1)	2.0 (1.1)	NS
Harder to get in touch with new people	1.2 (0.5)	1.1 (0.4)	>0.01	1.2 (0.5)	1.1 (0.3)	>0.01
I have been judged more negatively	1.6 (0.9)	1.6 (0.9)	NS	1.8 (1.0)	1.5 (0.8)	NS
People seem to stereotype me	1.7 (0.9)	1.6 (0.9)	NS	2.0 (1.1)	1.6 (0.9)	>0.05
My tattoo has not affected me at all <sup>2</sup>	2.1 (1.3)	2.0 (1.2)	NS	2.0 (1.2)	2.5 (1.0)	0.05
<b>B. Changed attributed meaning of the tattoo (<math>\alpha=.759</math>)</b>	<b>5.1 (2.5)</b>	<b>4.6 (1.4)</b>	<b>&gt;0.01</b>	<b>6.5 (2.8)</b>	<b>4.3 (0.8)</b>	<b>&gt;0.01</b>
Does not mean the same to me as before	1.4 (0.8)	1.2 (0.6)	>0.01	1.9 (1.0)	1.1 (0.4)	>0.01
Does not represent what I'm proud of anymore	1.2 (0.6)	1.2 (0.5)	NS	1.5 (0.8)	1.1 (0.4)	>0.01
I am ashamed of my tattoo	1.2 (0.5)	1.1 (0.4)	NS	1.5 (0.8)	1.0 (0.2)	>0.01
Now I'm older, I wish I never had a tattoo	1.3 (0.8)	1.1 (0.3)	>0.01	1.6 (0.9)	1.0 (0.2)	>0.01
<b>C. Health and self-awareness (<math>\alpha=.647</math>)</b>	<b>5.7 (1.6)</b>	<b>5.6 (1.3)</b>	<b>NS</b>	<b>7.1 (2.1)</b>	<b>5.3 (1.0)</b>	<b>&gt;0.01</b>

I experienced mild health problems	1.1 (0.4)	1.1 (0.4)	NS	1.2 (0.6)	1.1 (0.4)	>0.01
I experienced serious health problems	1.0 (0.0)	1.0 (0.2)	NS	1.1 (0.3)	1.0 (0.2)	>0.01
Insecure: tattoo does not look as good as I hoped	1.2 (0.5)	1.2 (0.5)	NS	1.8 (0.9)	1.1 (0.3)	>0.01
Insecure: tattoo does not look as good as before	1.2 (0.5)	1.2 (0.6)	NS	1.8 (0.9)	1.1 (0.4)	>0.01
Tattoo hindered me while finding partner	1.3 (0.5)	1.1 (0.3)	>0.01	1.2 (0.5)	1.1 (0.3)	>0.01
<b>D. Non invasive cover up (<math>\alpha=.686</math>)</b>	<b>3.9 (1.9)</b>	<b>4.1 (1.9)</b>	<b>NS</b>	<b>4.7 (2.0)</b>	<b>4.0 (1.8)</b>	<b>NS</b>
My tattoo has influenced my choice of clothing	2.0 (1.1)	2.1 (1.1)	NS	2.3 (1.1)	2.0 (1.0)	NS
I hide my tattoo by wearing certain clothes	1.9 (1.1)	2.0 (1.1)	NS	2.6 (1.3)	2.0 (1.1)	>0.01
<b>E. Career-related problems (<math>\alpha=.640</math>)</b>	<b>2.5 (1.0)</b>	<b>2.3 (0.8)</b>	<b>&gt;0.05</b>	<b>2.9 (1.4)</b>	<b>2.2 (0.6)</b>	<b>&gt;0.01</b>
I think I missed out on a job due to my tattoo	1.2 (0.5)	1.1 (0.5)	NS	1.4 (0.8)	1.1 (0.4)	>0.01
Tattoo has hindered my professional career	1.3 (0.6)	1.1 (0.5)	>0.01	1.5 (0.9)	1.1 (0.3)	>0.01

Note: all scores are based on valid cases

<sup>1</sup>Significance was tested using ANOVA

<sup>2</sup> Reversed item

As is shown, two factors, 'Changed attributed meaning of the tattoo' and 'Career-related problems' are generally rated higher by men, when compared to women. Three factors are rated higher by the regret group compared to the no regret group ('Changed attributed meaning of the tattoo', 'Health and self-awareness' and 'Career-related problems').

### 3.2.2 'Tattoos and daily life - further examined'

Although the results of the factor analyses and the differences between male and female, and the regret and no regret group on the five *factors* are considered most relevant and important, it is interesting to have a closer look at the scores per item to assess the aspects of daily life on which more effect is experienced. Therefore, Table 3 also displays the gender- and regret-related differences *per item*, divided over the five factors.

There are five items about tattoo-related struggles in daily life (divided over factor A, B, C and E) are rated higher by men than by women, as can be seen in Table 3.

All items in this part of the questionnaire, except for 'My tattoo has influenced my choice of clothing', 'Others prejudice me due to my tattoo', 'I have been judged more negatively by other people because of my tattoo' and 'My tattoo has not affected me at all' (this last item was rated higher by the no regret group) were rated higher by the regret group.

### 3.3 Characteristics of the tattoo

The influence of the characteristics of the tattoos of the participants on having regret are shown in Table 4. As can be seen, no significant differences in tattoo characteristics between the regret and the no regret group can be found in this study.

**Table 4. Characteristics of the tattoo (N=392)**

Characteristic N (%)	Total N(%) (N= 392)	Regret N(%) (N=55)	No Regret N(%) (N=337)	Sign.
<b>Size</b>				
Small	68 (17.3)	12 (21.8)	56 (16.6)	NS <sup>2</sup>
Medium	156 (39.8)	22 (40.0)	134 (39.8)	
Large	168 (42.9)	21 (38.2)	147 (43.6)	
<b>Location<sup>1</sup></b>				
Head/neck	34 (8.7)	9 (16.4)	25 (6.6)	NS <sup>2</sup>
Core	263 (67.1)	35 (63.6)	228 (67.7)	
Arms	117 (29.8)	51 (92.7)	66 (19.6)	
Wrists/hands	98 (25.0)	37 (67.3)	61 (18.1)	
Legs	68 (17.3)	32 (58.2)	36 (10.7)	
Ankles/feet	140 (35.7)	45 (81.8)	95 (28.2)	
<b>Number of colors used</b>				
1 color	231 (58.9)	34 (61.8)	197 (58.5)	NS <sup>2</sup>
2-3 colors	78 (19.9)	7 (12.7)	71 (21.1)	
>3 colors	83 (21.2)	14 (25.5)	69 (20.4)	
<b>Number of tattoos</b>				
1	147	21	126	NS <sup>2</sup>
2 to 5	201	28	173	
6 to 9	27	3	24	
10 or more	17	3	14	

Note: all percentages are based on valid cases

<sup>1</sup> Multiple answers possible (therefore, percentages do not add up)

<sup>2</sup> Significance was calculated using Mann-Whitney test

### 3.4 Initial motivations for having the tattoo

#### 3.4.1 Factor analysis 'Initial motivations'

Factor analyses were performed on the 29 items (with cumulative scores ranging from 29 to 116 for the entire subscale and a Cronbach's  $\alpha$  of .837 for all 29 items) that measured initial motivations for having a tattoo. Table D1, the table displaying the results of this factor analysis, can be found in Appendix D. Based on this factor analysis and the items that reflected the factors, four factors were determined and named. Factor A concerns items that reflect 'Individuality' (eight items, cumulative

scores ranging from 8 to 32). Factor B contains items that reflect 'Aesthetics' (six items, cumulative scores ranging from 6 to 24). Factor C includes items that have to do with 'Social/Group cohesion' (seven items, cumulative scores ranging from 7 to 28). The last factor, factor D, contains items that concern 'Conveying a personal message' (six items, cumulative scores ranging from 6 to 24).

Table 5 displays the factors (including Cronbach's  $\alpha$  for each subscale), and mean scores for men and women, the regret and no regret group. Differences between factor scores for groups are considered most important in this study. Separate item scores are considered to be of secondary importance, but these are also displayed in Table 5 for further examination. Women scored significantly higher on the factors 'Individuality' and 'Aesthetics'. Men scored significantly higher on the factor 'Social/Group cohesion'. The regret group also scored significantly higher on items that reflected the 'Social/Cohesion' factor.

**Table 5. Differences in initial motivations**

Factor/item description	Gender - Mean Score (SD)		Sign. <sup>2</sup>	Group - Mean Score (SD)		Sign. <sup>2</sup>
	Men (N=35)	Women (N=357)		Regret (N=55)	No regret (N=337)	
<b>A. Individuality (<math>\alpha=.811</math>)</b>	<b>16.6 (5.9)</b>	<b>15.2 (4.8)</b>	<b>&gt;0.05</b>	<b>16.4 (5.7)</b>	<b>15.2 (4.8)</b>	<b>NS</b>
Makes me unique	2.1 (1.8)	2.1 (1.0)	NS	2.2 (1.0)	2.1 (1.1)	NS
I like its tough character	2.1 (1.1)	1.8 (1.0)	NS	2.1 (1.0)	1.8 (1.0)	NS
Makes me look tough	1.9 (1.1)	1.6 (0.8)	<b>&gt;0.05</b>	1.9 (1.1)	1.5 (0.8)	NS
Show off to others	2.3 (1.0)	2.2 (0.9)	NS	2.2 (0.9)	2.2 (0.9)	NS
I like the non-acceptance	2.0 (1.2)	1.5 (0.8)	<b>&gt;0.01</b>	1.7 (0.8)	1.6 (0.8)	NS
Makes me different from others	2.1 (1.0)	1.8 (0.9)	NS	1.9 (1.0)	1.8 (0.9)	NS
Express individuality	2.7 (1.1)	2.7 (1.1)	NS	2.7 (1.0)	2.7 (1.1)	NS
Status symbol	1.5 (0.8)	1.4 (0.8)	NS	1.6 (0.9)	1.4 (0.7)	<b>&gt;0.05</b>
<b>B. Aesthetics (<math>\alpha=.818</math>)</b>	<b>17.6 (5.0)</b>	<b>19.6 (3.9)</b>	<b>&gt;0.05</b>	<b>19.2 (4.1)</b>	<b>19.4 (4.1)</b>	<b>NS</b>
Enrichment for body	2.9 (1.2)	3.1 (1.0)	NS	3.1 (1.0)	3.1 (1.0)	NS
Art for the body	2.9 (1.1)	3.3 (0.9)	<b>&gt;0.05</b>	3.1 (0.9)	3.3 (0.9)	NS
Makes me look good	2.7 (1.2)	2.9 (1.1)	NS	2.9 (1.0)	2.9 (1.1)	<b>&gt;0.05</b>
Nice accessoire	2.7 (1.2)	3.0 (1.1)	<b>&gt;0.05</b>	3.2 (1.0)	2.9 (1.1)	NS
Looks good on body	3.5 (0.9)	3.8 (0.5)	<b>&gt;0.01</b>	3.7 (0.5)	3.8 (0.5)	<b>&gt;0.05</b>
Jewelry for the body	2.9 (1.1)	3.5 (0.8)	<b>&gt;0.01</b>	3.3 (0.8)	3.4 (0.9)	NS
<b>C. Social/Group cohesion (<math>\alpha=.694</math>)</b>	<b>10.7 (4.3)</b>	<b>8.7 (2.3)</b>	<b>&gt;0.01</b>	<b>9.8 (3.4)</b>	<b>8.8 (2.4)</b>	<b>&gt;0.01</b>
I wanted to fit in	1.5 (0.7)	1.1 (0.3)	<b>&gt;0.01</b>	1.3 (0.6)	1.1 (0.3)	<b>&gt;0.01</b>
Shows my religious beliefs	1.3 (0.6)	1.2 (0.5)	<b>&gt;0.01</b>	1.2 (0.5)	1.2 (0.5)	NS
Tattoos are normal in my group	1.6 (0.9)	1.5 (0.8)	NS	1.8 (0.9)	1.5 (0.8)	<b>&gt;0.05</b>
Wanted to belong to a group	1.4 (0.7)	1.1 (0.3)	<b>&gt;0.01</b>	1.2 (0.6)	1.1 (0.4)	<b>&gt;0.01</b>
People around me have them too	1.7 (1.0)	1.4 (0.7)	<b>&gt;0.01</b>	1.6 (0.8)	1.4 (0.7)	NS
Fashion Trend	1.4 (0.7)	1.1 (0.4)	<b>&gt;0.01</b>	1.4 (0.7)	1.1 (0.4)	<b>&gt;0.01</b>
Unites me with friends	1.7 (1.0)	1.4 (0.9)	NS	1.5 (0.9)	1.4 (0.9)	NS

<b>D. Conveying a personal message (<math>\alpha=.510</math>)</b>	<b>13.4 (3.6)</b>	<b>13.8 (3.3)</b>	<b>NS</b>	<b>13.3 (2.8)</b>	<b>13.8 (3.4)</b>	<b>NS</b>
Personal growth	2.3 (1.2)	2.7 (1.2)	NS	2.6 (1.2)	2.7 (1.2)	NS
Spiritual meaning	2.0 (1.1)	2.2 (1.2)	NS	2.0 (1.0)	2.2 (1.2)	<b>&gt;0.01</b>
Shows my opinions of that time	2.2 (1.2)	2.2 (1.1)	NS	2.1 (1.1)	2.2 (1.1)	NS
Just for myself	3.2 (0.9)	3.4 (0.8)	NS	3.1 (0.8)	3.5 (0.8)	NS
Shows my vision on life	1.9 (1.0)	1.7 (1.0)	NS	1.6 (0.9)	1.8 (1.0)	NS
No specific reason	1.8 (0.9)	1.6 (0.9)	NS	1.9 (0.9)	1.6 (0.9)	<b>NS</b>
<b>Other<sup>1</sup></b>						
Hide ugly tattoo	1.3 (0.6)	1.2 (0.6)	NS	1.5 (0.9)	1.2 (0.6)	<b>&gt;0.01</b>
Hide physical flaw	1.1 (0.3)	1.1 (0.4)	NS	1.2 (0.4)	1.1 (0.4)	NS

Note: these scores are mean scores (SD), based on valid cases

<sup>1</sup>These items could not be categorized by factor analysis

<sup>2</sup>Significance was tested using ANOVA

### 3.4.2. Initial motivations - further examined

Although the emphasis is put upon the differences in *factor* scores, further examining differences between groups might shed some more light on *why* people have regret. Therefore, all 29 items were examined separately. Again, mean scores were split for men and women, and for the regret en non-regret group. As is shown in Table 5, there are a number of items that are significantly scored differently for men and women, and for the regret and no regret group.

When comparing men and women, every factor, with the exception of factor D, 'Conveying a personal message', contains items that are rated significantly different by men and women.

When comparing the regret and the no regret participants, there are nine items that are rated significantly different, scattered over all four factors. The regret group scored significantly higher on the following items: 'My tattoo was a status symbol', 'I had my tattoo to hide another, ugly tattoo', 'Tattoos are normal in my group', 'I had my tattoo because I wanted to fit in', 'I wanted to belong to a group', and 'I had my tattoo as part of a fashion trend'. The participants with no regret scored significantly higher on the following items: 'My tattoo has a spiritual meaning', 'My tattoo makes me look good' and 'My tattoo looks good on my body'.

Two items ('I had this tattoo to hide another, ugly tattoo' and 'I had this tattoo to hide a physical flaw') were not included in any of the factors due to very low factor loadings and were therefore excluded from Table D1 in Appendix D. However, they were included in Table 5 to show item means.

### 3.5 Decision-making process

The tattoo-related decision-making process, in this study defined as ‘the cognitive and behavioral process of deciding to have a tattoo’, was the last variable that was being researched in the context of regret. The differences between men and women, as well as the regret and the no regret group, are displayed in Table 6. In this context, the most important variable is the cumulative score of the decision-making process, and the differences between men and women, and the regret and no-regret group. The cumulative score for the entire subscale ranged from 6 to 24 (a four-point Likert scale for six questions), with higher scores indicating a lengthier and more thorough decision-making process.

The (differences in the) cumulative score is reflected by the ‘Overall decision-making process’ score in Table 6. Here can be seen that men and women do not differ significantly in their *overall* decision-making process, but it also shows that the no regret group does have a significantly more thorough and lengthier decision-making process than the regret group.

**Table 6. Differences in decision-making process**

Item description	Gender - Mean Score (SD)		Sign. <sup>1</sup>	Group - Mean Score (SD)		Sign. <sup>1</sup>
	Men	Women		Regret	No regret	
	(N=35)	(N=357)		(N=55)	(N=337)	
<b>Overall decision-making process<sup>1</sup></b>	<b>17.1 (4.7)</b>	<b>19.3 (3.9)</b>	<b>NS</b>	<b>16.7 (4.6)</b>	<b>19.5 (3.7)</b>	<b>&gt;0.05</b>
I thought about it for a long time	3.1 (1.2)	3.4 (0.8)	>0.05	3.2 (0.9)	3.4 (0.8)	NS
I sought information about health risks	2.3 (1.2)	3.8 (1.1)	>0.05	2.4 (1.2)	2.8 (1.1)	>0.05
I sought reliable tattoo shops	3.1 (1.1)	3.4 (0.9)	NS	2.8 (1.1)	3.5 (0.8)	>0.01
I talked about it with important people	2.7 (1.2)	3.1 (1.0)	>0.05	2.9 (1.1)	3.1 (1.1)	NS
I thoroughly weighed the pros and cons	2.5 (1.1)	2.9 (1.1)	>0.05	2.7 (1.1)	2.9 (1.1)	NS
In hindsight, my decision was impulsive	3.7 (0.7)	3.3 (1.0)	>0.01	3.8 (0.5)	2.8 (1.0)	>0.01

Note: all scores are based on valid cases (Cronbach's  $\alpha$  of the decision-making process subscale = .769)

<sup>1</sup>Means, standard deviations & significance for overall decision-making process (cumulative score)

Significance was calculated using ANOVA

Although the overall decision-making process score is considered more important, it is interesting to further examine the differences between groups to assess on what particular aspects of the decision-making process, groups differ. Therefore, Table 6 also displays the differences between *items*. As is shown, four of the six items are scored significantly higher by women. Men scored this last item (‘In hindsight, my decision to have a tattoo’ was impulsive’) significantly higher than women. Also, there are three items that are scored significantly different by the regret versus the no regret group. The regret group scored the item ‘In hindsight, my decision to have a tattoo was impulsive’ also significantly higher than their no regret counterparts.

The Cronbach's alpha for all six items of this subscale of the questionnaire was .769. Of the six items, there was one item that could be removed to create a higher alpha, which was the last item: 'In hindsight, my decision to have a tattoo was impulsive' (resulting in a slightly higher Cronbach's alpha of .776).

## Discussion

### 4.1 Study findings

This study strived to find the answers to two research questions to provide an insight in tattoo-related regret. Therefore, 392 fully completed questionnaires by tattooed participants that were over sixteen years of age, were assessed. Demographical variables were distributed as follows. The mean age of the participants was 24.4 years, and 357 (91.1%) respondents were female, as opposed to 35 males (8.9%). This unbalanced representation of gender is probably no sign of differences in tattoo prevalence between men and women (Laumann (2006) suggests that tattoo prevalence is roughly the same for men and women), but should perhaps be interpreted as a sign of a greater willingness of women to participate in this study or talk about their tattoo. The first research question focused on the gravity and intensity of participant regret. Of the 392 respondents, 55 (14.0%) were qualified as being part of the regret group, which is quite consistent with the regret prevalence of 17%, which was found in the study by Laumann & Derrick (2006). Twenty-one participants (5.4%) indicated that they had at least once considered having their tattoo removed, which suggests a potentially high severity of regret for this particular group.

Because there was reason to believe that regret is not the same for men as for women (for example, Armstrong et al., (2008) suggests that more women (69%) than men (31%) regretted their tattoo), gender-related effects were studied as well. However, in the present research, there was no significant difference between the *number* of men and women that regretted tattoos.

The second research question was created to provide a deeper understanding of the reasons (the 'why') for having regret. Examining the demographical variables of the participants showed no significant differences in regret when it came to gender (as mentioned above), educational level, when a tattoo was received at a younger age and how much time had passed since the first tattoo was received. The age of the participants was an important factor in the context of regret: the older the participant was, the less the tattoo was regretted. This suggests that either regret decreases or tattoo coping/acceptance skills increase during the course of one's life, a finding that has never been suggested by another research on this topic. This finding might therefore contribute to new research questions. Also, impulsiveness differed significantly between the regret and no regret group: the regret group was significantly more impulsive (and vice versa: impulsive people were more likely to have regrets). This is consistent with the findings of Burris & Kim (2007) and Armstrong (1996), who suggest that poor decision making (which is frequently caused by impulsive acts) causes subsequent tattoo-related regrets. So, consistent with literature, results of the present study suggest that impulsiveness indeed does lead to more regrets about a tattoo.



To create more insight into the severity of regret, the impact of the tattoo on daily life was assessed. A factor analysis was performed, and five factors were found: 'social influences', 'changed attributed meaning of the tattoo', 'health and self-awareness', 'non-invasive cover up' and 'career-related problems'. Cronbach's  $\alpha$  ranged from .640 to .759 for these five factors, which is reasonably high, especially when considering the small amount of items per factor.

The results of the present study indicate that the regret group suffers significantly more from tattoo-related stressors in daily life, especially from changed attributed meaning of a tattoo (for example, the way in which a tattoo of your partner's name changes in meaning after a divorce), health related issues (which is consistent with the study by Janier et al., (2006)), insecurity, troubles while finding a partner and career-related problems. This last factor is consistent with the study by Mallory et al., (2001), who found that many tattooed employees (18%) felt hindered by their tattoo during their career. Therefore, negative effects on daily life seem to be very important contributors when it comes to tattoo-related regret.

Surprisingly, men indicated to struggle more with their tattoo in daily life, especially during their professional careers and when the attributed meaning of their tattoo changed. Because there was no difference in regret between men and women, the present findings might suggest that men have good ways to cope with daily tattoo-related hassles, and thereby reduce potential regret.

No significant differences were found between the regret and no regret group when the characteristics of the tattoo (size, location on the body, number of colors and the number of tattoos) were examined, suggesting that no tattoo-related characteristics are a cause for regret.

Initial motivations for having a tattoo were examined to search for differences between the motivations of people that eventually regretted their tattoo, or did not regret their tattoo. This could provide a deeper understanding of what motivations one should 'have' to reduce the chance of regret, and what 'regret-prone' motivations could be. First, a factor analysis was performed on the 29 motivational statements that were included in the questionnaire. Four factors were found: 'Individuality', 'Aesthetics', 'Social/Group cohesion' and 'Conveying a personal message'. Cronbach's alpha for internal consistency for the factors of .811, .818, .694 and .510. The internal consistency of .510 (for factor D, Conveying a personal message) is very low, and therefore, the results for this factor should be interpreted with caution.

The determined factors are all consistent with literature about motivations for having tattoos, which was expected, because all items that were used in this study, were derived from the same literature (Leonard, (1998), DeMello (1995), McAuliffe (1990), Wohlrab et al., (2006) and Scheinfeld

(2007)). The most frequently mentioned motivations in literature are 'the expression of individuality' and the 'embellishment of the own body' (Wohlrab et al., 2006), and motivations that have to do with 'uniqueness' and 'self-expression' (Armstrong et al., 2008), which is consistent with the present study: the highest mean scores were given for these items, and the factors that resembled the motivations found in literature embodied the highest Cronbach's alpha's for internal consistency. It was surprising that the item 'I had my tattoo for no specific reason' formed no separate factor (which would be consistent with the study by Wohlrab et al. (2006), but loaded negatively onto the factor 'Conveying a personal message' (-.569). This item should therefore be deleted from the questionnaire or should be combined with similar questions to form a separate and reliable factor.

One factor was rated higher by the regret group: 'Social/Group cohesion', suggesting that it is a bad idea to have a tattoo as part of a fashion trend (which is consistent with the study by Varma (1999) that suggested that most regrettable tattoos are applied for the sake of fashion), when trying to 'fit in' and just because people around you have tattoos too (peer pressure, consistent with the article by Wohlrab et al., (2006)).

When it comes to initial motivations for having a tattoo, men and women differ as well. Men have tattoos more often as a sign of individuality (especially liking the toughness and the non-acceptance of the tattoo) as well as group cohesion. Women tend to have a tattoo more often due to aesthetic reasons, finding it important that a tattoo looks good on the body, and sometimes even considering it a form of 'art' or 'jewelry'.

Significant differences in the decision-making process were found between the regret and no regret group. As (intuitively) was expected, the no regret group experienced a lengthier and more intense decision-making process, by seeking more information about health risks and reliable tattoo shops. The regret group indicated that their decision to have a tattoo might have been more impulsive, which is consistent with the scores on the Impulsiveness scale.

Although the difference in overall decision-making process score between men and women was not significant, there were quite some significant differences between men and women (assessed on *item* level). The findings suggest that women generally have a more thorough decision-making process than men. This is striking for two reasons that seem to form a paradox: 1) that there is this enormous gender effect where women seem to have a more thorough thought process before making decisions and 2) that (as Table 1 displays) there is no difference in tattoo-related regret between men and women. Apparently, men have a more efficient way of making tattoo-related decisions, or are more capable in coping with regrets or accepting the tattoo on their body.

#### *4.2 Limitations, practical implications and recommendations*

Some limitations of this study should be taken into consideration. First, the man/woman ratio was rather distorted, with 358 women (90.9%) and only 36 men (9.1%) answering the questionnaire. Having more male participants in this research would have been desirable because that would have added to the (ecological) validity of the results. Furthermore, only around 14% of the study participants belonged to the regret group, although this was consistent with earlier intuitive notions that individuals that are enthusiastic about their tattoo, are more willing to fill out a questionnaire. That there were less regret participants could also be the consequence of the fact that only five anti tattoo websites were used to distribute the research website link (as opposed to ten neutral and pro tattoo websites). Although there were many participants in this study (N=392), which greatly increases the study's validity, there was a large drop-out rate over the course of the questionnaire (23.9%), presumably due to the great length of the instrument, making a shorter questionnaire in future studies desirable to avoid losing potential participants. The study sample consisted of a partial convenience sample (selection bias), but the participants were offered the chance to decide for themselves whether they would fill out the questionnaire or not.

Another limitation of this study was the low internal consistency for some of the factors, which were a cause for concern while interpreting the data. For example, the 'Conveying a personal message' factor of the initial motivations scale had a Cronbach's  $\alpha$  of only .510. This is not acceptable, and in further research, actions should be taken to increase this internal consistency. All other alpha's vary between .640 and .811, (even for scales with a small amount of items) which made the other data more trustworthy when interpreting results.

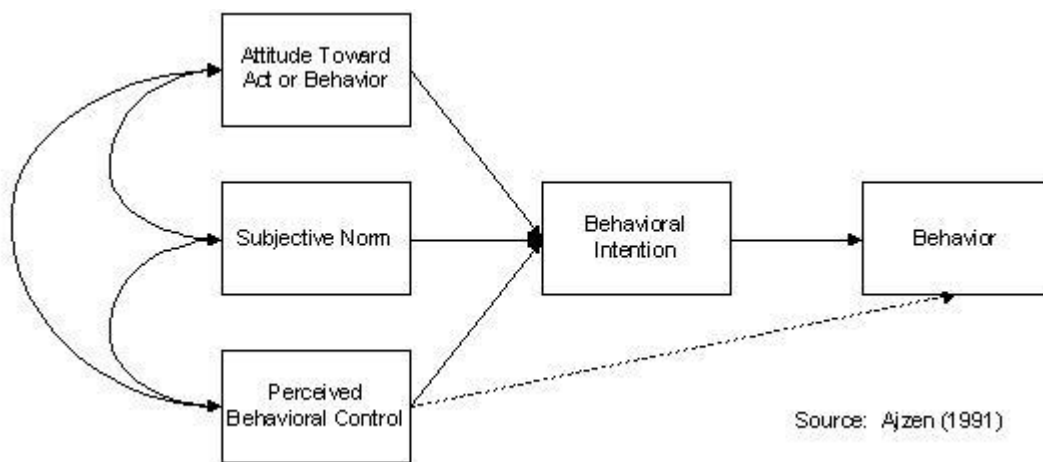
Finally, social desirability effects may have occurred due to the fact that there still might lie a taboo over tattoos and tattoo-related regret, although items were formulated as neutral as possible, and the questionnaire was as anonymous as could be.

The practical implications of this study for psychological research can provide an explorative framework for further Dutch or European research on tattoo-related regret. Especially the decision-making process, initial motivations, impulsiveness and impact of the tattoo on daily life seem to be important factors. A start has been made to 'fill the gap' in this part of scientific literature. Furthermore, until now, no study has ever examined the differences between men and women and tattoo-related regret in such a thorough way. These results can also eventually form the foundation for an intervention for future potential tattoo clients, that is focused on providing accurate information, addressing the regret-risk factors that have been determined in this research, as well as supplying tattooed persons with regrets with sufficient information about what can be done to

reduce the burden that is caused by the regretted tattoo. Especially the decision-making process and initial motivations might be suitable subjects for future interventions, because it is easier to intervene *before* someone has a tattoo than to 'clean up the mess' afterwards. The results seem to have good ecological validity (at least in the Netherlands, and possibly in most Western nations) because the respondents seem to reflect the 'real', tattooed population in many ways.

In hindsight, many results that were obtained by this study are consistent with literature. What might be very interesting and desirable, is the development of a theoretical framework. This will put these results (as well as future results and interventions) in perspective. A very suitable theory to provide this framework – especially when considering the decision-making process (*before* having the tattoo), might be the Theory of Planned Behavior (TPB, Ajzen & Fishbein (1980)). This theory states that behavior is influenced by three factors: attitude to the behavior, subjective norms and perceived behavioral control, through an intermediating factor: behavioral intention. Also, knowledge of the behavior and consequence plays an important role in decision-making. A simplified graphical model (without the influence of knowledge) of the TPB can be found in Figure 1.

Figure 1. Theory of Planned Behavior (TPB)



As can be seen, the TPB can be used to change or influence behaviors, such as having a tattoo. Only increasing knowledge about the risks and consequences of having a the tattoo does not change the behavior very much, but by influencing the attitude towards the behavior, the subjective norm (what others think of the behavior), and perceived behavioral control (by supplying information that is distributed by experts (tattooists or tattooed persons) and implementing 'cooling off periods' after visiting a tattooist and receiving information might increase realistic expectations and consequences of the behavior ('having a tattoo') and therefore, reduce potential future regret.

To further address this issue, the development of a valid, standardized and preferably shorter questionnaire on this topic is recommended. Recommended topics for further research might be: examining why men have better coping skills when it comes to their tattoos (or differences between men and women in general). Also, more research about tattoo removal might be very interesting. Tattoo removal was (for the sake of prudence) not addressed in this study. Examining the reasons for (potential) removal and the intensity of regret might prove to be a whole new interesting chapter in tattoo-related scientific research.

Also, research in general on tattoos and tattoo-related regret needs to be stimulated, because the tattoo (and therefore: regrets) is a phenomenon that is becoming increasingly prevalent in Dutch culture. When more research is done, this will result in valid and reliable data that will provide more understanding for this problem. In turn, more knowledge about this topic might result in effective interventions of useful information that will hopefully decrease the prevalence of tattoo-related regret.

#### 4.3 Conclusion

Results showed that a substantial part of the respondents experience tattoo-related regret to some extent. No difference was found between the intensity of regret between men and women.

Certain demographical factors such as age and impulsiveness, certain initial motivations (categories), daily life struggles and the decision-making process have significant effect on experiencing tattoo-related effect. This explorative research has been the start in filling in the blanks in tattoo-related literature in the Netherlands. The information provided by this article can improve interventions or the provision of information to individuals that are thinking about having a tattoo, or help individuals that suffer from a psychological or emotional burden after their tattoo was applied. Especially initial motivations and the decision-making process are important, because they can be influenced *before* an individual has a tattoo. A promising theoretical framework for these concepts might be the Theory of Planned Behavior (Ajzen & Fishbein (1980)). More research on this topic is desirable (and preferably, a shorter questionnaire needs to be designed) to fill the gap in Dutch literature.

## **5. Acknowledgments**

I would like to thank dr. C.H.C. Drossaert (Stans) and dr. L.M.A. Braakman-Jansen (Annemarie) for their supervision during the course of this research. I found their feedback always very useful and it inspired me to persevere.

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## Appendix A. Online questionnaire 'Tattoos'

The questionnaire below, which was used during this research, is in entirely in Dutch, due to the nationality of the participants.

### Vragenlijst 'Tatoeages'

Dit is een **onderzoek over tatoeages** voor de studie Psychologie aan de Universiteit Twente.

Waarom heeft u een tatoeage laten zetten? Bent u er nog steeds blij mee? Heeft u er ooit al eens last of spijt van gehad? Waar lag dat aan?

Het onderzoek heeft de vorm van een vragenlijst. Deelname aan dit onderzoek duurt ongeveer **10 minuten en is volledig anoniem**. Het is belangrijk dat u de hele vragenlijst invult, en dus bij elke vraag één vakje aankruist.

Als u na uw deelname graag op de hoogte wilt worden gehouden van de uitkomsten van het onderzoek, vul dan aan het eind van de vragenlijst uw **e-mailadres** in.

Ook worden er onder de volledig ingevulde vragenlijsten maar liefst **3 bioscoopbonnen van 10 euro** verloot! Om kans te maken op één van deze bioscoopbonnen, vul dan aan het eind van de vragenlijst uw e-mailadres in.

Alvast erg bedankt voor uw medewerking!

Fleur van Oosterzee

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### Algemene gegevens:

**Wat is uw leeftijd?**

**Wat is uw hoogst afgeronde opleiding?**

- ☐ Basisonderwijs
- ☐ Middelbaar onderwijs
- ☐ MBO
- ☐ HBO
- ☐ WO

**Welke opleiding volgt u nu?**

- ☐ Middelbaar onderwijs
- ☐ MBO
- ☐ HBO
- ☐ WO
- ☐ Geen

**Wat is uw geslacht?**

- ☐ Man
- ☐ Vrouw

**Soort tatoeages**

**5. Hoeveel tatoeages heeft u op uw lichaam?**

6. Wat was de leeftijd waarop u uw (eerste) tattoo liet zetten?

7. Waar op uw lichaam bevindt/bevinden zich uw tattoo(s)? (Meerdere antwoorden mogelijk):

- ☐ Hoofd/hals
- ☐ Rump
- ☐ Armen
- ☐ Pols/handen
- ☐ Benen
- ☐ Enkels/voeten

8. Hoe groot is uw tattoo? Als u meerdere tattoos heeft, kies dan de tattoo die voor u het belangrijkste is.

- ☐ Klein (ongeveer 3 x 3 cm)
- ☐ Middelgroot (ongeveer 8 x 8 cm)
- ☐ Groot (groter dan 8 x 8 cm)

9. Hoeveel kleuren zijn er gebruikt in uw tattoo? Als u meerdere tattoos heeft, kies dan voor de tattoo die het belangrijkste voor u is.

- ☐ 1 kleur
- ☐ 2-3 kleuren
- ☐ Meer dan 3 kleuren

10. Geef hier een korte beschrijving van uw tattoo(s)

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### Motivaties

Hieronder staan mogelijke redenen die beschrijven waarom u uw tattoo(s) hebt laten zetten. Geef voor elke reden aan, in welke mate deze op u van toepassing is. Kies het antwoord dat het best bij u past. Mocht u nog een andere motivatie hebben gehad om een tattoo te laten zetten, dan kunt u dit aan het einde van dit deel van de vragenlijst toelichten.

Indien u meer dan één tattoo heeft, beantwoord dan de vragen met in gedachten uw tattoos in het algemeen.

Ik heb deze tatoeage(s) genomen omdat:

	(NEE!) Geheel niet op mij van toepassing	Niet echt op mij van toepassing	Enigszins op mij van toepassing	(JA!) Geheel op mij van toepassing
Ik een andere, lelijk geworden tatoeage wilde verbergen				
Ik vond dat tatoeages 'kunst' voor het lichaam was				
Een tatoeage een mooie accessoire was				
Ik graag met de 'modetrend' wilde meegaan				
Ik een lichamelijke oneffenheid wilde verbergen (bijvoorbeeld een wijn- of moedervlek)				
Ik vond dat een tatoeage een verrijking was voor mijn lichaam				
Ik tatoeages erg mooi vond				
Ik tatoeages een sieraad voor het lichaam vond				
Ik vond dat ik er goed uitzag met mijn tatoeages				
Mensen uit mijn omgeving ook tatoeages hadden				
Ik graag wilde laten zien dat ik uniek was				
Het 'ruige' karakter van een tatoeage me aansprak				
Het me stoer leek				
Mijn tatoeage iets voor mij alleen was				
Ik het leuk vond om mijn tatoeage te laten zien aan anderen				
Omdat het idee dat een tatoeage nog niet helemaal geaccepteerd is, me erg aanstond				
Mijn tatoeage me verbond met mensen uit mijn kennissenkring				

Ik graag bij een groep wilde horen met mensen die ook tatoeages hadden				
Ik graag wilde benadrukken dat ik anders was dan anderen				
Ik wilde laten zien dat ik erbij hoorde				
Het mijn eigen individualiteit benadrukte				
Het voor mij een statussymbool was				
Een tatoeage voor mij voor een periode van persoonlijke groei stond				
Ik vond dat mijn tatoeage een hele spirituele betekenis had				
Mijn tatoeage liet zien waar ik voor stond				
Mijn tatoeage liet zien dat ik een bepaalde geloofsovertuiging had				
Mijn tatoeage liet zien dat ik een bepaalde levensvisie had				
Het in mijn vriendenkring het erg normaal was om een tatoeage te hebben				
Ik heb mijn tatoeage zonder specifieke reden genomen				

**Zijn er nog andere redenen (anders dan bovenstaande redenen) waarom u een tatoeage heeft genomen? Zo ja, welke?**

#### Beslissingsproces

Hieronder staan enkele stellingen die betrekking hebben op hoe lang en op welke manier u er over na heeft gedacht voordat u uw tatoeage(s) hebt laten zetten. Kies het antwoord dat het best bij u past. Als u meerdere tatoeages heeft, kies dan ook het antwoord dat het beste bij u past.

	Geheel niet op mij van toepassing	Niet echt op mij van toepassing	Enigszins op mij van toepassing	Geheel op mij van toepassing (JA!)
--	-----------------------------------	---------------------------------	---------------------------------	------------------------------------

	(NEE!)			
A. Ik heb lang nagedacht voordat ik mijn tatoeage(s) liet zetten				
B. Ik heb informatie gezocht over gezondheidsrisico's voordat ik mijn tatoeage(s) liet zetten				
C. Ik heb me verdiept in betrouwbare 'tattooshops' om mijn tatoeage(s) te laten zetten				
D. Ik heb mijn idee om een tatoeage te laten zetten, besproken met mensen die belangrijk voor me zijn				
E. Ik heb uitgebreid de voordelen en nadelen van een tatoeage tegen elkaar afgewogen				
F. Achteraf gezien denk ik dat mijn keuze voor een tatoeage impulsief is geweest				

### Tatoeages en het dagelijks leven

Onderstaande stellingen gaan in op hoe deze tatoeage u wel eens beïnvloed zou kunnen hebben tijdens uw dagelijks leven. Kruis het antwoord aan dat het beste bij u past, ook als u meerdere tatoeages heeft laten zetten. Als u in het dagelijks leven nog op een andere manier beïnvloed bent door uw tatoeages, geef dat dan onderaan de volgende pagina aan.

	(NEE!) Geheel niet op mij van toepassing	Niet echt op mij van toepassing	Enigszins op mij van toepassing	(JA!) Geheel op mij van toepassing
Ik heb, vlak nadat mijn tatoeage is gezet, last gehad van milde gezondheidsklachten (zoals ontstekingen e.d.)				
Ik heb vanwege mijn tatoeage ernstige gezondheidsklachten gehad				
Ik heb het gevoel dat mijn carrière wel eens gedwarsboemd is door mijn tatoeage				
Ik ben onzeker over mijn tatoeage, omdat hij minder mooi is geworden nadat hij is gezet (minder fel, uitgelopen inkt, e.d.)				
Mijn tatoeage staat niet meer voor waar ik trots op ben				

Mijn tatoeage betekent niet meer hetzelfde voor me als toen ik hem liet zetten				
Mijn tatoeage belemmert mij (of: heeft me wel eens belemmerd) bij het vinden van een partner				
Ik ben onzeker over mijn tatoeage, omdat hij niet zo mooi is geworden als ik had gehoopt				
Ik heb het gevoel dat ik door mijn tatoeage wel eens een baan ben misgelopen				
Mijn tatoeage heeft wel eens invloed gehad op mijn kledingkeuze				
Ik heb mijn tatoeage wel eens verborgen door bepaalde kleren aan te trekken				
Ik schaam me voor mijn tatoeage				
Ik heb het idee, dat anderen wel eens vooroordelen over me hebben vanwege mijn tatoeage				
Ik heb het idee dat ik moeilijker contacten leg vanwege mijn tatoeage				
Ik heb op geen enkel vlak last gehad van mijn tatoeage				
Soms denk ik wel eens dat mensen mij negatiever beoordelen door mijn tatoeage				
Nu ik wat ouder ben, had ik eigenlijk liever geen tatoeage gehad				
Ik heb het idee dat mensen mij vanwege mijn tatoeage stereotyperen				

## 2. Bent u wel eens op een andere manier in het dagelijks leven door uw tatoeage beïnvloed? Zo ja, hoe?

## Tatoeages en spijt

Hieronder kunt u aangeven hoeveel spijt u (eventueel) heeft ervaren, toen u met de situaties werd geconfronteerd die hierboven in de stellingen beschreven stonden. Kies het antwoord dat het beste bij u past.

### 1. Heeft u wel eens spijt gehad van uw tatoeage?

- ☐ Nee, nooit
- ☐ Af en toe
- ☐ Regelmatig
- ☐ Vaak

### 2. Heeft u momenteel spijt van uw tatoeage?

- ☐ Nee, geheel niet
- ☐ Niet echt
- ☐ Enigszins
- ☐ Ja, heel erg

**3. Heeft u wel eens overwogen om uw tatoeage te laten weghalen?**

- ☐ Nee, nooit
- ☐ Af en toe
- ☐ Regelmatig
- ☐ Vaak

**4. Hoeveel spijt heeft u van uw tatoeage? (Aangeven op een schaal van 1-5. 1 is 'Geheel niet' en 5 is 'Geheel Wel')**

**Beslissingsproces: Persoonlijkheid**

Hieronder volgen acht stellingen waarmee u in bepaalde mate eens of oneens kunt zijn. Deze stellingen gaan niet per sé over uw tatoeages, maar over uw persoonlijkheid in het algemeen.

Er is geen goed of fout antwoord. Vul de stellingen zo eerlijk mogelijk in. Zorg dat u op elke vraag een antwoord geeft.

	Helemaal oneens	Oneens	Neutraal	Eens	Helemaal eens
Ik ga me zelden aan iets te buiten					
Het kost me geen moeite verleidingen te weerstaan					
Wanneer ik mijn lievelingseten voorgeschoteld krijg, eet ik vaak te veel					
Ik geef zelden toe aan mijn impulsen					
Ik eet mezelf weleens misselijk					
Soms doe ik in een opwelling dingen waar ik later spijt van heb					
Ik ben altijd in staat mijn gevoelens te beheersen					
Het kost mij moeite mijn verlangens te weerstaan					

**Afsluiting**

Heel erg bedankt voor het invullen van de vragenlijst. Als u op de hoogte wilt worden gebracht van de resultaten van het onderzoek of kans wilt maken op één van de bioscoopbonnen, vul dan hieronder uw e-mailadres in.

Als u niet op de hoogte gehouden wilt worden van de onderzoeksresultaten, vul dan niets in.

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## Appendix B. List of used forums and websites

### *Pro Tattoo websites/forums/hyves*

- [Tattoosonchicks.hyves.nl](http://Tattoosonchicks.hyves.nl)
- [Tattoosonlads.hyves.nl](http://Tattoosonlads.hyves.nl)
- [Friendtattoosandpiercing.hyves.nl](http://Friendtattoosandpiercing.hyves.nl)
- [Skinart.hyves.nl](http://Skinart.hyves.nl)
- [Tattoo-hyve.hyves.nl](http://Tattoo-hyve.hyves.nl)
- [Piercingtattoo.hyves.nl](http://Piercingtattoo.hyves.nl)
- [Tattoogirlz.hyves.nl](http://Tattoogirlz.hyves.nl)
- [Tattoos-piercing.hyves.nl](http://Tattoos-piercing.hyves.nl)
- [Alltattoos.hyves.nl](http://Alltattoos.hyves.nl)
- [Tattoodesign.hyves.nl](http://Tattoodesign.hyves.nl)

### *Neutral websites/forums/hyves*

- [Bodydamage.hyves.nl](http://Bodydamage.hyves.nl)
- [Lovehatemi.hyves.nl](http://Lovehatemi.hyves.nl)
- [www.flair.nl](http://www.flair.nl)
- [www.quest.nl](http://www.quest.nl)
- [www.gezondheidsplein.nl](http://www.gezondheidsplein.nl)
- [Beauty.blog.nl](http://Beauty.blog.nl)
- [Forum.fok.nl](http://Forum.fok.nl)
- [www.defensieforum.nl/forum/tattoo](http://www.defensieforum.nl/forum/tattoo)
- [www.margriet.nl](http://www.margriet.nl)
- [forum.scholieren.com](http://forum.scholieren.com)

### *Anti Tattoo websites/forums/hyves*

- [Anti-tattoo.hyves.nl](http://Anti-tattoo.hyves.nl)
- [Gezondheid.plusonline.nl](http://Gezondheid.plusonline.nl)
- [Forums.myspace.com](http://Forums.myspace.com)
- [Forum.fok.nl](http://Forum.fok.nl)
- [www.stormfront.nl/forum](http://www.stormfront.nl/forum)



## Appendix C. Factor analysis 'Tattoos and daily life'

Table C1. Factor analysis 'Tattoos and daily life'

Item description	Factor				
	A. Social influences	B. Changed meaning	C. Health/self-awareness	D. NI cover up	E. Career
Judged more negatively	.832				
People stereotype me	.832				
Others prejudice me	.807				
Harder to get in touch	.480				
It has not affected me at all	.347				
Now older, wish I didn't have it		.796			
Does not mean the same		.780			
I am ashamed of it		.756			
Tattoo does not represent pride		.514			
Mild health problems			.739		
Serious health problems			.670		
Does not look as good as I hoped			.581		
Does not look as good anymore			.520		
Hindered me while finding partner			.391		
Influenced choice of clothing				.853	
Hiding it by wearing certain clothes				.769	
Missed out on a job					.844
Hindered my professional career					.742
<b>Cronbach's <math>\alpha</math></b>	<b>.720</b>	<b>.759</b>	<b>.647</b>	<b>.686</b>	<b>.640</b>
<b>(For all items: .782)</b>					

Note: Factor analysis was performed using Principal Component Analysis (Varimax Rotation)

## Appendix D. Factor analysis 'Initial Motivations'

**Table D1. Factor analysis 'Initial Motivations'**

Item description	Factor			
	A. Individuality	B. Aesthetics	C. Social/group cohesion	D. Personal message
Makes me different	.747			
I like non-acceptance	.703			
Makes me look tough	.703			
Makes me unique	.692			
I like its tough character	.665			
Show off to others	.496			
Status symbol	.443			
Express individuality	.441			
Jewelry for the body		.804		
Art for the body		.770		
Makes me look good		.700		
Enrichment for the body		.682		
Nice accessoire		.665		
Tattoo looks good on body		.626		
Wanted to belong to a group			.760	
I wanted to fit in			.713	
People around me have tattoos			.653	
Fashion trend			.571	
Tattoos are normal in my group			.569	
Unites me with friends			.549	
Shows my religious beliefs			.394	
Spiritual meaning				.688
Personal growth				.681
Shows my opinions of that time				.680
Shows my vision on life				.632
No specific reason				-.569
Just for myself				.425
<b>Cronbach's <math>\alpha</math></b>	<b>.811</b>	<b>.818</b>	<b>.694</b>	<b>.510</b>
<b>(For all items: .837)</b>				

Note: Factor analysis was performed using Principal Component Analysis (Varimax Rotation)