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**CONSUMER BEHAVIOR AND BODY PIERCINGS: UNIQUENESS-SEEKING THROUGH  
CONSUMPTION AMONG INDIVIDUALS WITH BODY PIERCINGS**

Master's Thesis

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## **ABSTRACT**

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The purpose of this research was to explore the relationship between body piercings and consumers' need for uniqueness. It is important for businesses to understand the key characteristics and motivations of different consumer groups in order to identify their target customers and to find market opportunities for their products. Body piercings are becoming increasingly popular and people with body piercings often have a high need for uniqueness, but this had not been researched in the consumption context. This research compared people with different numbers of body piercings in terms of their need for uniqueness in consumer behavior.

The data was collected with an online questionnaire, and it utilized two previously tested and validated scales for researching need for uniqueness in consumer behavior. The results were analyzed with t-tests, analysis of variance (ANOVA) and correlation analysis. The analyses revealed a positive relationship between number of body piercings and level of uniqueness need in consumer behavior, but overall differences were only significant between people without body piercings and people with high number of body piercings.

The results suggest that people with high number of body piercings have a high need for uniqueness in their consumer behavior. These findings illustrate a possibility of treating people with multiple body piercings as a niche market for unique products and services. This knowledge is especially useful for a small business with innovative or unusual market offering.

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Tämän tutkimuksen tarkoituksena oli tutkia lävistysten ja kuluttajien ainutlaatuisuuden tarpeen välistä suhdetta. Yritysten on tärkeää ymmärtää eri kuluttajaryhmien perusominaisuuksia ja motivaatiota löytääkseen tuotteilleen otollisen kohderyhmän ja markkinatilaisuuden. Lävistysten suosio on jatkuvassa nousussa ja lävistetyillä ihmisillä on usein suuri ainutlaatuisuuden tarve mutta tätä ei ollut tutkittu kulutuskontekstissa. Tämä tutkimus vertasi lävistyksiä vaihtelevan määrän omaavia ihmisiä toisiinsa heidän kuluttajakäyttäytymisensä ainutlaatuisuuden tarpeen perusteella.

Tutkimusaineisto kerättiin internetkyselynä kahta aiemmin kokeiltua ja validoitua ainutlaatuisuuden tarvetta kuluttajakäyttäytymisessä mittaavaa asteikkoa käyttäen. Saatuja tuloksia analysoitiin t-testien sekä varianssianalyysien (ANOVA) ja korrelaatioanalyysien avulla. Analyysien tulokset osoittivat, että lävistysten määrällä ja kuluttajakäyttäytymisen ainutlaatuisuuden tarpeen välillä on positiivinen suhde, mutta yleisellä tasolla huomattavia eroavaisuuksia löytyi vain ihmisten, joilla ei ollut lävistyksiä ja ihmisten, joilla oli useita lävistyksiä välillä.

Tulosten mukaan ihmisillä, joilla on useita lävistyksiä, on suuri ainutlaatuisuuden tarve kuluttajakäyttäytymisessään. Tätä kuluttajaryhmää voitaisiinkin alkaa ajatella omana markkinarakonaa ainutlaatuisille tuotteille ja palveluille. Tämä tieto on erityisen hyödyllistä pienille innovatiivisille ja epätavallisille tuotteita tarjoaville yrityksille.

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# 1 INTRODUCTION

This Thesis focuses on a specific domain of consumer behavior, the need for uniqueness, in the context of consumers with body piercings. This chapter briefly introduces the main reasons for choosing the topic and the context of the research.

## 1.1 Background

The need for uniqueness, a desire to be different from others and to build an individual identity that differs, to some extent, from others, is one of the main psychological needs guiding consumer behavior these days (Solomon 2017, 177-178). It can also be argued that consumption, acquisition and possession of consumer goods, products and experiences, is an important tool in building a self-identity as well as in expressing one's uniqueness. (Arnould & Thompson 2005). According to a theory of uniqueness (Snyder & Fromkin 1977), people have simultaneous needs not just to be unique but also to belong in a social group, and thus they tend to prefer socially accepted ways of expressing uniqueness (Snyder & Fromkin 1980, 105-118; Lynn & Harris 1997a) as these do not compromise their status in a social group. Consumption can be used to safely fulfill the need for uniqueness as it offers a range of socially accepted ways to differentiate oneself from others (Lynn & Harris 1997a).

Understanding consumer behavior and the special characteristics of different consumer groups is crucial for anyone hoping to successfully compete in the marketplace: it is impossible to satisfy consumer needs without understanding these needs first (Solomon 2017, 15-17), and as different individuals have different needs, marketing practitioners must be able to find a way to group together consumers, who might share similar needs. The need for uniqueness is one of these needs and to be able to use this need in marketing, it is necessary to be able to identify consumer groups to whom uniqueness is likely to be extremely important and who are also likely to seek uniqueness through consumption (Lynn & Harris 1997a).

The decision to focus on people with body piercings was based on two main reasons:

### (1) The market potential of people with body piercings

Much of the earlier research on people with body art has focused on physical and mental health problems as well as in risk-taking and socially deviant behavior (Koch, Roberts,

Armstrong & Owen 2010; Lauman & Derick 2006). However, the popularity of body piercings has been growing steadily during past years and despite its commonness these days, there is not a lot of research conducted on this, constantly growing, group of people (Totten, Lipscomb & Jones 2009). This is the case even though the main motivations for obtaining body art - esthetics, self-expression and the expression of uniqueness (see for example: Caliendo, Armstrong & Roberts 2005) - have been discovered to be very similar to those motives to which businesses regularly appeal to, when marketing a product or a brand.

Following this, gaining deeper understanding of the motivations and buying behavior of this group of individuals could potentially help businesses in finding and developing goods that are particularly appealing for this group, as well as help marketers to find more effective ways of reaching this customer segment.

## (2) Contribution to the research on the need for uniqueness in the consumption context

The earlier research on the need for uniqueness, as a universal need, not as applied to consumption, has discovered a correlation between possession of body art and higher need for uniqueness (Tiggemann & Golder 2006; Tiggemann & Hopkins 2011). As there are many ways to display one's uniqueness, it was considered worth studying, whether this correlation exists also in the consumer context. The two most reliable tools for assessing need for uniqueness in consumer behavior, the consumers' need for uniqueness (CNFU) (Tian et al. 2001) and the desire for unique consumer products (DUCP) (Lynn & Harris 1997b), both correlate moderately with the original theory of uniqueness, proving the validity of both in measuring need for uniqueness, but also showing that these scales are different from the original uniqueness scale as they've been developed specifically to measure the uniqueness-seeking in consumption. DUCP correlates with CNFU, and also with all three dimensions of CNFU individually (Goldsmith & Clark 2009). Overall, according to Ruvio et al (2008), the CNFU-scale has not been widely used, so the use of this scale, even though this Thesis uses the shorter version of the scale, in a new research context also enables further comparison of the earlier results in different research contexts.

## 1.2 Definitions

This section briefly introduces and summarizes the key concepts and terms used in this research. All these concepts will be discussed in more detail later on, first in the 'preliminary

literature review' and then on the theory chapters of this Thesis. The purpose of this section is to provide a broad understanding of the research context before the research questions and hypotheses are presented.

**Body art:** Body art is used a term including both, commonly accepted, types of body modification tattooing and body piercing

**Body piercing:** Body piercing is a “penetration of jewelry into openings made in such body areas as eyebrows, ears, lips, tongue, nose, navel, nipples and genitals”, and as such excludes piercing of soft earlobe from the definition (Stirn et al. 2006). This exclusion is common, however, in some of the earlier research soft earlobe piercings have been considered body piercings on men, but not on women (Forbes 2001), whereas others have excluded soft earlobe piercings for both genders ( Lauman & Derick 2006) and some have even excluded all piercings on ears from the definition (Makkai & MacAllister 2001). In this research, only soft earlobe piercings, ‘traditional earrings’ will be excluded from the definition.

**Need for Uniqueness:** Snyder & Fromkin’s (1977) theory according to which all individuals have the simultaneous need of being distinctive from others but also to belong to the group. This leads individuals to seek for socially acceptable ways of differentiating themselves from others and to aim at being moderately different. Need for uniqueness, as measured on need for uniqueness scale (Snyder & Fromkin 1977) has been found to have a positive correlation with need for uniqueness in consumer context, as measured by consumers’ need for uniqueness -scale (Tian et al. 2001).

**CNFU:** Consumers’ Need for Uniqueness (Tian et al. 2001) is a 31-item scale for measuring uniqueness-seeking, based on original need for uniqueness theory, in the consumer behavior. It is a multidimensional scale consisting of three dimensions: creative choice counterconformity (CCC), unpopular choice counterconformity (UCC) and avoidance of similarity (AOS). CCC measures the individual’s tendency and willingness to express uniqueness in their consumption behavior in a way that is likely, or at least expected, to lead to admiration and acceptance from others, for example by choosing unique shopping venues or having a distinctive fashion style. UCC, on the other hand, measures the willingness of an individual to exhibit their uniqueness in consumer behavior by favoring products or services that are likely to be disliked by others and that might lead to social disapproval from their peers. AOS measures the likelihood of a person to stop using or

avoid purchasing products and services once they are common among many consumers. (Tian et al. 2001). As the original scale is very long, a shorter, 12-item scale of the CNFU has been developed by Ruvio et al. (2008), and that scale will be adopted also in this research.

**DUCP:** Desire for Unique Consumer Products is a scale consisting of 8 items developed for measuring the uniqueness-seeking in consumer behavior, but unlike CNFU described above, DUCP measures uniqueness-seeking explicitly by evaluating the importance a consumer places on buying and owning rare or difficult to obtain consumer goods (Lynn & Harris 1997b).

### 1.3 Research questions

As mentioned before, the relationship between the need for uniqueness and possession of body art have already been researched, and the two are positively correlated (Tiggeman & Hopkins 2011). However, the need for uniqueness, as measured by the original uniqueness scale, might measure the willingness to be publicly nonconforming rather than the desire for uniqueness (Lynn & Harris 1997a). Furthermore, neither consumers' need for uniqueness nor the desire for unique consumer products have been researched in the context of individuals with body piercings, apart from Tian et al. (2001) having used 'tattoo and body piercings artists' as a 'known-group' in their validation studies in constructing CNFU scale.

The earlier research has often grouped tattooed and body-pierced individuals into one, but the finding of Tiggeman & Hopkins (2011) suggests that there are clear differences between these two groups of people, often indicating greater deviance from the population without body art for tattooed than for body-pierced individuals. Also, body piercings are common these days and some research findings suggest that perhaps they have already become 'too mainstream' to allow for making distinction between individuals with and without them (Wohlrab et al 2007b; Tate & Shelton 2008). At the same time, majority of research has still found shared distinctive characteristics among people with body piercings, though overall the research results in this field are quite mixed.

To summarize, the relationship of uniqueness-seeking through consumption and people with body piercings have not been researched, despite both elements having received research attention separately. Also, it has been suggested that CNFU and DUCP should

be used together in researching the overall need for uniqueness in consumer behavior, as DUCP and the three dimensions of CNFU all measure slightly different aspects of uniqueness-seeking in consumer behavior (Goldsmith & Clark 2009) and thus using both scales should give a more comprehensive picture of need for uniqueness in consumer behavior. Following this the main research question of this Thesis is:

**What is the relationship between uniqueness-seeking through consumption and body piercings?**

To further elaborate on the main research question, following sub-questions are used:

- a. What is the relationship between of body piercings and consumers' need for uniqueness (CNFU)?
- b. What is the relationship between of body piercings and desire for unique consumer products (DUCP)?
- c. In what aspect(s) of uniqueness-seeking through consumption do the individuals with body piercings differ the most from the rest of the population?

#### 1.4 Preliminary literature review

This chapter will briefly introduce and define the main concepts and theories related to uniqueness-seeking in consumer behavior as well as the research context, individuals with body piercings.

##### *1.4.1 Consumer behavior and the need for uniqueness*

Consumer behavior can be said to be the most crucial research area for marketers and businesses: in order to be able to give the consumers what they want, one has to be able to understand the needs of consumers and be able to identify the individuals behind these needs (Solomon 2017, 15-17). Traditionally, consumer behavior research has focused on an idea of a consumer as a rational agent and emphasized the meaning and endless possibilities of technology and new science in providing new, better products and services that would satisfy the consumer (Solomon 2017, 40-41). Recently, however, there has been a switch towards another, more culture-orientated approach to consumer behavior. This

approach recognizes the impact of cultural and social settings on a consumer behavior as well as individual differences in personality. A set of research perspectives focusing on these aspects in consumer behavior research is called Consumer Culture Theory (CCT), and it emphasizes the relationship between consumer and the marketplace (Arnould & Thompson 2005). The influence of social group as well as the cultural settings are considered as a part of CCT, but the main point of interest in this research is the way today's consumers see and experience the marketplace and the way they consume as tools for building their identity and recognizes that consuming in a 'nonconformist way' can be used in this process (Arnould & Thompson 2005; Patterson & Schroeder 2010). In other words, the way people consume influences their identity and as such it can serve as a tool for differentiating oneself from others, while similar patterns of consumption can, on the other hand, help in establishing social groups and enhance the feeling of belonging in a sub-culture (Arnould & Thompson 2005).

Much of the earlier behavioral research has been about conformity, the ways through which people want to feel as a part of certain social group, and in trying to understand these mechanisms, researchers also found evidence of nonconformity (Asch 1951; Snyder & Fromkin 1977). The strength as well as the tendency to behave differently from others vary greatly from one person to another (Asch 1951; Jahoda 1959; Pepinsky 1961) and the strength of nonconforming behavior tends to increase when individual's sense of uniqueness is threatened (Fromkin 1968; Fromkin 1970; Duval 1972). These findings have led the researchers to identify the need for uniqueness as one of the most important aspects influencing consumer behavior (Solomon 2017, 177-178).

#### *1.4.2 Uniqueness Theory (Snyder & Fromkin 1977)*

Need for uniqueness, or uniqueness theory, is a theory presenting that people have two contradicting needs: the need for belongingness and social acceptance but at the same time the need to be individuals and different from the rest of the population. The feeling of this uniqueness is crucial in building coherent self-identity, and thus an individual is 'forced' to compromise between the need for uniqueness and the need for social approval from their peers (Lynn & Snyder 2002). The first tool for measuring the need for uniqueness is called uniqueness scale developed by Snyder & Fromkin (1977). This original scale consists of 32 items categorized under three different dimensions of uniqueness: lack of concern for opinions of others, unwillingness to conform or to follow rules and willingness to defend one's own beliefs (Snyder & Fromkin 1977). The scales that were later developed for

measuring specific aspects of uniqueness-seeking behavior use the original uniqueness theory as benchmark, even though it has been argued that the original uniqueness scale does not necessarily measure the need for uniqueness per se, as it focuses too much on public displays of nonconformist behavior, whereas majority of the population seems to prefer socially accepted ways of differentiating themselves from others (Lynn & Harris 1997a).

#### *1.4.3 Self-Attributed Need for Uniqueness (Lynn & Harris 1997a)*

Self-Attributed Need for Uniqueness (SANU) was created by Lynn & Harris (1997a) following the realization of the shortcomings of the original uniqueness theory. This scale consists of 4 items and it was designed to take into account the socially approved ways of 'being unique'. The purpose of SANU was to get a more holistic picture of the uniqueness-seeking behavior, rather than the willingness to be publicly nonconforming, and as such SANU was tested against different elements of consumer behavior that were hypothesized to be possibly motivated by the need for uniqueness. A positive correlation was found between SANU and several elements of consumer behavior, and, as consumption is one of the socially accepted ways of expressing differentness (Snyder & Fromkin 1980, 105-118), it was further concluded that SANU was more appropriate tool for evaluating uniqueness-seeking under 'normal' circumstances than the original uniqueness theory (Lynn & Harris 1997a)

#### *1.4.4 Consumers' Need for Uniqueness (Tian et al. 2001)*

Defined as "the trait of pursuing differentness relative to others through the acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one's self-image and social image" (Tian et al. 2001), consumers' need for uniqueness (CNFU) is a scale also developed from the uniqueness theory, but applied to a context of consumption through series of consumer behavior research. (Tian et al. 2001). CNFU scale consists of 31 items, evaluated on a 5-point Likert-scale, divided into three dimensions of consumer behavior: creative choice counterconformity, unpopular counterconformity and avoidance of similarity (Tian et al. 2001). While the three dimensions of CNFU have been used also individually as a part of research (Goldsmith & Clark 2009), the purpose of the scale is to give an overall 'score' of the consumer's need for uniqueness rather than measure the results of the three dimensions (Tian et al. 2001)

#### *1.4.5 Desire For Unique Consumer Products (Lynn & Harris 1997b)*

Desire for unique consumer products (DFCP) is scale for measuring the importance an individual places on buying and owning unique consumer goods, products or services (Lynn & Harris 1997b). The scale was designed to be easy to use and it is relatively short, consisting of only 8-items measuring specifically the relationship an individual has towards possession of unique products. DUCP correlates with the original uniqueness scale moderately, indicating that it is a valid tool measuring uniqueness-seeking in consumer behavior, but that there are many other domains through which an individual might seek uniqueness apart from consumption. (Lynn & Harris 1997b). DUCP also correlates with CNFU, all three dimensions of it, and particularly strong positive correlation has been found between the creative choice counterconformity (CCC) of CNFU and DUCP suggesting that DUCP focuses on positive, socially accepted ways of uniqueness-seeking in consumption (Goldsmith & Clark 2018)

#### *1.4.6 Individuals with body piercings*

Defined as “penetration of jewelry into openings made in such body areas as eyebrows, ears, lips, tongue, nose, navel, nipples and genitals” (Stirn et al. 2006), body piercings are increasingly popular nowadays, especially so among younger population (Stieger et al 2010; Wohlrab et al. 2007b; Stirn et al. 2011; Deschesnes, Demers & Fines 2006; Laumann & Derick 2006; Willmott 2001; Forbes 2001). This is the case even when the soft earlobe piercings, earrings, are excluded from the definition, which is often done as earrings are considered to be more accessories than anything else (Armstrong et al. 2004; Stirn et al 2006; Deschenes, Demers & Fines 2006; Lauman & Derick 2006; Bone, Ncube, Nichols & Noah 2008).

Body piercings, and the individuals possessing any form of body art<sup>1</sup>, have been researched with a focus on health problems, and evidence of major health risks, such as different blood-transmitted diseases, has been scarce and health issues related to body part are usually minor health complications (Bone et al 2008; Deschesnes et al 2006; Makkai & McAllister 2001; Mayers et al 2002). Also, different mental health problems have been associated with possession of body art (Carrols et al. 2002; Stirn et al. 2006; Young, C., Roberts, A.E. & Angel, E. 2010)

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<sup>1</sup> The term ‘body art’ is used here to mean both body piercings and tattoos as detailed later in the literature review. Body piercings and tattoos are often discussed together in the literature and thus making a distinction between the two would greatly limit the amount of information available

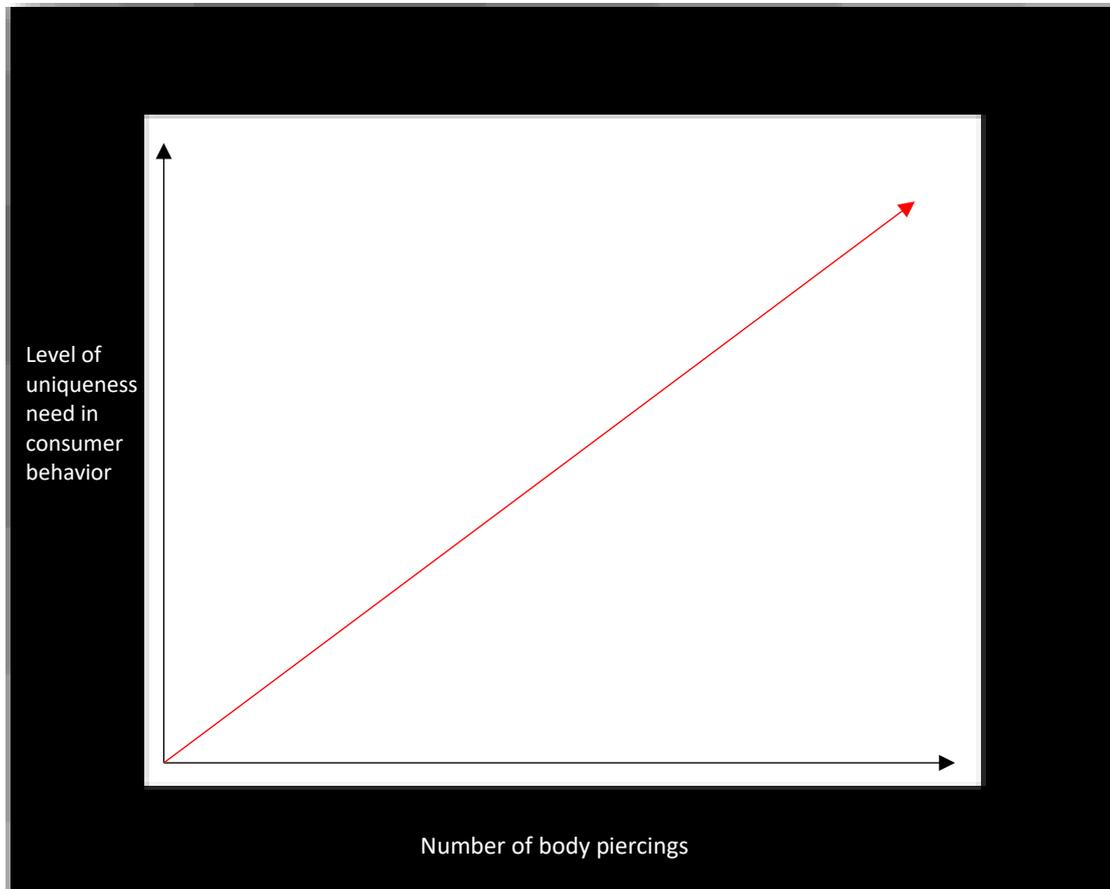
Another popular topic in the body art research is the deviance, or risk-taking, behavior of individuals with possessing body art. For example, substance abuse, including both alcohol and drugs (for example Armstrong et al. 2004; Koch et al. 2010), smoking cigarettes (Stieger et al. 2010), unwillingness to conform to social expectations (Forbes 2001) and likelihood of having been arrested (Lauman & Derick 2006) are among the themes of body art research. Moreover, relation of body art and sexual behavior, especially risk-taking sexual behavior such as sexual activeness at a young age, multiple partners and willingness to have unprotected sex, is mentioned (Armstrong et al. 2004; Caliendo et al. 2004; Carrols et al. 2002; Wohlrab et al. 2007b). In addition to risk-taking and socially deviant behavior, overall tendency to seek sensations is often found to be higher among individuals with body piercings (Armstrong et al. 2004; Stirn et al. 2006; Wohlrab et al. 2007b). It is also often concluded that the higher the number of body piercings, or tattoos, correlates with the degree of deviance (Carrols et al. 2002; Stirn et al. 2011). In general, people with body piercings differ from the rest of the population less than people with tattoos, and the most different group of individuals are the ones possessing both tattoos and piercings (Wohlrab et al. 2007b)

The main motivations for obtaining body art, according to research, have to do with esthetics, body decoration, and the identity: expressing uniqueness and individuality (Armstrong et al. 2004; Armstrong et al. 2007; Wohlrab et al. 2007b; Koch et al 2010; Young et al. 2010; Tiggeman & Hopkins 2011). In the case of intimate piercings, also sexual motivations were mentioned (Myers 1992; Caliendo et al. 2004; Young et al. 2010).

## 1.5 Theoretical Framework

As discussed above, the theoretical background of CNFU is the original need for uniqueness theory, which is why the theoretical framework presented here is also based on a uniqueness need research, more precisely, on the finding of Tiggemann & Hopkins (2011), who found a positive relationship between the need for uniqueness and having body piercings. Despite DUCP not having a direct link with the original need for uniqueness theory, this scale has been found to correlate with CNFU, and also with each of its three dimensions individually (Goldsmith & Clark 2018), which is why the relationship between DUCP and number of body piercings is thought to be similar to that between CNFU and number of body piercings. Following this, it is expected that there exists a positive

relationship between the need for uniqueness in consumer behavior context, as measured by both DUCP and CNFU, and the number of body piercings, as illustrated in Figure 1.



*Figure 1 - Theoretical Framework - Body piercings and consumers' need for uniqueness*

## 1.6 Delimitations

This research uses two scales, CNFU and DUCP, developed for measuring uniqueness-seeking in consumer behavior. This means that the original uniqueness theory (Snyder & Fromkin 1977) and the self-attributed need for uniqueness (Lynn & Harros 1997a) will not be included in the research, as the focus is not in understanding the level uniqueness-seeking of respondents in their everyday life, but in how they seek uniqueness through consumption.

Also, the location of body piercings is left out of this research; the research is based solely on the number of body piercings (excluding the soft earlobe as mentioned above) and on the, possible, correlation between this number and the need for uniqueness in consumer context. The purpose of this work is to measure the 'simple' relationship of body piercings

and need for uniqueness in consumer behavior and defining some body piercings as 'more unique' than others is beyond the scope of this research. Moreover, while, for example, intimate body piercings have been found to indicate greater difference from the rest of the population, the motivations for obtaining these body piercings have often been linked with motives other than uniqueness.

Thirdly, this research focuses only on body piercings, excluding tattoos, even though much of the earlier research has focused on both.

Finally, even though certain demographic details of respondents are collected, this is done purely to get a better understanding of the final sample. In other words, the scope is just to understand the phenomenon of having body piercings and how that affects buying behavior, and detailed considerations of gender, age and nationality are mostly left out, meaning that the results are not meant to be directly generalizable to any population.

## 1.7 Research Methodology

### 1.7.1 *Sampling method*

The choice of suitable sampling frame and method in this research is difficult as the earlier research about the target population (people with body piercings) has yielded very mixed results in terms of prevalence of body piercings as well as in the sample size. Moreover, for the purpose of this Thesis, the target population is not just people with body piercings but basically every single consumer can be part of the target population. This makes using probability sampling difficult: it is not possible to obtain a list of all the possible cases in the target population, and as Saunders et al. (2016, 277) mention, without this sampling frame, it's impossible to select a probability sample.

Following this, the only available sampling techniques for a survey with unknown target population would be non-probability sampling methods. Moreover, use of non-probability sampling can be justified as the purpose of the study is to test the how individuals' need for uniqueness in consumption behavior is correlated with having body piercings. In other words, the results are not meant to be generalized to a certain population but to a consumers' need for uniqueness -theory (Saunders et al. 2016, 295-297). The most suitable, based on the available time and resources, non-probability sampling method for this research is convenience sampling, more specifically 'self-selection sampling' (Saunders et al. 298-304). Use of self-selection in sampling refers to publishing the research problem(s)

and inviting respondents to participate in the research without controlling, who actually responds.

### 1.7.2 Survey design

This Thesis has a quantitative approach as the research is based on a survey and collection of numerical data used to test hypotheses, which are formulated based on a theory and with a purpose of examining the relationships between variables (Saunders, Lewis & Thornhill 2016, 162-166). The survey uses two scales, both specifically designed to measure uniqueness-seeking in consumer behaviour. These two scales are desire for unique consumer products (DUCP) and consumers' need for uniqueness (CNFU). It is possible to use both scales in this Thesis as they've both been validated and proven to be adequate measures of consumers' uniqueness-seeking and they also correlate with each other (Goldsmith, Clark & Goldsmith 2014). Also, on both scales the responses are measured on 5-point Likert-scale from strongly disagree to strongly agree.

DUCP consists of 8 items, measured on 5-point from strongly disagree to strongly agree (Lynn & Harris 1997b). It has been argued that there might be a minor issue with the content of DUCP scale, as two of the eight items can be said to measure innovativeness and not only the desire for unique products. However, there is a positive relationship between need for uniqueness and innovativeness in consumption context (Goldsmith et al. 2014), so this doesn't negatively affect the reliability of the results. The original scale with 8 items was used in this Thesis (see *Appendix I* for the original scale)

CNFU – Original CNFU scale consists of 31 items, also evaluated on 5-point scale (Tian et al. 2001). However, scale of 31-items is long, and thus using the original scale might lead to errors as the respondents could get tired or uninterested in answering (Ruvio, Shoham & Makovec Brenčić 2008). In response to this, Ruvio et al. (2008) developed, and validated, a shorter version of the CFNU-scale consisting of 12 items equally distributed between the individual three dimensions. As this shorter scale was proven to measure the same attributes as the original scale, and it was also validated cross-culturally, the shorter scale was also adopted for this Thesis (see *Appendix II* for the original CFNU and the shorter version of CFNU). The choice of the shorter questionnaire also made it possible to use another theory in the same survey, the DUCP in this case, without tiring the respondent (Ruvio et al. 2008).

As it is desirable to keep the survey as short as possible to avoid boring or tiring the respondent (Ruvio et al. 2008), the questions regarding respondents' body piercing status and other personal characteristics were kept to minimum. In order to answer the research questions only one additional question is necessary: the question asking the number of body piercings that the person has. However, as the sampling method chosen for this survey was a convenience sampling, as explained below, it was necessary to ask couple of demographic questions, just to be able to describe the background of the respondents. For this purpose, demographic questions about the respondents age, gender, educational background, current occupation and nationality were added on the last page of the survey (see *Appendix III* for the final versions of the survey in English and in Finnish). None of the above-mentioned demographic attributes has been reliably proven to correlate with CNFU or the number of body piercings, except for the age, which correlated negatively with CNFU on one study (Tian et al. 2001). Also, there is a noticeable negative correlation between number of body piercings and age (Armstrong, Koch, Saunders, Roberts & Owen 2007; Bone et al. 2008; Carrols, Riffenburgh, Roberts & Myhre 2002; Stieger et al 2010; Makkai & McAllister 2001; Stirn et al 2006; Wohlrab et al 2007b).

The survey was a self-evaluation questionnaire, which was published online and then the link to the survey was shared on author's personal social media platforms (Facebook and Instagram) with an invitation for participants to share the link further. In addition, a request to publish the link on their Facebook pages was sent to 15 tattoo & piercing studios in Greater London and Finland and to couple of body modification Facebook groups. Only two studios in Finland and one in Cheshire in England did eventually publish the link on their Facebook page, but this was enough to get data of people with high number of body piercings.

The questionnaire was available from 01.05. – 26.05.2019. During this time, the link was shared couple of times to remind possible participants and to get more responses. In the end the number of completed responses was 158. Further discussion about the survey and the data analysis methods will be provided in the Chapter 4 'Research Design and Methods'

## 1.8 Structure of the study

This first chapter has provided an introduction to the research topic of this study and presented the main concepts and theories together with the research questions and theoretical framework.

Next, the theoretical background of the study is provided with a more in-depth literature review about body art and the need for uniqueness, leading to formulation of research hypotheses. After that research design and an overview of the research findings in relation to hypotheses is presented. This is followed by discussion on the findings and a final chapter 'Conclusions', which summarizes the findings and discussion, together with recommendations for further research as well as practical and theoretical implications of the results.

## 2 CONSUMER BEHAVIOR

A simple way to define consumer behavior is: “Consumer behavior is the study of people and the products that help to shape their identities” (Solomon 2017, 15). The more precise definition of the term introduces the concept of ‘processes’ and considers consumer behavior as a study of processes that influence consumers’, whether individuals or groups, decisions to buy, use and dispose products and services, as well as the choice of which products or services to purchase, to satisfy needs (Solomon 2017, 28). The research on consumer behavior emphasizes understanding consumers’ needs and this is the main starting point for all the marketing: researchers and marketing managers alike must understand what it is that motivates and drives different individuals in order to be able to satisfy their wants with products and/or services (Solomon 2017, 15-17). The simple distinction between ‘need’, something that an individual must have in order to survive and prosper, and ‘want’, the culturally and personally determined way through which an individual attempts to fulfil the need, explains much of the consumer behavior: there is a real need behind every want, and while the basic needs have long been understood as original and universal (Maslow 1943), the wants tend to be more diverse and susceptible to manipulation, for example by marketers (Solomon 2017, 40-41), hence the importance of understanding specific wants of different consumer groups. This research, as further discussed in the chapter on body art, aims at providing a better understanding of one group of consumers, people with body piercings.

There are two main perspectives on consumer behavior research: positivism and interpretivism. The former is the ‘traditional’ perspective on consumer research that emphasizes the intelligence and rationality of choices that consumers, or people in general, make and assumes that there is an objective answer to each problem discoverable by science and technology. The latter, newer perspective recognizes the importance of cultural factors as well as the individuality and personality of a consumer in decision-making. The Consumer Culture Theory (CCT), a ‘group’ of perspectives focusing on the dynamics between consumer and the marketplace and on the influence social and cultural factors have on consumption (Arnould & Thompson 2005), is built on this interpretivist perspective (Solomon 2017, 46-48).

**Consumer Culture Theory (CCT)** research can be said to consist of four themes (Arnould & Thompson 2005): Consumer Identity Project, Marketplace Cultures, The Sociohistoric Patterning of Consumption and Mass-Mediated Marketplace Ideologies & Consumers’

Interpretive Strategies. The Consumer Identity Project -theme refers to a way in which consumers in today's world use consumption, the resources provided by the marketplace, as a tool for building a self-identity. CCT argues that the marketplace, and thus consumption, are the major sources for resources needed in building an identity. This theme of CCT theory sees consumers as identity builders and makers, who might express their authenticity by consuming in a 'nonconformist' way, and thus rely on the marketplace as a basis for their identity (Arnould & Thompson 2005; Patterson & Schroeder 2010). The Marketplace Cultures -theme considers consumers as culture producers instead of culture bearers and focuses on researching how the ever-growing importance of consumption as a culture influences other aspect of culture and vice versa (Arnould & Thompson 2005). Furthermore, the research on Marketplace Cultures considers consumption also as a way of building new social groups based on same consumption interests (Arnould & Thompson 2005). The Sociohistoric Patterning of Consumption considers consumers as bearers of different social positions and researches how these different institutional and social structures affect consumption. Mass-Mediated Marketplace Ideologies & Consumers' Interpretive Strategies deals with consumer ideologies and the way in which consumers interpret and accept consumer identities communicated by the media (Arnould & Thompson 2005). It can be said that the way in which people purchase, use and dispose products and services has an impact on consumers' identity and the consumption itself can serve as a tool in creating a unique 'self' distinct from the others. On the other hand, similar consumption patterns and objectives can also be used in forming social groups and establishing the feeling of belonging inside a sub-culture (Arnould & Thompson 2005).

Solomon (2017, 177-178) lists the need for uniqueness as one of the most relevant needs affecting consumer behavior, the other three being need for affiliation, need for power and the need for achievement. The focus of this thesis is in the need for uniqueness for two reasons: firstly, both Solomon (2017) and Arnould & Thompson (2005) emphasize personal identity as a core element in the study of consumer behavior and the 'identity' is defined as 'the qualities of a person or a group that make them different from others' (Cambridge Dictionary) and secondly, expression of uniqueness was found to be among the main motivations for obtaining body art. Furthermore, both consumption and obtaining body art can be seen as tools of identity building, as will be later discussed in 'motivations for obtaining body art', which is one of the reasons for considering the relationship of uniqueness-seeking aspects of consumption and body piercings.

## 2.1 Need for uniqueness

The behavior research resulting in defining the ‘need for uniqueness’ was actually based on conformity research: psychologists trying to understand the mechanism by which people want to experience belongingness and be similar to one another found also evidence of completely different behavior (Snyder & Fromkin 1977). Among the most famous of these social experiments about conformity is the Asch’s (1951) experiment on the effect of group pressure on individuals. In the experiment a group of individuals was asked to answer simple questions regarding a length of lines shown to them collectively, and in each group seven out of eight had been instructed to give incorrect answers to some of the questions. Every individual gave their responses publicly, and the individual subject to ‘investigation’, who did not know that the others had been instructed to give incorrect answers, was the last one to answer the question. The results of the experiment were clear showing that one third of the ‘tested’ individuals gave a same, or similar, wrong answer to the question as the rest of the group, even though it was fairly obvious, which the correct answer would have been (as proven by a control group, where the number of wrong answers was close to 0). Often, the results of this experiment are used to demonstrate individuals’ tendency to conform (Larsen 1974; Rowe 2013; Yu & Sun 2013; Mallinson & Hatemi 2018) even though, actually, the majority of tested individuals did not conform to the group pressure (Asch 1951). The non-conformity of the majority of the researched subjects was one of the findings in Asch’s (1951) original article together with the notion of huge individual differences in the conformity: some subjects gave correct answers regardless of the uncomfortable situation of disagreeing with a unanimous group, whereas others consistently gave the same, incorrect, answer as the rest of the group. The influence of personality on individual’s tendency to conform, or to not conform, have been explored in other studies as well (Jahoda 1959) and the ‘problem’ of emphasizing the conformity over non-conformity, or anti conformity, has also been recognized (Willis 1965).

Following several studies demonstrating the individual differences people have in their tendency to conform (Jahoda 1959; Pepinsky 1961) and other studies proving that when people are made to believe that they are extremely similar to everyone else, they start exhibiting ‘unique’ behaviors (Fromkin 1968; Fromkin 1970; Duval 1972), Snyder & Fromkin (1977) suggested that the ‘non-conforming behavior’ should, instead, be called ‘need for uniqueness’. The term ‘uniqueness’ was adopted “*to convey a positive striving for differentness relative to other people*” (Snyder & Fromkin 1977). In developing the Uniqueness Scale for measuring the need for uniqueness, Snyder & Fromkin (1977)

hypothesized that the need for uniqueness would vary situationally and that individuals would also differ in their 'overall' need for uniqueness. Moreover, this theory of uniqueness presented that there are many different aspects of life, where an individual might try to fulfill their uniqueness need, for example through attitude, creative ability or other personality traits, signatures, experiences, group memberships and consumption (Lynn & Snyder 2002). It was also hypothesized that people with high need for uniqueness would be more independent, not easily constrained by other people, easily recognized as 'unique' by others and also rate themselves more different from the others compared with low need for uniqueness people. All these hypotheses were supported, which is why the 'need for uniqueness' can be used as a variable in the study of individual-differences (Snyder & Fromkin 1977).

### Uniqueness Theory and The Self-Attributed Need for Uniqueness

The starting point for uniqueness theory is the understanding of people having two competing basic needs: the need to be similar to others and thus experience belongingness and get social acceptance and, on the other hand, the need to be special and different from everyone else, because this uniqueness improves self-esteem and helps an individual in building a coherent self-identity. This exact same theme was found to be a reason for obtaining body art as well: getting body piercing or tattoo was a way to express uniqueness while at the same time belonging to a social group with others, who had body art (Armstrong et al. 2007). As a result of these two opposite needs, people need to make sacrifices in their attempts of fulfilling both, because the most comfortable situation is the one, where a person feels moderately different from the others without having to compromise the social approval from their peers. (Lynn & Snyder 2002).

Uniqueness theory also presents that when individual's distinctiveness is threatened, they'll experience negative feelings and attempt to protect their uniqueness by, for example, focusing on the information that affirms their uniqueness or by changing the way they behave towards other people (Lynn & Snyder 2002). Uniqueness theory builds on the assumption that the need to be different from others is a universal one and something that can be found on everyone, and thus the interesting point of research is the extent to which individual wishes to be dissimilar to others (Snyder & Fromkin 1977; Lynn & Snyder 2002). The original uniqueness scale considered three main aspects as indicators of uniqueness: not caring about others' opinions, not wanting to follow rules and wanting to defend one's own beliefs (Snyder & Fromkin 1977). Lynn & Harris (1997a) argued that the original

uniqueness theory might not be a valid tool for assessing the real need for uniqueness as all the aspects in the uniqueness scale have something to do with public displays of non-conformity, whereas some individuals might express their uniqueness in less radical, more socially acceptable ways. Following this idea, Lynn & Harris (1997a) developed a different scale for measuring uniqueness need, named self-attributed need for uniqueness (SANU). This scale, as the name suggests, consists of a set of statements about one's attitude towards, and feelings about, uniqueness and being different from others, and asks the respondent to choose to what extent they agree or disagree with each statement (Lynn & Harris 1997a; Lynn & Snyder 2002). As one of the more socially acceptable ways of differentiating oneself from others is through use of commodities (Snyder & Fromkin 1980, 105-118), in other words through consumption, Lynn & Harris (1997a) also tested the effects of SANU on different ways of aiming to be distinctive from others through consumption and found a positive correlation between self-attributed need for uniqueness and desire for scarce products, consumer innovativeness, preference for unique shopping venues and desire for customized products.

The only dimension of consumer behavior that did not correlate with SANU was the consumer conformity, meaning the extent to which consumers base their buying decisions on other people's opinions, which the researchers expected to be negatively affected by the uniqueness need. This, however, turned out not to be supported, suggesting that exhibiting the uniqueness and individuality through consumption does not automatically mean 'abandoning' all conforming shopping choices altogether (Lynn & Harris 1997a). Moreover, the self-attributed need for uniqueness was found to correlate with the overall tendency to pursue self-uniqueness through consumption, and this tendency, which was used as a latent variable, in turn, had a strong positive impact on all the studied aspects of consumer behavior apart from the consumer conformity, suggesting again that the tendency to conform as a consumer is not influenced by the need for uniqueness (Lynn & Harris 1997a). The consumer conformity was also tested against the original uniqueness scale (Snyder & Fromkin 1977), and a significant negative correlation was found between these two, while the latent variable, the tendency to pursue uniqueness through consumption, did not correlate with the uniqueness scale. This led Lynn & Harris (1997a) to conclude that, even though consumer innovativeness and the preference for unique shopping venues were positively correlated with the original uniqueness scale, Snyder and Fromkin's uniqueness scale in relation to consumer behavior measured independence from other people's opinions and not the actual uniqueness need. This further proves that the original uniqueness scale might, in fact, measure the willingness to exhibit nonconforming behavior

publicly rather than the 'pure' need for uniqueness (Lynn & Harris 1997a). This could also serve as one explanation for the previously discovered relationship between having body piercings and higher need for uniqueness: risk-taking and socially deviant behavior are linked with body piercings and the original need for uniqueness theory also focuses on these themes.

## 2.2 Need for uniqueness in consumer behavior

As noted above, the original uniqueness scale seems to be invalid for evaluating the way in which individuals use consumption as a tool to differentiate themselves from others. Lynn & Harris (1997) specifically used different aspects of consumer behavior to prove this point, when they created the SANU and compared different aspects of self-attributed need for uniqueness and the original need for uniqueness to different aspects consumer behavior possibly reflecting need for uniqueness. Lynn & Harris (1997a) found a positive correlation with several domains of uniqueness-seeking in consumer behavior and the SANU scale and, following their success in proving that their self-attributed need for uniqueness scale was a valid tool in assessing uniqueness-seeking in consumer behavior, proceeded to create a scale called 'desire for unique consumer products' (DUCP) (Lynn & Harris 1997b). A broader scale for measuring the uniqueness-seeking through consumption is the Consumer's Need for Uniqueness (CNFU) scale introduced by Tian et al. (2001).

Consumption is one of the two, the other one being group identification, most researched domains for displaying uniqueness, and both the CFNU and DUCP have been found to correlate with the original uniqueness scale (UN) as well as with other relevant scales for measuring personality (Lynn & Snyder 2002). Moreover, according to Lynn & Snyder (2002) both scales "have adequate internal consistency and test-retest reliability" and there exists a positive relationship between them (Goldsmith & Clark 2009). For these reasons, and in accordance with Lynn & Snyder (2002), CNFU and DUCP are considered valid tools for measuring the uniqueness-seeking behavior through consumption, thus making them relevant for the purpose of this thesis. Both scales are briefly introduced below.

### 2.2.1 *Desire for Unique Consumer Products*

The development of DUCP was based on several preceding theories and research findings in the field of psychology and consumer behavior. DUCP is described as 'goal-oriented state', where an individual places buying and owning, rare, consumer goods as their personal goal, and there are individual differences in the strength of this 'desire', much like

there are individual differences in the general need for uniqueness as well (Snyder & Fromkin 1977; Lynn & Harris 1997b). Other reasons explaining the individual variation in DUCP are status aspiration, as some people use consumer products as a way to gain and demonstrate their social status, and materialism, simply meaning the level of importance a person puts on possession of consumer goods. (Lynn & Harris 1997b).

Owning products that most people don't, adopting new products first, interest in possession of customized products, use of products/technology that are no longer state-of-art and shopping at non-mainstream venues were found to be valid indicators of strong desire for unique products, and were thus used to construct the DUCP scale (Lynn & Harris 1997b). Based on Snyder & Fromkin's (1977) uniqueness theory, DUCP was designed to apply the concept of uniqueness-seeking into consumer behavior specifically by investigating the interest towards acquiring and owning unique consumer products. (Lynn & Harris 1997b).

DUCP is meant to be an easy tool for assessing the pursuit of uniqueness via unique consumer products. For this reason, the DUCP scale consists of only 8 items, statements concerning the previously mentioned possible indicators of desire for unique products, that are evaluated on 5-point scale ranging from 'strongly disagree' to 'strongly agree' (Lynn & Harris 1997b). DUCP correlates with the original uniqueness theory moderately, as expected given the fact that the original uniqueness theory concentrates on being different publicly, and, that there are also other ways through which people express their individuality (Lynn & Harris 1997b). Individual differences in the desire for unique consumer products are consistent with the findings about individual differences in the general tendency to pursue uniqueness through consumption, as compared to other ways, and thus, DUCP can be used as a tool in market segmentation, especially if marketers identify some key characteristics of individuals with low/high desire for unique consumer products. (Lynn & Harris 1997b). Understanding the level of DUCP in people with body piercings, for example, could help businesses with highly specialized products or alternative shopping venues to choose, whether these people could form a potential target market for their business, and how they should be reached.

Despite the DUCP only having a moderate correlation with the original uniqueness theory, a positive relationship between number of body piercings and DUCP is expected in this research based on DUCP's correlation with CNFU, further discussed below, as well as on the fact that body piercings are usually obtained for a reason and after careful consideration, which could, especially in the case of more extreme body piercings, mean that the

motivations behind taking a body piercing could be similar to those that lead people to enjoy rare or difficult to obtain consumer products.

### 2.2.2 Consumers' need for uniqueness (CNFU)

Consumers' need for uniqueness is *"the trait of pursuing differentness relative to others through the acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one's self-image and social image"* (Tian et al. 2001). Similar to DUCP, also Consumers' Need for Uniqueness (CNFU) is based on the uniqueness theory and prior research on consumer behavior, particularly concerning those aspects of behavior that indicate a need to be different from others (Tian et al. 2001). Consumer behavior research findings indicating interest in customized products, resistance towards popular goods, abandoning a product once it becomes popular and creating alternative ways of possessing and using consumer goods formed a background for development of CNFU (Tian et al. 2001).

CNFU is formed of three different 'behavioral' dimensions of consumer behavior: Creative Choice Counterconformity, Unpopular Choice Counterconformity and Avoidance of similarity.

**Creative choice counterconformity** means establishing one's differentness from others by making consumption choices that are different from the majority but are still considered as good choices by others. This type of uniqueness-seeking is characterized by creating own distinctive style via choice of consumer products or the way of consumption, but an important part of the ultimate goal in exhibiting differentness this way is to gain positive evaluation from one's social environment. Consequently, Creative Choice Counterconformity involves relatively small risk of social disapproval (Tian et al. 2001), and individuals can be expected to strive for uniqueness especially in this domain as people, in general, want to be accepted and liked, and thus tend to prefer socially favorable ways of differentiating themselves from others (Goldsmith & Clark 2009). Everyone, regardless of if they have body piercings or not, is expected to get highest scores on this dimension as compared to the other two dimensions.

**Unpopular Choice Counterconformity** is a more socially risky version of creative choice counterconformity. It means choosing consumer goods or ways of consuming that are not widely accepted, or approved, by one's own social group. This 'social disapproval' could mean, for example, being evaluated as someone with a poor taste. It is also noted that

people might only turn to this behavior, when the socially approved ways of establishing and exhibiting uniqueness prove to be insufficient (Ziller 1964; Tian et al. 2001). This could also mean that for individuals with exceptionally high need for uniqueness, differentiating themselves only based on socially approved attributes might not be enough, and in order to achieve the highest possible level of uniqueness, they will also need to risk the social disapproval of their consumption decisions. However, a consumption choice that was originally disapproved, can later become popular, making the first user a 'fashion leader' (Tian et al. 2001). People with high number of body piercings could be said to be risking the social approval of others as people with body art are, in some cases, judged differently from other people and there are certain negative prejudices related to body piercings (Forbes 2001). Moreover, high number of body piercings is likely to mean higher overall differentness from others, as further discussed later, which could also mean that people with high number of body piercings have so high need for uniqueness that the socially appreciated ways of showing uniqueness are not enough.

**Avoidance of similarity**, as the name suggest, refers to consumers' tendency to not buy products or services that are considered mainstream, or discontinue using consumer goods once they become widely popular. This dimension of CNFU has to do with the constant observation of other consumers' choices and the willingness to change one's 'unique' style or previous consumption behaviour as a result of others imitating/copying it. What is notable here is that the copying of consumption behaviour/choices can occur for both creative and unpopular choices, and in both cases, the willingness to abandon the earlier products or consumption style as it becomes popular is what differentiates avoidance of similarity from the two other dimensions. (Tian et al. 2001). When considering people with body piercings, the avoidance of similarity does not seem to be a strong motivation because body piercings are increasingly common and if avoiding similarity was a main motivation, people with body piercings should be inclined to remove their body piercings and turn to other, more rare ways of establishing uniqueness (Armstrong et al. 2007b).

### 2.2.3 *CNFU-scale*

CNFU scale itself consists of 31 items, self-evaluation statements about different, uniqueness-seeking behaviors occurring in the context of consumption that are evaluated on 5-point scale from strongly disagree to strongly agree. These 31 items are divided between the three dimensions presented above; creative choice counterconformity and unpopular choice counterconformity both have 11 items and the remaining 9 items are for avoidance of similarity. In the questionnaire, the items are presented in random order.

Despite the division of the scale into three dimensions, the objective of CNFU is to describe the overall consumers' need for uniqueness instead of focusing on the results of individual dimensions (Tian et al. 2001). The three separate dimensions have been used in a research about the relationship of CNFU to DUCP with a finding that the creative choice conformity has the strongest link with DUCP suggesting that in expressing differentness through unique products consumers still prefer the choices that are socially accepted (Goldsmith & Clark 2009).

During the construction and validation of CFNU, it was found that CFNU was not related to gender or educational background, but there was a modest negative correlation with age and also very low income affected the consumers' need for uniqueness. As part of the validation process, CFNU was also tested in relation to certain groups of people, who were thought to represent higher than average need for uniqueness. These tests were conducted among tattoo and body piercing artists, owners of customized low rider car, members of medievalist reenactment group, student art majors and student purchasers of unique poster art. All the chosen groups scored higher in the CNFU, as expected, than did the comparison group. Furthermore, CNFU was tested against other scales to ensure that CNFU was actually measuring the consumer need for uniqueness rather than something else. It was found that CNFU did not correlate with scales measuring social desirability, and although it did correlate with the general need for uniqueness scale, the correlations between CNFU and several other consumption and nonconformity related measures were radically different from the results of the original uniqueness theory. For example, traits of collective individualism, that is, individuals aiming to achieve their goals (which are different from others' goals) of being unique while still hoping to feel belongingness with others in their social group, and desire for unique consumer products were strongly, and positively, correlated with CNFU but not with the original uniqueness theory. (Tian et al. 2001).

### 3 BODY ART

Body modification, also referred to as body decoration (Velliquette, Murray & Creyer 1998) or body art (Stieger, Pietschnig, Kastner, Voracek & Swami 2010; Clerici & Meggiolaro 2011), is permanent alteration of body that is done consciously and with a purpose (Velliquette et al 1998; Wohlrab, Stahl & Kappeler 2007a; Stirn, Oddo, Peregrinova, Philipp & Hinz 2011). Tattoos are widely understood to be permanent, and also body piercings can be considered permanent, because even though the jewelry itself can be removed, a scar from the piercing will remain on the skin. However, Clerici & Meggiolaro (2011) and Wohlrab et al. (2007b) both mention that body piercings are less permanent compared with tattoos, thus requiring less commitment to the original decision of obtaining one.

Myers's (1992) definition of body modification includes both permanent (tattoos and piercings, for example) and temporary (such as cosmetics and body paint) forms of altering the human body, but the more recent articles on body modification all seem to consider the permanence of the alterations to be a crucial part of the definition (Velliquette et al 1998; Stieger et al. 2010; Wohlrab et al. 2007; Wohlrab et al. 2007b; Stirn et al 2011).

The most common, and the most socially accepted, forms of body modification are body piercings and tattoos (Stirn et al. 2011; Wohlrab et al. 2007a), and while there is evidence of the existence of these types of body modification from the very early days of human history (Velliquette et al. 1998; Wohlrab, Stahl, Rammsayer & Kappeler 2007b), it is only relatively recently that they've become common, 'mainstream', practices, even more so among adolescents (Stieger et al 2010; Wohlrab et al. 2007b; Stirn et al. 2011; Deschesnes, Demers & Fines 2006; Laumann & Derick 2006; Willmott 2001; Forbes 2001). There are also several, more radical forms of body modification including scarring, branding, burning and cutting (Myers 1992; Tate & Shelton 2008), which have not yet become mainstream, and also certain pathological self-harming practices, for example self-cutting, have been considered to be forms of body modification (Stirn et al. 2011).

The focus of this thesis is in body piercing, even though tattoos are discussed in the literature review because much of the earlier research has discussed both forms of body modification together, and the term 'body art' will be used to refer to both tattoos and body piercings to make a distinction between these and the more uncommon (Myers 1992), radical, and possibly even pathological, forms of body alteration.

### 3.1 Tattooing

Tattoo can be defined as a permanent image on the skin created by puncturing the skin with needles and injecting tattoo pigment into the skin (Armstrong & Kelly 2001; Stirn, Hinz & Brähler 2006). In general, tattoos are thought to be more permanent forms of body modification compared to body piercings (Clerici & Meggiolaro 2011; Wohlrab et al. 2007b). In addition, Wohlrab et al. (2007a) found that tattoos have greater meaning, than body piercings, for the individuals possessing them, and Stirn et al. (2006) found a positive correlation between mental health problems and having tattoos. The number of tattoos seems to correlate with the personality, and heavily tattooed individuals are often found to differ more from non-body modified population than those individuals possessing only 1-2 tattoos (Wohlrab et al 2007b). Tattooing is also more connected with socially deviant behavior, taking risks and the use of alcohol and drug taking compared with body piercing (Lauman & Derick).

Tattooed individuals have been further segmented by considering the visibility of tattoo(s), for example, whether one is able to cover them or not, number of tattoos and the overall size of tattooed skin, for example, how big percentage of someone's skin tattooed (Forbes 2001; Wohlrab et al 2007b). Also, different 'designs' of tattoos as well as the most common places for tattoos have been researched (Wohlrab et al 2007b). Gender differences in possession of body art will be discussed more detailed later in this chapter, but most research findings suggest that tattooing is the prevailing form of body art especially for men (Stirn et al. 2006; Forbes 2001; Wohlrab et al. 2007b; McKai & McAllister 2001)

### 3.2 Body Piercing

Body piercing can be defined as using a hollow needle to 'create an opening through which decorative ornaments such as jewelry may be worn' (Armstrong, Roberts, Owen & Koch 2004). Another, more precise definition of body piercing, talks about 'penetration of jewelry into openings made in such body areas as eyebrows, ears, lips, tongue, nose, navel, nipples and genitals', and excludes piercing of soft earlobe from the definition (Stirn et al. 2006). This exclusion is common, because soft earlobe piercings are already clearly mainstream and rarely considered as body piercing (Armstrong et al. 2004; Stirn et al 2006; Deschenes, Demers & Fines 2006; Lauman & Derick 2006; Bone, Ncube, Nichols & Noah 2008). In addition, soft earlobe piercings can be done with a piercing gun in a jewelry shop, whereas other types of body piercings are, or at least should be, done with a needle in specialized tattoo/piercing studios (Wohlrab et al 2007b). However, piercings in soft earlobe are

sometimes considered body piercings for men but not for women (Forbes 2001 & Tate & Shelton 2008), with the reasoning that even though wearing earrings is extremely popular among women, the situation is not yet the same for men, which is clearly illustrated, for example, in Lauman & Derick's (2006) research, which revealed a prevalence of 49 % for soft earlobe piercings in women compared with 19 % prevalence in men.

Also, with body piercings, as with tattoos, a higher number of piercings is considered to indicate a greater difference from the group with no or only a limited number of piercings (Stirn et al 2011; Carrols et al 2002). In addition, intimate piercings, referring to both nipple and genital piercings, and genital piercings have been considered more extreme, and are thus expected to indicate greater deviance from the population without body piercings, compared to other types of piercings. This has sometimes been the case, even if the respondent reported having only one intimate piercing (Koch et al 2010).

To summarize, in comparison between body piercings and tattoos, it seems that body piercings are less radical form of body art as illustrated by examples above: people tend to attach more meaning to their tattoos than to their body piercings, and different forms of socially deviant behavior seem to correlate more with number of tattoos as compared to number of body piercings. However, there is one aspect that both forms of body art have in common: a high number of either form of body art on an individual indicates greater difference from those without or with only a small number of body piercings or tattoos. This is important finding as it suggests that people with high number of body piercings actually differ from people without body piercings, and hence makes it worth studying this difference further. The findings about the difference between groups with many body piercings as compared to groups with none or very few body piercings is also considered in this research: as high number of body piercings indicated higher deviance from other people, high number of body piercings could also be expected to results in higher need for uniqueness in consumer context.

### 3.3 Earlier research on body art

The earlier research on body piercings has focused, for example, on the health problems and dangers of body art with mixed results. In general, body art, especially body piercing, causes minor health complications in the form of infections, skin irritation, unusual bleeding and redness of the pierced area, but there has been very little evidence of major health risks such as HIV or hepatitis B or C being transmitted via obtaining body art (Bone et al

2008; Deschesnes et al 2006; Makkai & McAllister 2001; Mayers et al 2002) As the medical consequences and risks of body piercings are not directly relevant for the purpose of this thesis, the rest of this chapter reviews earlier research on body art considering the prevalence, demographic factors, behavior and personality as well as motivations for getting a body piercing or a tattoo.

### 3.3.1 Prevalence and Demographics

The estimates about the prevalence, and the form, of body art vary greatly, as the Table 1 below illustrates, and thus it is difficult to say, how mainstream the body art practise exactly is (the purpose of the table 1 is not to present a statistical comparison of the results of previous studies, but merely to highlight how much the results in general differ from one another). The estimates about the prevalence of tattooing are between 6,5 % – 25 %, and for the body piercings between 6.5 % - 47 % of the population (Table 1). Based on these estimates, it could be concluded that body piercing is more common than tattooing, but individual studies have reached also exact opposite results (Stirn, Hinz & Brähler 2006; Kluger, Misery, Seité & Taieb 2019; Lauman & Derick 2006; Makkai & McAllister 2006).

The earlier research on people with body art has tried to find a link between several demographic characteristics and body art, and gender and age seem to be the demographic characteristics that most clearly influence the body modification behavior. Gender also seems to play a role in the choice of the type of body art (see Table 1)

Table 1 Prevalence of body piercings

	Armstrong, Roberts, Owen & Koch (2004)	Bone, Ncube, Nichols & Noah (2008)	Clerici & Meggiolaro (2011)	Stieger et al (2010)	Stirn, Hinz & Brähler (2006)	Kluger, Misery, Seité & Taieb
<b>Sample size</b>	450	10503	4213	440	2,043	5000
<b>Tattoos %</b>	22,0 %	Not mentioned	Not mentioned	15,2 %	8,5 %	16,8 %
<b>Tattoos on men %</b>	Not mentioned	Not mentioned	6,4 %	5,9 %	Not mentioned	Not mentioned
<b>Tattoos on women %</b>	Not mentioned	Not mentioned	6,5 %	9,3 %	Not mentioned	Not mentioned
<b>Body Piercings (BP) %</b>	32,0 %	10,0 %	Not mentioned	19,8 %	6,5 %	12,0 %

<b>BP on men %</b>	Not mentioned	5,1 %	10,3 %	6,2 %	Not mentioned	8,4 %
<b>BP on women %</b>	Not mentioned	14,6 %	25,5 %	28,7 %	Not mentioned	19,8 %
<b>Piercings on ears?</b>	No mention	Earlobes excluded	No mention	Earlobes excluded	Earlobes excluded	No mention
<b>Area</b>	United States	England	Italy	Central Europe	Germany	France
	Lauman & Derick (2006)	Mayers, Judelson, Moriarty & Rundell (2002)	Deschenes, Demers & Fines (2006)	Forbes (2001)	Tate Shelton & (2008)	Makkai & McAllister (2001)
<b>Sample size</b>	500	454	2145	302	362	9489
<b>Tattoos %</b>	24,0 %	23,0 %	7,7 %	No mention	25,0 %	10,1 %
<b>Tattoos on men %</b>	26,0 %	22,0 %	5,6 %	21,0 %	26,0 %	11,9 %
<b>Tattoos on women %</b>	22,0 %	26,0 %	9,8 %	14,7 %	25,0 %	8,5 %
<b>Body Piercings (BP) %</b>	14,0 %	51,0 %	27,3 %	Not mention	46,0 %	6,7 %
<b>BP on men %</b>	8,0 %	42,0 %	10,6 %	14,7 %	47,0 %	6,5 %
<b>BP on women %</b>	21,0 %	60,0 %	43,7 %	18,3 %	46,0 %	7,0 %
<b>Piercings on ears?</b>	Earlobes excluded	Earlobes excluded for women, included for men	Earlobes excluded	The whole ear excluded for women and included for men	Earlobes excluded for women, included for men	Ears excluded
<b>Area</b>	United States	United States	Canada	United States	United States	Australia

## **Gender**

One of the things on which majority of research agrees on is that body piercings tend to be more common in women than in men, and men are often found to be more likely to have a tattoo than a body piercing (Armstrong et al. 2007; Makkai & McAllister 2001; Lauman & Derick 2006; Roberti, Storch & Bravata 2004) and the opposite is often true for women (Clerici & Meggiolaro 2011; Stieger et al. 2010; Deschenes, Demers & Fines 2006). However, some studies have also found women to have more tattoos than body piercings (Lauman & Derick 2006; Forbes 2001; Makkai & McAllister 2001). It is useful to note here that even though majority of the research excludes soft earlobe piercings from the 'body piercing', for the reasons explained earlier under chapter 2.1.2 Body Piercing, some of the research includes them on men and excludes them on women (Tate & Shelton 2008), and some go even as far as to exclude all piercings on ear on women but include them on men (Forbes 2001). In addition, one study (Makkai & McAllister 2001), excluded all piercings on ears for both the genders.

## **Age**

The findings about the influence of age in having body art have been largely coherent in the earlier research: tattoos and body piercings are more frequent among younger population (Armstrong, Koch, Saunders, Roberts & Owen 2007; Bone et al. 2008; Carrols, Riffenburgh, Roberts & Myhre 2002; Stieger et al 2010; Makkai & McAllister 2001; Stirn et al 2006; Wohlrab et al 2007b).

### *3.3.2 Personal characteristics and behavior*

Personal characteristics and behavior of people with body art have often been researched in relation to possible problems or challenges of people with body piercings: deviant and irresponsible behavior (Armstrong et al. 2004; Wohlrab et al 2007b) as well as mental health problems (Carrols et al. 2002; Stirn et al. 2006) and physical health problems (Bone et al. 2008) related to body art are all frequently mentioned topics in the body art research. Despite there being some evidence of many of the above-mentioned behaviors/characteristics in people with body art, some researchers have also found evidence suggesting that people with body art do not differ from people without body art as much as previously hypothesized (Forbes 2001; Tate & Shelton 2008). It has also been suggested that the biggest impact body art has on an individual is the way (s)he is judged by others (Forbes 2001). Even though substance abuse (both alcohol and drugs) as well as risk-taking behavior are both found frequently among people with body art (Armstrong et

al. 2004; Forbes 2001; Koch et al 2010), the decision of getting tattoo or body piercing is usually not impulsive nor is the procedure itself undertaken while intoxicated (Forbes 2001; Stirn et al. 2011). This would suggest that individuals, who choose to have body art, do so after careful consideration, thus indicating that body art is obtained for a purpose. In other words, despite the tendency towards risk-taking and deviant behavior in people with body art, the decision to obtain a body piercing or a tattoo seems to be motivated by more than just the risk-seeking.

Even though much of the body art research has focused on individuals with both, body piercings and/or tattoos, individual studies have also highlighted the differences between these two as well as further categorized behavior of individuals with body art based on the number of tattoos or body piercings and, especially in the case of body piercings, the location of body art. The comparison of people with body piercings and tattoos mostly reveals that possession of body piercings indicates lower deviance from the 'general' population compared to possession of tattoos (Lauman & Derick 2006; Roberti et al. 2004; Stirn et al. 2006; Tate & Shelton 2008). In both cases, having tattoos or body piercings, a higher number of body piercings and/or tattoos tends to indicate higher deviance (Carrols et al. 2002; Koch et al 2010; Lauman & Derick 2006; Roberti et al. 2004), and individuals with both types of body art are often found to be the most different in comparison to people without any body art (Wohlrab et al. 2007b).

Tattoos, as compared to body piercings, are generally linked to higher overall deviance, but intimate body piercings seem to be an exception to this. Possession of intimate body piercings is linked with higher levels of drug use, likelihood of having been arrested as well as a higher number of sex partners (Koch et al. 2010). Koch et al. (2010) found the correlations to above-mentioned behavior to be equally strong among individuals possessing high number (7 or more) of body piercings and/or tattoos and among individuals possessing even a single intimate body piercing. However, there are also fewer negative traits of differentness linked with possession of intimate body piercings: Caliendo et al. (2004) found people with intimate body piercings to be older, better educated and more likely to be single compared to 'an average American'. In addition, having intimate body piercing(s) seems to correlate with depression to higher extent than possession of other types of body piercings and some evidence has also been found that links intimate body piercings with history of sexual abuse, especially so among women (Young et al. 2010). Also, sexual behavior and sexual orientation of people with intimate body piercings differs from people without intimate body piercings (Caliendo et al. 2004).

Overall, regardless of the type of body art, individuals with body art seem to differ from the rest of the population when it comes to sexual behavior. One possible explanation for this could be higher level sensation seeking among these people (Armstrong et al. 2004; Stirn et al. 2006; Wohlrab et al 2007b). One commonly mentioned aspect of sexual behavior in relation to people with body art is the sexual activity, both in form of multiple partners and willingness to engage in uncommitted sex (Armstrong et al. 2004; Carrols et al. 2002; Wohlrab et al. 2007b). In addition to sensation seeking, this can also be considered an aspect of risk-taking behavior that often is, as mentioned, higher for individuals with body art.

In addition to higher risk-taking behavior, mental health and the use of alcohol and/or drugs in people with body art, also the relationship between body art and other personal characteristics has been researched. Forbes (2001) found that men with body art were less likely to go to church and women with body art had lower GPAs compared to their counterparts without body art. Lauman & Derick (2006) found higher number of tattoos, but not body piercings, to indicate lower educational level. Partly supporting this Wohlrab et al. (2007b) found that people with body art are less likely to have a university degree. Stirn et al. (2006) found that people with body art are more likely to live in rural areas, to be less religious, and to have higher rate of unemployment.

Other interesting findings about the characteristics of people with body art include:

- Women with body art smoke significantly more cigarettes than women without body art (Forbes 2001)
- Individuals with body art are more likely to be unkind and cold (Wohlrab et al. 2007), especially so in the case of tattoos (Tate & Shelton 2008)
- Uniqueness is more important to people with tattoos, but this might not be the case for people with body piercings (Tate & Shelton 2008)
- Possession of body art is often linked with addictions, whether drug or alcohol addiction or addiction to obtaining more body art, possibly suggesting that people with body art are more prone to developing addictions (Stirn et al. 2011)
- Women with body piercings and men with tattoos are more violent (Carrols et al. 2002)

- History with psychological stressors (such as separation from a life partner, any form of abuse and abortion or miscarriage) correlates positively with the number of piercings (Roberti et al. 2004)
- Eating disorders and higher suicide rates are related to possession of body art (Carrols et al. 2002)

### 3.3.3 *Motivations for obtaining body art*

For the main motivations behind having body art this thesis refers to Wohlrab et al. (2007a), who conducted a literature review of existing research on motivations for getting a tattoo or a body piercing, and came up with ten motivational categories, which are as follows:

- Beauty, art and fashion
- Individuality
- Personal narrative
- Physical endurance
- Group affiliations and commitment
- Resistance
- Spirituality and cultural tradition
- Addiction
- Sexual motivation
- No specific reason

Wohlrab et al. (2007a) also noticed that, from a broader perspective, motivations for both body piercings and tattoos were quite similar and, even though they researched both forms of body art individually and found differences, it was more logical to talk about motivations for body art than to make separate motivational categories for both forms of body art. The biggest difference in reasons for obtaining body art can be found in reasons for obtaining intimate body piercings, as the main motivation behind obtaining these body piercings is often sexual. Overall, the most important motivations for getting body art seem to be decorating body and expressing individuality and to feel unique. As expressions of uniqueness, fashion and individuality are also considered important in uniqueness-seeking through consumption, expecting a positive relationship between body piercings and the consumers' need for uniqueness seems reasonable. Table 2 below lists some common reasons for obtaining body art as discussed in the literature.

Table 2 Motivations for body piercings

Authors	Reasons for obtaining body art
Armstrong et al. 2004	Seeking uniqueness and individuality
Armstrong et al. 2007	Expressing Individuality and the need to be simultaneously unique and to form a group with others possessing body art
Caliendo et al 2004	Reasons for intimate body piercings: Self-expression, uniqueness and sexual self-expression
Young et al. 2010	Reasons for intimate body piercings: Having control over one's body, sexual self-expression, uniqueness and trying to be more attractive. Also, the reason "I just wanted one" was present
Forbes 2001	Wanting to be different and unique, expressing individuality and just enjoying the looks of body art
Koch et al. 2010	Expressing individual uniqueness
Stirn et al. 2011	Wanting to do something good for themselves and gaining control over own body. Moreover, artistic motives, addiction to body art and trying to overcome certain experiences were mentioned
Myers 1992	Motives for more extreme body modification (including intimate body piercings) were reclaiming one's body after painful experience and wanting to validate an important life event. Overall, reasons for engaging in more extreme body modification were mostly spiritual and/or sexual
Tiggeman & Hopkins 2011	Wanting to decorate one's body (reasons related to trying to be beautiful especially in the case of body piercings), self-expression and wanting to be individual and unique. Need for uniqueness was especially important reason for obtaining a tattoo

## 4 SUMMARY OF THE LITERATURE REVIEW

This chapter summarizes the key points of the literature review, chapters 2 and 3 presented above, and in doing so introduces the research hypotheses used in answering the research questions presented in chapter 1.

### 4.1 Hypotheses

As a positive correlation between possessing body piercings and the need for uniqueness has already been established (Tiggemann & Hopkins 2011), and as body piercings are also consumer goods, it is reasonable to expect that that individuals with body piercings have higher need for uniqueness also in their consumer behavior as measured by CFNU and DUCP. In addition, earlier research has found the higher number of body piercings to indicate higher deviance from the general population (see for example Koch et al. 2010). A higher overall deviance from others is likely to mean that an individual is highly motivated by the need for uniqueness and thus, likely to exhibit this behavior in many different areas. The following two hypotheses can be said to be the most crucial ones considering the main research question about the relationship between body piercings and the need for uniqueness in consumer behavior.

**Hypothesis 1 – Number of body piercings has a positive correlation with consumers' need for uniqueness CNFU**

**Hypothesis 2 - Number of body piercings has a positive correlation with desire for unique consumer products DUCP**

While any number of body piercings is expected to mean higher need for uniqueness in consumption behavior, individuals with body piercings are still expected to prefer socially accepted ways of being different to more socially risky ones, especially so among individuals with only a couple of body piercings. Earlier research supports this idea of everyone, in principal, preferring socially accepted ways of being unique (Goldsmith & Clark 2009). Not to mention that body piercings are quite common these days (Wohlrab et al 2007), and some studies have failed in finding a link between socially deviant behavior and body piercings (Caliendo et al. 2004; Forbes 2001).

**Hypothesis 3 – Scores on the creative choice counterconformity (CCC) will be the highest compared to two other dimensions of CNFU regardless of the body piercing status**

While some studies haven't found a link between socially deviant behavior and body piercings, as discussed above, some others have found a correlation between high number of body piercings and higher social deviance (Stirn et al. 2011; Koch et al. 2010). People with body piercings themselves rarely list deviance as a motive for obtaining a body piercing, but many consider themselves to be risk takers (Armstrong, Roberts, Koch, Saunders & Owen 2007). Following this, it is expected that people with several body piercings favor socially riskier ways of differentiating themselves, also in the consumption context, compared to people with no body piercings or with a moderate amount<sup>2</sup> of body piercings. The logic is that people with a high number of body piercings already 'risk' certain aspects of social acceptance; while having couple of body piercings is widely accepted, there are still some negative opinions linked with having a high number of body piercings (Totten et al. 2009; Timming, Nickson, Re & Perret 2015). Also, the overall higher need for uniqueness among people with high number of body piercings might explain the high scores on unpopular choice counterconformity as it is possible that socially appreciated, as in CCC, ways of differentiating oneself are not enough to fulfil the total need for uniqueness.

**Hypothesis 4 – People with a high number of body piercings differ from the rest (people with no body piercings and people with a moderate number of body piercings) to the greatest extent on unpopular choice counterconformity (UCC)**

There are two aspects to be taken into account in the third dimension of CNFU, avoidance of similarity (AOS), in relation to body piercings. Firstly, it could be said that avoidance of similarity is an important motive for people with body piercings as the decision to get more and more body piercings can be seen as a tool for continuous uniqueness-seeking (Koch et al 2010) in a situation, where small numbers of body piercings are becoming widely popular. (Tian et al. 2001). However, in the original paper about CNFU, the avoidance of similarity is described as the willingness to change previous consumer behavior, namely losing interest in products as they become popular and/or give up using or owning them altogether (Tian et al. 2001). From this point of view, it could be expected that as body

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<sup>2</sup> The exact numbers of body piercings for each category will be presented later in the context of data collected for this research

piercings become more popular, those, who are highly motivated by similarity avoidance would remove some, if not all, of their body piercings (Armstrong et al. 2007b) or even choose not to get any body piercings to begin with. In fact, one study found that people with soft earlobe piercings scored significantly lower on their overall need for uniqueness compared to both people without any piercings and people with body piercings, who both received quite similar scores on the need for uniqueness (Tiggeman & Hopkins 2011). Following this and based on the increasing commonness of having few body piercings, it can be assumed that avoidance of similarity is the least affective dimension of CNFU for people with body piercings. Moreover, it is expected that there is less variation in the AOS scores of people with and without body piercings compared to scores on other CNFU dimensions

**Hypothesis 5a – People with any number of body piercings score lower on AOS compared to other dimensions of CNFU**

**Hypothesis 5b – There is less variation in AOS scores, between people with and without body piercings, compared to scores on other CNFU dimensions (CCC and UCC)**

A 'complemented' theoretical framework presented below in Figure 2 illustrates the, expected, relationship between number of body piercings and the need for uniqueness in consumer behavior. The categories for number of body piercings can be read as *no body piercings*, *couple of body piercings* and *high number of body piercings* (from left to right), and that is why every dimensions/theory is presented three times in the framework. The figure presents a) the expected relationship between number of body piercings and the need for uniqueness in consumer behavior and b) the expected differences between different groups on dimensions of uniqueness-seeking as well as the overall differences between the dimensions. Further explanation of the framework in relation to hypotheses is provided below.

In the figure 2, CNFU and DUCP are both illustrated as having only one dimension (value); CNFU, despite of consisting of three dimensions, was originally designed to give one overall uniqueness score covering its three dimensions, and DUCP can only result in a single score. As such, these two, placed in the middle of the framework, illustrate the hypotheses 1 & 2 – The relationship between number of body piercings and the level of uniqueness-seeking in consumer behavior. According to hypotheses 1 & 2, the framework illustrates the

expected positive relationship between number of body piercings and (1) CNFU and (2) DUCP.

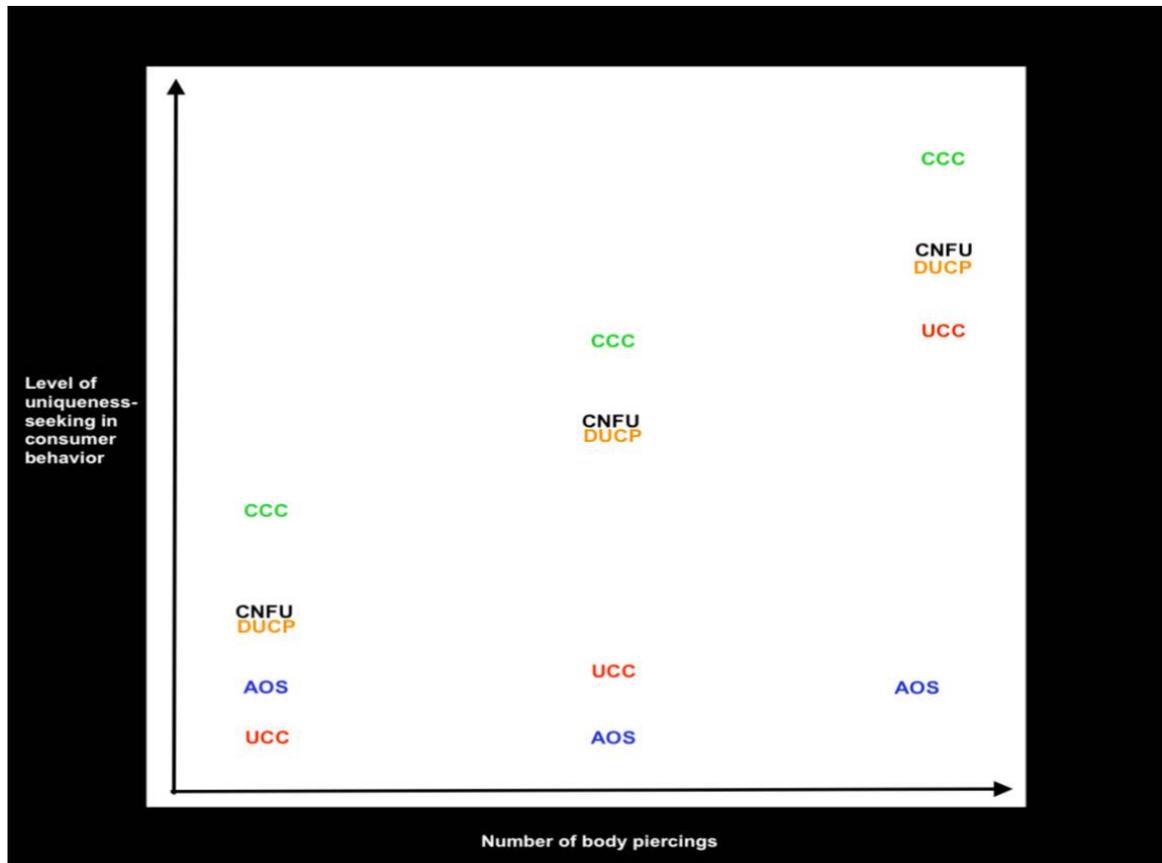


Figure 2 'Completed' theoretical framework with hypotheses

Hypothesis 3 focuses on the first dimension of CNFU, creative choice counterconformity (CCC), and accordingly the framework shows the expected outcome: CCC scores are expected to be the highest of all the other CNFU dimensions regardless of the number of body piercings, while at the same time, in accordance with the overall CNFU score, also showing a positive correlation with the number of body piercings.

UCC, unpopular choice counterconformity, is also expected to have a positive correlation with the number of body piercings, but the real difference on the scores on this dimension is only expected between the group with a high number of body piercings as compared to people with no body piercings or with a low number of body piercings. This is as per hypothesis 4: people with high number of piercings should differ from all the other groups to the greatest extent precisely on this dimension.

Hypothesis 5, a & b, concern the avoidance of similarity (AOS), third dimension of CNFU. As illustrated in the framework, it is expected that overall the scores on this dimension are relatively low for all groups, and specifically people with any number of body piercings are expected to score the lowest on this dimension, as compared to other dimensions, of CNFU. The differences in scores between different groups of people are also expected to be small on this dimension.

## 5 RESEARCH DESIGN AND METHODS

This chapter explains the choice of research type, methods of data collection and analysis as well as discusses the validity and reliability of these methods and results.

### 5.1 Research context

As outlined in the first chapter of this Thesis, the context of this research was people with body piercings as consumers. It was hypothesized that, since having body piercings often means having high need for uniqueness, people with body piercings would exhibit high need for uniqueness also in their consumer behavior. The theoretical basis for the need for uniqueness in consumer behavior was derived from consumer behavior literature and it was found that there are at least two reliable, previously used and tested scales for measuring the uniqueness need in consumer behavior: Consumers' Need for Uniqueness (CNFU) and Desire for Unique Consumer Products (DUCP). These scales have been found to correlate with the original *need for uniqueness* theory, but neither of them has been used to gather information on this consumer group, the people with body piercings, specifically. This research set out to explore the link between a number of body piercings and a need for uniqueness in consumer behaviour in order to advance the understanding of the consumer behaviour of people with body piercings, and also to use the above-mentioned consumer behaviour scales in a new research context. In addition, due to the majority of the respondents having been acquired through author's personal social media channels, the geographical, and thus also cultural, context of the research was largely influenced by Finland, with United Kingdom and Italy also having a strong presence. This cultural context means that the results will be mostly applicable to Western, individualistic cultures (Hofstede, Hofstede & Minkov 2010)<sup>3</sup>.

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<sup>3</sup> It deserves to be noted that individualism is the only dimension, on Hofstede's 6 cultural dimensions, in which all the three countries score similarly. The dimension most likely to influence the results, as majority of the respondents are Finnish, is the *masculinity*, where Italy and United Kingdom score high, but Finland's score is very low, making it a highly feminine culture (Hofstede et al. 2010).

## 5.2 Data collection methods

The primary research carried out for this research was quantitative as the purpose was to formulate hypotheses about the relationship between different variables based on available literature and existing theories and scales, and then test these hypotheses with numerical data (Saunders et al. 2016, 162-166). However, in order to build the hypotheses for a quantitative study, the understanding of the research context, the body piercings, was built through secondary research, namely by researching academic literature on body art and body piercings. The results of the secondary research are summarised in the literature review in Chapter 2. This secondary data about prevalence of body piercings, personal characteristics of people with body piercings and motivations for obtaining a body piercing formed the background for primary research as it revealed uniqueness as an important theme in both the body piercing context as well as in the consumer behavior studies, and that the need for uniqueness in consumer behaviour had not been researched in the context of body piercings.

The actual primary research was carried out as a survey using the two previously introduced scales developed for measuring uniqueness-seeking in consumer behaviour: consumers' need for uniqueness (CNFU) and desire for unique consumer products (DUCP). The original version of CNFU consists of 31 items divided into three different dimensions: creative choice counterconformity, unpopular choice counterconformity and avoidance of similarity. The original scale was considered too long, and thus the scale that was used in this research was a shorter version of the original CNFU-scale. This version consisted of 12 items equally divided between the three dimensions of the original scale, and it had been proved to be a reliable measure of the same concepts as the original CNFU-scale. (Ruvio et al. 2008) (see *Appendix II* for the original CFNU and the shorter version of CFNU).

DUCP-scale consists of 8 items measuring respondent's interest towards acquiring and owning rare or difficult to obtain consumer goods. After choosing to use the shorter version of CNFU, with 12 items, it was possible to use also the DUCP, with 8 items, and still have a reasonably short survey. The original version of DUCP-scale was used in this Thesis as this version had been tested and validated in earlier studies (Lynn & Harris 1997b). (See *Appendix I for the DUCP-scale*).

The final survey questionnaire consisted of 20 items, 8 items of DUCP and 12 items of CNFU, measuring the respondents' consumer behaviour in relation to need for uniqueness.

The items were statements (for example “I am attracted to rare objects”) and the respondents were asked to self-evaluate each item on a 5-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). The questionnaire also had a question about the number of body piercings the respondent had, reported as a numerical value. Respondents were instructed to count all their body piercings except those on their soft earlobe (‘traditional’ earrings). This approach was chosen based on the earlier research and literature suggesting that earrings, due to their popularity, are rarely considered as body piercings in research about body piercings. However, this study made no difference between men and women on this aspect, despite some earlier studies having considered all the piercings on men and not those on ears for women. In addition, the survey asked a number of demographic questions just for the purpose of getting a better picture of the final sample. The demographic questions covered respondents’ age, gender, educational background, occupation and nationality. The final questionnaire (both in English and in Finnish) can be found in Appendix III.

As briefly mentioned in the first chapter, the sampling method used in this research was convenience sampling, as the survey was made available and shared through author’s personal social media channels with an invitation to share the link further. The survey was created with Qualtrics survey tool, which created an anonymous link, that was then shared on social media (Facebook and Instagram). It was made available from 01.05. – 26.05.2019, and during this time the link was shared couple of times to get more responses, and it was also shared to couple of different Facebook groups consisting of alumni students of Tampere University of Applied Sciences and Finnish people living in London. To ensure that the final results would have a good representation of people with a high number of body piercings, 15 tattoo and piercing studios both in the Greater London area and in Finland were contacted to ask for their cooperation in sharing the link. In the end, two piercings studios in Finland and one in London published the link on their website, and even though this was less than what was originally hoped for, it was still enough to get a number of responses from people with high number of body piercings. The final number of completed responses was 157, which was less than the objective of 200 responses, but still enough to conduct the data analysis.

### 5.3 Data analysis methods

The final data was exported from the Qualtrics survey tool and changed into excel-format. At this stage the data was organized for it to be analyzed in the Stata software. The original

questionnaire had the scale items of DUCP and CNFU in mixed order to avoid having questions about same dimension, or concept, one after another, so now the 8 items of DUCP were grouped together, followed by the 12 items of CNFU, divided into three dimensions. Also, all the items were renamed, to help the data analysis, so that items named with 1\_1 – 1\_8 belonged to DUCP, items 2\_1 – 2\_4 to the creative choice counterconformity (CCC) of CNFU, items 3\_1 – 3\_4 to the unpopular choice counterconformity (UCC) of CNFU, items 4\_1 – 4\_4 the avoidance of similarity (AOS) of CNFU, and items 2-4 (12 items) generated the CNFU scale. The remaining variables were the demographic questions and the questions about the number of body piercings. For statistical purposes, variables 1 – 4 were considered dependent variables, and the rest were considered to be independent variables, but only the relationship between number of body piercings and the scores on DUCP and CNFU, and its three dimensions, were of interest in this study. The demographics were used to describe the sample.

The question about number of body piercings provided resulted in numbers ranging from 0 to 43, and, especially in the case of high numbers of piercings, there were often only one observation per each number. This variable was used in its original form to test the correlation between number of body piercings and the overall CNFU and DUCP scores. However, for further analysis, the responses on this variable were grouped in categories both in terms of number of body piercings (0, 1-3, 4-6, more than 6) and in terms of whether the respondent had any body piercings at all, 0 for no body piercings and 1 for any number of body piercings. Grouping these variables together allowed for the use of ANOVA (Analysis of Variance) to compare the means of dependent variables (DUCP, CNFU, CCC, UCC, AOS) for these groups.

### *5.3.1 Hypotheses testing*

The aim of this research was to explore the relationship of the need for uniqueness in consumer behavior, as measured on CNFU- and DUCP -scales, and the number of body piercings. The basic assumption underlying all the hypotheses is that there is a difference on level of uniqueness need in consumer behavior between people with and without body piercings. Hypotheses 1 and 2 expected a positive correlation between number of body piercings and CNFU and DUCP, whereas the remaining hypotheses 3-5 concerned the sub-dimensions of CNFU and the differences/similarities on these scores between people with, without and a high number of body piercings.

The significance level of the test ( $\alpha$ ) for the study is set to be 0.05, which is a common value for significance level in statistics (Ross 2017, 384). This means that the probability of rejecting the null hypothesis, when it is in fact true, is less or equal to 0.05.

This gives the study a confidence level of 95 %. Hence, when conducting hypotheses' tests, the p-value, the smallest significance level at which the null hypothesis is rejected, must be less than the value of  $\alpha$  0.05 in order to be able to reject the null hypothesis. (Ross 2017, 382-384).

As mentioned above, all the statistical tests were run with Stata software. The analysis of variance (one-way ANOVA) was chosen as a main method for comparing the results of groups with varying number of body piercings. One-way ANOVA can be used to compare means of different groups on one dependent variable, when the independent variable has two or more different response categories, and the dependent variable is continuous (Kao & Green 2008). Likert-scales are not by default continuous but ordinal, but as they consist of sum of several Likert-scale items, they can be analyzed with parametric statistics such as ANOVA (Norman 2010). There is an ongoing debate regarding the use of ANOVA in comparisons of Likert-scale data, but since it is considered acceptable practice by some (Norman 2010) and the results are easy to compare, it is used in this Thesis. Moreover, One-way ANOVA assumes that the variances between compared variables are equal (Kao & Green 2008), and in Stata this is automatically tested using Bonferroni's test for equal variances, where variances are equal, if  $p > 0.05$ . The results from the Bonferroni test are not reported except when variances were unequal.

When the independent variable had only two response categories (in the case of "Gender" and the body piercing status), an independent t-test rather than ANOVA was used for the comparison. As ANOVA is basically an extension to t-test, same basic reasons for using this test apply. (Kao & Green 2008).

Spearman's rank correlation coefficient was chosen for the correlation analyses as the data was not normally distributed and had outliers. The more commonly used correlation coefficient, Pearson's correlation coefficient, is sensitive to outliers and assumes normality, whereas Spearman's rank correlation coefficient does not assume normality and is relatively insensitive to outliers (Schober, Boer & Schwarte 2018). The correlation coefficient values run from -1 (perfect negative correlation) to 1 (perfect positive correlation), and in Spearman's rank correlation, the correlation coefficient is called Spearman's rho (Schober et al. 2018).

In addition to analyzing the correlation between number of body piercings and the need for uniqueness in consumer behavior and comparing the consumer uniqueness-seeking attributes of groups with different number of body piercings, also the three dimensions of CNFU were compared to understand, in which dimensions the groups differed from one another the most. For this analysis, paired t-test was used. Paired t-test is traditionally used to compare paired data, for example results of one group at two different points in time. However, as the important factor in paired t-test is that the two dependent variables are paired (Pandis 2015), in this case collected from the same respondent, it was considered to be an appropriate tool for comparing different CNFU dimensions among themselves: in a pairwise comparison of CNFU dimensions, the same respondents (same number of respondents) were analyzed on two, at a time, dependent variables (dimensions).

#### 5.4 Reliability and validity

The two scales, DUCP and CNFU, were considered reliable and valid constructs for measuring the level of uniqueness need in consumer behavior, as both scales had been previously tested and found to be reliable and valid in other contexts (Lynn & Harris 1997b; Ruvio et al. 2008; Tian et al. 2001), and as this research used the exact same scales, it was expected that the reliability and validity of the scales would apply also to this research. This was further tested with Stata by forming the scales from individual items and looking at the Cronbach's alpha coefficient for each scale. Generally, it can be said that a scale is reliable, when alpha is 0.7 or more (De Vaus 2002, 184), but alpha levels higher than 0.6 can be considered acceptable for exploratory research especially if the number of items on a scale is small (because the larger the scale, the higher the accepted alpha value should be to ensure the reliability of the results as alpha coefficient has a positive relationship with the number of items on a scale) (Hair, Black, Babin & Anderson 2014, 123). Table 3 below presents the alpha coefficients of each scale used in this research, and it can be seen that the scales of two dimensions of CNFU, UCC and CCC, have an alpha coefficient below 0.7 but still clearly more than 0.6. Also, both of these dimensions only consist of 4 items and the CNFU-scale as a whole has a good reliability with alpha value more than 0.8. Based on this, and the fact that these scales have been previously tested by Ruvio et al. (2008) in three countries, Slovenia, Palestine and Israel, and in all of these countries the coefficients of all the dimensions of CNFU were above the required level of 0.7, it can be said that all the scales used in this study are reliable.

Table 3 Scales and Cronbach's alpha

Scale	Obs	Nro of Items	Cronbach's alpha coefficient
CNFU	157	12	0.8285
AOS	157	4	0.7635
UCC	157	4	0.6872
CCC	157	4	0.6669
DUCP	157	8	0.7304

To further test the reliability of the research, the two scales, DUCP and CNFU, were analyzed with a factor analysis, in the form of principal components factoring with Stata software. In the case of DUCP, all the items seemed to load on a single factor (See *Appendix X, 1*) for the table with all the factors and their eigenvalues), meaning that there was only one factor with an eigenvalue above 1, and, as this was the case also in the original paper about developing DUCP-scale (Lynn & Harris 1997b), it was considered that DUCP scale also as used in this research was measuring a single dimension of need for uniqueness in consumer behavior, as expected<sup>4</sup>. However, the communality values, values describing the extent to which a single variable correlates with all other items, calculated as '1 – uniqueness', were consistently rather low as compared to suggested level of 0,50 or above (Table 4). (Mooi, Starstedt, Mooi-Reci 2018, 273-278). Also, factor loadings, when there is only a small number of extracted factors, should be above 0,50. (Mooi et al. 2017, 280 – 282). In the case of DUCP, all the variables, except for variable 1\_4, have this value or higher. Moreover, the variance (factor proportion) explained by the single factor was only 35 %, again clearly below the recommended over 50% of the variance being explained by the extracted factors (Mooi et al. 2018, 280). (See *Appendix X, 2* for more details).

Table 4 Rotated factor loadings DUCP

Variable	Factor 1	Uniqueness	Communality
1_1 Attracted to rare objects	0,6471	0,5812	0,4188
1_2 Fashion leader	0,6143	0,6227	0,3773
1_3 Buying scarce products	0,5718	0,673	0,327
1_4 Prefer custom-made products	0,478	0,7715	0,2285
1_5 Enjoy shopping at unique venues	0,6828	0,5338	0,4662
1_6 Enjoy having things others do not have	0,5411	0,7072	0,2928
1_7 Trying new products before others	0,5167	0,733	0,267
1_8 Ordering custom features	0,6477	0,5805	0,4195

<sup>4</sup> There is also a contradictory finding to this: Goldsmith et al. (2015) found the DUCP scale to load on two factors rather than on one, despite the original paper only finding one factor (Lynn & Harris 1997b)

CNFU scale was subjected to same principal-component analysis as DUCP scale. Using the same principle of extracting factors with eigenvalue > 1, CNFU scale loaded on three factors (See Appendix X, 2) for table with all factors and their eigenvalues). The communality values were mostly above the required 0,50 level, although there were number of variables with lower values as well. In terms of factor loadings, all the variables had a value above 0,50 on one of the factors, except for the 2\_1 variable concerning having an eye for interesting products. This same variable had also noticeably low communality value, suggesting that the question did not measure same things as the other variables on a scale (See Table 5). This was possibly due to this question being unclear in the questionnaire (See Appendix III for the questionnaire). Also, the variance (factor proportions) explained by these three extracted factors accounted for 56 % of the total variance, which was above the required level of 50 %. Moreover, the factor proportions were divided quite evenly between the three factors (See Appendix X, 2 for a table with factor proportions). This suggested that CNFU scale, as used in this research, had, indeed, three dimensions, as expected.

Table 5 Rotated factor loadings CNFU

Variable	Factor 1	Factor 2	Factor 3	Uniqueness	Communality
2_1 Eye for interesting products..	0,0869	0,3795	0,337	0,7349	0,2651
2_2 Seeking to develop uniqueness by purchasing	0,3028	<b>0,6066</b>	-0,011	0,5402	0,4598
2_3 Combining possessions for uniqueness	0,1289	<b>0,6746</b>	0,2543	0,4636	0,5364
2_4 Finding interesting versions of products	0,1938	<b>0,8226</b>	0,0491	0,2833	0,7167
3_1 Breaking customs with product choices	0,0048	0,1509	<b>0,7078</b>	0,4762	0,5238
3_2 Violating social group's rules with product choices	0,1951	-0,0539	<b>0,7828</b>	0,3463	0,6537
3_3 Enjoy challenging others' taste	0,1838	<b>0,602</b>	0,3037	0,5115	0,4885
3_4 Going against social group's norms regarding consumption	0,2309	0,3549	<b>0,7118</b>	0,3141	0,6859
4_1 Not interested in common products	<b>0,7223</b>	0,1189	0,2326	0,41	0,59
4_2 Dislike for popular products	<b>0,7932</b>	0,0685	0,0809	0,3596	0,6404
4_3 Avoid products that are bought by others	<b>0,7472</b>	0,3535	0,1548	0,2928	0,7072
4_4 When product becomes popular, start using it less	<b>0,6324</b>	0,224	0,0798	0,5435	0,4565

To summarize the results of this factor analysis, DUCP scale turned out to have several issues possible affecting the validity of the scale, as it might not be measuring, what it is supposed to, and perhaps indicating a problem with the content of the original questions as well (as first suggested by Goldsmith et al. 2015). In the case of CNFU scale, the issues were less significant.

## 6 FINDINGS

This chapter presents the key findings of the research. Firstly, demographics of the final sample will be presented to give a background and context for the results. Next, the remaining data directly relevant to the research question(s), in other words, results excluding the demographic data described earlier, will be presented in the form of descriptive statistics followed by the results from hypotheses testing. To improve the clarity and readability of this chapter, the data is presented mainly as figures and graphs, as compared to tables, but tables summarizing all the details can be found in *Appendices IV-VIII*

### 6.1 Background of the respondents

As briefly discussed earlier, the demographic data was collected from the respondents in order to be able to describe the sample and evaluate the reliability of the results. The demographic details collected from the respondent were age, gender, educational background, current occupation and nationality. The results are presented below, and *Appendix IV* presents details of the demographic data.

#### 6.1.1 Gender and Age

As Figure 3 below illustrates, majority of the respondents were female (over 80 %), which means that the results of the research are more applicable to women than men. In addition to female and male, there were two other categories for gender: Other (1) and Prefer not to say (2), which together accounted for 2 % of the responses. In earlier studies, gender did not affect the CNFU scores (Tian et al. 2001) and this was expected also in this study. In order to test this, a simple t-test was run to compare the mean values on CNFU and DUCP of female and male respondents, and the results replicated the finding of Tian et al. (2001): CNFU and DUCP scores did not differ between women and men (*Appendix V, 1*)

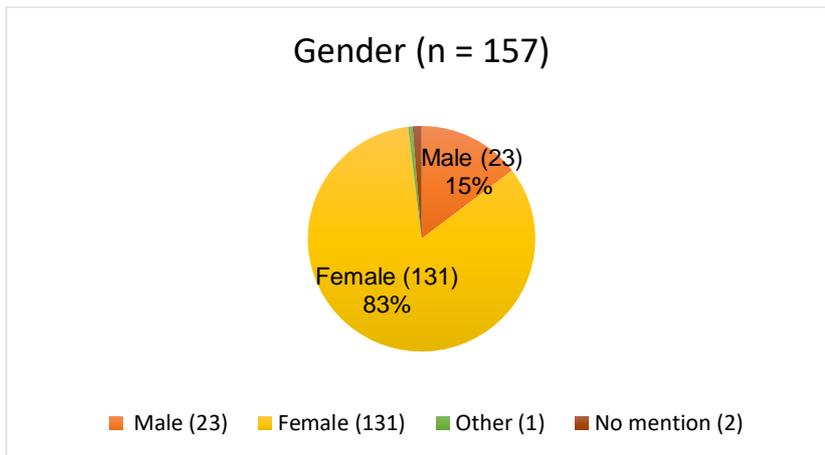


Figure 3 Gender of respondents

The biggest age group were the people between 25 to 33 years old (Figure 4), followed by age groups 34-45 years and 18-24 years. Mean age was 33.95 years with the youngest respondents being 17 and the oldest one 75. Unlike in the study of Tian et al. (2001), there were no significant differences on CNFU and DUCP scores between different age groups, but overall age had a very weak positive correlation with both CNFU (*correlation coefficient 0.18*) and DUCP (*correlation coefficient 0.16*). However, even though statistically significant, the correlations were so weak that age was not considered to influence CNFU and DUCP scores in this research (*Appendix V, 2*)

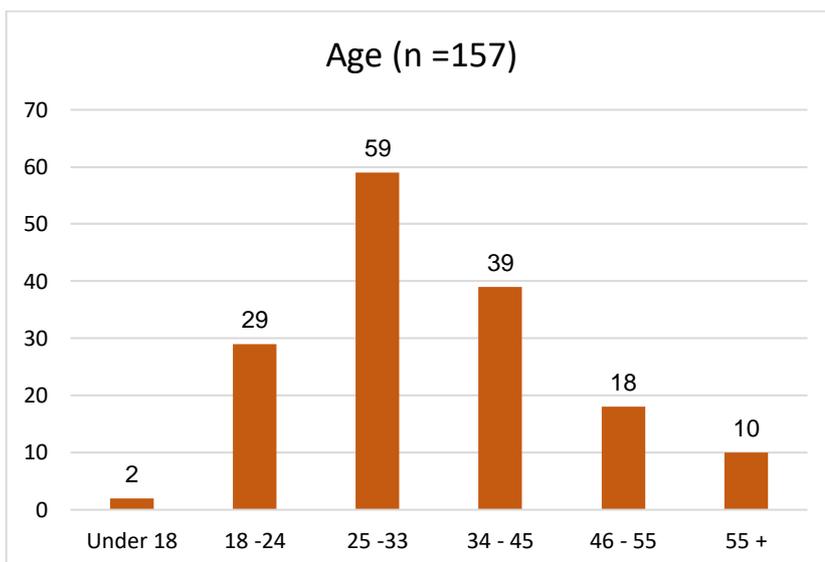


Figure 4 Age of respondents

### 6.1.2 Nationality

One nationality, Finland, was clearly overrepresented in the research with more than 50 % of the respondents being Finnish (Figure 4). Second nationality was United Kingdom with close to 30 % of responses and then Italy with little under 10 % (see Figure 5). The remaining nationalities accounted for only 6 % and, in most cases, there was only a single observation per nationality. CNFU and DUCP scores did not change depending on nationality (*Appendix V, 3*)

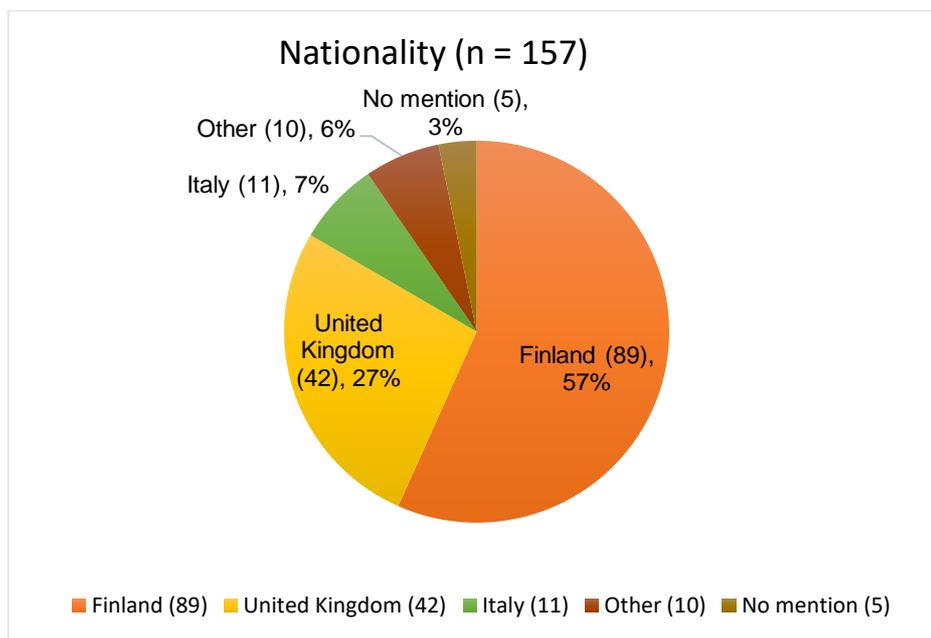


Figure 5 Nationalities of respondents

### 6.1.3 Level of education and current occupation

As can be seen in Figure 6 below, most of the respondents had either finished upper secondary education (high school or vocational school) or had an undergraduate university degree. Also, graduate degrees were somewhat common among the respondents, whereas having no upper education at all and, on the other hand, having PhD was rare. Education did not affect CNFU or DUCP scores (*Appendix V, 4*)

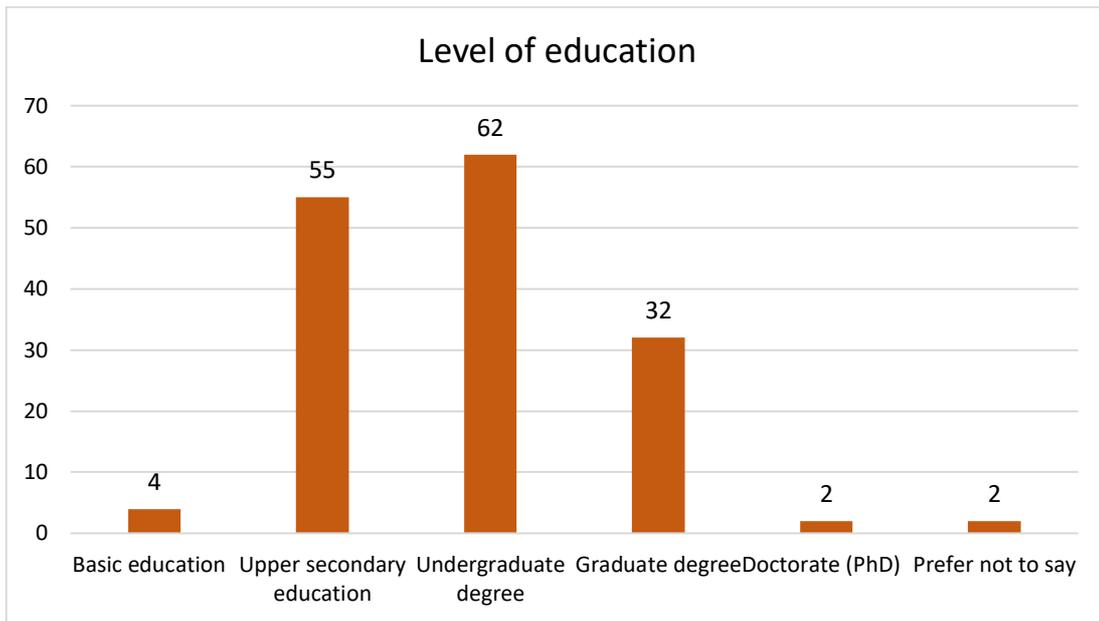


Figure 6 Level of education

In terms of current occupation (Figure 7 below), most of the respondents were employed full-time, but also studying and being employed part-time were common. Respondents were able to select more than one option to describe their current occupation.

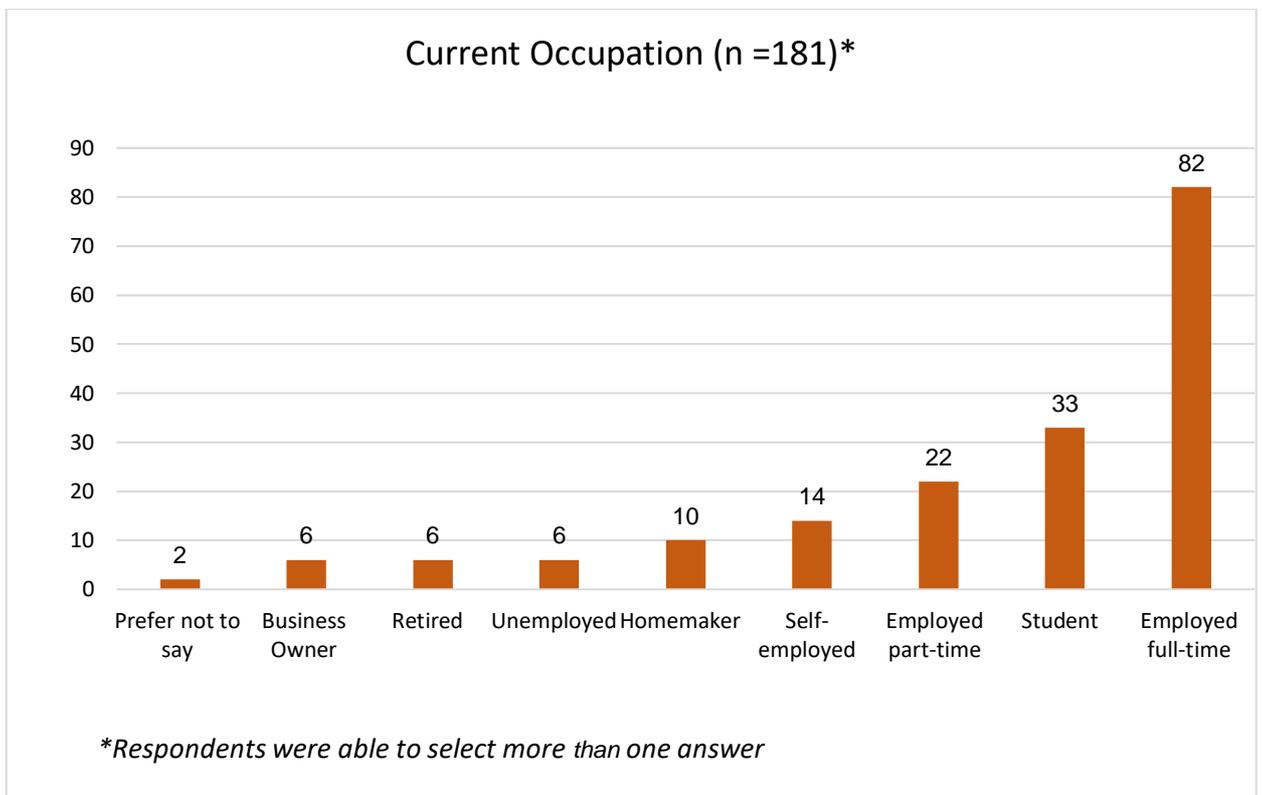


Figure 7 Current Occupation

## 6.2 Body Piercing Status

The body piercing status as well as the number of body piercings varied a lot in the target sample. (See *Appendix VI* for details)

Overall, 57 % (90) of the respondents had at least one body piercing, leaving 43 % (67) with no body piercings (Figure 8). This means that in this target sample it was slightly more common to have body piercings(s) than to not have any. However, this result is due to research emphasis on finding people with body piercings: the link was published on three Facebook pages belonging to tattoo and piercing studios to ensure that there would be enough data of people with body piercings.

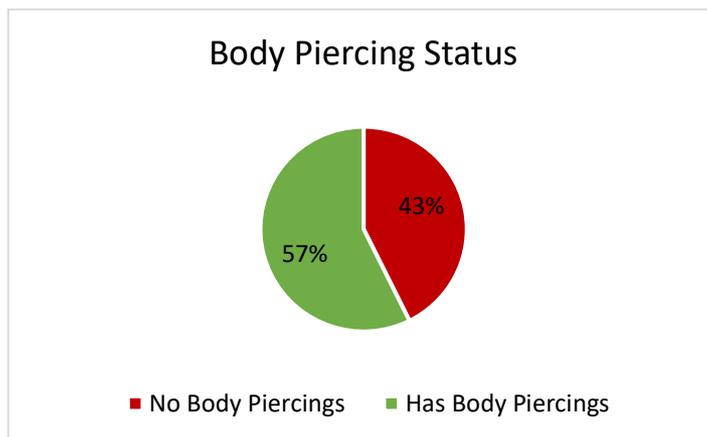


Figure 8 Body Piercing Status

The most common number of body piercings was 1 (13 %), followed by 2, 3 and 4 each accounting for approximately 8 % of the responses (Figure 9).

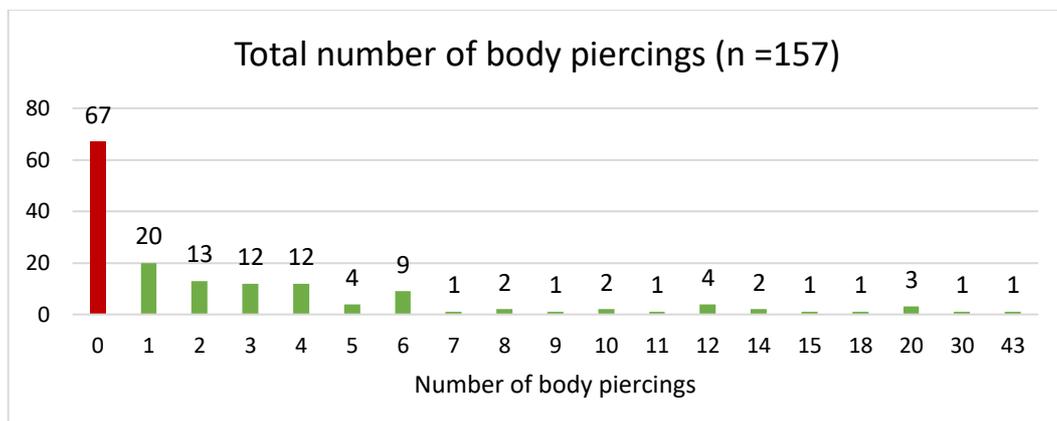


Figure 9 Total number of body piercings

As Figure 9 above shows, the number of body piercings ranged from 0 to 43, but there were only a few observations per each number for those with more than 6 body piercings. This meant that the original data had to be grouped, as it was not possible to compare means of people with higher numbers of body piercings because there were only 1 or 2 observations per body piercing count. Figure 10 below presents the number of body piercings in categories. These categories still differ in size, as not having any body piercings or only having a small number of body piercings were more common than higher numbers of body piercings, but with this grouping it was possible to have a good number of responses in each category and thus it was possible to compare the mean values of these different categories<sup>5</sup> when running the ANOVA (analysis of variance) tests for the relationship between number of body piercings and the uniqueness need in consumer behavior.

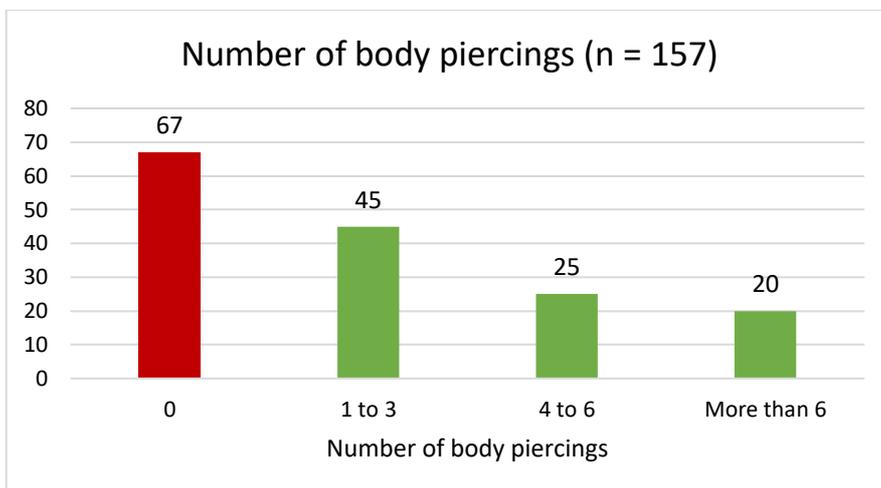


Figure 10 Number of body piercings per category

### 6.2.1 Body piercings and demographics

While the purpose of this study was not to explore the demographics of people with body piercings, understanding the demographics of the sample also in relation to the number of body piercings was considered helpful in understanding the sample better.

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<sup>5</sup> An alternative way to group the answers would have been to only have three categories: No piercings (67), 1-3 piercings (45) and More than 3 piercings (45). While this approach would have yielded more even distribution of responses per category, it was thought to be vague and risk losing information on possible differences between people with a moderate versus high number of body piercings.

Gender: As was noted above, majority of the respondents were women, and any meaningful comparison between the genders was impossible due to a small number of male respondents. There was one key difference between the genders: majority of male respondents (16 out of 23, 70 %) had no body piercings at all, whereas for women this number was only 49 (out of 131, 37 %) (Figure 11).

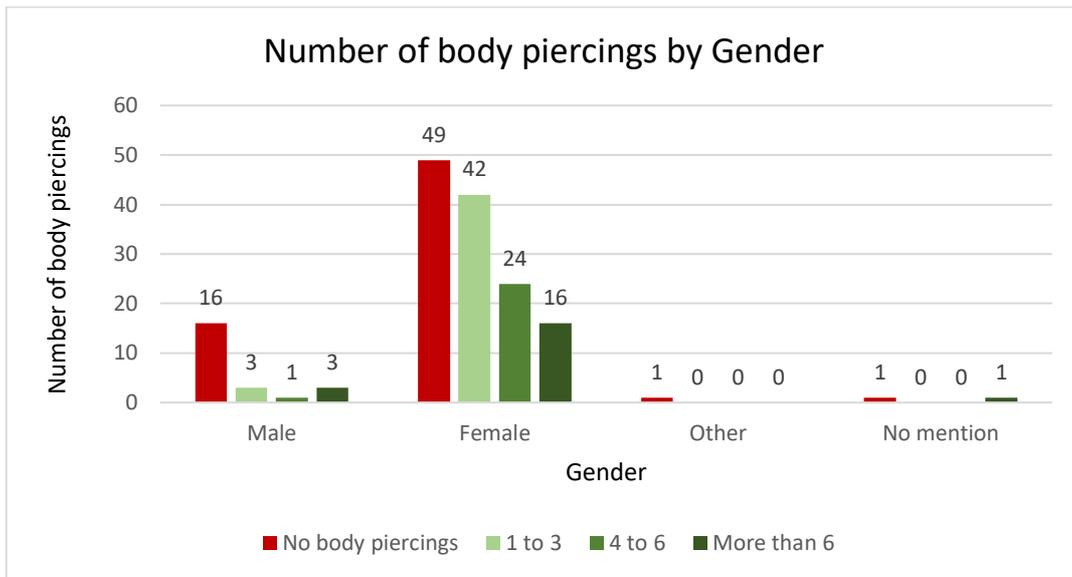


Figure 11 Gender and body piercings

Age: In all age groups, expect for the age group “under 18”, the most common answer was not having any body piercings. In the biggest age groups 25 – 33 and 34 – 45, however, the difference between not having piercings and having 1-3 piercings was extremely small. (Figure 12). Overall, as expected, the category “more than 6” (piercings) was the smallest category for all the age groups except for the age group 25 – 33 (and under 18, but since this group only had two responses, it wasn’t considered possible to compare it with others).

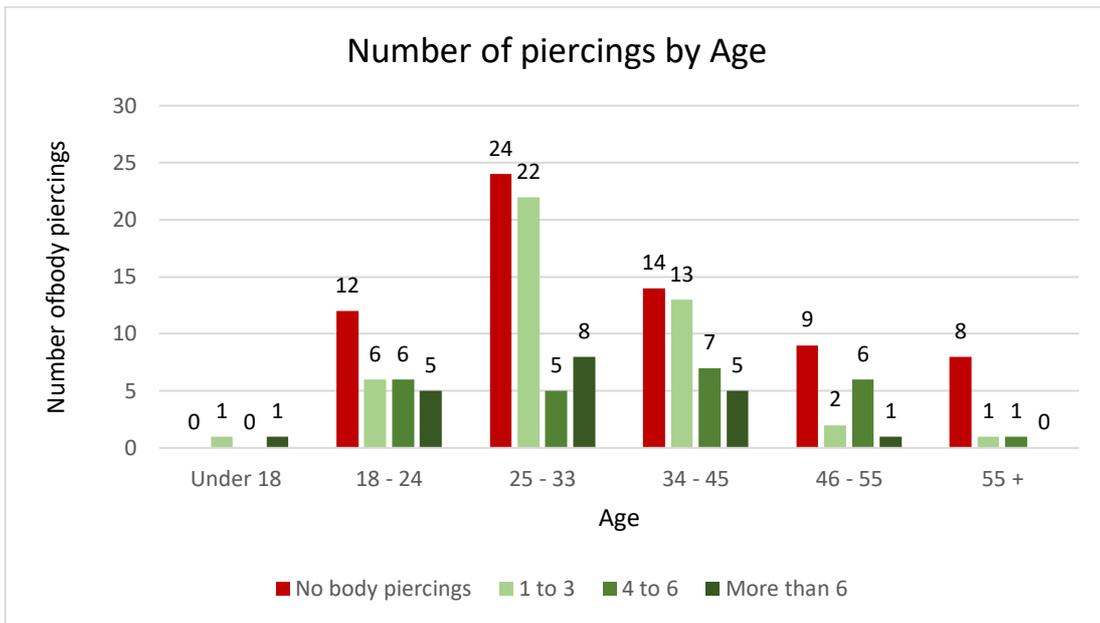


Figure 12 Age and body piercings

**Nationality:** The most interesting finding concerning number of body piercings and nationality is that the category of ‘no body piercings’ was the smallest category for United Kingdom, whereas this category had the biggest number of responses for all other nationalities (Figure 13).

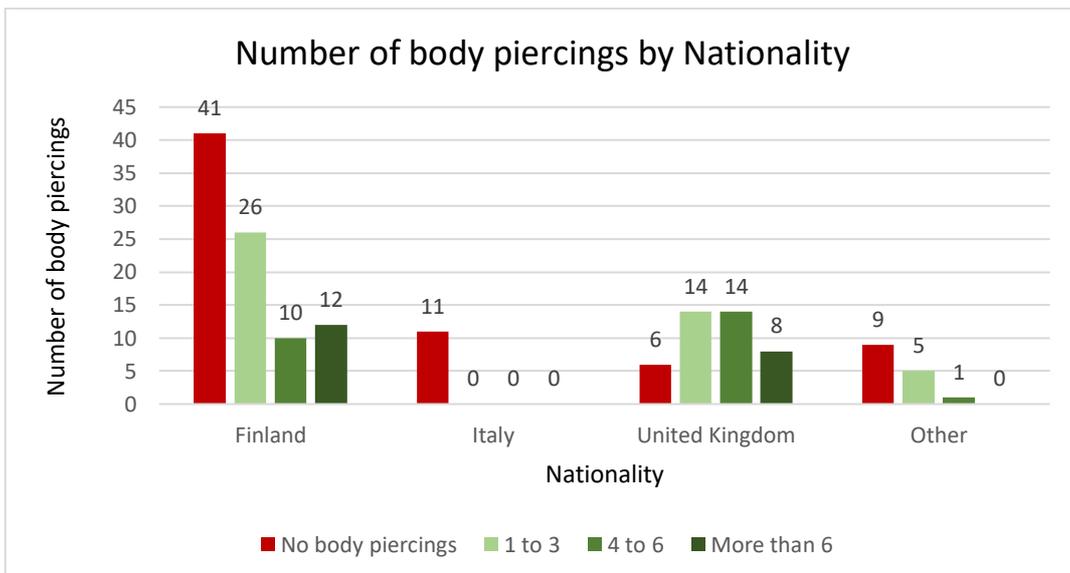


Figure 13 Nationality and body piercings

**Education & Current Occupation:** The group with upper secondary education as their highest level of education was the only group, where ‘no body piercings’ wasn’t the single

biggest category. Majority of people with graduate degree did not have any body piercings (24 out of 32, 75 %), and the same was true also for people with PhD (though there were only two observations). Among people with basic education, only 4 observations, half of the respondents had a body piercing and the other half did not. For upper secondary education and undergraduate degree, more respondents had body piercings compared to not having (Figure 14).

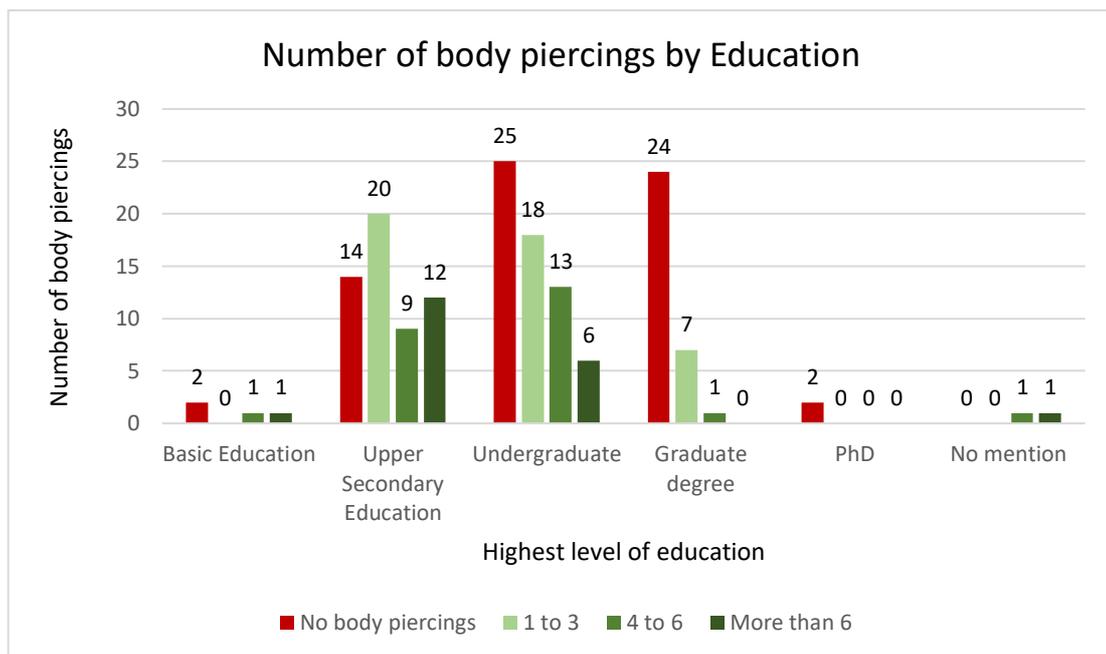


Figure 14 Education and body piercings

As the question about current occupation allowed for more than one response per respondent, that data was not compared to number of body piercings.

### 6.3 Consumers' need for uniqueness (CNFU) and body piercings

This part presents the results of the research based on the CNFU scale, and hence answers the first research question concerning the relationship of CNFU with body piercings. On this part, only the total CNFU score, consisting of 12 items, is considered for the analysis, and the three dimensions will be discussed later. As CNFU is more diverse scale, compared to DUCP, focusing on uniqueness-seeking on multiple aspects, it was considered to provide the most relevant results for understanding the relationship between body piercings and the overall need for uniqueness in consumer behavior. The figure 15 below illustrates the CNFU values obtained in this study. The total CNFU *mean* was 3.09 with *standard deviation* 0.67 (*range* = 1,5 – 4,75). (See *Appendix VII* for details)

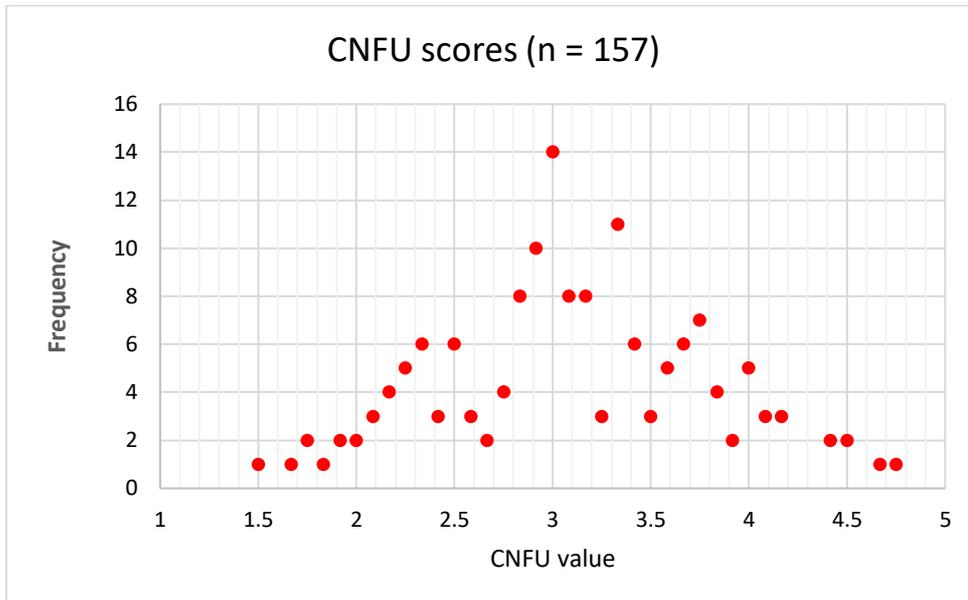


Figure 15 CNFU values

Figure 16 below presents the mean CNFU values per number of piercings. The CNFU *mean value* 3.09 tells that, on average, respondents need for uniqueness in consumer behavior as measured by CNFU was on a medium level, or, respondents' CNFU level was neutral as on the 5-point Likert-scale value 3 is neutral.

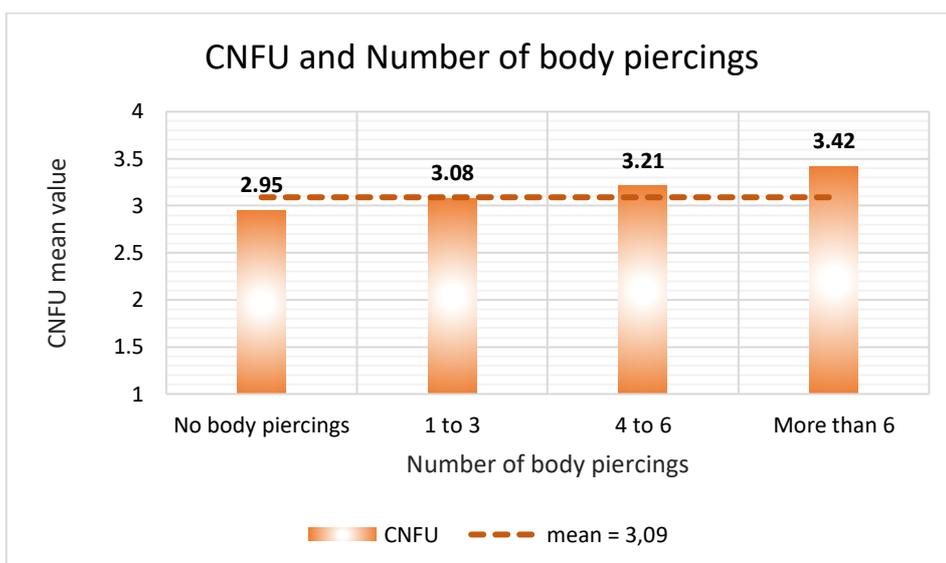


Figure 16 CNFU and number of body piercings

The CNFU mean values per number of body piercings seemed to indicate a positive correlation between number of body piercings and CNFU, as CNFU scores were the highest for the group of people with more than 6 body piercings and lowest for the people without

body piercings (Figure 14). Also, people without body piercings scored below ( $M = 2.95$ ) the overall CNFU value ( $M = 3.09$ ), and the CNFU score of people with 1 to 3 body piercings was approximately equal to the overall CNFU mean, while people with more than 3 body piercings scored above average on CNFU.

### 6.3.1 Relationship between CNFU and body piercings

As a first step, the relationship between CNFU and having body piercings ( $n = 90$ ,  $M = 3.19$ ) versus not having body piercings ( $n = 67$ ,  $M = 2.95$ ) was tested, and there was a statistically significant difference between CNFU means of these two groups ( $diff. = 0.24$ ,  $p = 0.025$ ) (See Appendix VII, 2)

To further explore this expected positive relationship between CNFU and number of body piercings, the data was analyzed with one-way ANOVA on Stata. The results showed that there was a statistically significant difference between the group means at significance level  $p = 0.0339$  ( $< 0.05$ ). Further analysis showed that this difference was significant only between the group with no body piercings ( $n = 67$ ,  $M = 2.95$ ) and the group with more than 6 body piercings ( $n = 20$ ,  $M = 3.42$ ) ( $diff. = 0.47$ ,  $p = 0.035 < 0.05$ ) (See Appendix VII, 2 for more details)

### **Spearman's correlation for CNFU and number of body piercings**

Based on ANOVA it could be said that high number of body piercings seemed to mean also higher CNFU. However, in order to answer the Hypothesis 1 (H1 *Number of body piercings has a positive correlation with consumers' need for uniqueness CNFU*) the 'original', continuous data about number of body piercings was compared to CNFU scores using Spearman's rank correlation coefficient, for reasons explained earlier in Chapter 5. The outcome of the correlation test was that there is a weak positive correlation (*Spearman's rho = 0.2109*) between number of body piercings and CNFU ( $p = 0.008 < 0.05$ ) and hence, H1 was supported.

*H1 Number of body piercings has a positive correlation with consumers' need for uniqueness CNFU - Supported*

## 6.4 Desire for unique consumer products (DUCP) and body piercings

Desire for unique consumer products (DUCP) was the second scale used to measure the need for uniqueness in consumer behaviour. This scale was more limited than CNFU as it only measured one aspect of uniqueness-seeking: the desire to have consumer products, service and experiences that are rare and difficult to obtain, the idea being that consumers feels more unique if they can have consumer goods that majority of other consumers do not have (Lynn & Harris 1997b). While CNFU-scale can be considered the most relevant scale for understanding the overall level of uniqueness need in consumer behaviour, DUCP can be said to have a more commercial focus: it is explicitly about consumers' attitudes towards rare products, product customization, special shopping venues and exclusive product offerings (products that others do not have) (*Appendix I*).

Figure 17 below presents total DUCP values of all the respondents. The total DUCP *mean* across all the groups was 3.28 with *standard deviation* 0.63 (*range* = 1.63 – 4.75). DUCP *mean* 3.28 indicates a medium level of desire for unique consumer products, in other words, on average, respondents were neutral in their desire for unique consumer products. However, as more responses fell between values 3 and 4 (79 out of 157) than between 2 and 3 (41 out of 157), and as the mean value  $3.28 > 3$  suggests, respondents had high rather than low desire for unique consumer products (*Appendix VII, 4*)

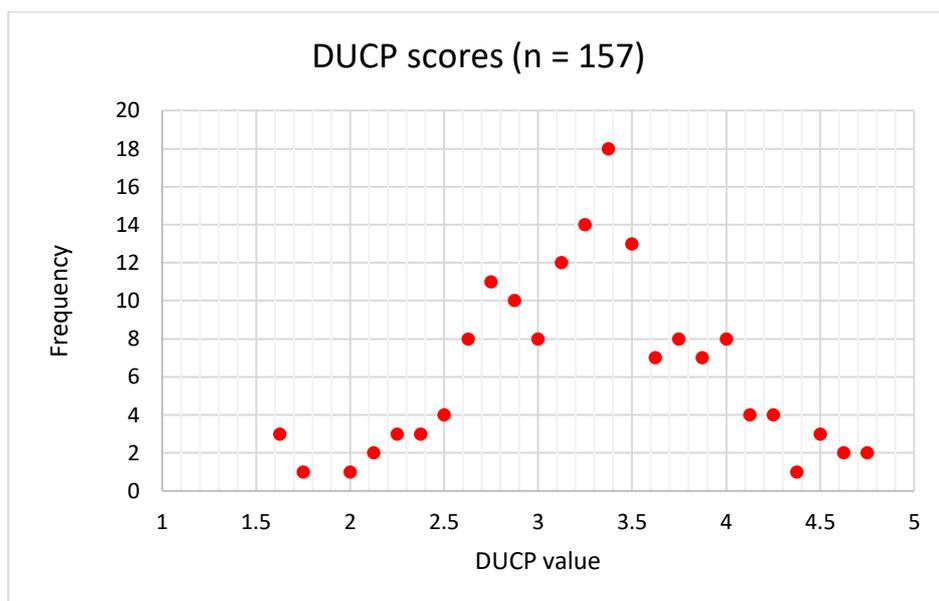


Figure 17 DUCP values

Figure 18 below presents DUCP mean values per number of body piercings. The total DUCP *mean* 3.28 is marked with a red line, and it can be seen that groups with 1 to 3 body piercings and with no body piercings have DUCP mean values below the total mean value, whereas the DUCP mean values of groups with more than 3 body piercings are higher than the total DUCP mean. Based on this it seemed that there was a positive correlation between number of body piercings and DUCP as the DUCP mean values increased when the number of body piercings increased.

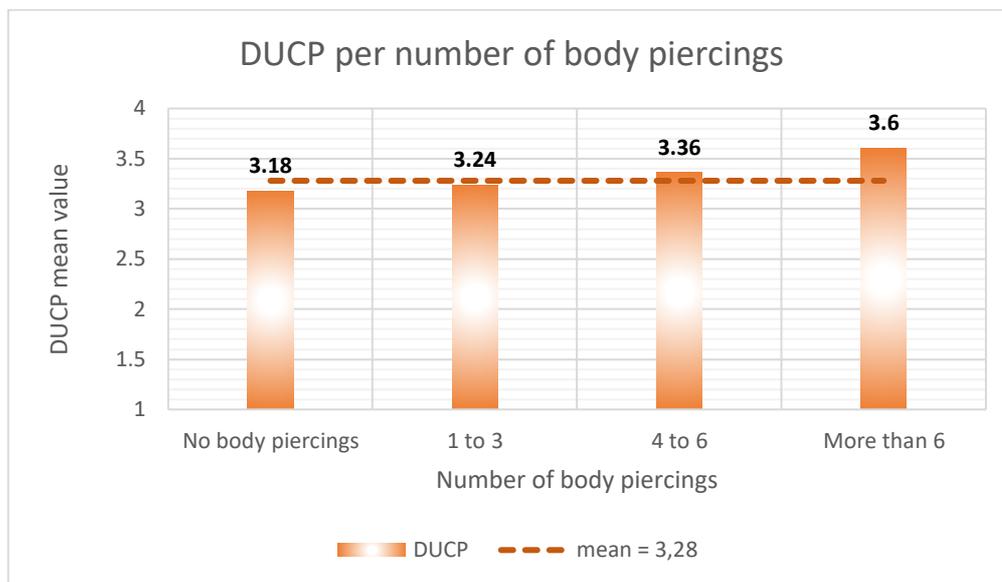


Figure 18 DUCP and number of body piercings

#### 6.4.1 Relationship between DUCP and number of body piercings

The first test was to see if there was a difference on DUCP between people with body piercings ( $n = 97$ ,  $M = 3.35$ ) and without body piercings ( $n = 67$ ,  $M = 3.18$ ). The results showed no significant difference between these two groups ( $diff. = 0.17$ ,  $p = 0.09 < 0.05$ ) on DUCP. (Appendix VII, 5)

As with CNFU, also the DUCP mean values of groups with different number of body piercings were then compared with ANOVA to see, if there was a statistically significant difference between any of the groups. However, there was a problem with using ANOVA for the comparison as the variances of DUCP per number of body piercings were unequal, and ANOVA assumes equal variance of variables (Ross 2017, 513). However, as there has been some dispute concerning this assumption, namely whether ANOVA could be used also with unequal variances (for example Lachenbruch & Clements (1991) and Norman

(2010)), and as the data was also subjected to a correlation test before coming to conclusion about hypothesis, ANOVA was used to test the equality of means despite the violation of the equality of variances. The results showed, in accordance with the very first test of any relationship between people with and without body piercings, that there was no statistically significant difference on DUCP values of groups with different number of body piercings ( $p = 0.06 > 0.05$ ), but the biggest difference in means was found between the group with no body piercings ( $M = 3.18$ ) and the group with more than 6 body piercings ( $M = 3.6$ ) *diff. = 0.42*,  $p = 0.055$ , which means that the results were close to significance level of  $0.05$  (*Appendix VII, 5*)

### **Spearman's correlation for DUCP and body piercings**

Similar to the correlation test ran for CNFU and body piercings, also the possible correlation between DUCP and number of body piercings was tested using Spearman's rank correlation coefficient. For the correlation test, the original, ungrouped, version of the data about number of body piercings was utilized, and, as this data was not normally distributed, the correlation test used Spearman's correlation. The outcome of the correlation test was that there was a, very weak, positive correlation between number of body piercings and DUCP (*Spearman's rho 0.1855*) and the results were statistically significant at  $p = 0.02 (< 0.05)$ , and hence hypothesis 2 was supported,

*H2 Number of body piercings has a positive correlation with desire for unique consumer products DUCP - **Supported***

## 6.5 The three dimensions of CNFU: CCC, UCC and AOS

In the previous section the relationship between CNFU and number of body piercings was analyzed without considering the three dimensions of CNFU. This section presents the three dimensions and the results of hypotheses (*H3 – H5*) concerning the relationship between body piercings and creative choice counterconformity (CCC), unpopular choice counterconformity (UCC) and avoidance of similarity (AOS).

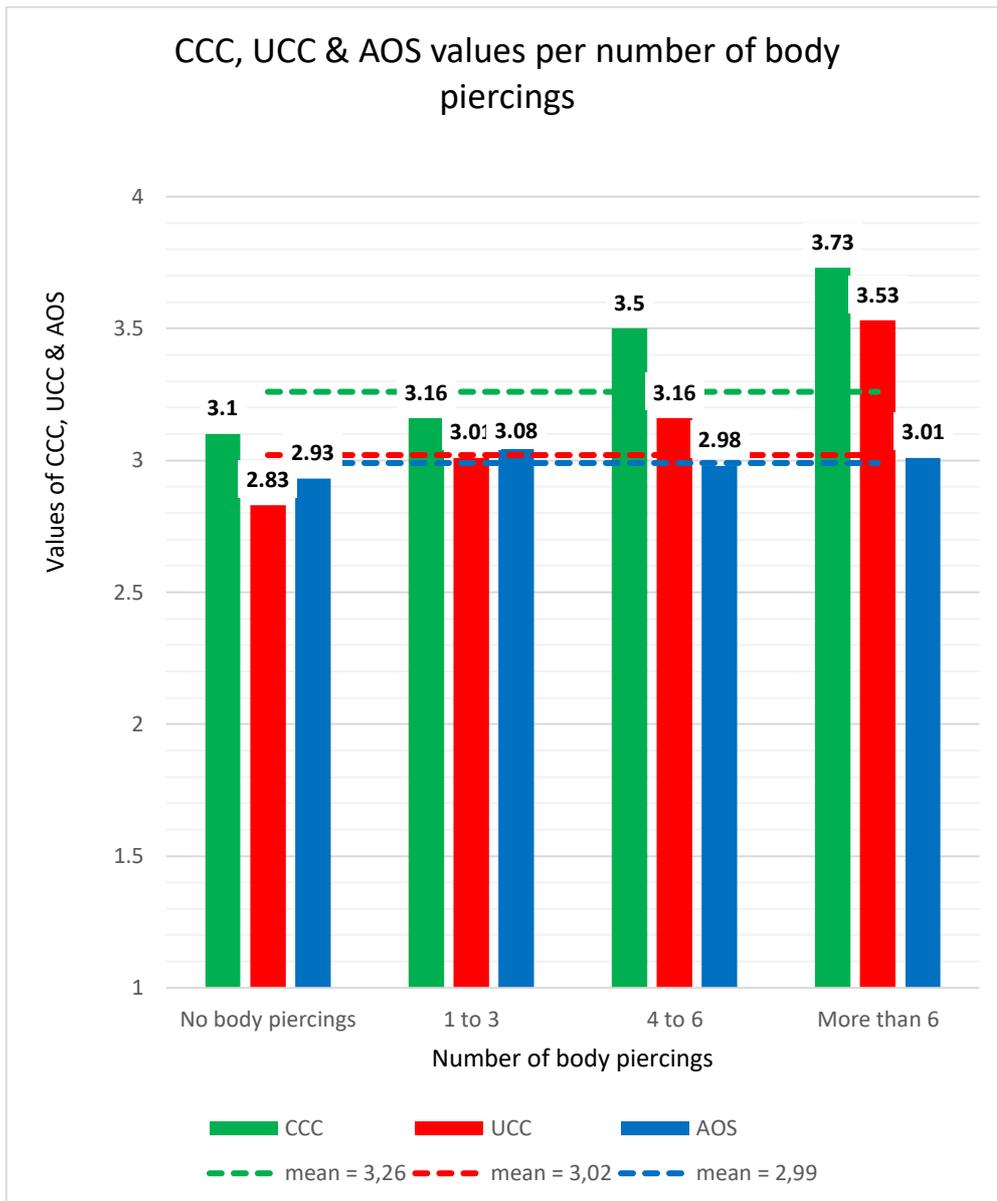


Figure 19 CCC, UCC & AOS values per number of body piercings

Figure 19 above summarizes the values of CCC, UCC and AOS according to number of body piercings. In addition to mean values per body piercings category, also the total means for all three are marked in the figure, and the colors - green for CCC, red for UCC and blue for AOS – help the interpretation (See *Appendix VIII* for details)

### Creative choice counterconformity (CCC)

Creative choice counterconformity (CCC) had an overall *mean* value of 3.26 with *standard deviation* 0.77 and *range* 1.25 – 5. As the figure above illustrates, the total mean value of CCC was bigger than the total mean values of UCC and AOS. CCC values per number of body piercings also followed the logic seen in the previous sections with CNFU and DUCP:

the higher the number of body piercings, the higher the mean value. Groups without body piercings and with 1 to 3 body piercings scored lower than the total CCC mean, and groups with more than 3 body piercings scored above that mean value. Based on this table only, it was clear that the hypothesis 3 (*H3 Scores on the creative choice counterconformity (CCC) will be the highest compared to two other dimensions of CNFU regardless of the number of body piercings the respondent has*) was supported as both the total CCC mean value as well as CCC mean values per number of body piercings were all higher than the corresponding values of UCC and AOS. To further prove this, the mean values of CCC, UCC and AOS of the total sample ( $n = 157$ ) were compared. The results showed statistically significant difference between the overall mean values of CCC ( $M = 3.26$ ) and the mean values of both UCC ( $M = 3.02$ ,  $diff. = 0.24$ ,  $p = 0.0003$ ) and AOS ( $M = 2.99$ ,  $diff. = 0.27$ ,  $p = 0.0001$ ). (Appendix VIII, 6)

*H3 Scores on the creative choice counterconformity (CCC) will be the highest compared to two other dimensions of CNFU regardless of the body piercing status of the respondents – Supported*

### **Unpopular choice counterconformity**

The total mean values for Unpopular choice counterconformity (UCC) ( $3.02$ ,  $Std.dev. 0.85$ ,  $range = 1 - 5$ ) and Avoidance of similarity (AOS) ( $2.99$ ,  $Std.dev. 0.87$ ,  $range = 1 - 5$ ) were very similar. In the case of UCC, the group values seemed to correlate positively with the number of body piercings, with the group without any body piercings scoring below the total mean ( $2.83 < 3.02$ ), group with 1 to 3 body piercings approximately same as the total mean ( $3.01 < 3.02$ ) and groups with more than 3 body piercings above the total mean value. The biggest difference in group mean values as compared to the total mean value was for the group with more than 6 body piercings, who scored  $3.53 (>3.02)$ . (Appendix VIII, 3).

It was hypothesized that people with a high number of body piercings would be most clearly different from all the other groups precisely on this dimension (*H4 People with a high number of body piercings differ from the rest (people with no body piercings and people with a moderate number of body piercings) to the greatest extent on unpopular choice counterconformity (UCC)*), but simply looking at the mean values in the figure 18, it was not possible to say whether this was true as the group with more than 6 body piercings seemed to differ from other groups quite equally on both UCC and CCC.

To further analyze this, ANOVA-test was run to compare the means of CCC and UCC based on number of body piercings. Table 4 below shows the differences in mean values on CCC and UCC between the group with more than 6 body piercings and the other groups. Relationships between groups with no body piercings, 1 to 3 body piercings and 4 to 6 body piercings were not included in the table as the only statistically significant differences were found between the group with more than 6 body piercings in comparison to the other groups. Moreover, AOS was excluded from this table as it was clear already based on the mean values that there were no significant differences between the groups on that dimension.

Table 6 Anova - Mean values of CCC and UCC per number of body piercings

Dimension	Difference in mean values	Significance (p-value)
<b>CCC</b>	<b>More than 6 body piercings (M = 3.725)</b>	<b>Sign. if p &lt; 0.05</b>
No body piercings (M = 3.104)	0,621	0,008
1 to 3 body piercings (M = 3.156)	0,569	0,029
4 to 6 body piercings (M = 3.5)	0,225	1
<b>UCC</b>	<b>More than 6 body piercings (M = 3.525)</b>	<b>Sign. if p &lt; 0.05</b>
No body piercings (M = 2.828)	0,697	0,007
1 to 3 body piercings (M = 3.011)	0,514	0,13
4 to 6 body piercings (M = 3.16)	0,365	0,851

People with more than 6 body piercings differed from the people with no body piercings to the greatest extent on UCC (*mean diff. 0.70, p = 0,007*), but this was the only statistically significant difference on UCC values. (*Appendix VIII, 4*). On the CCC, there was a statistically significant difference, although slightly smaller than the one on UCC values, between these same groups (*mean diff. = 0.62, p = 0.008*) and, in addition, between the group with more than 6 body piercings and the group with 1 to 3 body piercings (*mean diff. 0.057, p = 0,029*). (*Appendix VIII, 2*). Hence, the hypothesis 4 could not be supported: people with high number of body piercings differed from people with no body piercings to the greatest extent on unpopular choice counterconformity, but this was not the case, when comparing people with high number of body piercings to other groups with body piercings.

*H4 People with a high number of body piercings differ from the rest (people with no body piercings and people with any number of body piercings) to the greatest extent on unpopular choice counterconformity (UCC) – Rejected*

## **Avoidance of similarity**

Overall, differences between the groups with different number of body piercings were very small on the third dimension of CNFU, the Avoidance of similarity (AOS). In comparison to the values of other CNFU dimensions, the AOS values were the lowest for people with more than 3 body piercings, but not for people with no body piercings and 1 to 3 body piercings (for these groups the lowest scoring dimension was UCC). Based on this hypothesis 5a (*H5a People with any number of body piercings score lower on AOS compared to other dimensions of CNFU*), could not be fully supported as the group with 1 to 3 body piercings scored lower on UCC ( $M = 3.01$ ) than on AOS ( $M = 3.08$ ). However, this difference in means was only 0.07 and statistically non-significant ( $p = 0.57 > 0.05$ ).

In absolute numbers, groups with 4 to 6 body piercings and with more than 6 body piercings scored lowest on AOS as compared to other dimensions. However, only in the group with more than 6 body piercings these differences between AOS and the both other two dimensions were statistically significant (See: *Appendix VIII, 10*) To further analyze this, the mean values of all three dimensions, CCC, UCC and AOS, were compared also based on whether the respondent had body piercings ( $n = 90$ ) or had no body piercings at all ( $n = 67$ ). Also, in this comparison, the group with body piercings scored lower on AOS compared to other dimensions of CNFU, but this difference was only statistically significant between AOS and CCC with ( $p = 0.0003 < 0.05$ ).

After running these tests, it seemed that only the group with more than 6 body piercings scored statistically significantly lower on AOS compared to other dimensions and hence hypothesis 5a was rejected

*H5a People with any number of body piercings score lower on AOS compared to other dimensions of CNFU - Rejected*

AOS was also the only dimension of CNFU, where the mean values per number of body piercings did not show any signs of possible correlations: the lowest AOS value was for the group with no body piercings (2.93) followed by groups with 4 to 6 body piercings (2.98), more than 6 body piercings (3.01) and the group with 1 to 3 body piercings (3.08). Following this, it seemed that the assumption about the similarity of AOS scores of people with and without body piercings (*H5b There is less variation in AOS scores, between people with and without body piercings, compared to scores on other CNFU dimensions*) would be true.

To confirm this hypothesis, the data was divided into two groups according to body piercings status: (1) Any number of body piercings ( $n = 90$ ) and (2) No body piercings ( $n = 67$ ). The results from a t-test showed, that there was a statistically significant difference between these two groups on UCC ( $p = 0.016$ ) and CCC ( $p = 0.027$ ) but not on AOS ( $p = 0.43$ ), and hence the hypothesis 5b was supported (See *Appendix VIII, 2, 4 and 6*).

*H5b There is less variation in AOS scores, between people with and without body piercings, compared to scores on other CNFU dimensions – **Supported***

## 7 DISCUSSION

This chapter will discuss the findings presented above beginning with a summary of the key findings and then moving on to analyze each dimension of research more in detail.

### 7.1 Summary of the key findings

The main research question of this Thesis was “What is the relationship between uniqueness-seeking through consumption and body piercings?” and the sub-questions concerned the relationship between number of body piercings and the specific domains of consumers’ uniqueness-seeking (CNFU and DUCP) as well as the different aspects of consumers’ need for uniqueness. The findings showed that there was a positive correlation between number of body piercings and both CNFU and DUCP. In the comparison of the three dimensions of CNFU, the creative choice counterconformity (CCC) was the highest scoring dimension for all the respondents regardless of their body piercing status, and the mean scores of both CCC and its ‘counterpart’ unpopular choice counterconformity (UCC) were higher in the groups with higher number of body piercings, even though this difference was statistically significant only between people with no body piercings and people with more than 6 body piercings (on both) and between people with no body piercings and people with 4 to 6 body piercings (only on CCC). Avoidance of similarity (AOS) did not show any signs of correlation with number of body piercings, and while it was the lowest scoring dimension of CNFU for people with more than 3 body piercings, the difference between AOS and UCC and CCC both, were statistically significant only in the group with more than 6 body piercings.

### 7.2 CNFU’s positive correlation with number of body piercings

CNFU-scale was the most comprehensive and varied scale used in this research as it consisted of 12 items and combined results of three different dimensions of uniqueness-seeking in consumer behavior. Because of this, CNFU was considered to be the single most reliable tool for measuring the overall level of uniqueness-seeking in consumption. People with body piercings scored higher on CNFU than did people without body piercings, when the respondents were compared only based on whether they had any body piercings or not. Closer comparison between groups with different number of body piercings revealed that the only statistically significant difference on CNFU was between people without body piercings and people with high number of body piercings (more than 6). The actual

correlation between CNFU and number of body piercings was positive, as expected, but weak (*Spearman's rho* = 0.21).

All the test combined, there seems to exist a positive correlation between number of body piercings and level of CNFU, but the assumption about people with body piercings having higher CNFU seems to apply mostly to those, who have a high number of body piercings. Even though body piercings are often used as a way of expressing uniqueness or individuality, it is also common to get a body piercing just as a fashion accessory and body decoration without necessarily attaching a lot of meaning to the body piercing (Wohlrab et al. 2007a). This fact combined with the commonness of body piercings is probably the main reason explaining, why there were statistically significant differences in CNFU only between those with high number of body piercings and those with no body piercings at all: having few body piercings does not necessarily mean high need for uniqueness, though in this research any number of body piercings seemed to indicate a slightly higher CNFU mean value, as people with relatively low number of body piercings might not have a special relationship with their body piercings and one's appearance does not change radically because of few body piercings.

A person with multiple body piercings has a clear interest in modifying their physical appearance, as a high number of body piercings is likely to lead to distinctive appearance, and this can more easily be seen as an attempt to establish and show uniqueness. To put it another way around, it seems highly unlikely that anyone would get multiple body piercings to be fashionable or to look attractive<sup>6</sup>, whereas in the case of couple of body piercings the reasons of looking attractive and being fashionable might be bigger reasons than establishing uniqueness (Stirn et al. 2011 found this to be the case for people with only soft earlobe piercings).

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<sup>6</sup> In fact, the motivations for high numbers of body art (as compared to lower numbers) have been found to be the exact opposite of wanting to be fashionable and trendy, with reasons such as "I want to provoke rejection", "I want to shock others" and "I can do with my body whatever I want" being significantly more important for people with high as compared to low numbers of body art (Stirn et al. 2011)

### 7.3 DUCP and number of body piercings

Results on DUCP-scale also showed a positive correlation between number of body piercings and desire for unique consumer products (DUCP), but this correlation was very weak (Spearman's rho 0.18). Moreover, there were no statistically significant differences between the groups with different number of body piercings nor between the groups with and without body piercings. Even though in the absolute mean values, DUCP scores were higher in groups with more body piercings, the lack of statistical significance on the differences combined with a very weak correlation coefficient indicate that this specific aspect of uniqueness-seeking through consumption might not be highly affected by the number of body piercings a person has. One possible explanation for this might be that DUCP-scale was originally built on three theories, one of which was the original need for uniqueness the other two being status aspiration (the desire for leadership and dominance in social settings) and level of materialism (Lynn & Harris 1997b). Body piercings might not be the best 'tool' for status aspiration nor it the link between materialism and having body piercings clear. It is possible that the weak positive relationship between number of body piercings and DUCP can be explained by people with high number of body piercings having a higher need for uniqueness than people without body piercings, but not differing from them in terms of status aspiration or materialism. However, as there still was a positive correlation, and because the difference between the groups with no body piercings and more than 6 body piercings came close to being statistically significant, it cannot be completely excluded that people with body piercings wouldn't have higher desire for unique consumer products, but the finding of this study suggests otherwise. Possibly, a bigger sample, especially of those with multiple body piercings, would show more significant results. Also, as detailed in Chapter 5, the DUCP scale used in this research had some flaws that might have compromised the reliability and validity of the results from this scale.

### 7.4 Differences between the three dimensions of CNFU

The overall mean values of the whole sample revealed that scores on creative choice counterconformity (CCC) were higher than the scores on unpopular choice counterconformity (UCC) or avoidance of similarity (AOS), and the difference between CCC and the two other dimensions was statistically significant in overall mean values. The exact same was true also for people with body piercings, when compared to those without body piercings. Analysis of the dimensions per number of body piercings supported this finding, as CCC mean values were always the highest of the three dimensions, but only in the group

with 4 to 6 body piercings both differences (CCC compared to UCC and AOS) were statistically significant. The only group in which CCC scores were not statistically significantly higher than at least one of the other two dimensions was the group with 1 to 3 body piercings. CCC was expected to be the highest scoring dimension across the entire sample as people normally prefer socially accepted ways of being different and would rather be recognized as unique in positive than in negative sense. In the group with 1 to 3 body piercings this seemed not to be true, but there were no statistically significant differences between any of the dimensions in this group, so this could simply mean that people with a low number of body piercings are indifferent to the way in which they pursue uniqueness in consumer context. This was in contrast with the results of group with more than 6 body piercings, where CCC scores were not statistically different from the unpopular choice counterconformity (UCC) scores but both CCC and UCC scores were significantly higher than those of avoidance of similarity (AOS) indicating that the reason for the lack of statistical difference in this case was due to comparatively high UCC values rather than indifference to the type of uniqueness-seeking.

Overall, unpopular choice counterconformity (UCC) and avoidance of similarity (AOS) scores were quite similar across all the groups except for the group with more than 6 body piercings. This was also the only group in which UCC scores were significantly higher compared to any of the other dimensions. UCC was the lowest dimension for groups with less than 4 body piercings (group without body piercings and group with 1 to 3 body piercings) but UCC and AOS scores were very similar in these groups. The combination of UCC scores not being statistically lower than CCC scores and, at the same time, them being clearly higher than AOS scores in the group with more than 6 body piercings seems to indicate that this group is the only group that does not care about risking the social approval of their peers when it comes to consumption and might, in fact, actually seek to differentiate themselves on the basis of that.

The avoidance of similarity (AOS) scores were significantly lower than CCC scores in groups with more than 3 body piercings. In both groups, AOS scores were also the lowest ones of the three, even though this difference was statistically significant only in comparison to CCC (in both groups) and UCC (in group with more than 6 body piercings). It seems that avoiding similarity is the least significant dimension of CNFU for people with moderate to high number of body piercings. AOS is characterized by the willingness to discontinue use of products once they become popular or avoiding to purchase common products all together, which might explain these results: body piercings are already 'mainstream', so in

theory a person highly motivated by AOS might be tempted to remove all their body piercings. However, only in the group with more than 6 body piercings were AOS scores significantly lower than scores on both UCC and CCC suggesting that similarity avoidance is especially unimportant part of uniqueness-seeking for people with high number of body piercings.

### 7.5 Relationship between number of body piercings and the dimensions of CNFU

Overall, the group with 1 to 3 body piercings received very similar scores on all CNFU dimensions, in fact, it was the only group where none of the three dimensions was significantly higher than others. This is interesting especially in comparison to the group with no body piercings, where there was a statistically significant difference between CCC and UCC scores (CCC scores being higher). In other words, all aspects of uniqueness-seeking in consumer context were equally important for people with low number of body piercings, whereas people with no body piercings clearly favored the creative choice counterconformity over the unpopular choice counterconformity. This could mean that the group with 1 to 3 body piercings was not coherent in their responses; people with low number of body piercings might not share common trait in their level of uniqueness need in consumption. This could be the case also because the variances between CCC and UCC and CCC and AOS were unequal in the group with 1 to 3 body piercings, and hence the reliability of these results might be questioned, but on the other hand, just looking at the mean values of each dimension in this group shows that the differences are very small. Moreover, this group was not significantly different compared to any other group (people without body piercings and people with 4 to 6 or more than 6 body piercings) on any CNFU dimension, which would suggest that a low number of body piercings does not indicate higher need for uniqueness in consumer behavior nor does it tell about the way in which people in this group mostly try to differentiate themselves from others.

In group with 4 to 6 body piercings, the CCC scores were significantly higher than scores of other two dimensions. This was the most expected outcome of the research: CCC scores being clearly higher than the rest. The scores of the entire sample, regardless of number of body piercings, showed similar results, as did the scores of a group with any number of body piercings when compared to those with no body piercings. When this group was compared to other groups, the only statistically significant difference was with the group with no body piercings on CCC. On total CNFU values, this group did not differ from the other groups, which shows that the group with 4 to 6 body piercings is clearly different only

from the people without any body piercings and only on the creative choice counterconformity. In other words, moderate number of body piercings indicates higher need for uniqueness in consumer behavior when this behavior is likely to be socially approved. In the overall level of consumers' need for uniqueness, people with moderate number of body piercings do not significantly differ from people without body piercings. This group still values admiration and acceptance from others more than being unique 'at any cost', and they are likely to be able to achieve their desired level of uniqueness without risking their social status.

As expected, the group that differed from the rest the most were the people with more than 6 body piercings. In absolute number, this group got the highest scores of all the groups on both CCC and UCC. AOS was the lowest scoring dimension for this group with scores on both CCC and UCC being significantly higher than AOS scores. Interestingly, even though CCC scores were the highest of all the dimensions also in in this group, there was no statistically significant difference between these and UCC scores. The group with more than 6 body piercings also differed significantly from the group with no body piercings on the overall CNFU as well as in both CCC and UCC. This suggest that people with high number of body piercings have higher need for uniqueness in consumer behavior as compared to people without body piercings. In addition, people with high number of body piercings seem equally willing to use creative and unpopular choice counterconformity to achieve their desired level of uniqueness. This group was also the only group significantly differing from people without body piercings in the level of CNFU, influenced by the high UCC scores, which could mean that in order to fulfil their high uniqueness need in consumer context, these people are willing to also turn to consumption behavior that is against the norms of their social group. For this group, the need to feel unique and to be different from others in consumption choices is more important than seeking social acceptance. Perhaps people with multiple body piercings use both their body piercings and consumption to build a distinctive style, and others' opinions about this style, whether positive or negative, are not important to them. It could be that their uniqueness motivation is highly independent from the outside world, and they do not actively follow others in order to stay unique, as suggested by low scores on avoidance of similarity (as compared to UCC and CCC).

## 8 CONCLUSIONS

As was hypothesized and presented in the theoretical framework in chapter 1, number of body piercings had a positive relationship with both CNFU and DUCP, even though in the case of latter the correlation was very weak. Moreover, the dimensions of CNFU behaved to some extent as predicted: highest values on CCC and UCC were found in the group with high number of body piercings and the scores on AOS did not show any correlation with number of body piercings. There were also differences between the original framework presented in *Figure 2* (in Chapter 4.2 *Hypotheses*) as AOS was equally low in groups with no body piercings and with moderate and high number of body piercings, but slightly higher in group with low number of body piercings. The figure 20 below presents the theoretical framework of the study using the actual results for each dimension. Again, as in the original framework, the actual values are not important (as for the real results, these ranged from  $M = 2.82$  to  $M = 3.73$  when taking into account CNFU, all its dimensions individually and DUCP) and the framework simply presents the relationship between number of body piercings and level of uniqueness-seeking in consumer behavior.

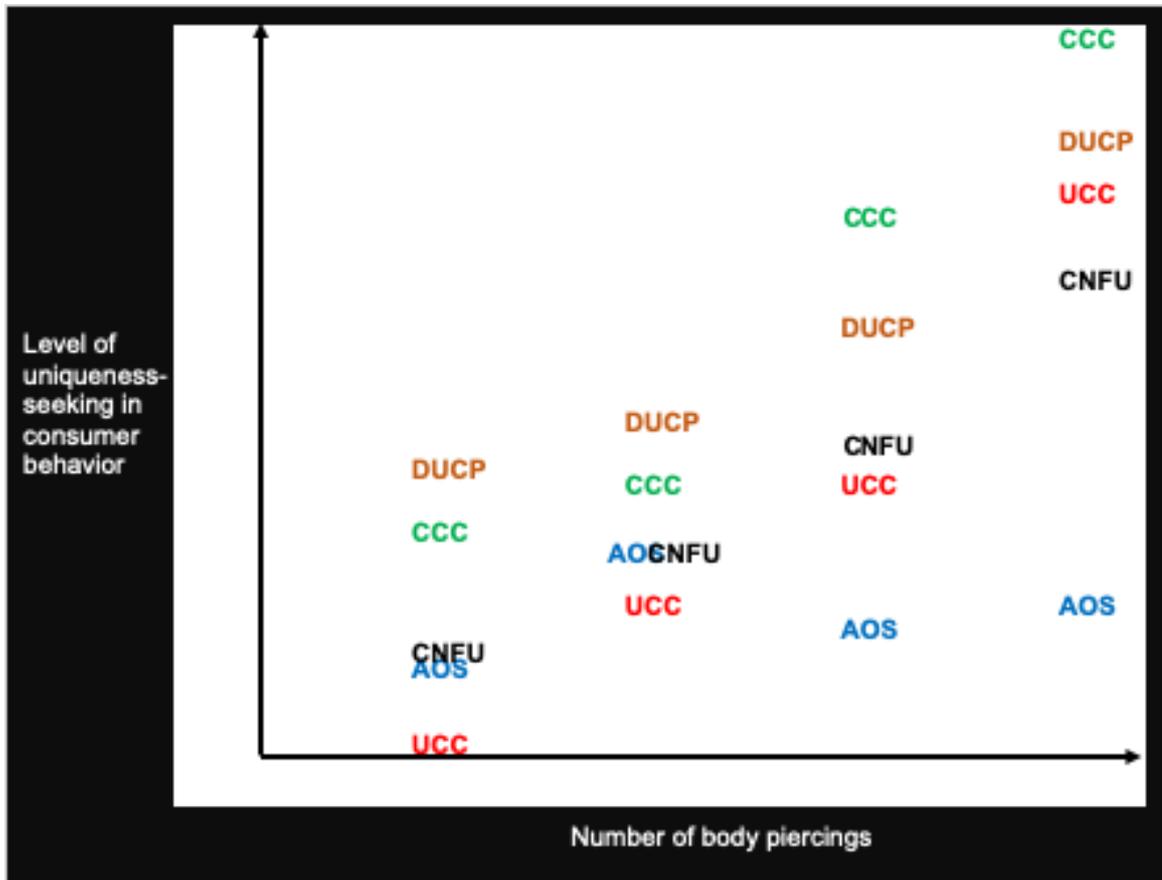


Figure 20 Theoretical framework with results

The main conclusion, and the answer to the main research question of this Thesis, is that number of body piercings does have a positive relationship with the need for uniqueness in consumption context. However, this relationship is only significant as measured on CNFU-scale rather than on DUCP-scale, which means that the positive relationship between number of body piercings and level of uniqueness-seeking in consumer behavior seems to be the case only when evaluated based on combination of different uniqueness-creating aspects rather than based on a specific measure of interest towards rare products and special shopping venues. As such, number of body piercings does not seem to have a relationship with status aspiration through consumption or with materialism, as these are two of the underlying assumptions of DUCP, the third one being need for uniqueness, but there certainly exists positive relationship between the need for uniqueness and number of body piercings, which might explain the very weak correlation found between DUCP and number of body piercings.

Overall, only statistically significant differences in need for uniqueness in consumption were found between the group with no body piercings and with groups with multiple body piercings. Small number of body piercings did not affect the level of uniqueness need significantly, but at the same time, there were no statistically significant differences between groups with low and high number of body piercings. When the data was divided based on body piercing status alone, people with body piercings differed from people without body piercings on their overall consumers' need for uniqueness as well as on two of the CNFU dimensions, creative choice counterconformity and unpopular choice counterconformity, but this was most likely heavily influenced by the groups with high number of body piercings.

Creative choice counterconformity (CCC) is the most 'popular' dimension affecting consumers' need for uniqueness. This was the case, when the data was analyzed ignoring the number of body piercings, as well as when analyzing the data based on body piercing status. As a principle, people prefer socially safe ways of being unique to socially risky ones. The only exception to this seems to be people with high number of body piercings, who favor both ways of being unique equally much and are willing to go against norms to establish a higher level of uniqueness. Despite CCC having the highest scores in all the groups, only people with more than 3 body piercings got mean values suggesting agreeing rather than disagreeing with creative choice counterconformity.

On the unpopular choice counterconformity, people with high number of body piercings were the only group that was significantly different from the group without body piercings

further proving that, only, high number of body piercings is likely to mean higher willingness to seek uniqueness even at the expense of social acceptance. In terms of values of responses, people with high number of body piercings were the only group, where the mean values of responses suggested agreeing rather than disagreeing with unpopular choice counterconformity.

Among people with low number of body piercings, there was no clear preference towards any dimension. People with low number of body piercings and people without body piercings both have very neutral scores on all aspects of CNFU, and people without body piercings clearly avoid socially risky ways of being unique, as illustrated by their low UCC score.

## 8.1 Theoretical contributions

The most important theoretical contribution of this Thesis is the use of the short version of CNFU-scale (Ruvio et al. 2008) in new context, both in terms of the specific research context, people with body piercings, and in terms of applying the scale to a new cultural context. The original CNFU-scale (Tian et al. 2001) was not created for cross-cultural studies, but Ruvio et al. (2008) created this short version of the scale and validated its use in cross-cultural studies. In their original study, the three countries used for testing the cross-cultural validity were Israel, Palestine and Slovenia, and the test found support for the validity of the test regardless of the culture. This Thesis used data from Western, highly individualistic cultures and also results of this study support the cross-cultural validity of the scale, as no statistically significant differences were found between the countries.

Secondly, this research tested CNFU and DUCP against number of different demographic attributes and supported the independence of these two scales from gender, nationality and education. However, a very weak positive correlation was found between both, CNFU and DUCP, and age. As this was against the earlier findings (Tian et al. 2001), it is likely that it was caused by a sampling error (the sampling method of this research was not the most reliable one as detailed earlier), but it was considered an interesting finding, nonetheless.

Finally, this Thesis contributes to the research on body piercings by exploring the previously discovered link between the need for uniqueness (Snyder & Fromkin 1977) and body piercings (Tiggemann & Golder 2006; Tiggemann & Hopkins 2011) in a consumption context.

## 8.2 Practical implications

On a practical level, the main finding of the Thesis, the identification of people with high number of body piercings as people with high need for uniqueness in consumer behavior, can be used by businesses and marketers to better understand the decision-making process and motivations of this group of consumers. Furthermore, understanding that people with high number of body piercings are willing to use also unpopular ways of differentiating themselves, when it comes to consumption, could be used by innovative businesses, who have possibly created something new, but the majority of consumers did not, or would not, like it because it because of, for example, current trends or the innovation being considered too radical or provocative. In these cases, high CNFU people might be interested in it, and especially so, if these people scored high precisely on unpopular choice counterconformity as people with high number of body piercings do. Also, people with high number of body piercings could also be considered as their own niche market: while body piercings are increasing in popularity, high numbers are still relatively rare, and this specific group of customers could be a profitable market segment for business with deep understanding of the needs of this group. The need for uniqueness is clearly an important dimension of consumer behavior of people with high number of body piercings, and being likely to seek to fulfill this need regardless of public opinion, these consumers could be potential customers for businesses specializing in alternative products or services.

Moreover, understanding that there is a correlation between number of body piercings and level of uniqueness need in consumer context can encourage businesses to look for and identify also other (visible) signs that might mean high CNFU level. Also, the fact that people in general score highest on creative choice counterconformity can further guide businesses, who are trying to appeal to consumers' need for uniqueness: positive and socially appreciated ways are almost always preferred to all other ways of establishing uniqueness in consumption.

## 8.3 Limitations and thoughts for the future research

The biggest limitation of the present study was the sample: the sampling method for inaccurate, as it was convenience sampling, and the sample size was rather small. This means that the results cannot be reliably generalized to any population. This was not considered a huge problem as the purpose of the study was to explore a relationship between the variables (number of body piercings and need for uniqueness in consumer

behavior) rather than understanding a certain population, but still the lack of reliable sampling method and small sample size do reduce the credibility of the results. Also, in the case of people with high number of body piercings, there were often only one observation per number of body piercings: the group with more than 6 body piercings consisted of people with number of body piercings ranging from 7 to 43, and considering these all as a one group might have led to inaccuracies. The second obvious limitation was the use of pre-existing scales, one of which, DUCP, was found to have some problems regarding the validity of the scale to measure the desired concept.

In the future the need for uniqueness in consumer behavior could be researched in the same context with bigger sample size, especially so for the people with multiple body piercings. This research failed to find a strong correlation between number of body piercings and desire for unique consumer products, for example, and it would be interesting to find out, whether such correlation actually exists in a more representative sample. Moreover, people with high number of body piercings could be compared to other groups that are likely to have a high need for uniqueness, such as people, who dye their hair with unusual colors or people, who collect rare items, on CNFU to understand on which dimensions these groups with, expectedly, high level of uniqueness need differ from one another.

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## **APPENDIX I**

### **The Desire for Unique Consumer Products (DUCP) Scale**

1. I am very attracted to rare objects.
2. I tend to be a fashion leader rather than a fashion follower.
3. I am more likely to buy a product if it is scarce.
4. I would prefer to have things custom-made than to have them ready-made.
5. I enjoy having things that others do not.
6. I rarely pass up the opportunity to order custom features on the products I buy.
7. I like to try new products and services before others do.
8. I enjoy shopping at stores that carry merchandise which is different and unusual.

Respondents are asked to indicate the extent to which they agree or disagree on a 5-point scale from 1 = Strongly Disagree to 5 = Strongly Agree. The final results are obtained by summing the scores from each item and the higher total score indicates higher need for uniqueness (in a form of buying or possessing rare consumer goods) (Lynn & Snyder 2002 based on Lynn & Harris 1997b)

## APPENDIX II, 1

### Consumers' Need for Uniqueness (CNFU) Scale

The Original CNFU Scale (Tian et al. 2001)

**Items included in the shorter version of CNFU-scale are bolded** (Ruvio et al. 2008)

#### Creative Choice Counterconformity (CCC)

1. I collect unusual products as a way of telling people I'm different
2. I have sometimes purchased unusual products or brands as a way to create a more distinctive personal image
3. I often look for one-of-a-kind products or brands so that I create a style that is all my own
4. Often when buying merchandise, an important goal is to find something that communicates my uniqueness
- 5. I often combine possessions in such a way that I create a personal image for myself that can't be duplicated**
- 6. I often try to find a more interesting version of run-of-the-mill products because I enjoy being original**
- 7. I actively seek to develop my personal uniqueness by buying special products or brands**
- 8. Having an eye for products that are interesting and unusual assists me in establishing a distinctive image**
9. The products and brands that I like best are the ones that express my individuality
10. I often think of the things I buy and do in terms of how I can use them to shape a more unusual personal image
11. I'm often on the lookout for new products or brands that will add to my personal uniqueness

#### Unpopular Choice Counterconformity (UCC)

12. When dressing, I have sometimes dared to be different in ways that others are likely to disapprove
- 13. As far as I'm concerned, when it comes to the products I buy and the situations in which I use them, customs and rules are made to be broken<sup>7</sup>**

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<sup>7</sup> Ruvio et al 2008 uses a form of "When it comes to the products I buy and the situations in which I use them, I have broken customs and rules"

## Appendix II, 2

14. I often dress unconventionally even when it's likely to offend others
15. I rarely act in agreement with what others think are the right things to buy
16. Concern for being out of place doesn't prevent me from wearing what I want to wear
17. When it comes to the products I buy and the situations in which I use them, I have often broken customs and rules
- 18. I have often violated the understood rules of my social group regarding what to buy or own**
- 19. I have often gone against the understood rules of my social group regarding when and how certain products are properly used**
- 20. I enjoy challenging the prevailing taste of people I know by buying something they wouldn't seem to accept**
21. If someone hinted that I had been dressing inappropriately for a social situation, I would continue dressing in the same manner
22. When I dress differently, I'm often aware that others think I'm peculiar, but I don't care

### Avoidance of Similarity (AOS)

23. When products or brands I like become extremely popular, I lose interest in them
24. I avoid products or brands that have already been accepted and purchased by the average consumer
- 25. When a product I own becomes popular among the general population, I begin using it less**
- 26. I often try to avoid products or brands that I know are bought by the general population**
- 27. As a rule, I dislike products or brands that are customarily purchased<sup>8</sup> by everyone**
28. I give up wearing fashions I've purchased once they become popular among the general public
- 29. The more commonplace a product or brand is among the general population, the less interested I am in buying it**
30. Products don't seem to hold much value for me when they are purchased regularly by everyone

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<sup>8</sup> Ruvio et al 2008 uses word "bought" instead of "purchased"

### **APPENDIX II, 3**

31. When a style of clothing I own becomes too commonplace, I usually quit wearing it

Respondents are asked to indicate the extent to which they agree or disagree on a 5-point scale from 1 = Strongly Disagree to 5 = Strongly Agree. The final results are obtained by summing the scores from each item and the higher total score indicates higher consumer need for uniqueness. Also, individual scores for all the three dimensions can be calculated as well following the same logic (Tian et al. 2001). Same evaluation method is used also on the shorter version of the scale (Ruvio et al. 2008).

## APPENDIX III, 1

### Consumer behavior questionnaire/Kuluttajakäyttäytymiskysely

#### Consumer behavior questionnaire (eng)

##### **Welcome to participate in a Consumer Behavior Survey!**

*Thank you for choosing to participate! The following questionnaire is designed to measure individual attitudes and motivations affecting consumer behavior. It consists of 8 questions, out of which questions number 1 and 3 ask you to evaluate your attitude and thoughts towards buying, owning and using different types of products and services. The remaining questions are about your personal characteristics.*

*Answering this survey takes approximately 5-10 minutes. The data is collected for a Master's Thesis project on uniqueness-seeking in consumer behavior, written as a part of Master's Programme in International Marketing Management at Lappeenranta University of Technology. Answering this survey is completely anonymous and no identifying personal details (such as name, email or IP address) will be collected. However, for the purpose of understanding the sample better, questions about age, gender, employment status, educational background and nationality are included.*

*This data is collected with Qualtrics survey tool and it is stored in author's personal laptop. No one else, except the author of the Thesis, will have access to these details. All data will be permanently deleted upon completion of the Thesis.*

*Data is only collected from data subjects themselves and the data collection is based on the subject's consent.*

*For further details and/or questions, please contact the author of the Thesis:*

*Janika Lonardo - janika.lonardo@student.lut.fi*

*By clicking the button below, you acknowledge that your participation in this survey is voluntary, and you consent to the collection of your personal data as a part of the research process as detailed above.*

- I consent, begin the study (1)
- I do not consent, I do not wish to participate (2)

*Skip To: End of Survey If Welcome to participate in a Consumer Behavior Survey! Thank you for choosing to participate! T... = I do not consent, I do not wish to participate*

**APPENDIX III, 2**

1 Please evaluate your behavior as a consumer with the following statements

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Having an eye for products that are interesting and unusual assists me in establishing a distinctive image (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When it comes to the products I buy and the situations in which I use them, I have broken customs and rules (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am very attracted to rare objects. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The more commonplace a product or brand is among the general population, the less interested I am in buying it (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to be a fashion leader rather than a fashion follower. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have often violated the understood rules of my social group regarding what to buy or own (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As a rule, I dislike products or brands that are customarily bought by everyone (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to buy a product if it is scarce. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I actively seek to develop my personal uniqueness by buying special products or brands (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy challenging the prevailing taste of people I know by buying something they wouldn't seem to accept (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### **APPENDIX III, 3**

2 How many body piercings do you have at the moment? Please count all the body piercings you have EXCEPT those on soft earlobe ("traditional" earrings)

Please write down your answer in a number format (if you do not have any body piercings, your answer would be 0)

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### APPENDIX III, 4

3 Please evaluate your behavior as a consumer with the following statements

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
I would prefer to have things custom-made than to have them ready-made (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often try to avoid products or brands that I know are bought by the general population (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy shopping at stores that carry merchandise which is different and unusual (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often combine possessions in such a way that I create a personal image for myself that can't be duplicated (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy having things that others do not have (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When a product I own becomes popular among the general population, I begin using it less (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to try new products and services before others do (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have often gone against the understood rules of my social group regarding when and how certain products are properly used (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I rarely pass up the opportunity to order custom features on the products I buy (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often try to find a more interesting version of run-of-the-mill (ordinary) products because I enjoy being original (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### APPENDIX III, 5

4 What is the highest level of education you have completed?

- Basic education (1)
- Upper secondary education (High school/Vocational school) (2)
- Undergraduate university degree (Bachelor's degree) (3)
- Graduate university degree (Master's degree) (4)
- Doctorate (PhD) (5)
- Prefer not to say (6)

5 What is your current employment status?

- Student (1)
  - Employed full-time (2)
  - Employed part-time (3)
  - Business owner (4)
  - Self-employed (5)
  - Retired (6)
  - Unemployed (7)
  - Homemaker (8)
  - Prefer not to say (9)
- 

### APPENDIX III, 6

6 What is your gender?

- Male (1)
- Female (2)
- Other (3)
- Prefer not to say (4)

7 How old are you?

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8 What is your nationality?

## APPENDIX III, 7

### Kuluttajakäyttäytymiskysely

#### Tervetuloa osallistumaan kuluttajakäyttäytymistutkimukseen!

*Kiitos, että päätitte osallistua tähän tutkimukseen! Tämä kysely on luotu mittaamaan kuluttajakäyttäytymiseen vaikuttavia yksilöllisiä asenteita. Kysely koostuu kahdeksasta kysymyksestä, joista kysymykset 1 ja 3 käsittelevät asennettanne ja ajatuksianne erityyppisten kuluttajatuotteiden ja -palveluiden ostamista, omistamista ja käyttämistä kohtaan. Loput kysymykset käsittelevät muita henkilökohtaisia ominaisuuksianne. Kyselyyn vastaaminen vie noin 5-10 minuuttia.*

*Dataa kerätään Lappeenrannan teknillisen yliopiston kauppatieteiden maisteriohjelmassa suoritettavaa ainutlaatuisuuden tavoittelua kuluttajakäyttäytymisessä käsittelevää pro gradu-tutkielmaa varten. Kyselyyn vastataan anonymisti eikä tunnistamiseen johtavia henkilötietoja (kuten nimi, sähköpostiosoite tai IP-osoite) kerätä. Kyselyn otoksen ymmärtämiseksi kyselyssä on joitakin henkilötietoja koskevia kysymyksiä: ikä, sukupuoli, työtilanne, koulutustausta ja kansallisuus. Data kerätään Qualtrics-kyselytyökalun avulla ja se säilytetään kirjoittajan henkilökohtaisella tietokoneella. Kukaan muu kuin tämän pro gradu-tutkielman kirjoittaja ei pääse dataan käsiksi. Kaikki tiedot poistetaan lopullisesti heti, kun pro gradu-tutkielma on saatu valmiiksi.*

*Dataa kerätään vain ja ainoastaan vastaajilta itseltään, ja datan kerääminen perustuu vastaajien omaan suostumukseen.*

*Lisätietoja tutkimuksesta ja mahdolliset kysymykset voi osoittaa tämän pro gradu-tutkielman tekijälle:*

*Janika Lonardo - janika.lonardo@student.lut.fi*

Valitsemalla "Hyväksyn" vakuutatte osallistuvanne tähän kyselyyn vapaaehtoisesti ja hyväksytte henkilötietojenne keräämisen osana tutkimusta ylläolevan selvityksen mukaisesti.

- Hyväksyn ja aloitan kyselyn (1)
- En hyväksy, en halua osallistua (2)

*Skip To: End of Survey If Welcome to participate in a Consumer Behavior Survey! Thank you for choosing to participate! T... = En hyväksy, en halua osallistua*

## APPENDIX III, 8

### 1 Arvioi käyttäytymistäsi kuluttajana seuraavien väittämien osalta

	Vahvasti eri mieltä (1)	Jokseenkin eri mieltä (2)	Ei samaa eikä eri mieltä (3)	Jokseenkin samaa mieltä (4)	Vahvasti samaa mieltä (5)
Se, että minulla on silmää mielenkiintoisille ja epätavallisille tuotteille, auttaa minua muodostamaan omaperäisen imagon. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kun puhutaan ostamistani tuotteista ja tilanteista, joissa niitä käytän, olen rikkonut yleisiä tapoja ja sääntöjä. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Olen hyvin kiinnostunut harvinaisista asioista (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mitä tavanomaisempi tuote tai brändi on valtaväestön joukossa, sitä vähemmän olen kiinnostunut sen ostamisesta (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Olen enemmän muotivaikuttaja kuin muotiseuraaja (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Olen usein toiminut vastoin oman sosiaalisen ryhmäni sääntöjä, kun kyseessä on ollut tiettyjen tuotteiden ostaminen tai omistaminen (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sääntönäni on, etten pidä tuotteista tai brändeistä, joita kaikki tavallisesti ostavat. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ostan tuotteen todennäköisemmin, mikäli sitä ei ole olemassa kuin jokunen kappale. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yritän aktiivisesti kehittää henkilökohtaista ainutlaatuisuuttani ostamalla erikoistuotteita tai -brändejä (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nautin tuntemieni ihmisten vallitsevan maun haastamisesta ostamalla jotakin, jota he eivät vaikuttaisi hyväksyvän. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## APPENDIX III, 9

2 Kuinka monta lävistystä sinulla on tällä hetkellä? Huomioi kaikki lävistyksesi PAITSI lävistykset korvalehdissä (perinteiset korvareiät)

Kirjoita vastauksesi numeromuodossa (jos sinulla ei ole yhtäkään lävistystä, vastauksesi olisi siis 0)

---

### APPENDIX III, 10

3 Arvioi käyttäytymistäsi kuluttajana seuraavien lausuntojen avulla

	Vahvasti eri mieltä (1)	Jokseenkin eri mieltä (2)	Ei eri eikä samaa mieltä (3)	Jokseenkin samaa mieltä (4)	Vahvasti samaa mieltä (5)
Haluaisin mieluummin minulle räätälöityjä kuin tehdasvalmisteisia asioita (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yritän usein välttää tuotteita tai brändejä, joita tiedän valtaväestön ostavan. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nautin ostoksilla käymisestä kaupoissa, jotka tarjoavat erilaisia ja epätavallisia tuotteita. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yhdistelen usein omistamiani asioita luoden itselleni henkilökohtaisen imagon, jota ei voi kopioida. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nautin omistaessani asioita, joita muilla ei ole (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kun omistamani tuote muuttuu suosituksi valtaväestön keskuudessa, alan käyttää sitä vähemmän. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pidän uusien tuotteiden ja palveluiden kokeilemisestä ennen muita. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Olen usein toiminut sosiaalisen ryhmäni sääntöjä vastaan siinä, milloin ja miten tiettyjä tuotteita kuuluu oikeaoppisesti käyttää. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jätän harvoin käyttämättä mahdollisuuden tilata räätälöityjä ominaisuuksia ostamiini tuotteisiin. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yritän usein löytää mielenkiintoisemman vaihtoehdon perustuotteille koska nautin omintakeisuudestani. (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### APPENDIX III, 11

4 Mikä on korkein koulutusasteesi?

- Peruskoulu (1)
- Toisen asteen koulutus (lukio/ammattikoulu) (2)
- Alempi korkeakoulututkinto (amk/kandidaatti) (3)
- Ylempi korkeakoulututkinto (yliopisto/maisteri) (4)
- Tohtoritutkinto (5)
- En halua vastata (6)

5 Mikä on tämänhetkinen työtilanteesi?

- Opiskelija (1)
- Työntekijä, kokoaikainen (2)
- Työntekijä, osa-aikainen (3)
- Yrityksen omistaja (4)
- Itsenäinen ammatinharjoittaja (5)
- Eläkeläinen (6)
- Työtön (7)
- Kotiäiti/-isä (8)
- En halua vastata (9)

### APPENDIX III, 12

6 Sukupuolesi?

- Mies (1)
- Nainen (2)
- Muu (3)
- En halua vastata (4)

7 Kuinka vanha olet?

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8 Mikä on kansalaisuutesi?

## APPENDIX IV, 1

### Description of data

Total number of respondents: 157 (n = 157)

#### 1. Gender

<b>Gender</b>	<b>n =157</b>	<b>%</b>
<b>Male (23)</b>	23	14,6 %
<b>Female (131)</b>	131	83,4 %
<b>Other (1)</b>	1	0,6 %
<b>No mention (2)</b>	2	1,3 %
<b>Total</b>	157	100,0 %

#### 2. Age

For the purposes of data analysis, the variable 'Age' was grouped into 6 groups as presented below. The average age in the sample was 33.95 years, Std.Dev. = 12 and range 17 – 75. Table titled 'Age (orig.)' shows the number of responses per each age.

##### 2.1 Age groups

<b>Age groups</b>	<b>n = 157</b>	<b>%</b>
Under 18	2	1,3 %
18 -24	29	18,5 %
25 -33	59	37,6 %
34 -45	39	24,8 %
46 - 55	18	11,5 %
55 +	10	6,4 %
Total	157	100,0 %

## APPENDIX IV, 2

### 2.2. Age (original data)

<b>Age (orig)</b>	<b>n = 157</b>	<b>%</b>	<b>Age (orig)</b>	<b>n = 157</b>	<b>%</b>
17	2	1,3 %	40	3	1,9 %
18	4	2,5 %	41	2	1,3 %
19	4	2,5 %	42	2	1,3 %
20	6	3,8 %	44	2	1,3 %
21	3	1,9 %	45	4	2,5 %
22	2	1,3 %	46	2	1,3 %
23	4	2,5 %	47	2	1,3 %
24	6	3,8 %	48	4	2,5 %
25	13	8,3 %	50	4	2,5 %
26	8	5,1 %	51	2	1,3 %
27	11	7,0 %	52	2	1,3 %
28	5	3,2 %	54	2	1,3 %
29	2	1,3 %	57	1	0,6 %
30	4	2,5 %	58	2	1,3 %
31	5	3,2 %	59	1	0,6 %
32	8	5,1 %	60	1	0,6 %
33	3	1,9 %	62	1	0,6 %
34	4	2,5 %	66	1	0,6 %
35	3	1,9 %	67	1	0,6 %
36	7	4,5 %	68	1	0,6 %
37	3	1,9 %	75	1	0,6 %
38	4	2,5 %	<b>Total</b>	157	100,0 %
39	5	3,2 %			

## APPENDIX IV, 3

### 3. Nationality

As the number of observations per each nationality was very low for all nationalities except for Finland, United Kingdom and Italy, in the analysis only these three were considered individually, and the rest were labeled under 'Other' (including the responses with 'No mention').

### 3. Nationality

<b>Nationality</b>	<b>n = 157</b>	<b>%</b>
Finland	89	56,7 %
United Kingdom	42	26,8 %
Italy	11	7,0 %
Spain	2	1,3 %
Austria	1	0,6 %
Czech Republic	1	0,6 %
Hungary	1	0,6 %
Ireland	1	0,6 %
Netherlands	1	0,6 %
Republic of Moldova	1	0,6 %
Syrian Arab Republic	1	0,6 %
Turkey	1	0,6 %
<i>No mention</i>	5	3,2 %
<b>Total</b>	<b>157</b>	<b>100,0 %</b>

### 4. Education

<b>Highest level of education</b>	<b>n = 157</b>	<b>%</b>
Basic education	4	2,5 %
Upper secondary education	55	35,0 %
Undergraduate degree	62	39,5 %
Graduate degree	32	20,4 %
Doctorate (PhD)	2	1,3 %
Prefer not to say	2	1,3 %
<b>Total</b>	<b>157</b>	<b>100,0 %</b>

## APPENDIX IV, 4

### 5. Current Occupation

This question allowed for multiple responses per respondent, which is why the 'Total' column doesn't match the actual numbers.

#### 5 Current occupation

<b>Current Occupation</b>	<b>n = 157</b>	<b>%</b>
Prefer not to say	2	1,3 %
Business Owner	6	3,8 %
Retired	6	3,8 %
Unemployed	6	3,8 %
Homemaker	10	6,4 %
Self-employed	14	8,9 %
Employed part-time	22	14,0 %
Student	33	21,0 %
Employed full-time	82	52,2 %
<b>Total</b>	<b>181</b>	<b>115,3 %</b>

## APPENDIX V, 1

### Statistical tests<sup>9</sup> I: Relationship between CNFU/DUCP and demographics

#### 1. T-test: Gender and CNFU/DUCP

H0 = There is no difference in CNFU/DUCP scores between men and women

H1 = There is a difference in CNFU/DUCP scores between men and women

H0 is accepted if p-value is greater than 0.05

In this T-test the sample size was 154, because the data included 3 responses that were neither men nor women and these were excluded from the analysis (See Appendix IV,1).

	Female (n = 131)	Male (n = 23)	p-value
CNFU	3.11 (+/- 0.06)	2.95 (+/- 0.12)	0.29 (> 0.05)
DUCP	3.28 (+/- 0.06)	3.23 (+/- 0.08)	0.67 (> 0.05)

CNFU:  $t(152) = -1.06$ ,  $p = 0.29$

DUCP:  $t(151) = -0.43$ ,  $p = 0.67$

Results: p-value for both CNFU and DUCP was greater than 0.05 and hence **the null hypothesis was accepted**. There was no difference on CNFU and DUCP depending on gender.

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<sup>9</sup> The basic assumptions of tests have not been violated unless otherwise specified

## APPENDIX V, 2

### 2. ANOVA: Age groups and CNFU/DUCP

H0 = There is no difference in CNFU/DUCP scores between age groups

H1 = There is a difference in CNFU/DUCP scores between age groups

H0 is accepted if p-value is greater than 0.05

	Under 18 (n = 2)	18 -24 (n =29)	25 – 33 (n = 59)	34 -45 (n = 39)	46 – 55 (n = 18)	55 + (n = 10)	p-value
CNFU	3.12	2.97	3.02	3.09	3.34	3.43	0.24
DUCP	3	3.13	3.25	3.33	3.35	3.56	0.46

CNFU:  $F(5, 151) = 1.37, p = 0.24$

DUCP:  $F(5, 151) = 0.93, p = 0.46$

**Results:** H0 was accepted as the p-value for both DUCP and CNFU was bigger than 0.05.

There were no differences on CNFU/DUCP scores between different age groups.

### 3. Correlation analysis: Age and CNFU/DUCP

Spearman's rank correlation coefficient (Spearman's rho)

H0 = There is no correlation between CNFU/DUCP scores and Age

H1 = There is a correlation between CNFU/DUCP scores and Age

H0 is accepted if p-value is greater than 0.05

	Spearman's rho	p-value
CNFU	0.175	0.028
DUCP	0.164	0.040

Results: As p-values for both CNFU and DUCP in relation to age are under 0.05, the null hypothesis is rejected. **There exists a very weak positive correlation between age and CNFU/DUCP (0.18 and 0.16)**

## APPENDIX V, 3

### 4. ANOVA: Nationality and CNFU/DUCP

H0 = There is no difference in CNFU/DUCP scores between nationalities

H1 = There is a difference in CNFU/DUCP scores between nationalities

H0 is accepted, if p-value is greater than 0.05

For this test, only the three most frequent nationalities were analyzed, and the rest were grouped together under 'Other', because for the rest of the nationalities the number of observations per nationality was, almost always, 1. The total number of responses analyzed for this test was 152, as the "No mention" responses were deleted from the data

	Italy (n = 11)	United Kingdom (n = 42)	Finland (n = 89)	Other (n = 10)	p-value
CNFU	3.09	3.26	3.04	3.08	0.37
DUCP	3.19	3.37	3.24	3.4	0.62

CNFU:  $F(3, 148) = 1.04$ ,  $p = 0.3749$

DUCP:  $F(3, 148) = 0.60$ ,  $p = 0.6179$

Results: The p-values for DUCP and CNFU in relation to nationality were over 0.05 and hence the **null hypothesis was accepted**. There was no difference on DUCP and CNFU scores based on nationality

## APPENDIX V, 4

### 6. ANOVA: Education and CNFU/DUCP

H0 = There is no difference in CNFU/DUCP scores between educational levels

H1 = There is a difference in CNFU/DUCP scores between educational levels

H0 is accepted, if p-value is greater than 0.05

For this analysis the number of analyzed responses was 155 as there were two answers with 'No mention', which had to be deleted from the data for this analysis.

	Basic (n = 4)	Upper secondary (n = 55)	Undergraduate (n = 62)	Graduate (n = 32)	PhD (n = 2)	p-value
CNFU	2.83	3.23	3.07	2.98	2.42	0.22
DUCP	3.31	3.34	3.19	3.31	3.5	0.73

CNFU:  $F(4, 150) = 1.47, p = 0.215$

DUCP:  $F(4, 150) = 0.50, p = 0.734$

Results: As p-value for both CNFU and DUCP in relation to educational level were above 0.05, **the null hypothesis was accepted**. There were no differences on CNFU and DUCP scores based on education.

## APPENDIX VI, 1

### Body piercing status in the sample

The average number of body piercings per respondent was 3.24 (Std. Dev. 5.77, range 0-43). Tables below present this data in four different formats (only data from tables 1 – 3 was used in the analyses): 1. The “original” data without any grouping (used only for correlation analyses), 2. Data sorted only according to whether the respondent had any body piercings, 3. **Data divided into four different groups** and 4. Data divided into three different groups

#### 1. Number of body piercings (orig.) data

Number of body piercings	n = 157	%
0	67	42,68 %
1	20	12,74 %
2	13	8,28 %
3	12	7,64 %
4	12	7,64 %
5	4	2,55 %
6	9	5,73 %
7	1	0,64 %
8	2	1,27 %
9	1	0,64 %
10	2	1,27 %
11	1	0,64 %
12	4	2,55 %
14	2	1,27 %
15	1	0,64 %
18	1	0,64 %
20	3	1,91 %
30	1	0,64 %
43	1	0,64 %
TOTAL	157	100,00 %

#### 2. Body piercing status

Has body piercings?	n = 157	%
No Body Piercings	67	42,7 %
Has Body Piercings	90	57,3 %
TOTAL	157	100,0 %

## APPENDIX VI, 2

3. Number of body piercings divided into four groups (the format used in analyses unless otherwise specified)

Number of body piercings	n = 157	%
0	67	42,7 %
1 to 3	45	28,7 %
4 to 6	25	15,9 %
More than 6	20	12,7 %
TOTAL	157	100,0 %

(4. Number of body piercings divided into three groups)

Number of body piercings	n = 157	%
0	67	42,7 %
1 to 3	45	28,7 %
More than 3	45	28,7 %
TOTAL	157	100,0 %

5. Number of body piercings per gender

Gender	No body piercings	1 to 3	4 to 6	More than 6	Total
Male	16	3	1	3	23
%	70 %	13 %	4 %	13 %	100 %
Female	49	42	24	16	131
%	37 %	32 %	18 %	12 %	100 %
Other	1	0	0	0	1
%	100 %	0 %	0 %	0 %	100 %
No mention	1	0	0	1	2
%	50 %	0 %	0 %	50 %	100 %
Total	67	45	25	20	157

## APPENDIX VI, 3

### 6. Number of body piercings per age group

Age group	No body piercings	1 to 3	4 to 6	More than 6	Total
Under 18	0	1	0	1	2
%	0 %	50 %	0 %	50 %	100 %
18 - 24	12	6	6	5	29
%	41 %	21 %	21 %	17 %	100 %
25 - 33	24	22	5	8	59
%	41 %	37 %	8 %	14 %	100 %
34 -45	14	13	7	5	39
%	36 %	33 %	18 %	13 %	100 %
46 - 55	9	2	6	1	18
%	50 %	11 %	33 %	6 %	100 %
55 +	8	1	1	0	10
%	80 %	10 %	10 %	0 %	100 %
Total	67	45	25	20	157

### 7. Number of body piercings per nationality

Nationality	No body piercings	1 to 3	4 to 6	More than 6	Total
Finland	41	26	10	12	89
%	46 %	29 %	11 %	13 %	100 %
Italy	11	0	0	0	11
%	100 %	0 %	0 %	0 %	100 %
United Kingdom	6	14	14	8	42
%	14 %	33 %	33 %	19 %	100 %
Other/No mention	9	5	1	0	15
%	60 %	33 %	7 %	0 %	100 %
Total	67	45	25	20	157

## APPENDIX VI, 4

### 8. Number of body piercings per education

Education	No body piercings	1 to 3	4 to 6	More than 6	Total
Basic Education	2	0	1	1	4
%	50 %	0 %	25 %	25 %	100 %
Upper Secondary Education	14	20	9	12	55
%	25 %	36 %	16 %	22 %	100 %
Undergraduate	25	18	13	6	62
%	40 %	29 %	21 %	10 %	100 %
Graduate degree	24	7	1	0	32
%	75 %	22 %	3 %	0 %	100 %
PhD	2	0	0	0	2
%	100 %	0 %	0 %	0 %	100 %
No mention	0	0	1	1	2
%	0 %	0 %	50 %	50 %	100 %
Total	67	45	25	20	157

## APPENDIX VII, 1

### Statistical Tests II: Relationship between CNFU & DUCP and body piercings

#### 1. CNFU

##### 1.1 Summary of CNFU and body piercings

CNFU	Obs.	Mean	Std. Dev.	Min	Max
<i>Overall</i>	157	3,09	0,67	1,5	4,75
<b><u>Per body piercing status</u></b>					
No body piercings	67	2,95	0,66	1,5	4,67
Has body piercings	90	3,19	0,66	1,67	4,75
<b><u>Per number of body piercings</u></b>					
No body piercings	67	2,95	0,66	1,5	4,67
1 to 3	45	3,08	0,63	1,67	4,5
4 to 6	25	3,21	0,67	2,08	4,5
More than 6	20	3,42	0,66	2,25	4,75

##### 1.2 CNFU overall results (number of responses per CNFU value)

CNFU	Frequency	Percent	CNFU	Frequency	Percent
1,5	1	0,6 %	3,083333	8	5,1 %
1,666667	1	0,6 %	3,166667	8	5,1 %
1,75	2	1,3 %	3,25	3	1,9 %
1,833333	1	0,6 %	3,333333	11	7,0 %
1,916667	2	1,3 %	3,416667	6	3,8 %
2	2	1,3 %	3,5	3	1,9 %
2,083333	3	1,9 %	3,583333	5	3,2 %
2,166667	4	2,5 %	3,666667	6	3,8 %
2,25	5	3,2 %	3,75	7	4,5 %
2,333333	6	3,8 %	3,838888	4	2,5 %
2,416667	3	1,9 %	3,916667	2	1,3 %
2,5	6	3,8 %	4	5	3,2 %
2,583333	3	1,9 %	4,083333	3	1,9 %
2,666667	2	1,3 %	4,166667	3	1,9 %
2,75	4	2,5 %	4,416667	2	1,3 %
2,833333	8	5,1 %	4,5	2	1,3 %
2,916667	10	6,4 %	4,666667	1	0,6 %
3	14	8,9 %	4,75	1	0,6 %

## APPENDIX VII, 2

### 1.3 T-test: CNFU and body piercing status

H0: There is no difference on CNFU scores between people with and without body piercings

H1: There is a difference on CNFU scores between people with and without body piercings

H0 is accepted if  $p > 0.05$

Results:

**The null hypothesis was rejected:  $t(155) = - 2.265, p = 0.025 (< 0.05)$**

There was a statistically significant difference (diff. 0.24) in CNFU scores between people with body piercings ( $M = 3.19$ ) and people without body piercings ( $M = 2.95$ ) and it was significant at  $p = 0.025$ .

### 1.4 ANOVA: CNFU and number of body piercings

H0: There is no difference on CNFU scores between people depending on number of body piercings

H1: There is a difference on CNFU scores between people depending on number of body piercings

H0 is accepted, if  $p > 0.05$

Results:

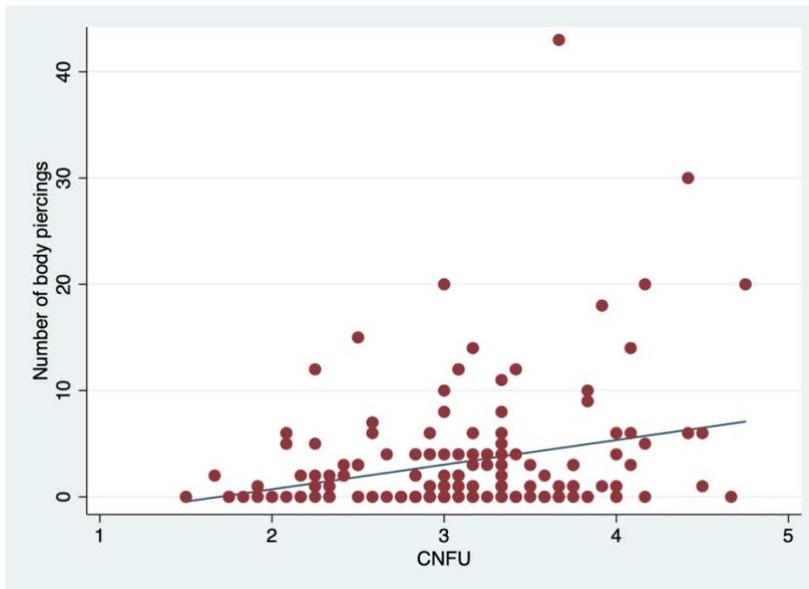
**The null hypothesis was rejected:  $F(3,153) = 2.97, p = 0.039 (< 0.05)$**

The only statistically significant difference was between the group with no body piercings ( $M = 2.95$ ) and the group with more than 6 body piercings ( $M = 3.42$ ). The difference in means was 0.47 and it was significant at  $p = 0.035 (< 0.05)$

## APPENDIX VII, 3

### 1.5 Correlation analysis: CNFU and number of body piercings (orig.)

Scatterplot: CNFU and number of body piercings (orig.)



As the data clearly had outliers, the correlation was analyzed with Spearman's rank correlation coefficient, as it is less sensitive to outliers, as compared to Pearson's correlation, and does not assume normality (Schober et al. 2018). The correlation coefficient values run from -1 (perfect negative correlation) to +1 (perfect positive correlation), and in Spearman's rank correlation, the correlation coefficient is called Spearman's rho (Schober et al. 2018).

H0 = There is no correlation between CNFU and number of body piercings

H1 = There is a correlation between CNFU and number of body piercings

H0 is accepted, if  $p > 0.05$

Results: Spearman's rho was 0.21090 and the significance of the result was  $p = 0.0080 (< 0.05)$ , and hence, the **null hypothesis was rejected**;

Consumers' for uniqueness (CNFU) and the number of body piercings are positively, albeit weakly, correlated with a correlation coefficient 0.21

## APPENDIX VII, 4

### 2. DUCP

#### 2.1 Summary of DUCP and body piercings

DUCP	Obs.	Mean	Std. Dev.	Min	Max
<i>Overall</i>	157	3,28	0,63	1,63	4,75
<b><u>Per body piercing status</u></b>					
No body piercings	67	3,18	0,57	1,63	4,5
Has body piercings	90	3,35	0,67	1,63	4,75
<b><u>Per number of body piercings</u></b>					
No body piercings	67	3,18	0,57	1,63	4,5
1 to 3	45	3,24	0,53	1,63	4,25
4 to 6	25	3,36	0,85	1,63	4,75
More than 6	20	3,6	0,66	2,38	4,63

#### 2.2 DUCP overall results (number of responses per CNFU value)

DUCP	Frequency	Percent	DUCP	Frequency	Percent
1,625	3	1,9 %	3,375	18	11,5 %
1,75	1	0,6 %	3,5	13	8,3 %
2	1	0,6 %	3,625	7	4,5 %
2,125	2	1,3 %	3,75	8	5,1 %
2,25	3	1,9 %	3,875	7	4,5 %
2,375	3	1,9 %	4	8	5,1 %
2,5	4	2,5 %	4,125	4	2,5 %
2,63	8	5,1 %	4,25	4	2,5 %
2,75	11	7,0 %	4,375	1	0,6 %
2,875	10	6,4 %	4,5	3	1,9 %
3	8	5,1 %	4,625	2	1,3 %
3,125	12	7,6 %	4,75	2	1,3 %
3,25	14	8,9 %			

#### 2.3 T-test: DUCP and body piercing status

H0: There is no difference on DUCP scores between people with and without body piercings

H1: There is a difference on DUCP scores between people with and without body piercings

H0 is accepted if  $p > 0.05$

## APPENDIX VII, 5

Results:

**The null hypothesis was accepted:  $t(155) = -1.67, p = 0.097 (> 0.05)$**

There was **no statistically significant difference** on DUCP scores between people with (M = 3.35) and without body piercings (M = 3.18)

### 2.4 ANOVA: DUCP and number of body piercings

H0: There is no difference on DUCP scores between people depending on number of body piercings

H1: There is a difference on DUCP scores between people depending on number of body piercings

H0 is accepted, if  $p > 0.05$

Results:

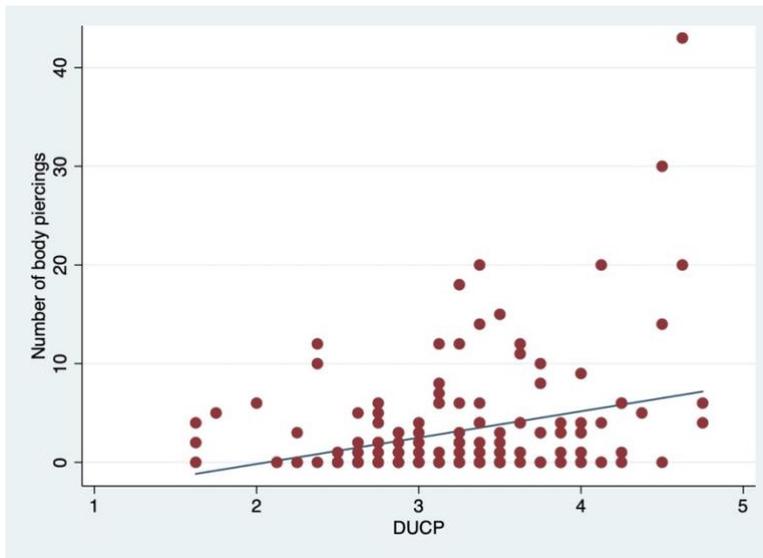
**Null hypothesis was accepted:  $F(3,153) = 2.52, p = 0.06 (< 0.05)$**

There were no statistically significant differences on DUCP scores depending on number of body piercings. However, the difference between group with no body piercings (M = 3.18) and with more than 6 body piercings (M = 3.6) was 0.42 with a p-value 0.055, which was only slightly above the 0.05. While this led to accepting the null hypothesis, it is still worth noting that the biggest difference on DUCP scores was between these two groups even though this difference was non-significant.

## APPENDIX VII, 6

### 2.5 Correlation analysis: DUCP and number of body piercings (orig.)

Scatterplot: DUCP and number of body piercings (orig.)



The correlation test was run using Spearman's rank correlation coefficient (Spearman's rho) as the data was not normally distributed and had outliers.

H0 = There is no correlation between DUCP and number of body piercings

H1 = There is a correlation between DUCP and number of body piercings

H0 is accepted, if  $p > 0.05$

Results: Spearman's rho was 0.1855 and the significance of the result was  $p = 0.0200 (< 0.05)$ , and hence, the **null hypothesis was rejected**;

Desire for unique consumer products (DUCP) and the number of body piercings were positively, albeit very weakly, correlated with a correlation coefficient 0.19

## APPENDIX VIII, 1

### Statistical tests III: Dimensions of CNFU; CCC, UCC and AOS

#### 1. Creative choice counterconformity (CCC)

##### 1.1 Summary of CCC and body piercings

CCC	Obs.	Mean	Std. Dev.	Min	Max
<i>Overall</i>	157	3,26	0,77	1,25	5
<b>Per body piercing status</b>					
No body piercings	67	3,1	0,79	1,25	4,75
Has body piercings	90	3,38	0,73	1,75	5
<b>Per number of body piercings</b>					
No body piercings	67	3,1	0,79	1,25	4,75
1 to 3	45	3,16	0,62	1,75	4,25
4 to 6	25	3,5	0,85	1,75	5
More than 6	20	3,73	0,66	2,25	5

##### 1.2 CCC overall results (number of responses per CCC value)

CCC	Frequency	Percent
1,25	1	0,6 %
1,5	2	1,3 %
1,75	3	1,9 %
2	6	3,8 %
2,25	14	8,9 %
2,5	7	4,5 %
2,75	9	5,7 %
3	22	14,0 %
3,25	17	10,8 %
3,5	26	16,6 %
3,75	22	14,0 %
4	8	5,1 %
4,25	8	5,1 %
4,5	6	3,8 %
4,75	4	2,5 %
5	2	1,3 %

## APPENDIX VIII, 2

### 1.3 T-test: CCC and body piercing status

H0: There is no difference on CCC scores between people with and without body piercings

H1: There is a difference on CCC scores between people with and without body piercings

H0 is accepted if  $p > 0.05$

Results:

**The null hypothesis was rejected:  $t(155) = - 2.23, p = 0.0269 (< 0.05)$**

There was **statistically significant difference** (diff. 0.27) on CCC scores between people with ( $M = 3.37$ ) and without body piercings ( $M = 3.10$ ) and it was significant at  $p = 0.027$

### 1.4 Anova: CCC and number of body piercings

H0: There are no differences on CNFU scores between people depending on number of body piercings

H1: There are differences on CNFU scores between people depending on number of body piercings

H0 is accepted, if  $p > 0.05$

Results:

**Null hypothesis was rejected:  $F(3,153) = 4.78, p = 0.0033 (< 0.05)$**

There were statistically significant differences between following groups:

No body piercings ( $M = 3.10$ ) and 4 to 6 body piercings ( $M = 3.5$ )

Diff. = 0.57,  **$p = 0.029 (< 0.05)$**

No body piercings ( $M = 3.10$ ) and More than 6 body piercings ( $M = 3.73$ )

Diff. = 0.62,  **$p = 0.008 (< 0.05)$**

## APPENDIX VIII, 3

### 2. Unpopular choice counterconformity (UCC)

#### 2.1 Summary of UCC and body piercings

UCC	Obs.	Mean	Std. Dev.	Min	Max
<i>Overall</i>	157	3,02	0,85	1	5
<b><u>Per body piercing status</u></b>					
No body piercings	67	2,83	0,92	1	4,75
Has body piercings	90	3,17	0,76	1,5	5
<b><u>Per number of body piercings</u></b>					
No body piercings	67	2,83	0,92	1	4,75
1 to 3	45	3,01	0,71	1,5	4,75
4 to 6	25	3,16	0,8	1,75	5
More than 6	20	3,53	0,77	2	4,75

#### 2.2 UCC overall results (number of responses per UCC value)

UCC	Frequency	Percent
1	1	0,6 %
1,25	2	1,3 %
1,5	7	4,5 %
1,75	8	5,1 %
2	7	4,5 %
2,25	11	7,0 %
2,5	14	8,9 %
2,75	16	10,2 %
3	15	9,6 %
3,25	21	13,4 %
3,5	16	10,2 %
3,75	12	7,6 %
4	13	8,3 %
4,25	7	4,5 %
4,5	3	1,9 %
4,75	3	1,9 %
5	1	0,6 %

## APPENDIX VIII, 4

### 2.3 T-test: UCC and body piercing status<sup>10</sup>

H0: There is no difference on UCC scores between people with and without body piercings

H1: There is a difference on UCCP scores between people with and without body piercings

H0 is accepted if  $p > 0.05$

Results:

**The null hypothesis was rejected:  $t(128.44^{11}) = -2.45$ ,  $p = 0.0156 (<0.05)$**

There was **statistically significant difference** (diff. 0.34) on UCC scores between people with ( $M = 3.17$ ) and without body piercings ( $M = 2.83$ ) and it was significant at  $p = 0.016$

### 2.4 Anova: UCC and number of body piercings

H0: There is no difference on UCC scores between people depending on number of body piercings

H1: There is a difference on UCC scores between people depending on number of body piercings

H0 is accepted, if  $p > 0.05$

Results:

**Null hypothesis was rejected:  $F(3,153) = 3.95$ ,  $p = 0.0095 (< 0.05)$**

The only statistically significant difference was between the group with no body piercings ( $M = 2.83$ ) and the group with more than 6 body piercings ( $M = 3.53$ ). The difference in means was 0.70 and it was significant at  $p = 0.007 (< 0.05)$

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<sup>10</sup> Variances unequal, taken into account in the t-test

<sup>11</sup> Welch's degrees of freedom

## APPENDIX VIII, 5

### 3. Avoidance of similarity (AOS)

#### 3.1 Summary of AOS and body piercings

AOS	Obs.	Mean	Std. Dev.	Min	Max
<i>Overall</i>	157	2,99	0,87	1	5
<b>Per body piercing status</b>					
No body piercings	67	2,93	0,81	1,25	4,75
Has body piercings	90	3,04	0,9	1	5
<b>Per number of body piercings</b>					
No body piercings	67	2,93	0,81	1,25	4,75
1 to 3	45	3,08	0,98	1	5
4 to 6	25	2,98	0,74	1,25	4,25
More than 6	20	3,01	0,95	1,25	5

#### 3.2 AOS overall results (number of responses per AOS value)

AOS	Frequency	Percent
1	1	0,6 %
1,25	6	3,8 %
1,5	1	0,6 %
1,75	5	3,2 %
2	11	7,0 %
2,25	15	9,6 %
2,5	18	11,5 %
2,75	14	8,9 %
3	20	12,7 %
3,25	16	10,2 %
3,5	8	5,1 %
3,75	18	11,5 %
4	9	5,7 %
4,25	7	4,5 %
4,5	1	0,6 %
4,75	4	2,5 %
5	3	1,9 %

## APPENDIX VIII, 6

### 3.3 T-test: AOS and body piercing status

H0: There is no difference on AOS scores between people with and without body piercings

H1: There is a difference on AOS scores between people with and without body piercings

H0 is accepted if  $p > 0.05$

Results:

**The null hypothesis was accepted:  $t(155) = -0.79, p = 0.43 (> 0.05)$**

There was **no statistically significant difference** on AOS scores between people with (M = 3.04) and without body piercings (M = 2.93)

### 3.4 Anova: AOS and number of body piercings

H0: There is no difference on AOS scores between people depending on number of body piercings

H1: There is a difference on AOS scores between people depending on number of body piercings

H0 is accepted, if  $p > 0.05$

Results:

**Null hypothesis was accepted:  $F(3,153) = 0.29, p = 0.84 (> 0.05)$**

There were no statistically significant differences on AOS depending on the number of body piercings the respondent had.

## APPENDIX VIII, 7

### 4. Comparison of CNFU dimensions

#### 4.1 Paired t-test: Comparison of overall mean values of CCC, UCC and AOS

Overall means	Obs	Mean	Std. Err.	Std. Dev.	95% CI	95% CI	p - value	t(156) =
CCC	157	3,26	0,061	0,77	3,14	3,38		
UCC	157	3,02	0,068	0,85	2,89	3,16		
<b>diff.</b>	<b>157</b>	<b>0,24</b>	<b>0,065</b>	<b>0,81</b>	<b>0,11</b>	<b>0,37</b>	<b>0,0003</b>	<b>3,6891</b>
UCC	157	3,02	0,068	0,85	2,89	3,16		
AOS	157	2,99	0,069	0,87	2,86	3,13		
<b>diff.</b>	<b>157</b>	<b>0,03</b>	<b>0,072</b>	<b>0,91</b>	<b>-0,11</b>	<b>0,17</b>	<b>0,6765</b>	<b>0,418</b>
CCC	157	3,26	0,061	0,77	3,14	3,38		
AOS	157	2,99	0,069	0,87	2,86	3,13		
<b>diff.</b>	<b>157</b>	<b>0,27</b>	<b>0,0661</b>	<b>0,83</b>	<b>0,14</b>	<b>0,4</b>	<b>0,0001</b>	<b>4,0701</b>

H0 = There are no statistically significant differences between the three dimensions of CNFU (CCC, UCC and AOS) in overall means

H1 = There are statistically significant differences between the three dimensions of CNFU (CCC, UCC and AOS) in overall means

H0 is accepted, if  $p > 0.05$

Results:

**Null hypothesis was rejected, when comparing CCC to UCC ( $p = 0.0003 < 0.05$ )**

Null hypothesis was accepted, when comparing UCC to AOS ( $p = 0.6765 > 0.05$ )

**Null hypothesis was rejected, when comparing CCC to AOS ( $p = 0.0001 < 0.05$ )**

When comparing the responses of the whole sample ( $n = 157$ ), there were statistically significant differences between CCC ( $M = 3.26$ ) and the two other dimensions; UCC ( $M = 3.02$ , diff. 0.24, significant at  $p = 0.0003$ ) and AOS ( $M = 2.99$ , diff. 0.27, significant at 0.0001). There was no statistically significant difference between UCC and AOS.

## APPENDIX VIII, 8

### 4.2 Paired t-test: Comparison of mean values of CCC, UCC and AOS per body piercing status (has/doesn't have body piercings)

Body piercing status	Obs	Mean	Std. Err.	Std. Dev.	95 % CI	95 % CI	p - value	t-statistic
<i>No body piercings</i>								<i>t(66) =</i>
CCC	67	3,1	0,097	0,79	2,91	3,3		
UCC	67	2,83	0,112	0,92	2,6	3,05		
<b>diff.</b>	<b>67</b>	<b>0,28</b>	<b>0,118</b>	<b>0,97</b>	<b>0,04</b>	<b>0,51</b>	<b>0,0228</b>	<b>2,3316</b>
UCC	67	2,83	0,112	0,92	2,6	3,05		
AOS	67	2,93	0,099	0,81	2,73	3,13		
<b>diff.</b>	<b>67</b>	<b>-0,1</b>	<b>0,116</b>	<b>0,95</b>	<b>-0,33</b>	<b>0,13</b>	<b>0,3893</b>	<b>-0,8666</b>
CCC	67	3,1	0,097	0,79	2,91	3,3		
AOS	67	2,93	0,099	0,81	2,73	3,13		
<b>diff.</b>	<b>67</b>	<b>0,18</b>	<b>0,096</b>	<b>0,79</b>	<b>-0,02</b>	<b>0,37</b>	<b>0,0722</b>	<b>1,8268</b>
<i>Has body piercings</i>								<i>t(89) =</i>
CCC	90	3,38	0,078	0,73	3,22	3,53		
UCC	90	3,17	0,081	0,76	3,01	3,33		
<b>diff.</b>	<b>90</b>	<b>0,21</b>	<b>0,071</b>	<b>0,67</b>	<b>0,07</b>	<b>0,35</b>	<b>0,0038</b>	<b>2,9693</b>
UCC	90	3,17	0,081	0,764	3,01	3,33		
AOS	90	3,04	0,095	0,9	2,85	3,23		
<b>diff.</b>	<b>90</b>	<b>0,13</b>	<b>0,091</b>	<b>0,86</b>	<b>-0,53</b>	<b>0,31</b>	<b>0,1644</b>	<b>1,402</b>
CCC	90	3,38	0,078	0,73	3,22	3,53		
AOS	90	3,04	0,095	0,9	2,85	3,23		
<b>diff.</b>	<b>90</b>	<b>0,34</b>	<b>0,09</b>	<b>0,86</b>	<b>0,16</b>	<b>0,52</b>	<b>0,0003</b>	<b>3,7537</b>

H0 = There are no statistically significant differences between the three dimensions of CNFU (CCC, UCC and AOS) in groups with no body piercings and with any number of body piercings

H1 = There are statistically significant differences between the three dimensions of CNFU (CCC, UCC and AOS) in groups with no body piercings and with any number of body piercings

H0 was accepted, if  $p > 0.05$ )

#### Results:

*In the group with No body piercings (n = 67);*

**The null hypothesis was rejected when comparing CCC to UCC ( $p = 0.0228 < 0.05$ )**

## APPENDIX VIII, 9

The null hypothesis was accepted when comparing UCC to AOS ( $p = 0.3893 > 0.05$ )

The null hypothesis was accepted when comparing CCC to AOS ( $p = 0.0722 > 0.05$ )

*In the group with body piercings (n = 90);*

**The null hypothesis was rejected when comparing CCC to UCC ( $p = 0.0038, < 0.05$ )**

The null hypothesis was accepted when comparing UCC to AOS ( $p = 0.1644, > 0.05$ )

**The null hypothesis was rejected when comparing CCC to AOS ( $p = 0.0003, < 0.05$ )**

In the group with no body piercings ( $n = 67$ ) there was statistically significant difference between CCC ( $M = 3.10$ ) and UCC ( $M = 2.83$ ), diff. 0.28, significant at  $p = 0.0228$ . There were no statistically significant differences between CCC and AOS, or UCC and AOS.

In the group with body piercings ( $n = 90$ ), there were statistically significant differences between CCC ( $M = 3.38$ ) and the two other dimensions; UCC ( $M = 3.17$ , diff. 0.21, significant at  $p = 0.0038$ ) and AOS ( $M = 3.04$ , diff. 0.34, significant at  $p = 0.0003$ ). There was no statistically significant difference between UCC and AOS.

APPENDIX VIII, 10

4.3 Paired t-test: Comparison of mean values of CCC, UCC and AOS per number of body piercings<sup>12</sup>

Number of body piercings	Obs	Mean	Std. Err.	Std. Dev.	95 % CI	95 % CI	p - value	t-statistic
<b>1 to 3</b>								<i>t</i> (44) =
CCC	45	3,16	0,093	0,62	2,97	3,34		
UCC	45	3,01	0,105	0,71	2,8	3,22		
<b>diff.*</b>	<b>45</b>	<b>0,14</b>	<b>0,094</b>	<b>0,63</b>	<b>-0,05</b>	<b>0,33</b>	<b>0,1322</b>	<b>1,5338</b>
UCC	45	3,01	0,105	0,71	2,8	3,22		
AOS	45	3,08	0,147	0,98	2,79	3,38		
<b>diff.</b>	<b>45</b>	<b>-0,07</b>	<b>0,127</b>	<b>0,85</b>	<b>-0,33</b>	<b>0,18</b>	<b>0,5733</b>	<b>-0,5674</b>
CCC	45	3,16	0,093	0,62	2,97	3,34		
AOS	45	3,08	0,147	0,98	2,79	3,38		
<b>diff.*</b>	<b>45</b>	<b>0,07</b>	<b>0,133</b>	<b>0,89</b>	<b>-0,2</b>	<b>0,34</b>	<b>0,5901</b>	<b>0,5426</b>
<b>4 to 6</b>								<i>t</i> (24) =
CCC	25	3,5	0,17	0,85	3,15	3,85		
UCC	25	3,16	0,159	0,8	2,83	3,49		
<b>diff.</b>	<b>25</b>	<b>0,34</b>	<b>0,151</b>	<b>0,76</b>	<b>0,03</b>	<b>0,65</b>	<b>0,0341</b>	<b>2,2472</b>
UCC	25	3,16	0,159	0,8	2,83	3,49		
AOS	25	2,98	0,147	0,74	2,68	3,28		
<b>diff.</b>	<b>25</b>	<b>0,18</b>	<b>0,149</b>	<b>0,74</b>	<b>-0,13</b>	<b>0,49</b>	<b>0,2387</b>	<b>1,2083</b>
CCC	25	3,5	0,17	0,85	3,15	3,85		
AOS	25	2,98	0,147	0,74	2,68	3,28		
<b>diff.</b>	<b>25</b>	<b>0,52</b>	<b>0,138</b>	<b>0,69</b>	<b>0,24</b>	<b>0,8</b>	<b>0,0009</b>	<b>3,7783</b>
<b>More than 6</b>								<i>t</i> (19) =
CCC	20	3,73	0,148	0,66	3,41	4,04		
UCC	20	3,53	0,172	0,77	3,17	3,88		
<b>diff.*</b>	<b>20</b>	<b>0,2</b>	<b>0,15</b>	<b>0,67</b>	<b>-0,11</b>	<b>0,51</b>	<b>0,1988</b>	<b>1,3314</b>
UCC	20	3,53	0,172	0,77	3,17	3,88		
AOS	20	3,01	0,213	0,95	2,57	3,46		
<b>diff.</b>	<b>20</b>	<b>0,51</b>	<b>0,207</b>	<b>0,93</b>	<b>0,008</b>	<b>0,95</b>	<b>0,023</b>	<b>2,4738</b>
CCC	20	3,73	0,148	0,66	3,41	4,04		
AOS	20	3,01	0,213	0,95	2,57	3,46		
<b>diff.</b>	<b>20</b>	<b>0,71</b>	<b>0,178</b>	<b>0,8</b>	<b>0,34</b>	<b>1,08</b>	<b>0,0008</b>	<b>4,0037</b>

H0 = There are no statistically significant differences between the three dimensions of CNFU (CCC, UCC and AOS) in groups with different number of body piercings

<sup>12</sup> Unequal variances in compared dimensions have been marked with asterisk\* in the table

## APPENDIX VIII, 11

H1 = There are statistically significant differences between the three dimensions of CNFU (CCC, UCC and AOS) in groups with different number of body piercings

H0 was accepted, if  $p > 0.05$

### Results:

*In the group with 1 to 3 body piercings (n = 45);*

The null hypothesis was accepted, when comparing CCC to UCC ( $p = 0.1322, > 0.05$ )

The null hypothesis was accepted, when comparing UCC to AOS ( $p = 0.5733, > 0.05$ )

The null hypothesis was accepted, when comparing CCC to AOS ( $p = 0.5901, > 0.05$ )

*In the group with 4 to 6 body piercings (n = 25);*

**The null hypothesis was rejected, when comparing CCC to UCC ( $p = 0.0341, < 0.05$ )**

The null hypothesis was accepted, when comparing UCC to AOS ( $p = 0.2387, > 0.05$ )

**The null hypothesis was rejected, when comparing CCC to AOS ( $p = 0.0009, < 0.05$ )**

*In the group with more than 6 body piercings (n = 20);*

The null hypothesis was accepted, when comparing CCC to UCC ( $p = 0.1988, > 0.05$ )

**The null hypothesis was rejected, when comparing UCC to AOS ( $p = 0.023, < 0.05$ )**

**The null hypothesis was rejected, when comparing CCC to AOS ( $p = 0.0008, < 0.05$ )**

There were no statistically significant differences between CNFU dimensions in the group with 1 to 3 body piercings.

In the group with 4 to 6 body piercings, there were statistically significant differences between CCC (M = 3.5) and the two other dimensions; UCC (M = 3.16, diff. 0.34, significant at  $p = 0.0341$ ) and AOS (M = 2.98, diff. 0.52, significant at  $p = 0.0009$ )

In the group with more than 6 body piercings, there were statistically significant differences between AOS (M = 3.01) and the two other dimensions; UCC (M = 3.53, diff. 0.51, significant at  $p = 0.023$ ) and CCC (M = 3.73, diff. 0.71, significant at  $p = 0.0008$ )

## APPENDIX X, 1

### 1. Stata Factor analysis DUCP

Principal-component factors DUCP

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	2,79709	1,81212	0,3496	0,3496
Factor2	0,98497	0,01555	0,1231	0,4728
Factor3	0,96942	0,14562	0,1212	0,5939
Factor4	0,8238	0,10861	0,103	0,6969
Factor5	0,71519	0,07302	0,0894	0,7863
Factor6	0,64217	0,07744	0,0803	0,8666
Factor7	0,56473	0,06211	0,0706	0,9372
Factor8	0,50263		0,0628	1

Rotated factor loadings and uniqueness for DUCP

Variable	Factor 1	Uniqueness	Communality
1_1 Attracted to rare objects	0,6471	0,5812	0,4188
1_2 Fashion leader	0,6143	0,6227	0,3773
1_3 Buying scarce products	0,5718	0,673	0,327
1_4 Prefer custom-made products	0,478	0,7715	0,2285
1_5 Enjoy shopping at unique venues	0,6828	0,5338	0,4662
1_6 Enjoy having things others do not have	0,5411	0,7072	0,2928
1_7 Trying new products before others	0,5167	0,733	0,267
1_8 Ordering custom features	0,6477	0,5805	0,4195

Factor proportions DUCP

Factor	Variance	Difference	Proportion	Cumulative
Factor 1	2,79709	.	0,3496	0,3496

## APPENDIX X, 2

### 2. Stata Factor analysis CNFU

#### Principal-component factors CNFU

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	4,25952	2,94016	0,355	0,355
Factor2	1,31936	0,17437	0,1099	0,4649
Factor3	1,14499	0,22868	0,0954	0,5603
Factor4	0,91631	0,135	0,0764	0,6367
Factor5	0,78131	0,03572	0,0651	0,7018
Factor6	0,74559	0,02569	0,0621	0,7639
Factor7	0,7199	0,17668	0,06	0,8239
Factor8	0,54323	0,0385	0,0453	0,8692
Factor9	0,50473	0,07976	0,0421	0,9112
Factor10	0,42497	0,07916	0,0354	0,9467
Factor11	0,34581	0,05153	0,0288	0,9755
Factor12	0,29428		0,0245	1

#### Rotated factor loadings for CNFU

Variable	Factor 1	Factor 2	Factor 3	Uniqueness	Communality
2_1 Eye for interesting products..	0,0869	0,3795	0,337	0,7349	0,2651
2_2 Seeking to develop uniqueness by purchasing	0,3028	<b>0,6066</b>	-0,011	0,5402	0,4598
2_3 Combining possessions for uniqueness	0,1289	<b>0,6746</b>	0,2543	0,4636	0,5364
2_4 Finding interesting versions of products	0,1938	<b>0,8226</b>	0,0491	0,2833	0,7167
3_1 Breaking customs with product choices	0,0048	0,1509	<b>0,7078</b>	0,4762	0,5238
3_2 Violating social group's rules with product choices	0,1951	-0,0539	<b>0,7828</b>	0,3463	0,6537
3_3 Enjoy challenging others' taste	0,1838	<b>0,602</b>	0,3037	0,5115	0,4885
3_4 Going against social group's norms regarding consumption	0,2309	0,3549	<b>0,7118</b>	0,3141	0,6859
4_1 Not interested in common products	<b>0,7223</b>	0,1189	0,2326	0,41	0,59
4_2 Dislike for popular products	<b>0,7932</b>	0,0685	0,0809	0,3596	0,6404
4_3 Avoid products that are bought by others	<b>0,7472</b>	0,3535	0,1548	0,2928	0,7072
4_4 When product becomes popular, start using it less	<b>0,6324</b>	0,224	0,0798	0,5435	0,4565

#### Factor proportions CNFU

Factor	Variance	Difference	Proportion	Cumulative
Factor 1	2,38768	0,0358	0,199	0,199
Factor 2	2,35185	0,3675	0,196	0,395
Factor 3	1,98435		0,1654	<b>0,5603</b>

#### Factor Matrix CNFU

	Factor 1	Factor 2	Factor 3
Factor 1	0,6146	4,32291667	3,36527778
Factor 2	-0,617	-0,0035	5,46527778
Factor 3	3,41388889	-0,7826	2,65208333