

# THE HYPE OF LIMITED EDITION SNEAKERS

AND THE EFFECT OF SCARCITY ON PRODUCT EVALUATIONS



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## Resumé

Formålet med denne kandidatafhandling var at undersøge, hvordan man ved brug af såkaldte “scarcity messages”, der understreger en vares sjældenhed, kan påvirke forbrugeres opfattelse af værdi, status og kvalitet og således forøge købsintentionerne. Dette blev specifikt undersøgt i relation til limited edition sneakers, både når disse var produceret af et enkelt brand og når disse var produceret i samarbejde mellem et luksusbrand og et streetwearbrand. Ydermere, søgte afhandlingen at sætte fokus på, hvordan man ved hjælp af neurovidenskab og forbrugerpsykologi kunne undersøge, hvilke mentale processer der forekommer under produktevaluering.

Metodisk søgte afhandlingen at afdække dette genstandsfelt ved at benytte en postpositivistisk tilgang til opgavens kvantitative dataindsamling. Med afsæt i genstandsfeltet blev eye tracking valgt som den primære metode, på baggrund af dens evne til at indikere forsøgspersonernes visuelle opmærksomhed og kognitive processer under evalueringerne af henholdsvis værdi, kvalitet og status af de præsenterede limited edition sneakers. For at støtte op om eye tracking forsøget og belyse de bagvedliggende, psykologiske processer, blev teori fra marketing og forbrugerpsykologi inddraget.

Med afsæt i ovenstående, blev syv hypoteser formuleret for at tilgå problemformuleringen. Dog udgjorde COVID-19 en betydelig begrænsning, der medførte at eye tracking forsøget desværre ikke blev fuldført. Derfor blev hypoteserne udelukkende tilgået på baggrund af teoretisk funderede argumenter.

Indledelsesvis blev det argumenteret at “scarcity messages” har en effekt på forbrugeres opfattelse af limited edition sneakers’ værdi, status og kvalitet. Ydermere, blev det argumenteret at “scarcity messages” der indeholder en eksakt numerisk begrænsning (såsom “700 produceret”), havde en endnu større effekt, eftersom det understregede sjældenheden af sneakersne. Dernæst, argumenteredes det at jo længere en forsøgsperson kiggede på en “scarcity message,” nu mere bearbejdedes det, hvilket sandsynligvis ville føre til en bedre opfattelse af værdi, status og kvalitet. I forlængelse heraf, blev det argumenteret at et højt antal “revists” ligeledes ville resultere i en bedre opfattelse af sneakersne.

Derefter, blev det argumenteret at luksusbrands generelt var anset som havende højere symbolsk værdi, end streetwearbrands. Dernæst, blev det antaget at når luksus- og streetwearbrands samarbejder, kan de kombinere de positive associationer de hver især har tilegnet sig. Relateret til

dette, blev det argumenteret at jo længere en respondent fikserede på luksusbrandet, jo bedre var opfattelsen af værdi og status. Derimod blev det antaget at kvaliteten af begge brands var nogenlunde ens, hvorfor opfattelsen af kvalitet ville uændret uanset, hvilket brand der blev fikseret på længst. Afslutningsvis, blev det argumenteret at “scarcity messages” havde en større effekt på opfattelsen af værdi, status og kvalitet, når de blev præsenteret sammen med en limited edition sneaker produceret i samarbejde mellem et luksusbrand og et streetwearbrand sammenlignet med en enkeltstående streetwear sneaker.

For at relatere effekten af “scarcity messages” til en virkelig købsituation, blev “appraisal theories” inddraget i en diskussion af de følelsesmæssige processer der potentielt kunne opstå. Det blev således argumenteret, at adskillige mulige følelser kunne opstå i en potentiel købsituation, afhængig af forbrugerens subjektive psykologiske vurdering af omstændighederne. Således, bidrog denne diskussion med et indblik i de mulige, bagvedliggende, følelsesmæssige reaktioner i en købsituation.

Det vurderes at denne afhandling kan bidrage til den nuværende litteratur med værdifulde indsigter i effekten af “scarcity messages” på forbrugeres evalueringer af limited edition sneakers. Dette antages at andre akademikere kan drage nytte af disse indsigter i fremtidige studier af nærliggende genstandsfelter. Derudover forventes det at fagfolk indenfor sneakerbranchen kan anvende den præsenterede viden om “scarcity messages” til at forøge deres forbrugeres købsintentioner og dermed potentielt opnå forøget salg.

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## Introduction

During the past decade, sneakers have been at the top of millennials' wishlist. Particularly, limited edition sneakers have gained massive attention and contributed to the preservation of the global sneaker trend (Salpini, 2018). This is supported by several articles from around the world, reporting that millennials line up for multiple days to acquire limited edition sneakers. For example, an article by James Wood in the Daily Mail states that sneaker fans queued up for three days, some traveling more than 300 miles, to get their hands on limited edition sneakers made in collaboration between Off-White and Nike (Wood, 2019). Another article from Berlingske reported that millennials lined up for four days in Copenhagen to acquire the new limited edition sneakers by Yeezy and Adidas (Haagerup, 2015). This trend sparked the initial interest to investigate the phenomenon at a deeper level. More specifically, it was considered interesting to investigate how scarcity messages can influence the perceived value, status, and quality of limited edition sneakers and thereby enhance the purchase intentions.

During the initial research stages, it was found that combining casual streetwear with luxury statement pieces is a trend among millennials, which gave rise to another sneaker trend that was assumed to provide relevant insights to the current study (Beauloye, 2020). According to Beauloye, the young consumer segment is forecasted to account for about 45 percent of the global luxury market by 2025, why luxury brands have started to tap into the segment (Beauloye, 2018). A way in which luxury brands are successfully doing this is by recently entering the streetwear market, which for long has been popular amongst young millennials. In doing so, high-end luxury brands can gain greater relevance in the eyes of this segment e.g. by collaborating with streetwear brands to produce sneakers (Beauloye, 2018) (Beauloye, 2020). By tapping into the market, luxurious streetwear has helped boost global sales of luxury goods by 5 percent in 2017 to an estimated EUR 263 billion, according to a recent study by consulting firm Bain & Company (Beauloye, 2018). Furthermore, a recent report on Luxury E-Commerce from the NPD Group Inc. showed that footwear now accounts for almost half of all money spent on luxury fashion online, with high-end sneakers propelling much of the growth (George-Parkin, 2019).

This trend sparked an interest to further investigate whether scarcity messages have different effects on limited edition sneakers in collaboration between luxury and streetwear brands, compared to limited edition single-branded streetwear sneakers. This interest was further enhanced, as it was found that not

much prior research was conducted on limited edition shoes (Chae et al., 2019, p. 2), why the current study would contribute to the existing literature.

In the process of determining the methodology, it was found that market research has traditionally relied largely on self-report measures such as survey questionnaires, in-depth interviews, and focus groups. However, according to Harris et al., such traditional self-report measures have serious limitations in measuring internal cognitive responses to external marketing stimuli such as advertisements. Some of the most restrictive limitations are considered to be the inability to capture respondents' emotional and nonconscious reactions to the presented stimuli (Harris et al., 2018, p. 240). Therefore, it was considered relevant to apply a more optimal research method, which could indicate the underlying mental processes involved in product evaluations leading to potential purchases. Specifically, Harris et al. state that the relatively new scientific field of consumer neuroscience research is becoming more relevant and credible and has provided a clear research link between neuroscience, consumer psychology, marketing, economics, and decision sciences (Harris et al., 2018, p. 249). Consumer neuroscience applies quantitative empirical research methods to measure nonconscious preference formation and executive cognitive processes as e.g. decision making to examine the interaction between attention, affect, memory, and desirability when presented with marketing stimuli (Harris et al., 2018, p. 240). This field of research is therefore considered most optimal for the current study to indicate the underlying mental processes involved in the evaluation of value, status, and quality of limited edition sneakers (both co-branded and single-branded) when presented with a scarcity message.

Specifically, it was found that Copenhagen Business School (CBS) offered access to a SenseLab in which eye tracking was available. As stated by Meißner and Oll, eye tracking is a useful neuroscientific method to investigate and record eye movements during behavioral processes, providing indications of attention and cognitive processes which shape several human behaviors (Meißner & Oll, 2017, p. 591). Therefore, eye tracking was considered a relevant research method to examine the eye movements that were led by the goal of evaluating the value, status, and quality of the sneakers when presented with a scarcity message. However, as eye tracking does not account for the underlying psychological processes influencing the eye movements, theory from consumer psychology and marketing was considered relevant to include, to examine these processes. Furthermore, since the majority of similar studies seem to base their investigations primarily on self-reports, such as the study on limited edition shoes by Chae



et al. (Chae et al., 2019, p. 4), it was assumed that the current study would provide new, valuable insights to the existing literature. As such, the following problem statement was formulated:

### **Problem Statement**

*How does the use of scarcity messages affect the perceived value, status, and quality of limited edition sneakers (both single-branded and in collaborations between luxury and streetwear brands), and how can neuroscience and consumer psychology contribute to the discovery of certain mental processes involved in the product evaluation?*

### **Delimitations**

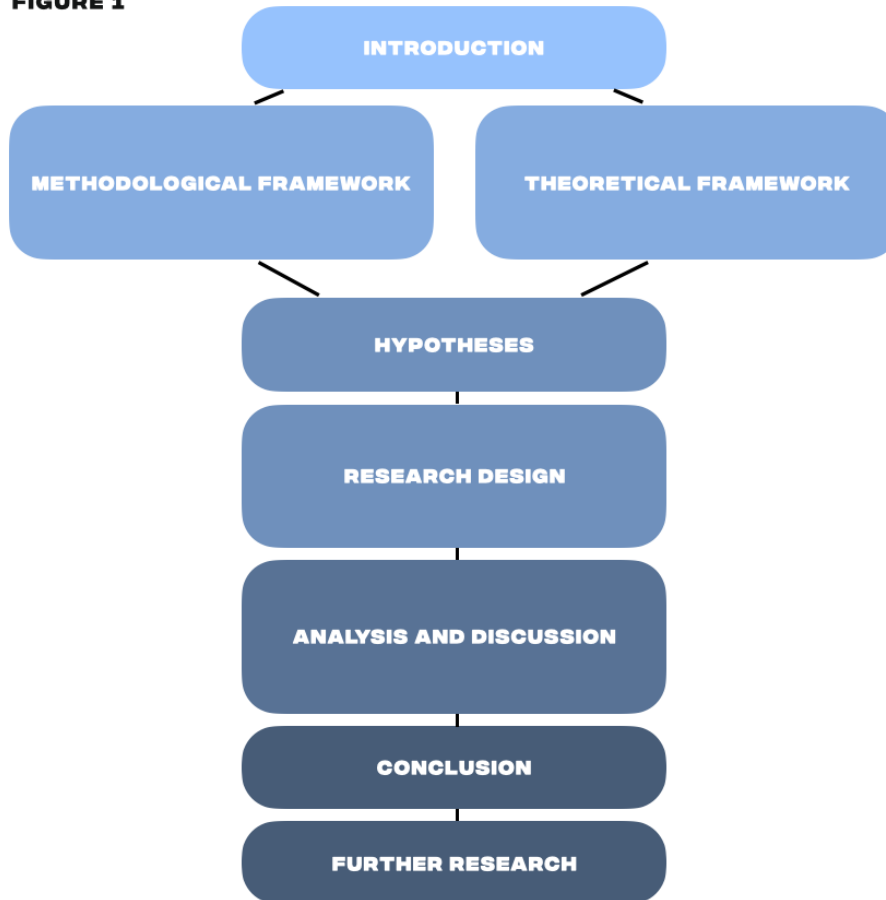
With the above problem statement, the current study will not directly measure the purchase intentions of the respondents, but rather focus on investigating product evaluations as an indication hereof. This is done to avoid the respondents' lifestyle and economic situation influencing their purchase intention. For example, a student might want and like a product but not indicate purchase intention, simply due to their economic situation. Furthermore, if respondents were asked to indicate their purchase intention towards a product, they would likely evaluate value, status, and quality in relation to themselves rather than in a more general manner. As such, a respondent might not want to admit that a product would help them signal high status.

Since it is argued that including a direct examination of purchase intention might result in misleading and skewed evaluations, the study will solely focus on value, status, and quality, which can serve as an indirect indication of purchase intention.

### **Master Thesis Structure**

The following section will provide the reader with an organized overview of the thesis structure (see figure 1 below). The gradual colors of the figure represent the taxonomic structure of the thesis from descriptive to analytical and evaluative to the final conclusive level.

**FIGURE 1**



Firstly, the introduction, which is placed in the first block of the figure, presents the field of research and the scope of the current study. Here the problem statement was presented, which will be examined throughout the thesis.

Secondly, the methodological and theoretical frameworks, which is the next section of the thesis, will account for the methodological approach and the current literature deemed of relevance to assess the problem statement. The methodological framework is divided into the four sections. Firstly, the theory of science will be presented and will serve as the overarching approach of the thesis. Secondly, the data collection will account for the primary and secondary sources of information, which will provide data to assess the problem statement.

Thirdly, the specific methods that will be used in the primary data collection will be accounted for in the 'applied methods' section. Lastly, limitations will be presented to include critical considerations of the suggested methodology.

Next, the theoretical framework will account for the current literature deemed relevant to understand the field of study and assess the problem statement. Specifically, several theories on emotions, branding, luxury consumption, scarcity messages, and decision making will be introduced to identify the most appropriate to formulate hypotheses related to the problem statement.

Thereafter, based on the methodological and theoretical arguments, seven hypotheses will be presented to cover all aspects of the problem statement. These will subsequently help shape the research design.

As depicted in figure one, the next block is the research design in which the stimuli design and the study setup will be presented. Next, the sample population will be outlined to shed light on the representativeness and generalizability of the study. Thereafter, the alterations to the initial study setup, based on peer reviews and a pilot study, will be accounted for to minimize errors and optimize the setup. Additionally, a set of criteria will be outlined to ensure the data quality, followed by a number of considerations to ensure an ethical study. Lastly, the limitations concerning the research design will be accounted for.

Next, the analysis and discussion will be merged into one, due to extensive limitations caused by COVID-19. This will be done in order to present a thorough examination of each of the hypotheses, as no data was unfortunately extracted as a consequence of the pandemic. Additionally, a discussion of appraisal theories will be put forward, to account for the potential underlying emotional processes in a real-life purchase situation.

Lastly, a conclusion will summarize the main arguments of the study to answer the problem statement. These findings will give rise to the identification of potential further research.

# Methodology

## Theory of Science

In the following section, the theory of science will be outlined and will serve as the overarching approach of the paper, which will take departure in the postpositivist paradigm. However, to fully understand postpositivism, it is important to first explain classical positivism and how postpositivism has evolved and differentiated itself from that.

The classic positivism was originally formulated in the 1820s by Auguste Comte (Brier, 2012, p. 144). The ontology of the positivistic paradigm is realistic, as it believes that reality exists and is organized in a certain way, independent of our understanding hereof (Nygaard, 2012, p. 29). The epistemology of positivism argues that objective knowledge (the truth) is attainable if research is only based on observations and facts. As Nygaard explains it, the world is out there, waiting to be mapped out by exact scientific examinations (Nygaard, 2012, p. 29). Lastly, the methodology is quantitative, as these methods and experiments can uncover the objective facts (Nygaard, 2012, p. 28).

Postpositivism, on the other hand, respects the spirit of science in positivism. However, it is more critical and breaks with the positivist view of reality (Corman, 2005, p. 6). The ontology of postpositivism believes that reality is out there, but never fully accessible, which is in line with critical realism. Furthermore, the epistemology is emergent objectivistic, as it acknowledges the fact that the researchers and outside mechanisms might influence the study and its results, even when striving to be as objective as possible. Lastly, it applies a hypothetico-deductive method as it seeks to disconfirm or falsify instances based on theoretical assumptions (Corman, 2005, p. 5-11).

In furtherance, Corman presents five main principles that highlight the core positions of postpositivism, and that will be reflected throughout the paper, namely; falsificationism, naturalism, realism, transformational models, and emergent objectivity (Corman, 2005, p. 6-11). These principles will shed light on the abovementioned ontology, epistemology, and methodology of postpositivism.

The falsification principle comes from the early postpositivist Popper (1968) who disagreed with the verification principle of meaning and believed that no amount of verification can ever conclusively prove the truth of a theory, as some future case could always disconfirm it. Therefore, the most important factor in scientific progress is the discovery of the disconfirming or falsifying instances. This means that a

hundred percent certain conclusions are never reached, yet it is the best-known process for generating reliable knowledge (Corman, 2005, p. 6). This principle both relates to the methodology and the epistemology of postpositivism and will be used to assess the hypotheses, which will be introduced later in the thesis. In that section, t-Tests and linear regressions will be applied to investigate whether significant differences and correlations can be identified, allowing the rejection of the null hypotheses, in line with the falsification principle.

The second principle is naturalism. According to Corman, postpositivism accepts the hermeneutical argument that human understanding plays a role in scientific research. This means that the application of scientific methods to social phenomena is not completely undermined and that postpositivists do not diminish processes of interpretation and understanding, nor non-scientific methods, as they recognize that social behavior and social structure remain part of the natural world (Corman, 2005, p. 7).

The third principle is realism, which refers to the ontology of postpositivism, that believes that things have a reality that is independent of their being perceived by someone. This principle is vastly different from that of positivists, who believe that perceptions are all that matters (Corman, 2005, p. 8).

The fourth principle is the so-called 'transformational models.' According to Corman, like positivism, postpositivism puts much focus and value to what can be experienced (Corman, 2005, p. 9). However, they take one step further into the metaphysical realm as long as they are securely tied to the experiential data. Postpositivists thus believe that there can be unobservable mechanisms or systems that generate or are responsible for things we can observe. This could e.g. be unobservable social structures that influence our observable behavior (Corman, 2005, p. 9-10).

The fifth and last principle is emergent objectivity. As briefly mentioned earlier, the epistemology of postpositivism is emergent objectivism. This stands in contrast to the more absolute objectivity of positivism. Even if all observation is influenced by a subjective reality, this does not mean that all observations are equally good. Some observations are more influenced by the interests of the observer than are others (Corman, 2005, p. 10). Therefore, it is an important focus for this paper to stay as objective as possible.

All of the above principles will be reflected throughout the current study and will influence how the analysis is approached. The falsification principle will be reflected in the analysis and discussion, where the hypotheses will be quantified and possibly falsified. The principles of naturalism and

transformational models will be reflected in the theoretical framework and analysis in how social structures and behavior can contribute to the discovery of certain mental processes involved in the product evaluation. This could for example be how unobservable mechanisms that drive the motive of status are reflected in the product evaluation (the observable behavior). To comply with the principle of realism, the thesis and the eye tracking study will strive to come as close to reality as possible, while realizing that the truth is never fully accessible, even though it is out there. The last principle of emergent objectivity will be central to the thesis in striving to be as objective as possible.

## **Data Collection**

According to Hox & Boeije, data collection can be divided into two types, namely primary and secondary data (Hox & Boeije, 2005, p. 593). Specifically, primary data are collected for the specific research problem at hand, using procedures that fit the research best (Hox & Boeije, 2005, p. 593). Secondary data is, on the other hand, data created by other researchers made available for reuse by the general research community (Hox & Boeije, 2005, p. 593). The current study will incorporate both data collection methods in order to produce primary data on the specific topic of study while drawing on findings from existing literature. In doing so, the thesis will supposedly provide new valuable findings to the field.

### Primary Data Collection

As preferred in postpositivistic studies (Corman, 2005, p. 9-10), the primary source of data will be quantitative raw data accessible for statistical analyses. In other words, the thesis will apply quantitative methods, specifically eye tracking, in the collection of primary data. The quantitative approach is used to illustrate how different scarcity messages may have influenced respondents' assessment of perceived value, status, and quality of limited edition sneakers. Furthermore, it will examine whether scarcity messages have a stronger influence on the evaluations of co-branded sneakers, compared to single-branded sneakers.

### *The Study*

The primary quantitative data of this study will be provided as a result of the conducted eye tracking experiment, which will serve as the major primary data collection method in this thesis. The experimental design and research situation will be created in a laboratory setting, why the situation will to some degree be artificial (Hox & Boeije, 2005, p. 594). This poses a challenge related to the ecological

validity of the study and the degree to which the results can be transferred to real-life situations (Hox & Boeije, 2005, p. 594). According to Harboe, a large number of respondents reinforces the generalizability and testability of the study (Harboe, 2006, p. 33). However, due to limited resources to reward respondents (e.g. with gift cards) as well as a limited time frame, it might present a challenge to attract a sufficient number of respondents. Furthermore, this will possibly cause a necessity to gather respondents within the researchers' network, which will influence the representativeness and generalizability, as many participants will be among the younger part of the millennial generation. These limitations will be taken into account and elaborated on in the research design.

According to Hox and Boeije, experimental laboratory studies emphasize variables that reflect the everyday activities of people coping with real-life situations. Typically, because an experiment includes setting up experimental situations and exposing people to different stimuli, experiments include a comparatively small number of people and variables (Hox & Boeije, 2005, p. 594).

At the end of the eye tracking experiment, a survey will be included, which is also a quantitative research method. This survey will include structured close-ended questions, which can be answered with a limited set of possible answers, to gain further knowledge about the participants' consumption behavior and their perception of the presented brands. Such close-ended questions are considered useful, as they can easily be analyzed in the analysis and discussion (Farrell, 2016). Furthermore, these questions will be structured as multiple-choice questions, from which the participants are only able to select one answer, making them intuitive and easy to use (Weimer, 2018). However, a common drawback of single-answer multiple choice questions is that they force the researchers to limit responses to a predetermined list of options. This can bias the results because none of the answer options might not apply to some of the participants, why they might choose an answer that does not correspond with their personal opinion (Weimer, 2018). To accommodate this, a somewhat neutral option will be provided.

### Secondary Data

As described earlier in this section, secondary data refers to data that has already been collected or compiled by others, which in this thesis will be presented in the literature review. However, given the lack of academic research on how scarcity messages affect the perceived value, status, and quality of limited edition sneakers (both single-branded and collaborations between luxury and streetwear

brands) current literature on scarcity messages that goes beyond these product categories has been necessary to include. This is done to fully examine the benefit of organizations utilizing scarcity messages to enhance potential purchase intentions.

To ensure that the most relevant literature will be accounted for in the literature review, a large variety of academic articles and books will be included. These articles and books will be based on several criteria namely search words, year of publication, and the relevance of the journal articles. Specifically, the first criteria will be to use search words related to the problem statement, such as “scarcity message,” “value,” “status,” “quality,” “limited edition” etc., to find relevant secondary data. The second criteria will require that no articles and books published before the ‘90s will be used. The third and final criteria will require the journals and academic articles to be from the field of marketing, neuromarketing, branding, consumer psychology, and decision making related articles, as these help for the overall purpose of assessing the problem statement. All this will be done to keep track of our empirical knowledge in a transparent manner and support the arguments put forward throughout the thesis. Setting up such criteria also helps heighten the validity of the report, as future readers can access the origin of the knowledge, which will be elaborated further in the following section. The majority of the secondary data in this thesis, including books, articles, websites as well as academic articles are available on databases provided by Copenhagen Business School (CBS, 2020). The remaining data will be extracted from sources, which are deemed as reliable by the researchers.

### Quality Criteria

In the following, the notions of validity and reliability will be outlined to ensure the quality of the data incorporated throughout the thesis. Furthermore, by ensuring a valid and reliable study, it enables other scholars to rely on the current study when conducting new research.

#### *Validity*

According to Andersen, validity consists of two subcategories, namely the validity itself and the relevance (Andersen, 2009, p. 83). Validity refers to whether there is an agreement between the presented theory and the empirical data used, whereas relevance deals with whether the involved empiricism is relevant to the problem of the thesis. This thesis will draw upon several theories from the fields of marketing and consumer psychology and as such, examine the problem statement from several different theoretical perspectives, which contributes to its validity. Furthermore, the quantitative eye



tracking experiment will contribute with a neuroscientific perspective, while the survey questions will shed light on the subjective evaluations and the familiarity with the brands. This creates a synergy between the presented theory and the empirical data. However, it is important to state that the researchers will manipulate some of the stimuli in the eye tracking study. The reason behind the manipulation is that some brand logos and names might be difficult to see due to their placement on some of the sneakers. According to Chae et al, there is a significant influence when the brand logo is present (Chae et al, 2019, p. 4), why the manipulation will be implemented to the study. This will further be done to make it easier for the researchers to collect more accurate data about what the participants will look at on the presented stimuli. However, this can pose a challenge as some of the participants might be hardcore sneaker enthusiasts, which can create confusion when looking at the sneakers and reduce the authenticity of the study.

There are several things to consider in order to ensure the quality of the data extracted from an eye tracking experiment such as calibrations and data quality involving how long and how accurately the device can track the eye (Tobii, n.d.). The default setting for acceptable quality data is set at 80% (Farnsworth, 2017). This will be elaborated more on in the “Quality Criteria” part under the “Research Design” section later in the thesis.

### *Reliability*

The notion of reliability refers specifically to the reliability of the collected empiricism. It is essential, that the way in which data will be generated and processed is made transparent so that others can assess their reliability (Halkier, 2002, p. 111) and the results can be verified (Kvale, 2007, 122). This will enable the possibility for other researchers to reproduce the study, which is one of the premises of reliability (Kvale, 2007, p. 122). To ensure the transparency of the current study, the empirical data collection has been made explicit in the section on data collection. Furthermore, the sample from the eye tracking study has to be explicitly accounted for to transparently showcase the generalizability and representativeness of the primary data. Lastly, the results from the eye tracking study must be replicable under a similar methodology to be considered reliable (Golafshani, 2003, p. 597).

## **Applied Methods**

Given the well-established relationship between eye movements and cognition (iMotions, 2018, p. 8), an eye tracking study will be conducted to gain insights into the mental processes that are involved in the evaluation of limited edition sneakers when presented together with scarcity messages.

As Farnsworth argues, eye tracking can provide insights into the nonconscious processes that are governed by our biases and preferences, since the process of looking is so automatic (Farnsworth, 2018). Therefore, it is a valuable tool to objectively investigate individuals' visual attention and many leading brands are currently using the method to assess consumers' attention to advertising and key messages as well as to evaluate product performance, design, and overall customer experience (iMotions, 2018, p. 8 & 17).

Thus, the purpose of the current eye tracking study is threefold; firstly, the method is applied to examine whether scarcity messages influence consumers' evaluations of the value, status, and quality of the limited edition sneakers. Secondly, the study will research the relative effectiveness of various scarcity messages to see if some messages are more effective than others. Lastly, the study will examine whether there is a significant difference in the effectiveness of scarcity messages when used in collaborations between luxury brands and streetwear brands, as compared to single-branded, limited edition streetwear sneakers.

As such, the study will apply a hypothetico-deductive method to assess a number of hypotheses, which will be formulated later in the thesis. These will provide a foundation for the following analysis and discussion of the effectiveness of scarcity messages on limited edition sneakers. However, to understand the application of the eye tracking study, it is relevant to first outline the different types of eye movements and establish an understanding of the basic components of visual attention.

### **Eye Movements**

As a starting point, the various types of eye movements will be accounted for to understand eye tracking as a research method. The current literature distinguishes between three main types of eye movements, namely gaze points, fixations, and saccades (Farnsworth, 2018).

Gaze points refer to where the eyes are looking and are a commonly used term for the raw data that is collected by an eye tracker. When conducting an eye tracking study, the tracker collects several gaze

points each second - if e.g. an eye tracker has a sampling rate of 60 hertz, it will collect 60 gaze points per second (Farnsworth, 2018).

When a series of gaze points are clustered very closely in time and range, they constitute what is referred to as a fixation. As such, fixations describe relatively stable eyes that are locked to a specific stimulus in the eye's foveal region for a longer period and typically last between 100 and 300 milliseconds (iMotions, 2018, p. 13). Finally, saccades refer to rapid eye movements in between two consecutive fixations. As stated by Meißner and Oll, research has shown that humans are only able to process information during a fixation, since the brain blocks visual processing during saccades (Meißner & Oll, 2017, p. 592).

Researchers often assume that the number of fixations on a certain part of an image indicates the amount of visual attention that has been paid to that specific element in the picture (Farnsworth, 2018). This is what Meißner and Oll refer to as the "eye-mind assumption", which assumes that respondents cognitively process all the information they fixate on. This assumption is generally accepted as valid, however, it is recognized that eye movements do not necessarily influence cognitive processing in certain decision making situations, as simply looking at a stimuli does not necessarily indicate processing hereof (Meißner & Oll, 2017, p. 592).

### Visual Attention

As Meißner and Oll state, visual attention is generally defined as selectivity in perception that determines which components of an image an individual will pay attention to (Meißner & Oll, 2017, p. 592). As such, Land and Tatler distinguish between two distinct types of fixation patterns, which they refer to as the bottom-up and the top-down fixation patterns (Land & Tatler, 2009, p. 32).

Firstly, bottom-up patterns explain eye movements that are mainly driven by images on the eye's retina where the foveal region is located. As Land and Tatler explain, certain properties of an image can catch a viewer's attention if they stand out from the rest of the environment because they are e.g. bright, colorful, contrastful, flashing, moving, or the like. The sum of these properties is what Land and Tatler refer to as the image saliency (Land & Tatler, 2009, p. 32). Based on the image saliency, bottom-up patterns catch the viewer's immediate attention and spark a reflex eye movement that ignores

influences from higher cognitive processes and makes the viewer look at the salient objects (Land & Tatler, 2009, p. 32).

Secondly, top-down patterns describe eye movements that are mainly directed by the goals of the viewer's behavior, rather than simply by image saliency. Such goals might include the need to find certain information or execute a specific task, why it is stated to catch the so-called focused attention (Land & Tatler, 2009, p. 32).

### Eye Tracking

Eye tracking is typically divided into two specific types, namely the screen-based and the mobile eye tracking. While the technology behind is the same, each type entails pros and cons that make them more suitable for certain situations (iMotions A, 2015).

Firstly, screen-based eye tracking allows researchers to collect data from a stationary set-up in a controlled lab setting. When using this type of eye tracking, respondents are placed seated in front of a computer screen on which the visual stimuli are presented. With the eye tracker placed close to the screen, this method is particularly practical and precise for two-dimensional stimuli and is recommended for observations of e.g. pictures, videos, magazines, etc. (iMotions, 2018, p. 6) (iMotions A, 2015).

Mobile eye tracking, on the other hand, is useful when the observed stimuli have a three-dimensional structure that requires respondents to move around freely to capture the object from different angles. In a mobile set-up, the respondents will thus wear a set of eye tracking glasses, which record the gaze from a close range. However, it is relevant to consider the intrusive nature of placing such hardware on the respondents (iMotions A, 2015). Furthermore, the data collection of mobile eye tracking is usually more complex, since there are more distractions in a natural environment compared to a laboratory setting (Meißner and Oll, 2017, p. 609).

In the current study, the screen-based eye tracking method will be applied, as it is argued that this particular type of eye tracking is most suitable for observations of the two-dimensional stimuli presented in the study and simultaneously is less intrusive to the respondents compared to mobile eye tracking.

To fully understand the applicability of the study, central terms and metrics considered relevant to the current eye tracking study will be outlined in the following.

### *Area of Interest*

When conducting an eye tracking study, the displayed stimulus will often include several components in an image, while not all elements will be of equal significance to the research. As such, researchers can classify specific elements of the stimulus into so-called areas of interest (AOIs). When designing the study, specific AOIs will be selected using the eye tracking software to measure the visual attention paid to the areas (Farnsworth, 2018). This is useful when comparing the time spent looking at the different AOIs, which is also referred to as fixation duration. During the research design, the AOIs of the specific stimuli presented in the study will be drawn out and elaborated on.

### *Perceptual Span*

The term perceptual span refers to the number of characters an individual can recognize within one fixation between each saccade, and the concept is therefore particularly relevant when considering eye tracking studies that involve a text component, as the current study. Depending on the text, the perceptual span is usually 17-19 letters, but varies from each person based on their reading experience, as experienced readers have a higher perceptual span and therefore can read more characters within a fixation (iMotions, 2018, p. 13). With this knowledge, the scarcity messages that will be presented in the eye tracking study will take into account the maximum number of letters, which can be processed within the respondents' perceptual span.

### *Fixation Duration*

One useful metric derived from an eye tracking study is the fixation duration, which describes how long a respondent has been looking at a specific AOI. As respondents have to blend out other components in the presented stimulus that might be equally interesting, a long fixation duration can be an indicator of motivation and conscious attention towards the specific AOI (iMotions, 2018, p. 15). It should be noted, that eye tracking alone cannot make any conclusions regarding the emotional reactions towards the stimulus, but only determine whether the object is looked at (Farnsworth, 2018).

As Meißner and Oll argue, the fixation duration naturally depends on the characteristics of the stimuli but typically ranges from 100 to 500 milliseconds and generally is about 250 milliseconds for simple reading tasks (Meißner & Oll, 2017, p. 596). The assumption is that short fixations (up to 250 milliseconds) indicate scanning and automatic processes, whereas longer fixations (about 500

milliseconds or more) indicate deeper processing, such as deliberate considerations of information (Meißner & Oll, 2017, p. 597). When analyzing the data, it will be interesting to look into the average fixation duration and compare across different AOIs to determine, which features of an image are generally focused on more. This will serve as indications of attention and will be used in the analysis and discussion to investigate the possible underlying mental processes causing the fixations.

### *Revisits*

The number of revisits can be used to provide information about the number of times a participant has returned their gaze to a particular spot within an AOI (Farnsworth, 2018). This metric allows for examination of which areas repeatedly attracted the participant and which were initially seen, but then moved on from. The attraction towards an area of the stimulus may be either caused by pleasantness, confusion, or other reasons which the eye tracker cannot identify. However, the number of revisits can provide important information about which areas should be investigated further (Farnsworth, 2018). An investigation of the areas which have been revisited during the eye tracking study will be conducted using the theoretical framework to examine the underlying mechanisms causing the revisits.

### *Fixation Sequence*

Related to the abovementioned metrics, the fixation sequence can provide detailed information regarding the order and direction in which the fixations occur. This metric can reveal what caught the participants attention first, and the order in which the stimulus and the different AOIs were viewed (Farnsworth, 2019). According to Meißner and Oll, the fixation sequence can further be effectively used in decision making research, as the sequence can provide clues about which strategy the participants used when processing the respective stimuli to reach a decision (Meißner and Oll, 2017, p. 597). In the current eye tracking study, the fixation sequence will be examined to provide information about the order in which the participants looked at the specific AOIs. This will be used to indicate which AOIs were most important for the evaluation of value, status, and quality.

## **Limitations**

As for any study, several challenges and limitations will inevitably be present. Therefore, this section will serve as an overview and elaboration of the methodological limitations of the thesis, as it is important in order to accommodate them and develop the research design in the best way possible.

Regarding the primary data collection, there are several limitations to be aware of. Firstly, it is relevant to consider the ecological validity of the eye tracking experiment. As mentioned above, a screen-based eye tracking will be applied, as it is argued to be most suitable for observations of the two-dimensional stimuli and is considered to be less intrusive to the respondents compared to mobile eye tracking. However, this method entails a laboratory setting, which requires the participant to only move within the limits of the eye tracker's range, namely the headbox (iMotions, 2018, p. 7). This setting is considered artificial and therefore less ecologically valid. Thus, it is important to consider the validity of the results in a real-life setting. On the other hand, compared to mobile eye tracking, there are fewer distractions in a screen-based eye tracking setting, which allows for more control and makes the data easier to collect (Meißner & Oll, 2017, p. 610).

Another limitation is the sample size. Due to the restricted timeframe of the research and lack of corporate funding for rewards, the sample size will be limited. Furthermore, the selection of participants will be limited within the researchers' network, to gain as many respondents as possible within the given timeframe. These limitations are important to consider with regard to the representativeness and generalizability of both the eye tracking and survey.

Next, tracking gaze points alone in an eye tracking study does not allow one to gain knowledge of any particular cognitive processes and the emotional states driving the eye movements (iMotions, 2018, p. 18). One way to accommodate this limitation could be by including biometric studies as well. However, due to the limited time and the complexity of an extensive data set, such biometric methods will not be included. Instead, theories from the field of consumer psychology, neuromarketing, and branding will be included to supplement the findings from the eye tracking study and help shed light on some of the possible cognitive and emotional processes causing the eye movements and product evaluations.

## **Theoretical Framework**

The purpose of the following theoretical framework is to provide an overview of the existing research in the field, which is considered of importance to assess our problem statement. Specifically, several theories on emotions, branding, luxury consumption, scarcity messages, and decision making will be introduced to identify the most appropriate to formulate hypotheses.

## Emotions

The purpose of the following theoretical part concerning emotions is to look into the current literature of the topic to better determine which theories are most relevant to assess the problem statement.

Emotions will firstly be explained at a broader level to later link it to relevant theories concerning branding, luxury consumption, and decision making. This will be done to better understand and explain the underlying affective processes during product evaluations.

Nowadays, consumers do not buy products solely for their functions, but also their emotional meaning and experiences. Therefore, understanding emotions is the key to successful marketing. When looking across centuries of studies, it is interesting to discover the transition from considering emotions as irrational, distracting and misleading to experiencing emotions as an all-important factor of today's advertising, decision making, etc. Damasio was one of the first scholars to truly link emotion to behavior and consider them an important part of decision making (Damasio, 1994).

Firstly, it is important to understand the meaning of emotions and moods in the affective sciences. Emotions can be explained as complex feelings that are elicited by people, objects, or events, which have direct implications for behavior. Additionally, emotions can be experienced over a short or long duration, but not as long as moods. When it comes to moods, unlike emotions, they are usually not directed at a specific target. Typically, one feels emotions towards a specific person or object, such as anger, admiration, or the like. However, one does typically not have a mood directed toward a specific person (Bagozzi et al., 1999, p. 184-185).

Characterizing and structuring the complex variety of the affective sciences is an ongoing challenge, and many scholars have presented various arguments and views. The three following theories will be brought to light; namely, The Two-Factor Structure of Affect, Basic Emotions, and Appraisal Theories to determine which are most relevant to assess different areas of the problem statement.

### The Two-Factor Structure of Affect

Psychological construction theory defines emotional responses along the two dimensions of arousal and valence. As stated by Bagozzi et al., emotions exist in bipolar categories that can be arranged in a continuous order related to the arousal and valence associated with the particular emotion (Bagozzi, et al, 1999, p. 189). Watson and Tellegen have created a model that arranges emotions along these constructs, specifically pleasantness vs. unpleasantness and strong engagement vs. disengagement axes



(Appendix 1). This Circumplex model by Watson and Tellegen is also known as the Two-Factor Structure of Affect (Bagozzi, et al, 1999, p. 189). The model is appealing as it is simple and intuitive and provides an overview of how similar or dissimilar various emotions are. However, it has several limitations. Firstly, it does not provide nuanced insights into the complexity of emotions and secondly, it does not account for the appraisals producing the various emotions (Bagozzi, et al, 1999, p. 189-190). Thirdly, the model can obscure subtle differences in emotions and introduces categories that do not directly correspond to emotions, such as drowsy and sleepy (Bagozzi, et al, 1999, p. 189-190). Lastly, the model does not provide insight into areas of the brain producing the specific emotions, or any neural correlations. As such, this model will only be used in relation to the valence and arousal of preexisting attitudes in the Iterative Reprocessing Model, which will be accounted for later.

### Basic Emotions

Several scholars have contributed to the theories on basic emotions with their own theoretical model hereof; those include Ekman & Cordaro (2011), Izard (2011), Levenson (2011), and Panksepp & Watt, (2011) (Tracy & Randles, 2011, p. 398). In general, these four lead authors share some agreement on which criteria must be met to classify as a basic emotion. According to a review of all four models, conducted by Tracy and Randles, all scholars agree that the emotion should be discrete, have a fixed set of neural and bodily expressed components, and a fixed feeling or motivational component.

Furthermore, it is argued that there is a consensus that basic emotions are psychologically primitive (Tracy & Randles, 2011, p. 398). When looking into what the function, power, and purpose of basic emotions are, there is a general agreement across the lead scholars, that basic emotions must have direct causal powers over motivation and behavior, at least in early development stages. This argument is based on evolutionary principles, as emotions are evolved to assist adaptive coping with specific ecological challenges (Tracy & Randles, 2011, p. 400). Basic emotions need to cause and motivate appropriate behavioral and psychological responses to address the relevant challenges. It is further argued that they are most deterministic when the triggers are closely related to evolutionary motives, such as attaining status, and when onset suddenly and intensely (Tracy & Randles, 2011, p. 400). Further elaboration on evolutionary motives will be presented later in the theoretical framework.

Panksepp contributes to the research on basic emotions with a cross-species affective neuroscience approach to understanding basic emotions, or as he calls it; primary-process emotions (Panksepp & Watt, 2011, p. 387). Therefore, his approach to basic emotions is considered of relevance to assess the

problem statement, specifically to shed light on how neuroscience contributes to the discovery of certain affective processes involved in product evaluation.

Panksepp outlines seven primary-process emotions; seeking, rage, fear, lust, care, panic/grief, and play (Panksepp & Watt, 2011, p. 387). These primal emotions are systems that generate affective feelings.

According to Panksepp and Watt (2011), the primal emotion system of seeking generates the feeling of enthusiasm in the ventral tegmental area (VTA) to the nucleus accumbens, as well as the lateral hypothalamus and the periaqueductal gray (PAG) (Panksepp, 2014, 04:20-06:40) (Panksepp, 2011, p. 9). Furthermore, they explain seeking as a basic and positively valenced motivational system, which helps to mediate our desires and positive expectations of the world (Panksepp & Watt, 2011, p. 392). Rage, however, generates the feeling of being “pissed-off,” as Panksepp puts it, in the medial amygdala to the bed nucleus of stria terminalis (BNST) (Panksepp, 2014, 04:20-06:40) (Panksepp, 2011, p. 9). The rage system can be aroused when competing for resources or when being restrained and frustrated (Panksepp & Watt, 2011, p. 392). Next, fear is a powerful system, which generates anxiety in the central and lateral amygdala to medial and hypothalamus and dorsal PAG (Panksepp, 2014, 04:20-06:40) (Panksepp, 2011, p. 9). There are many dangers in the world, which we have to learn, and others we instinctively fear. Although what provokes the fearfulness may be different, the core structure of the system is very similar across mammalian species (Panksepp & Watt, 2011, p. 392). Next, the lust system generates the feeling of sexual arousal in the cortico-medial amygdala, the BNST, the preoptic thalamus, and the PAG (Panksepp, 2014, 04:20-06:40) (Panksepp, 2011, p. 9). The care system generates the feeling of tenderness and loving in the anterior cingulate, the BNST, the preoptic area, the VTA, and the PAG (Panksepp, 2014, 04:20-06:40) (Panksepp, 2011, p. 9). This, as well as the lust system, allows us to propagate effectively down generations (Panksepp & Watt, 2011, p. 392). The panic system generates loneliness and sadness in the anterior cingulate, the BNST, the preoptic area dorsomedial thalamus, and the PAG (Panksepp, 2014, 04:20-06:40) (Panksepp, 2011, p. 9). Separation anxiety is something that can be seen at a very young age and can cause panic. The need for reunion and feeling of sudden aloneness may trigger the panic system. Lastly, play brings great joy and happiness in the dorsomedial diencephalon parafascicular area and the PAG (Panksepp, 2014, 04:20-06:40) (Panksepp, 2011, p. 9). According to Panksepp and Watt, the urge to play is not evolutionary but is built into the mammalian brain as an instinctual action (Panksepp & Watt, 2011, p. 393).

The basic emotions theory will be used later in the analysis and discussion to help explain the underlying affective processes related to the Customer Based Brand Equity Model, which will be elaborated on later in the theoretical framework. However, to account for the more complex emotions and their appraisals, Appraisal Theories will be taken into account to later relate this to the potential emotions experienced during a real-life purchase situation.

### Appraisal Theories

Appraisal theories, on the other hand, link cognition to emotions and seek to explain how emotions arise. Specifically, emotions arise in reaction to appraisals one makes for something of relevance to one's well-being. Bagozzi et al. explain appraisals as evaluative judgments and interpretations of either an incident or episode that happens to oneself, a behavior one performs, a result one produces, or a change in an object, person, or thought that has personal meaning (Bagozzi et al., 1999, p. 185). Even though some events are often linked to specific emotional responses, it is important to note that appraisal theories are not related to how a specific event produces an emotion, but rather the subjective psychological appraisal made by the person evaluating the circumstances (Bagozzi et al., 1999, p. 185).

One of many versions of appraisal theories is Roseman's. According to Bagozzi et al., Roseman hypothesized that specific combinations of five different appraisals determine which of 16 unique emotions will be experienced in any given situation (Bagozzi et al., 1999, p. 185). An updated version of Roseman's framework from 2013 (Appendix 2) summarizes his theory, where the five appraisals are labeled as follows; (1) motive consistent/motive inconsistent, (2) appetitive/aversive, (3) agency, (4) probability, and (5) power (Bagozzi et al., 1999, p. 185-186).

Firstly, motive consistency or inconsistency refers to whether a situation is evaluated to be consistent with one's goal and thereby elicits positive emotions, or inconsistent and thereby elicits negative emotions. Secondly, events appraised as relevant to appetitive motives can elicit the emotions of joy and sadness, whereas events appraised as relevant to aversive motives can elicit relief, distress, and disgust. Thirdly, agency refers to whether the outcome of the situation is perceived to be caused by impersonal circumstances, some other person, or oneself. Next, probability refers to whether the desired outcome is appraised as certain or uncertain to occur. Lastly, power refers to whether the person has high or low coping potential in a situation (Roseman, 1996, p. 243). Using Roseman's

framework enables to determine which of the 16 unique emotions will be experienced in a certain situation based on the five above mentioned appraisals.

The value of appraisal theories is that it takes into account most emotions and in contrast to basic emotions, not only involves many discrete emotions but also identifies the conditions for their occurrence. However, since appraisal theories are situational, it is argued not to be of relevance for the current eye tracking study. For instance, it is not relevant to look at the coping potential of an eye tracking study. However, appraisal theories are considered of relevance in a real-life purchase situation and will, therefore, be included in a discussion to account for the underlying affective processes occurring in a potential purchase of limited edition sneakers.

## **Branding**

The following section will account for the existing literature deemed of relevance for the current study. Firstly, the notion of branding will be introduced to provide a general understanding. Thereafter, Keller's Customer Based Brand Equity (CBBE) Model will be introduced to account for how brands create a strong relationship with their customers. Lastly, theories on co-branding will be introduced and later be related to the CBBE Model to investigate the functional and emotional attachment of consumers toward a certain brand and examine how co-branded sneakers might influence the evaluations of value, status, and quality to be higher for co-branded sneakers compared to single-branded.

According to Kotler and Keller, brands were previously defined as a name, symbol, logo, design or image, or any combination of these, which is designed to identify a product or service and distinguish it from those of their competitors (Kotler & Keller, 2012, p. 467). However, they recognized that this definition appears a bit simplified today, why a more current definition by Mitzuv will be presented. Specifically, Mitzuv defines a brand as a collectively held idea of a company by its customers, in reaction to the messages the company sends via interaction, advertising, product design, and public relations (Mitzuv, 2006).

This definition seems to be more appropriate since purchasing has become more meaningful and brands often become a symbolic way of showcasing and emitting one's identity. In other words, people can express themselves through the choice of their brands. For instance, people brand themselves differently by the clothes they wear, the people they associate with, what they consume and what they

upload to their social media (Kotler & Keller, 2012, 469). Furthermore, the self-expressive function of brands can be linked to the term of conspicuous consumption, which will be elaborated on later. Briefly, this notion used to describe the obtaining of products or services primarily to achieve some sort of social status by showcasing the product (Kotler & Keller, 2012, p. 469).

Related to this, brands play many roles for consumers nowadays, two of them being functional and emotional roles. The functional role relates to the performance of the product, for instance assessing product reliability and durability. On the other hand, the emotional role is concerned with connecting the brand with the customer emotionally, for example by providing social approval (Kotler & Keller, 2012, p. 468-469). In relation, Voss et al. (2003) state that consumers purchase goods and services for two basic reasons; namely the hedonic and utilitarian (Voss et al., 2003, p. 310). Specifically, the hedonic consumption behavior is tied to sensations derived from the experience of using a particular brand that provides an emotional satisfaction, whereas the utilitarian is tied to the functional performance of the particular brand (Voss et al., 2003, p. 310).

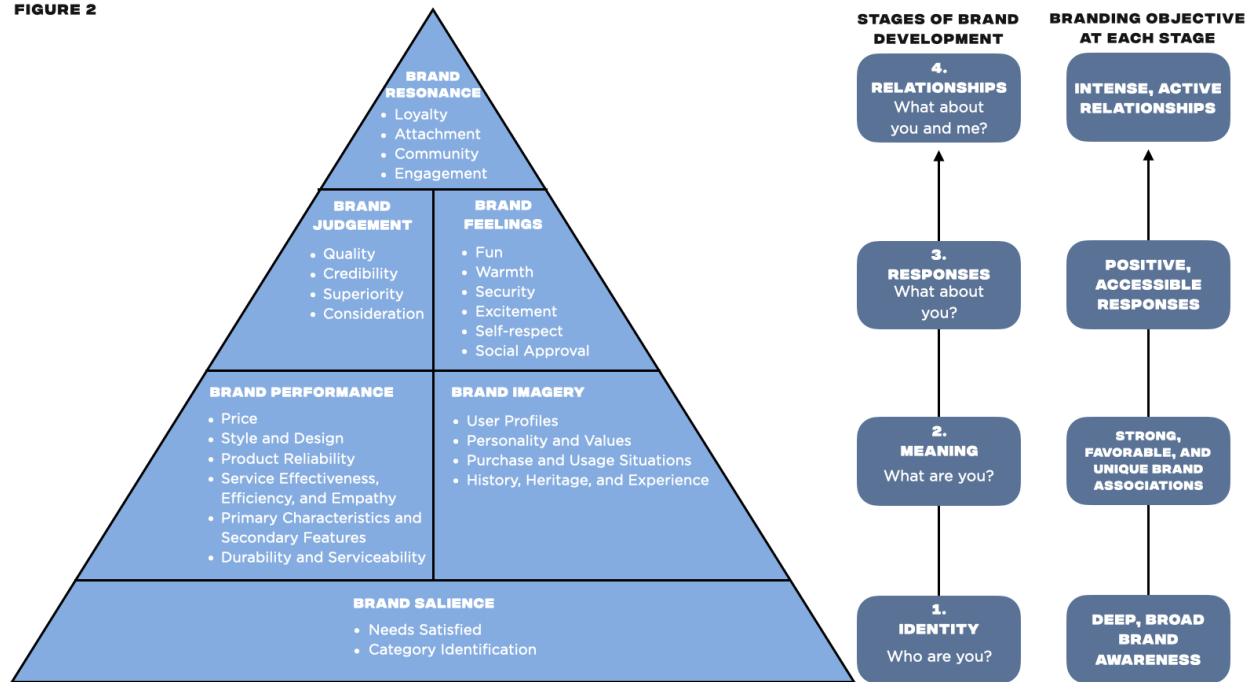
Many theories can help create an understanding of the notion of branding, what it can do for both firms and consumers, and how to work with branding. The following sections will cover the CBBE Model and theories on co-branding, which are considered relevant for our report.

### Customer Based Brand Equity Model

The following section will account for Keller's Customer Based Brand Equity (CBBE) Model, which in collaboration with other theories on emotions, luxury consumption, and decision making can investigate the underlying psychological mechanisms causing consumers to feel and think in a certain way about the particular brands of the study. Keller's model was selected as it takes into consideration the emotional attachments a brand creates with its customers, which is considered relevant to assess the problem statement. Therefore, other brand equity models, such as Aaker's model (1991) will not be presented, as this solely focuses on creating brand recognition, which is considered to be the most basic level of brand equity according to Keller (Aaker, 1991) (Keller, 2001).

Keller's CBBE Model seeks to explain how a brand should form the way consumers think and feel about their brand to build the right type of experiences, which lead consumers to gain positive thoughts, emotional attachments, opinions, and perception of it (Keller, 2001, p. 3) (Figure 2).

**FIGURE 2**



The CBBE Model identifies four stages of brand development, which are outlined on the right side of figure 2, namely; 1) brand identity, 2) brand meaning, 3) brand responses, and finally 4) brand relationships (Keller, 2001, p. 8-16). Each of these stages is dependent on successfully achieving the previous and consists of six brand building blocks, which are placed in the pyramid alongside the stages of brand development. These six building blocks are; brand salience, brand performance, brand imagery, brand judgments, brand feelings, and brand resonance (Keller, 2001, p. 8-16). On the far right of the figure, the branding objectives of each of the stages are represented. For example, the objective of obtaining strong brand salience is to create deep, broad brand awareness among consumers. In the end, the overall goal is to reach the top of the CBBE pyramid, where a close relationship exists between customers and the brand (Keller, 2001, p. 8-16).

### *Brand Identity*

When wanting to achieve the right brand identity it involves creating brand salience, which is the first building block of the pyramid (figure 2). Brand salience is connected to parts of customers' awareness of a brand. For example, how easily and often is the brand recalled during different situations and to what extent is the brand top-of-mind and easily recognized (Keller, 2001. p. 8). Brand awareness, which Keller recognizes as part of the brand salience, is more than just knowing a brand name, logo, slogans, etc.; It

is related to how the customers link these to certain associations in the memory. More specifically, building brand awareness includes ensuring that customers understand the product or service (Keller, 2001, p. 8).

Brand salience forms the initial building block in developing brand equity and includes two essential functions: Firstly, salience influences the formation and strength of brand associations that make up the brand image and gives the brand meaning. Secondly, creating a high level of brand salience in terms of category identification and needs is of vital importance during possible purchase or consumption opportunities (Keller, 2001, p. 9).

When customers have 'low involvement' with a brand, they may make choices based on brand salience alone. Low involvement occurs when customers lack either 1) purchase motivation (e.g., when customers do not care about the product) or 2) purchase ability (e.g., when customers do not know anything else about the brands in the category or lack the expertise to judge quality) (Keller, 2001, p. 9).

According to Keller, brand salience can be divided further into two dimensions; depth and breadth. How easily customers recall or recognize a brand is classified as the depth of brand awareness, whereas the range of the purchase and consumption situations in which the brand comes to mind is classified as the breadth of brand awareness. As such, a highly salient brand is one that contains both depth and breadth of brand awareness so that customers make considered purchases and think of the brand in different settings in which the brand could be bought or consumed (Keller, 2001, p. 9).

### *Brand Meaning*

Even though brand salience is one of the first and important steps in building brand equity, it is not sufficient standing alone. In general, the majority of customers do also have other considerations such as the meaning of the brand, which is the second stage of brand development. This stage consists of two building blocks, namely brand performance and brand imagery, which are coupled with particular subcategories within each (see figure 2). The branding objective of these building blocks is to establish strong, favorable, and unique brand associations, which can arise directly from a customer's own experience or contact with the brand, or indirectly through the representation of the brand in ads or other ways of information, such as word of mouth (Keller, 2001, p. 10).

When a firm wants to create brand meaning it firstly involves establishing brand performance. Brand performance relates to how a product or service attempts to accommodate customers' more functional needs. To clarify, evaluation of brand performance will often entail objective assessments of the quality as well as evaluations of whether the brand satisfies the utilitarian needs and wants of customers (Keller, 2001, p. 10). Style and design are one of the categories to brand performance, which links to the fact that consumers have associations with a product that go beyond its functional aspects to more aesthetic considerations. This could be the product size, shape, materials, price, and color, as well as sensory aspects - how a particular product looks and feels (Keller, 2001, p. 11).

Brand imagery, on the other hand, deals with the extrinsic properties of the product or service through the ways in which the brand tries to meet customers' psychological or social needs. More specifically, brand imagery relates to how customers perceive the brand to meet their hedonic, rather than the utilitarian, needs, and wants. As such, brand imagery relates to the more intangible aspects of a brand (Keller, 2001, p. 10). Personality and values are one of the categories to brand imagery, which links to the assumption that consumers often view themselves as a reflection of the brands they possess (Keller, 2001, p. 12)

If a brand is successful in creating strong associations of brand performance and brand imagery, it will contribute to more positive brand responses, which serves as the third stage of brand development.

### *Brand Responses*

Brand responses encompass how people respond to the brand and its marketing activity, that is, what customers think or feel about the brand. Specifically, brand responses are split into two building blocks in the pyramid, namely; brand judgements and brand feelings, based on whether they stem more from the 'head' or the 'heart' (Keller, 2001, p. 13)

Brand judgments focus mainly on customers' personal and reflective opinions and assessments of the brand and include how customers put together the different performance and imagery associations for the brand to create different opinions. As such, customers may make several kinds of judgments toward a brand. To reach the branding objective of creating positive, accessible responses, four types of summary brand judgments are specifically important and are ordered by their importance: 1) brand quality, 2) brand credibility, 3) brand consideration, 4) brand superiority (Keller, 2001, p. 13-14).



Brand feelings, on the other hand, are customers' emotional responses and reactions toward a particular brand. This could, for example be, how the acquisition of the brand affects the customer's feelings about themselves and how others perceive them (Keller, 2001, p. 14). This relates to the theory of impression management and the fundamental motive of attaining status, which will be presented later. Furthermore, brand feelings will be related to Panksepp's theory of basic emotions in the analysis and discussion.

What matters the most within brand responses is how positive these responses are, as brand judgments and feelings can favorably influence consumer behavior only if consumers think of positive responses when they come across a brand. Furthermore, it is important that they are accessible and easily come to mind when consumers think of the brand (Keller, 2001. p. 14).

#### *Brand Relationships*

The fourth and final stage of brand development is the brand relationships. This stage relates to the final building block of the pyramid, namely brand resonance, which focuses on the crucial relationship and level of identification that a consumer has with a particular brand. Specifically, brand resonance describes the extent to which customers feel in sync with the brand and can be divided into four categories; behavioral loyalty, attitudinal attachment, sense of community, and active engagement (Keller, 2001, p. 15). Firstly, behavioral loyalty refers to how often customers buy a brand and how much they purchase. This subcategory is needed and important, however, it is not enough for resonance to occur, as some people may buy products/brands out of necessity, e.g. because this is the only product accessible, or the only one they can afford to buy. Therefore, the second subcategory of the attitudinal attachment is important to create brand resonance, as a strong personal attachment can indicate invested loyalty. Thirdly, the sense of community describes how a brand may also take on a broader meaning to the customer in terms of a sense of community. Identification with a brand community may reflect an important social phenomenon whereby customers feel connected with other people associated with the brand. These connections may involve fellow brands users or customers. Lastly, the active engagement is the strongest affirmation of brand loyalty and is present when customers are willing to invest time, energy, money, or other resources into the brand, beyond those expected during purchase or consumption. Brand relationships can be divided into two dimensions - intensity and activity. Intensity refers to the strength of the attitudinal attachment and sense of community. More

clearly, how deeply felt is the loyalty from the consumer side. Activity refers to how often the consumer purchases and uses the brand, as well as engages in other activities not related to purchase and consumption (Keller, 2001, p. 16)

The CBBE Model is considered of relevance to later apply in the analysis and discussion and serve as the overarching framework for those hypotheses examining the brands' influence on the perceived value, status, and quality. However, this theory does not account for how collaborations between two or more brands might strengthen the perception of a product. Therefore, theory on co-branding will be presented in the following section, to later help assess how co-branded sneakers might influence the evaluations of value, status, and quality to be higher for co-branded sneakers compared to single-branded.

### Co-Branding

The following section will account for the notion of co-branding to investigate how a collaboration between a luxury brand and a streetwear brand can draw from the strengths of both, to create a more desirable product, causing consumers to feel and think positively about it (Washburn et al., 2000, p. 591). Furthermore, co-branding is also included in this thesis to help assess the problem statement by examining if co-branded sneakers with a scarcity message can influence consumers' perceived value, status, and quality, more than single-branded, which will be presented in the analysis and discussion.

According to Washburn et al., co-branding is defined as a strategic collaboration between two or more branded products to form a separate and unique product (Washburn et al., 2000, p. 591). However, if the collaboration is not made properly, a co-branding initiative could turn into a major failure (Williams, 2016). As such, both brands ought to be on the same page e.g. regarding their target audience, purpose, promotion, and price to create a successful marketing initiative. Basically, the focal point of co-branding is reaching a goal that will make both brands more successful than if they would have done it on their own (Williams, 2016). For example, as presented in the introduction, Yeezy and Adidas have previously been successful in collaborating to create a desirable product, as millennials lined up for several days in Copenhagen to acquire the Yeezy Boost 360 Black (Haagerup, 2015).

According to Kotler, the main advantage of co-branding is that the positive characteristics of two or more brands working together may create a competitive advantage on the market (Kotler & Keller,

2012, p. 595). In this way, co-branding can create more sales from existing target markets as well as create opportunities for new customers and channels.

Marketers should, however, be aware that co-branding also has potential disadvantages, such as the risk and lack of control in becoming aligned with another brand in the minds of customers. Furthermore, a customer's expectations towards the desirability of a product produced in a collaboration are likely to be high, why inadequate performance could have negative consequences for both brands (Kotler & Keller, 2012, p. 595).

Research by Washburn et al. suggests that co-branding might improve the brand equity perceptions of consumers regardless of whether the co-branding partner has a high or low equity brand (Washburn et al., 2000, p. 600). As Washburn et al. state, high equity brands appear to not be damaged by collaboration with low equity brands, which offers them protection from poor co-branding decisions. Additionally, consumers seem to be able to distinguish between the two co-branding partners and make determinations about which partner is primarily responsible e.g. for the product's good performance. As such, co-branding seems to be a win/win opportunity for compatible products, although it seems that low equity brands benefit most from co-branding (Washburn et al., 2000, p. 600).

### **Luxury Consumption**

The following section will account for theories on luxury consumption to investigate how luxury brands can influence consumers' perceived value, status, and quality in the analysis and discussion.

Furthermore, this will be linked to the Fundamental Motives Framework and costly signaling to account for the underlying psychological mechanisms causing consumers to engage in this type of consumption.

Firstly, to understand luxury consumption, the meaning of luxury goods will be explained. According to Wiedmann et al. (2007), as stated by Gallo and Mosca, the concept of luxury may vary across individuals as it is situational and depends on the experience and the individual needs of the consumer (Gallo & Mosca, 2016, p. 2). As such, luxury brands demonstrate both physical and psychological values and represent the most prestigious brands in the marketplace. Furthermore, Nia and Zaichkowsky (2000) state that the psychological benefits are considered to be the main factor that distinguishes luxury products from non-luxury products (Gallo & Mosca, 2016, p. 2). Moreover, luxury consumption can be used with the intention of publicly displaying it to gain esteem.

According to Kang and Park, luxury consumption is highly related to consumers' economic condition and lifestyle (Kang & Park, 2016, p. 3813). The global economic situation influences the sales rate in the luxury market due to the high price of luxury products and services. However, on a global level, luxury goods have become available to a much wider range of consumers and in mature luxury markets as well as in emerging markets, the middle class has begun to shop for brands that were previously regarded as out of reach. Even low-income individuals are purchasing luxury goods on occasions since the ownership of a luxury branded product represents an experience in status improvement (Gallo & Mosca, 2016, p. 2). An exemplification hereof could be the tendency among young millennials to purchase luxury products and paring them with streetwear, as these millennials most likely belong to the middle- or lower-income group (Beauloye, 2020).

In relation, consumers who consider the primary goal of their consumption behavior to be improving their self-expression and external identities, carry out luxury consumption despite economic barriers (Kang & Park, 2016, p. 3813). From their consumption of luxury products and services, consumers intend to be perceived as high-status personas. This phenomenon is critically relevant to consumer social psychology, as people carry out impression management to intentionally adjust their behavior to portray a positive social image of themselves to others (Kang & Park, 2016, p. 3813). Many scholars, such as Lambert and Desmond (2013) and Kang and Park (2013), agree that there is an increase in narcissistic consumption nowadays, which has led to an expansion of luxury consumption due to consumers' narcissistic orientation and impression management, which causes conspicuous consumption (Kang & Park, 2016, p. 3813).

Research by Kang and Park further reveals that many consumers feel pressured to match others' consumption levels to avoid the feeling of shame. This may result in consumers feeling encouraged to excessively buy luxury goods, which is potentially part of what has led luxury brands to become one of the most profitable and fastest growing types of brands in the marketplace (Kang & Park, 2016, p. 3815). Globally, the luxury goods market has shown that the tastes of luxury consumers are constantly changing, which requires luxury brands to adapt quickly in order to maintain their growth and market share e.g. when luxury brands recently started tapping into the streetwear market (Beauloye, 2018). According to Khan (2010), creating emotional bonds with consumers is the key to the survival of luxury brands in an ever-changing era (Gallo & Mosca, 2016, p. 2). However, D'Arpizio (2014) found that the

luxury market is now less dependent on the market booms for growth and has become more resilient to economic crises (Gallo & Mosca, 2016, p. 2).

### The Fundamental Motives Framework

Related to the impression management theory and the increase in conspicuous- and luxury consumption, it is relevant to look into the potential driving factors hereof. This can be related to the fourth principle of postpositivism, namely the transformational models, as the Fundamental Motives Framework will be used to shed light on the unobservable social mechanisms, influencing the observable behavior (evaluations) of the eye tracking stud

Nowadays consumers' choices seem to be driven primarily by external factors such as contemporary culture. However, researchers such as Griskevicius and Kenrick argue that evolutionary psychology still has a prominent role in our everyday decision making. This is because we, to a large extent, are still driven by the same motives that drove our ancestors (Griskevicius & Kenrick, 2013, p. 372).

Kenrick et al. (2010) have developed the Fundamental Motives Framework, that suggests that humans have inherited psychological adaptations for solving a set of specific ancestral social challenges, namely; (1) evading physical harm, (2) avoiding disease, (3) making friends, (4) attaining status, (5) acquiring a mate, (6) keeping that mate, and (7) caring for family (Griskevicius & Kenrick, 2013, p. 372-373). Building on the framework, Griskevicius and Kenrick have conducted a study examining the motivational underpinnings of consumer behavior. Motive four of attaining status is considered relevant to assess our problem statement, which seeks to investigate the participants' perceived status of a product, and will thus be accounted for in the following while explaining the motivational underpinnings.

To fully understand the fundamental motive of attaining status, it is important to first understand the notion of status. According to Nelissen and Meijers, status can be defined as a higher position compared to others on some dimension (e.g., academic or athletic skill, physical attractiveness, or wealth) that is deemed important by society (Nelissen & Meijers, 2011, p. 343). Evolutionarily, as a group-living species, humans desire to attain status in their groups, since the benefits of doing so are plentiful and can also be applied to contemporary human beings. For example, high status can result in greater interpersonal influence, more material resources, higher self-esteem, and better health (Griskevicius & Kenrick, 2013, p. 378).

According to Griskevicius and Kenrick, the triggers that drive status attaining behavior are primarily cues of dominance, competition, moments of success, encounters with prestigious people or objects that are highly regarded, and in rivalries. Furthermore, it has been found that the status system can be activated when being deprived of status or power (Griskevicius & Kenrick, 2013, p. 376-378).

Griskevicius and Kenrick have examined the behavioral tendencies when the status system is triggered. These include seeking products that signal prestige and seeking exclusive and up-to-date features, which often lead to increased prosocial choices (Griskevicius & Kenrick, 2013, p. 376). Accordingly, a status motive lead consumers to pay more for luxurious and prestigious products which are to be displayed to others (Griskevicius & Kenrick, 2013, p. 378). This can be illustrated by the millennials lining up for several days and paying large sums for limited edition sneakers (Haagerup, 2015).

### Conspicuous Consumption as a Costly Signal of Status

Research by Nelissen and Meijers contributes to the fundamental motive of attaining status and examines the link between the consumption of luxury products and attaining status (Nelissen & Meijers, 2011, p. 343). The research provides support for the idea that displaying luxury products may be an evolutionary adaptive strategy and that wearing brand-labeled clothing gives benefits in social interactions. Specifically, Nelissen and Meijers have conducted a series of field studies that prove that the effects of luxury-branded clothing are driven by an increased status perception of consumers wearing branded clothing, compared to wearing ordinary clothing (Nelissen & Meijers, 2011, p. 344). These studies are based on psychological research by e.g. Dreze and Nunez (2009), which confirms that the desire for status is an important force driving the market for luxury goods. Additionally, from an evolutionary perspective, it is argued that the preference for luxury consumption comes from the universal tendency for signaling traits that might increase one's status (Nelissen & Meijers, 2011, p. 343).

The fact that displaying luxury goods is argued to be linked with status can be explained by costly signaling theory, which describes that consumers use extensive costs, this be either energy, time, money, or risk, to signal certain values. Costly signaling explains that apparent wasteful (costly) behavior functions as a reliable signal of desirable individual qualities (Nelissen & Meijers, 2011, p. 344). To qualify as costly signaling, four criteria have to be met: (1) the signal must be easily observable, (2) the signal must be hard to fake, (3) the signal must be associated with an unobservable, yet desirable

quality, and (4) the signal must ultimately provide a fitness benefit (Nelissen & Meijers, 2011, p. 344). Based on the studies and research done by Nelissen and Meijers, displaying brand-labeled luxury products, classifies as a costly signal and one of the motivations for doing so is attaining status (Nelissen & Meijers, 2011, p. 344).

### **Scarcity Messages**

In extension of the outline of luxury consumption and its relation to the fundamental motive of attaining status, it is relevant to consider scarcity messages to signal exclusivity. Shedding light on this topic will provide an understanding of two types of scarcity messages, as well as enable the assessment of their effect on consumers' perceived value, status, and quality of limited edition sneakers, later in the analysis and discussion.

According to Aggarwal, several studies conducted by researchers show that scarcity messages can help raise a product's perceived value and influence the consumer's purchase intention (Aggarwal et al., 2011, p. 20). In addition, it is argued that rare products are considered to be of good quality (Chae et al., 2019, p. 3). Prior works by researchers Aggarwal et al. (2011) and Gierl et al. (2008), has offered empirical evidence that scarcity messages make consumers feel limited edition products are special, unique, and valuable and can thereby positively influence their evaluation of the products (Jang et al., 2015, p. 989). Furthermore, it is stated by Aggarwal et al. that when restrictions are put on a product, the product itself becomes a scarce resource. Therefore, the motivation behind wanting or purchasing a scarce product goes beyond solely monetary benefits, but also creates a sense of being 'smart shoppers' amongst buyers (Aggarwal et al., 2011, p. 20). Relating this to limited edition products, it is argued that buying scarce products can create a joy-of-winning sensation, which can feel as a pride like satisfaction almost like winning a game (Aggarwal et al., 2011, p. 20).

Generally, there are two types of scarcity messages, which are most commonly used in practice; limited-time scarcity messages (LTS), and limited-quantity scarcity messages (LQS) (Aggarwal et al., 2011, p. 19). In an LQS message, the promotional offer is made available for a predefined quantity of the product and is sometimes even limited to certain groups or individuals. Research on scarcity messages has often indicated that such messages have a positive impact on the evaluation of and attitude toward the object of the message (Aggarwal et al., 2011, p. 19-21). Furthermore, this positive impact has even been strong across countries and cultures (Aggarwal et al., 2011, p. 19). In an LTS message, however, the offer is

made available for a predefined period, after which the offer becomes unavailable. As such, these messages imply that anyone can purchase the product as long as it is purchased within the given time limit (Aggarwal et al., 2011, p. 19-21). While the studies found that both LTS and LQS messages enhance purchase intentions, LQS does so to a greater extent than LTS. However, LTS messages are used almost three times as frequently as LQS, even though the studies indicate that retailers could do better by using LQS messages (Aggarwal et al., 2011, p. 26).

Scarcity messages' effectiveness in this thesis must be related to the brand concept. Researchers have classified brand concepts into two broad categories; functional and symbolic (or as Kotler calls it; emotional) (Aggarwal et al., 2011, p. 21). A functional brand concept stresses the performance of the product in terms of the functional or utilitarian needs of a consumer. A symbolic brand concept, on the other hand, emphasizes social and hedonic aspects of a product and is understood primarily in terms of consumers' expression of self-concept or self-image (Aggarwal et al., 2011, p. 21). The attractiveness of a symbolic brand is its exclusivity and uniqueness and it draws from the concept of consumer competition for its very definition. People buy these brands because they help differentiate their buyers from others or give them a sense of belonging to an exclusive aspirational group (Aggarwal et al., 2011, p. 21). According to Aggarwal, when presented with symbolic products, in which the need for uniqueness operates as one of the motivators for purchase, LQS messages will seem particularly attractive, as these signal greater scarcity than LTS messages. By limiting the number of units available, LQS messages can thus limit the purchase accessibility of symbolic brands without cheapening their image (Aggarwal et al., 2011, p. 21). In regard to the more functional brand concepts, LQS messages would also enhance the purchase intentions on the promoted item to a greater extent than LTS messages. However, the differences in the effect of LQS versus LTS messages is greater for symbolic brands than for functional brands (Aggarwal et al., 2011, p. 27).

Relating this to the current study, sneakers can be argued to be placed on a scale between symbolic and functional products. Compared to other footwear, sneakers are comfortable and originally designed for athletic purposes, why it can be argued that they have high functional value (Euromonitor, 2014). However, sneakers are now part of a large global trend and are no longer produced for the sole purpose of performance, but rather for fashion purposes (Salpini, 2018). Furthermore, as stated in the introduction, an increasing number of luxury brands collaborate with streetwear brands to produce co-branded sneakers (Beauloye, 2020). It can be argued that the streetwear brands gain a competitive



advantage by adopting some of the symbolic value of the luxury brand, while the luxury brands can tap into the trend and the streetwear audience and obtain an increased market share. Therefore, it is argued that co-branded sneakers in collaboration between luxury and streetwear brands are more symbolic than the single-branded streetwear sneakers.

#### Scarcity Messages' Effect on Limited Edition Products

Although the research done on scarcity messages has gotten tremendous attention in recent years, Jang et al. contribute to the research by examining the main effects of scarcity messages on limited edition (LE) product evaluations (Jang et al., 2015, p. 989). These evaluations include brand attitude and perceived value, as well as important customer-oriented outcome variables such as purchase intention and word of mouth behavior. Furthermore, they examine the relative effects of LTS and LQS messages on different LE product categories, as well as the moderating effect of consumers' need for uniqueness in the evaluation of scarcity (Jang et al., 2015, p. 989).

According to Bangwell and Bernheim (1996), stated by Jang et al. it is important to take into account the different types of LE products, as consumers tend to draw conclusions about one another based on the types of products they possess (Jang et al., 2015, p. 991). Therefore, LE products have been divided into two categories; conspicuous and non-conspicuous. In addition, Jang et al. operationalize conspicuous LE products using four dimensions based on Gierl and Huettl's (2010) studies, namely; *high status and wealth, uniqueness, conformity to exclusive social groups, and visibility* (Jang et al., 2015, p. 991). These dimensions can all be related to evolutionary psychology and the fundamental motive of acquiring status.

*Signaling High Status and Wealth:* According to Wiedmann et al. (2009), conspicuous consumption is associated with high social status, wealth, and power, why consumers might acquire scarce and expensive conspicuous products to signal their high social status and wealth to others (Jang et al, 2015, p. 990-991). Furthermore, Sundie et al. (2011) argue that people are generally able to fulfill the need for status and prestige through the possession of conspicuous products that signal high social status, wealth, and power to surrounding others. Related, expensive conspicuous products can benefit people by generating a positive sense of being highly respected and envied by surrounding others (Jang et al., 2015, p. 991).

*Signaling Uniqueness:* According to Bearden and Hunter (2001) one other way to gain respect, admiration, and social identity is by showing uniqueness within social groups. This can be done through the possession of expensive conspicuous products with their unique value and expensiveness compared to normal price standards (Jang et al., 2015, p. 991).

*Signaling Conformity to Exclusive Social Groups:* As stated by Lascu and Zinkhan (1999), people from prestigious social groups are more likely to accept other members into their groups if they own a product that is highly valued by the social group. Therefore, conspicuous consumption can benefit people by conveying conformity to exclusive and prestigious social groups (Jang et al., 2015, p. 991).

*Visibility:* Lastly, to signal high social status, wealth, and uniqueness to others, as well as to show conformity to exclusive social groups, an important criterion is for the conspicuous LE products to be visible (Jang et al., 2015, p. 991).

According to Jang et al., LTS and LQS messages have a significantly different impact on LE product evaluation, although both messages have a positive influence. LQS messages have a greater impact on purchase intention for conspicuous LE products, while the effects for LTS messages are greater for non-conspicuous LE products (Jang et al., 2015, p. 995). It can be argued that the consumer's ability to signal status and uniqueness might be manifested when suppliers restrict the LE products to a small quantity. Additionally, it was found that LQS messages are generally more effective in enhancing consumers' responses than LTS messages because consumers create a sense of competition under the LQS condition (Jang et al., 2015, p. 995).

The above findings on scarcity messages and when these are deemed most appropriate will be taken into account when designing the stimuli of the eye tracking study. More specifically, LQS messages will be used, as these were argued to be overall more effective than LTS messages. Furthermore, it was found that LQS messages seem particularly attractive when presented with symbolic brands, in which the need for uniqueness operates as one of the motivators for purchase. Therefore, LQS messages will be used to examine whether these have a larger effect when used in collaborations between a primarily symbolic luxury brand and a less symbolic streetwear brand.

## **Decision Making**

To research the effect of scarcity messages as the study seeks to examine, an important point of departure is to first understand how decisions and evaluations are made. As such, relevant theories will be outlined to explain the mental processes involved in decision making, which in this particular case refers to the evaluations of value, status, and quality. When assessing the hypotheses, these theories will be used as a framework and incorporate all the above-mentioned theories as the various processes of decision making are accounted for.

Extensive research has been conducted in the field of decision making and numerous researchers have offered their, at times contradictory, perspectives on which elements come into play in the decision making process. Therefore, the following theories will be outlined to provide a holistic understanding of the existing literature and are believed to provide relevant insights into how products are evaluated based on visual stimuli. As such, certain theories and approaches are naturally outside the scope of the research as e.g. the Theory of Planned Behavior outlined by Ajzen, which does not account for the influence of visual stimuli (Ajzen, 1991). Furthermore, the theories presented will account for the role of emotions in decision making, as it is argued to be particularly important when considering primarily hedonic products such as limited edition sneakers (Voss et al., 2003, p. 317).

### The Dual Systems Theory

Over the past decades, many researchers have sought an understanding of the human evaluative system, and several dual system models have emerged to describe the conscious and nonconscious processes that allow people to evaluate their surroundings (Van Bavel et al., 2012, p. 438). Common for most of these theories are, that they categorize mental processes into two distinct systems; one that is automatic, nonconscious, and associative, and another that is cognitive, effortful, and conscious.

Researchers have offered different names for the two systems, but for the sake of this thesis the generic and commonly used “System 1” and “System 2” will be applied to describe the different mental processes (Kahneman & Frederick, 2002, p. 51). Current literature suggests that the two systems are distinguished based on the speed, controllability, and the contents on which they operate – that is, whether they are based on affective or neutral, concrete or abstract content, etc. Furthermore, Kahneman and Frederick argue that the roles of the two systems are also dependent on the individual

and his/her mood, intelligence, exposure to statistical thinking, as well as the time available for deliberation (Kahneman & Frederick, 2002, p. 51).

### *System 1*

System 1 is characterized as the quick, intuitive, and associative route to decision making, which bases decisions primarily on heuristics and preexisting affective biases. As such, system 1 forms a “short-cut” that helps the decision-maker react quickly and make fast decisions. It is argued that system 1 is often the primary system activated when making everyday purchase decisions, such as shopping for groceries and choosing between different branded products. Such decisions will often be based on heuristics as e.g. emotions or familiarity with the brand, since the time available for making the decision is limited (Kahneman & Frederick, 2002).

Because of its nonconscious and intuitive nature, system 1 is often perceived to be more primitive than system 2. However, Kahneman and Frederick note that this does not necessarily imply that the system is less capable (Kahneman & Frederick, 2002, p. 51).

### *System 2*

Opposite from system 1, system 2 is characterized as the slower, more effortful, and cognitive operation and is the main system involved when making complex decisions that require conscious mental effort. As such, the system bases decisions on neutral arguments as e.g. durability or numerical attributes, rather than on heuristics (Kahneman & Frederick, 2002, p. 51). For example, an individual looking to buy a new pair of running shoes might compare the specific options he/she is considering, based on the durability and functional advantages/disadvantages. It is argued that system 2 is more likely to be dominant when the decision is associated with greater risks for example when buying expensive products rather than everyday commodities. However, researchers generally agree that even such system 2 decisions will still be influenced by nonconscious system 1 arguments, although there is some disagreement on how this influence happens, depending on the specific view of the scholar (Kahneman & Frederick, 2002) (Martin & Sloman).

### *The Sequential View vs. The Parallel View*

Various scholars have offered different perspectives on how system 1 and system 2 operate, and particularly two distinct views have dominated the literature, namely the sequential and the parallel views (Kahneman & Frederick, 2002)(Martin & Sloman).

Traditionally, the systems have been thought to operate sequentially. Supporters of the sequential view believe that, when faced with a decision, system 1 first makes an intuitive judgment, which system 2 then monitors and either overrides or endorses. Kahneman and Frederick are among the supporters of this view and assume that the two systems compete for the control of observable responses to the stimuli. Specifically, they state that even deliberate judgments are likely to be anchored in initial impressions and go on to argue, that complex cognitive system 2 processes can eventually migrate into system 1 as proficiency and skill are acquired (Kahneman & Frederick, 2002, p. 51).

However, newer research suggests that the two systems operate in parallel rather than sequentially. Thus, supporters of the parallel view believe that the systems function simultaneously and interact with each other during the decision making process. Martin and Sloman support this view, as they argue that one of the systems often will be dominant in the given situation, although both systems simultaneously contribute to making the decision (Martin & Sloman, 2013, p. 553). This could be illustrated with an example in which a consumer is about to purchase a co-branded, limited edition sneaker. Supporters of the parallel view will argue that system 1 will be active due to the consumer's preexisting affective biases towards the different brands, whereas system 2 will still simultaneously monitor the risk of the purchase and consider neutral arguments such as e.g. whether the price of the product is too high. This interaction between the two systems can sometimes lead to simultaneous contradictory beliefs in the decision-maker (Martin & Sloman, 2013, p. 553).

As Martin and Sloman argue, evidence supports the parallel view and can explain how people simultaneously consider intuitive and deliberate aspects when making decisions (Martin & Sloman, 2013, p. 553). However, recent research has suggested that even the parallel view offers a significantly simplified explanation of a complex decision making process and as such, it is argued that the theory cannot sufficiently account for the processes involved in the evaluation of limited edition sneakers (Van Bavel et al., 2012, p. 438) (Cunningham et al., 2007, p. 736). Therefore, the Iterative Reprocessing Model will be incorporated to provide a thorough understanding of the complex and dynamic interaction of

cognition and emotion and as such, serve to create an understanding of the evaluation of limited edition sneakers throughout the thesis.

### The Iterative Reprocessing Model

Developments in social and cognitive neuroscience have suggested that the human evaluative system is more dynamic than classic dual systems theories might suggest. Cunningham et al. and Van Bavel et al. therefore suggest the Iterative Reprocessing Model to account for the highly dynamic nature of human evaluation as well as the underlying thoughts and emotions (Cunningham et al., 2007, p. 737) (Van Bavel et al., 2012, p. 438) Importantly, the model also considers processes of social judgment and behavior that helps individuals navigate in complex social environments (Cunningham et al., 2007, p. 736-738), which can be related to the fundamental motive of attaining status.

The Iterative Reprocessing Model characterizes the human brain as a parallel system that creates evaluations and decisions based on a widely distributed network of processes in the brain. Specifically, it describes how evaluations are formed by multiple cognitive and affective processes that collaborate, rather than two systems functioning separately and independently (Cunningham et al., 2007, p. 750-751). Furthermore, the model emphasizes the influence of preexisting attitudes, which are defined as the full set of information about the valence of a stimulus from previous experiences stored in memory. As such, attitudes are seen as relatively stable representations that influence current evaluations (Cunningham et al., 2007, p. 745 + 749-750).

The Iterative Reprocessing Model assumes that the brain is organized hierarchically into lower-order and high-order processes that are organized on a continuum from the most “automatic processes” (lower-order) to the most “reflective processes” (higher-order) (Cunningham et al., 2007, p. 752-753). These processes interact dynamically to process evaluations, such that automatic processes both influence and are influenced by reflective processes (also known as controlled processes) (Cunningham et al., 2007, p. 736). As Cunningham et al. state, the automatic processes are primarily linked to limbic processing, whereas the reflective processes are supported by prefrontal cortical brain regions that are responsible for executive functions, which are often reflected in planning, decision making, problem-solving, etc. (Cunningham et al., 2007, p. 737+755) (Dahlitz, 2017). As such, reflective processes also allow for a comparison of the expected rewards and punishments related to the current experience (Cunningham et al., 2007, p. 744). Furthermore, the reflective processes allow more nuanced evaluations to navigate in complex social environments (Cunningham et al., 2007, p. 738).

Cunningham et al. point out, that it should not be misunderstood as if the reflective processes replace the automatic, but rather that the different processes work together to generate evaluations that incorporate preexisting attitudes of stimulus, as well as the current context and goal of the evaluation. Specifically, they acknowledge that more iterations will allow for the foregrounding and backgrounding of the different patterns, to make either automatic or reflective processes dominant within the specific evaluation based on the context and goals (Cunningham et al., 2007, p. 751). Moreover, they argue that the automatic processes will continuously provide information on whether the affect related to the stimulus is positively or negatively valenced as well as if the arousal level is high or low, even when the reflective processes are activated (Cunningham et al., 2007, p. 738). As such, when accounting for the automatic processes in the analysis and discussion, the Two-Factor Structure of Affect (which was accounted for in section on emotions) will be incorporated to account for the valence and arousal of the preexisting attitudes.

Specifically, the brain systems involved in the generation and processing of affect are subcortical brain regions such as the amygdala and ventral striatum that are involved in the rapid automatic evaluations of stimuli based on preexisting biases. LeDoux (1996) explains that the direct route through the thalamus to the amygdala may cause evaluative processing before a stimulus is even fully processed by cortical sensory areas (Cunningham et al., 2007, p. 742).

With the Iterative Reprocessing Model, Cunningham et al. argue that evaluations are part of an iterative cycle that continuously repeats itself and that, for each repetition, the current evaluation is adjusted. This repetition allows the individual to develop a more nuanced evaluation of the stimulus (Cunningham et al., 2007, p. 738). As such, the model does not consider evaluation as the result of a dual process occurring within a fixed time frame but argues that some judgments may be reached rapidly while others may be continuously altered and updated within a few hundred milliseconds of stimulus perception, as the cycle is repeated (Cunningham et al., 2007, 741). As argued by Cunningham et al., the longer the time an individual has to make an evaluation, the more reflective processes may occur (Cunningham et al., 2007, p. 739). As such, if restricted time is available to evaluate a certain stimulus, the less reflective processes may occur.

Furthermore, the number of repetitions of the iterative cycles is dependent on both subjective, personal factors as well as situational circumstances (Cunningham et al, 2007, p. 739). As it is impossible to process all evaluations with equal complexity, two motivational drivers compete to determine the level

of reflective processing involved in the evaluation. Specifically, the drive to minimize error increases the reflective processing during the evaluation, while the drive to minimize processing demands decreases the reflective processing. As such, the two opposing drives creates a dynamic tension that can help the decision-maker strike a delicate balance between an initial “gut” response and a more nuanced evaluation (Cunningham et al., 2007, p. 741).

As opposed to classic dual systems theories, the Iterative Reprocessing Model accounts for the dynamic nature of human evaluation. Specifically, the model decomposes the evaluative system into various computational processes of the brain, to shed light on the complexity. The model assumes that judgments are made within a single evaluative system, in which these computational processes interact freely while being influenced by preexisting attitudes, the context, and the goal. Furthermore, as mentioned above, the model is explicit about the hierarchical organization of processes within the continuum from automatic to reflective. As such, the model describes the specific order and combination of the processes that influence the evaluations (Cunningham et al., 2007, p. 752-753). Lastly, as opposed to dual system theory, the Iterative Reprocessing Model accounts for the processes of social judgment and behavior (Cunningham et al., 2007, p. 737).

As such, the model provides valuable insights into the field of decision making and can establish a thorough understanding of the complex processes involved in the evaluations of value, status, and quality. As such, the model will be applied in the assessment of the hypotheses and be used as a framework to incorporate all the above-mentioned theories on emotions, branding, luxury consumption, the fundamental motives, and scarcity messages. Furthermore, the preexisting attitudes are argued to influence the appraisals made in a real-life situation and will, therefore, be incorporated later in the discussion.

### Scarcity and Decision Making

In extension of the review of decision making theory and scarcity messages, it is relevant to consider how scarcity messages affect consumers’ decision making. Furthermore, as the problem statement seeks to investigate how scarcity messages affect the evaluation of value, status, and quality, it is relevant to consider the processes in which these evaluations are made. In this context, Jang et al. state that scarcity messages tend to facilitate consumers’ decision making heuristics and to some extent reduce their ability to make rational decisions. Put in other words, this suggests that scarcity messages can facilitate and foreground the automatic processes leading to immediate judgments based on



heuristics rather than comparisons with other products available on the market (Jang, et al., 2015, p. 991). This argument is further supported by Chae et al., who argue that scarcity of goods stimulates consumers and disrupts their information processing ability through research, which induces impulsive behavior (Chae et al., 2019, p. 2).

## **Hypotheses**

In the following section, seven main hypotheses are formulated taking departure in the outlined methodology and theory. These hypotheses will be assessed using a hypothetico-deductive method in line with the falsification principle of postpositivism, in order to assess the problem statement.

**H<sub>1</sub>: Participants exposed to "available online" perceived value, status, and quality to be lower than those exposed to a scarcity message.**

As Jang et al. argue, scarcity messages can make consumers believe that products are special, unique, and valuable (Jang et al. 2015, p. 989), and therefore it is assumed that participants exposed to a scarcity message will evaluate the value, status, and quality higher than those exposed to a neutral message without any connotations of scarcity, as "available online".

**H<sub>2</sub>: If the average fixation duration on the scarcity messages was longer than 250 milliseconds, the value, status, and quality was perceived to be higher than if the average fixation duration was shorter than 250 milliseconds.**

As Meißner & Oll state, a longer fixation duration might indicate increased levels of processing of the specific AOI (Meißner & Oll, 2017, 596). As previously mentioned, the fixation duration for simple reading tasks is usually approximately 250 milliseconds, and as such, the average fixation duration is considered to be high, if it is longer than this. As Jang et al. argue, scarcity messages can make consumers believe that products are special, unique, and valuable and therefore it is assumed, that an average fixation duration on the scarcity messages above 250 milliseconds will result in higher evaluations of value, status, and quality, compared to those instances where the average fixation is lower than 250 milliseconds (Jang et al. 2015, p. 989).

**H<sub>3</sub>: The more revisits on the scarcity messages, the higher the perceived value, status, and quality.**

As argued by Farnsworth, the number of revisits describes how many times a respondent has looked at a specific AOI and can thus provide insights into which AOIs repeatedly attracted the respondent for

positive or negative reasons (Farnsworth, 2018). As mentioned above, scarcity messages can make consumers believe that products are special, unique, and valuable (Jang et al. 2015, p. 989), which is assumed to feed into the fundamental motive of attaining status. As such, it is assumed that a high number of revisits on the scarcity messages will influence the evaluations positively resulting in higher perceived value, status, and quality of the sneakers.

**H<sub>4</sub>: If the total fixation duration was longer on the luxury brand than on the streetwear brand, value and status was perceived higher.**

As mentioned in H<sub>2</sub>, longer fixation durations might indicate increased levels of processing of the specific AOI. As previously mentioned, luxury brands are often consumed with the intention of displaying it to others to gain esteem and be perceived as high-status personas (Kang & Park, 2016, p. 3813). Therefore, it is assumed that a longer fixation duration on the luxury brand might indicate increased processing hereof, why the respondents might have considered the luxury brand to feed into their status attaining motive leading to higher evaluations of status. Since it is assumed that streetwear brands do not carry the same elements of status, the longer fixation durations on these might not result in quite as high evaluations of status. Furthermore, the monetary value of a luxury brand is assumed to be higher compared to a streetwear brand, why it is argued that if the fixation duration was longer on the luxury brand, the consumers might believe that this brand would enable them to display status in terms of wealth (Nelissen & Meijers, 2011, p. 343). Furthermore, the assumed expensiveness of a luxury brand might result in higher evaluations of monetary value, if the fixation duration was longer on this brand. This will, of course, be examined in the assessment of the hypothesis, to ensure that luxury brands are in fact more expensive than streetwear brands.

**H<sub>5</sub>: If the total fixation duration was longer on the luxury brand than on the streetwear brand, quality was perceived higher.**

Based on the theoretical framework, it is assumed that there will be no significant difference in the perceived quality, whether the total fixation duration is longer on the luxury brand or the streetwear brand. Therefore, the null hypothesis is assumed to be accepted and H<sub>5</sub> rejected, why hypotheses four and five are split into two separate hypotheses to allow for an easier overview of the theoretical argumentation.

As Keller argues, the second stage of brand development of the CBBE Model describes that brands need strong brand performance and brand imagery to gain high brand equity. More specifically, brand performance is related to how the brand accommodates the functional needs of consumers and will often entail an assessment of the quality (Keller, 2001, p. 11). In relation, it is assumed that both the luxury and the streetwear brands contain brand performance, either in terms of high-quality materials or comfort and durability, which are some of the listed categories of brand performance. As such, the perceived quality is assumed to be roughly equal whether the fixation duration is longer on the luxury brand or the streetwear brand.

**H<sub>6</sub>: Participants exposed to "700 produced" scarcity message perceived value, status, and quality to be higher than those exposed to "limited edition".**

Aggarwal et al. state that when restrictions are put on a product, the product itself becomes a scarce resource. Therefore, as previously mentioned, scarcity messages can help raise a product's perceived value and uniqueness (Jang et al. 2015, p. 989) (Aggarwal et al., 2011, p. 20). Furthermore, as argued in the presented theories on scarcity messages, acquiring such valuable and unique products, is assumed to feed into the fundamental motive of attaining status. As the scarcity message of "700 produced" emphasizes just how restricted and scarce the product is, it is assumed that it will increase the effect on the perceived value, status, and quality further than "limited edition".

**H<sub>7</sub>: The effect of scarcity messages on perceived value, status, and quality was higher when used for sneakers made in collaboration between luxury and streetwear brands compared to a single streetwear brand.**

As previously argued, scarcity messages can make consumers believe that products are special, unique, and valuable (Jang et al. 2015, p. 989). As such, scarcity messages are assumed to generally have a positive influence on the evaluation of sneakers, regardless of the brands included. However, as previously argued, scarcity messages have an even higher positive effect on product evaluation for products with symbolic value (Aggarwal et al., 2011, p. 21). As streetwear sneakers alone are argued to be somewhat less symbolic than luxury, it is assumed that collaborations in which a luxury brand is present will enhance the symbolic value and thereby the effectiveness of the scarcity message.

Related to Keller's CBBE Model, it was assumed in the presentation of H<sub>5</sub>, that both luxury and streetwear brands contain brand performance in different ways, which is assumed to positively

influence consumers' perception of quality for both brands. Furthermore, it was argued in the theoretical framework that co-branding enables the possibility to combine positive characteristics of the two brands (Kotler & Keller, 2012, p. 595). As such, it is assumed that co-branding would allow for the combination of the positive quality associations of each brand, resulting in higher evaluations of quality for co-branded sneakers compared to single-branded.

Furthermore, as assumed in H<sub>4</sub>, the monetary value of a luxury brand is assumed to be higher compared to a streetwear brand, which leads to the assumption that the luxury brand would contribute to the overall perception of value in the collaboration. With this potential contribution, it can be assumed the respondents might believe that the high monetary value of the co-branded sneakers would enable them to display status in terms of e.g. wealth (Nelissen & Meijers, 2011, p. 343).

Thus, based on the above assumptions, the collaboration between luxury and streetwear brands is assumed to enhance the effect of scarcity messages on the perceived value, status, and quality even more than on single-branded sneakers.

## **Research Design**

### **Stimuli**

In the process of designing the eye tracking study, the specific stimuli were arranged based on several careful considerations to ensure the quality of the data necessary for testing the hypothesis. A total of 18 stimuli were presented as well as 18 distractors.

### Areas of Interest

Each of the 18 presented stimuli consisted of three-four specific AOs; a sneaker, a message, and one or two brands depending on whether the specific sneaker was co-branded or single-branded (see figure 3). Specifically, nine co-branded and nine single-branded sneakers were selected to later be able to compare the relative effect of the scarcity messages.

Three different messages were selected to thoroughly test the hypotheses, namely the scarcity messages of "limited edition" and "700 produced", as well as the neutral message of "available online", which was argued to not carry any connotations of scarcity. The latter was included to function as a

control message to reject the possibility that general, uncharged messages affect the evaluation of value, status, and quality. This was done to compare the evaluation of “available online” with those containing a scarcity message, to determine whether scarcity messages would in fact influence the evaluations. The number of characters in each message was considered, in order to ensure that all messages were approximately the same length. This was considered important, as the length of the message would possibly influence the amount of time the respondents spent looking at the message. As previously stated, the perceptual span is usually around 17-19 letters within a fixation depending on the respondent’s reading experience (iMotions, 2018, p. 13). Therefore, only messages consisting of 11-15 letters were included, as it was assumed that all respondents would then be able to process the text within a fixation.

If the eye tracking study with all of the respondents would have been conducted, each of the AOIs would be entered into the software to allow the dataset to specifically include the fixations on each specific AOI rather than on the entire stimuli.

**FIGURE 3**



### Stimuli Design

To ensure that all the images and messages had the same size and dimensions, a template was used to design each of the stimuli (Appendix 3). To ensure consistency and thus limit the number of variables in the design, the images were placed on the right while the messages were placed on the left in all of the

stimuli, as shown in figure 3 above. Furthermore, the center of the stimuli was kept clear of AOIs, to avoid the central fixation bias, which describes the tendency of respondents to look more frequently to the middle of the screen than to the outer edges (Tatler, 2007, p. 1).

Alongside the 18 stimuli, 18 distractors were included to blur the purpose of the study and minimize the potential influence on the respondents' evaluations. These distractions would later be excluded during the data processing. To create conformity in the study and not raise suspicion of the field of research, all of the distractors consisted of the same elements as the stimuli, namely; a product, a message, and a brand, using the same template (Appendix 3). For the distractors, images of various fashion items for men and women were chosen to stay within the realm of apparel, making the study appear more credible to participants. Furthermore, various messages were selected including both scarcity and non-scarcity messages such as "New collection", "Classic design", "New arrival", etc.

#### *Image and font selection*

When selecting the images for the stimuli, several considerations were made regarding the chosen brands as well as the specific sneaker models.

Firstly, only brands who had in fact engaged in sneaker collaborations between luxury and streetwear brands were included in the study. This was considered important to increase the ecological validity and not incorporate e.g. luxury brands that would likely never collaborate with a streetwear brand. However, as stated in the introduction, the trend of sneaker collaborations is still quite new (Beauloye, 2018) (Beauloye, 2020) which meant that the number of collaborations was somewhat limited, which in turn limited the brand options. To further increase the ecological validity, the specific sneakers presented were all either real-limited edition models or re-releases of older models that had been discontinued. This was considered important in case some respondents should have extensive knowledge of the sneaker market and as such, be able to recognize if a non-scarce sneaker was labeled as limited edition. To examine the respondents' knowledge of the presented brands and their consumption of sneakers, the following survey would ask participants to account for how often they purchase sneakers as well as their perception of each brand. This will be elaborated on in the "Study Setup" section.

Next, the selected brands were classified as either "luxury" or "streetwear" based on the researchers' knowledge of the specific brands supported by secondary data from articles as well as the brands'

websites. Ultimately, the selected luxury brands were Prada, Supreme, Alexander Wang, Commes Des Garcon, Fendi, Gucci, Dior, Stella McCartney, and Chanel, while the streetwear brands were Adidas, Nike, Puma, Converse, Fila, Reebok, and New Balance. In this context, it is important to note that a classification as e.g. “luxury” is a subjective matter, which was noted as a possible limitation. However, to mitigate the limitation and gain insights into the respondents’ perception of the brands, they were all asked to classify the brands as either luxury, average, or budget in a survey following the study. This will be further elaborated on in the “Study Setup” section below. To ensure that the respondents would be able to recognize the various brands, the brand names were manipulated onto those sneakers that did not already clearly show these. Furthermore, this also meant that all of the sneakers would be classified as conspicuous products. However, as previously noted, this might simultaneously pose a limitation, if some participants might be sneaker enthusiasts and thus be able to recognize the manipulation.

When writing the messages for each stimulus, the iconic fonts of the specific brands were used. This was chosen after careful considerations in order to increase ecological validity and make the stimuli appear more credible and like a real-life advertisement. It was noted that this might simultaneously pose a limitation, as some fonts might make the words more difficult for respondents to read, resulting in longer fixation times. However, to mitigate this, only fonts that were deemed as easy to read by the researchers were included. For example, the letters of the Stella McCartney font consist of dots (as can be seen in the image below), why it was considered difficult to read during a fixation. As such, only fonts with no special characters were included in the stimuli.

EXAMPLE

STELLA / MCCARTNEY

## Study Setup

### Software and Hardware

The software used to set up the eye tracking study was iMotions, the world’s leading eye tracking software, which offers a screen-based solution (iMotions, n.d.). iMotions offers easy data collection in a controlled lab setting using an eye tracking module (provided by Tobii), which was integrated onto the bottom of a computer screen in CBS’ SenseLab. The computer screen was placed behind a separation wall, which enabled privacy for the participants. The integrated module allowed several advanced

analyses, out of which the areas of interest (AOIs) were used to provide the metrics used, specifically, the fixation duration, revisits, and fixation sequence (iMotions, n.d.).

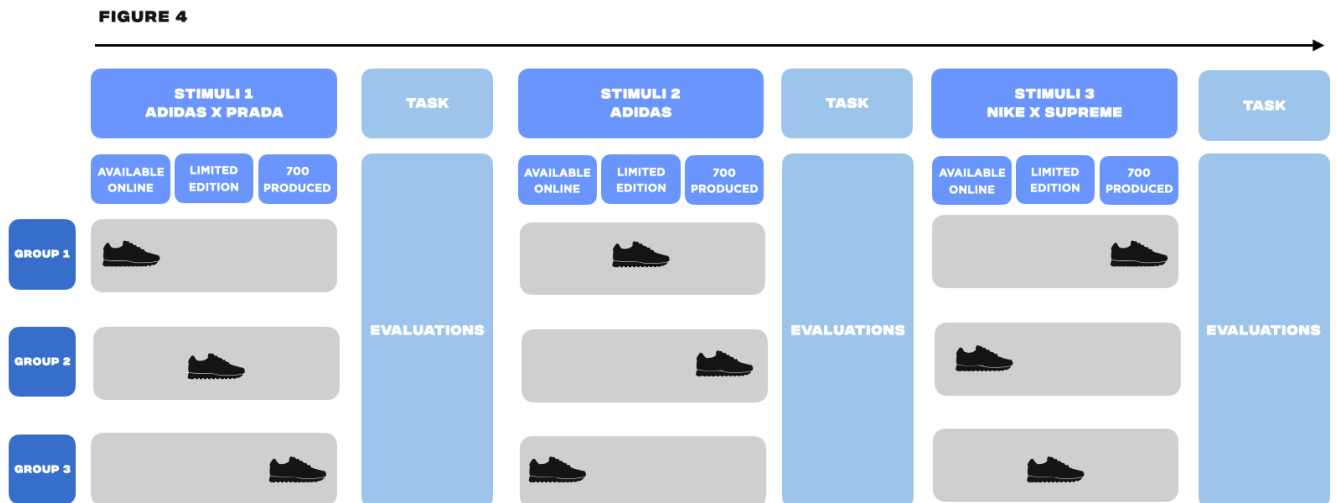
As such, iMotions allowed for the creation of a simple personalized eye tracking study and setup. The chosen stimuli were easily uploaded followed by the task of evaluating value, status, and quality using a continuous measure scale, which is an alternative to the classic Likert scale (Sullivan & Artino, 2013, p. 541), and the exposure times were easily fixed. Subsequently, the three or four different AOIs would have been drawn out for the software to gather and organize the data into excel sheets, from which the data cleansing and analysis would take place.

### Study Structure

In the following section, the way in which the research design has been structured will be elaborated on. This will be done in order to create transparency of how the data will be generated as well as the process hereof. By doing so, this will enable the reproduction of the study, thus enhancing the overall validity and reliability (Halkier, 2002, p. 111) (Kvale, 2007, 122).

As stated above, three messages were selected to thoroughly test the hypotheses, namely the scarcity messages of “limited edition” and “700 produced”, as well as the neutral message of “available online”. In order to test the effect of the messages on the product evaluations (on the individual sneakers as well as across sneakers) the messages were divided into three test groups. Each group would be presented with the same sneakers, however, paired with one of the three messages each. As shown in figure 4, this meant that group 1 would be exposed to a stimulus consisting of a co-branded Adidas x Prada sneaker with the message “available online,” group 2 would be presented with the same sneaker, however, with the message “limited edition,” and group 3 would be exposed to the same sneaker with the message “700 produced”. To blur the purpose of the study and not raise suspicion of the field of research, the messages were distributed across the groups, so that one group would not be exposed to the same message throughout the study. In order to further blur the purpose, the order of the stimuli and distractors would be pseudorandomized to prevent respondents from being exposed to the same message consecutively, which could have been the case with complete randomization. Furthermore, three random distractors will be placed at the beginning of each of the three test groups’ studies to ensure that the participants will understand the format before being exposed to the actual stimuli.





As seen in figure 4 above, each stimulus would be followed by the task of evaluating the value, status, and quality of the products. These tasks will also be given after each of the distractors to limit any suspicion. The evaluations consisted of three statements out of which the participants had to mark their level of disagreement or agreement using a continuous measure scale (Appendix 5). On the scale, the outer poles of “highly disagree” (numerical value: 1) and “highly agree” (numerical value: 7) will be presented, while no numerical values will be shown to the respondents. This particular type of scale will be chosen to avoid creating any biases towards the middle or the specific integers of the scale (Sullivan & Artino, 2013, p. 541). The three statements that participants will be asked to evaluate is as follows; “the product is high quality” (referring to the perceived quality), “the product is expensive” (referring to the monetary value), and “the product signals high status” (referring to the perceived status) (Appendix 5). These statements will be presented in an introductory slide, before the study begins, to prepare the participants in the best way possible and avoid unnecessary confusion (Appendix 6).

Based on the result of a pilot test, which will be elaborated on later, the exposure time was fixed to six seconds. This was argued to give the participants sufficient time to notice all the AOIs, while not giving them too much time to overthink and overprocess the stimuli. In addition, the black interslide that would appear before each stimulus would last 1500 milliseconds and show a “+” in the center of the screen to ensure that all the first fixations were controlled towards the center. This would allow the researchers to disregard all of the first fixations, due to the central fixation bias described in the stimuli design. Moreover, the participants would be given the ability to manually advance from each evaluation slide, once they had provided their evaluations. The manual advance, however, had a fixed time frame

of 60 seconds, which was deemed more than sufficient based on the conducted pilot tests, which will be elaborated on later in the section of “Peer Review and Pilot Study.”

At the end of the study, the participants were presented with a survey to ensure knowledge of the presented brands. Each participant was asked to mark whether they perceived the brands to be “budget,” “average,” or “luxury” or whether they did not have knowledge of the brand. As previously mentioned, if a participant had no knowledge of one or several of the brands, these results would be taken out of the final datasheet during the data processing. This was done based on Keller’s research, which revealed that if consumers have no knowledge of a brand, besides their name and logo, they may solely base their evaluation of value, status, and quality on the brand salience (Keller, 2001, p. 9). Furthermore, the participants were asked how often they purchase sneakers based on the following options; “more than once a month,” “once every one to two months,” “once every three to four months,” “once every five to six months,” “once every seven to eight months,” “once every nine to ten months,” “one every eleven to twelve months,” or “less than once a year.” This was done to examine the participants’ relationship with and knowledge of sneakers to determine whether they fit into the target audience. As such, if some results stood out from the rest it would have been interesting to examine whether this was potentially due to the participants not fitting into the target group. This particular target audience will be elaborated on in the following section.

## **Sample Population**

As Dattalo argues, studying an entire population is nearly impossible, since the cost of studying an entire population is too extensive for researchers in terms of time and money (Dattalo, 2008, p. 3). Therefore, a subset of a given population must be selected; this is called sampling. Ideally, a sample is selected to provide a representative picture of the population based on elements that accurately portray the characteristics of the chosen population (Dattalo, 2008, p. 3).

To give a somewhat true representation of the population of 24-39-year-old millennials, a sample of 90 participants within this target group was gathered. To reach a sample of 90 participants, the researchers used their network to gather the first 80 participants, while the remaining 10 were to be collected at CBS (see appendix 7). Out of the 80 pre-booked participants, 45 (56,25%) were females and 35 (43,75%) were males. Since the participants were collected by the researchers, the sample was primarily in the younger segment of the target group, like the researchers themselves, why it was noted that this could

potentially pose a limitation for the overall generalizability and representativeness of the population. However, to strengthen the generalizability, the 90 participants would be divided into three groups of 30 respondents, each consisting of equal numbers of men and women to ensure that the groups were as homogenous as possible.

As previously mentioned, it was a criterion that the participants possessed knowledge about the brands presented in the study. Therefore, the study had a follow-up survey at the end to assess whether the participants, in fact, had knowledge of the presented brands - if not, these would be excluded from the datasheet. Lastly, a criterion for participating was that respondents did not suffer from inhibitory visual impairment to avoid any issues regarding the recording of eye movements (Wang & Minor, 2008, p. 208). This was accounted for during the collection of participants by asking each participant if they had a normal vision if they used glasses or contact lenses.

### **Peer Review and Pilot Study**

During the process of determining the research design, considerations such as the exposure time, which evaluations to include, as well as the amount and design of the stimuli and distractors, were shared during several workshops. During these workshops, the considerations were shared with a group of fellow neuromarketing students as well as two supervisors, who could provide their feedback, to enhance the final research design and study.

Once the study was designed, a pilot test was conducted with two participants. This was done to optimize the study setup in terms of the exposure time, the number of stimuli, as well as to discard general concerns regarding the clarity of the procedure. Furthermore, it was just as important that the pilot tests provided the possibility to evaluate the study with participants within the target group. By doing so, it would be easier to ensure that everything in the final study made sense, was clearly understood, and was easy to carry out. Based on these pilot tests, the final study was corrected and improved, specifically by increasing the exposure time from 5 seconds to 6 seconds per stimuli and changing the fixed time to manual advance of the evaluations. The reason for the changed exposure time was that the pilot participants had expressed that they did not have enough time to see the stimuli properly. As for the alteration from fixed time to manual advance, it was changed from being fixed to 15 seconds per evaluation slide to including manual advance, as the pilot participants initially were not able to reflect and answer within 15 seconds. On the other hand, the pilot test revealed that 15 seconds

were more than enough, once the participants got used to the procedure of the study. Therefore, the setup was changed to manual advance, so the participants could click ahead once they had finished evaluating each stimulus properly. However, the time for evaluation was still fixed to a maximum of 60 seconds, as a limit was needed to prevent the participants from spending an infinite amount of time evaluating each stimulus due to the tight schedule (Appendix 7).

## **Quality Criteria**

There are several things to consider to ensure the quality of the data extracted from the study. Once again, these will be outlined to ensure the validity and reliability of the study.

Firstly, eye calibrations were conducted to ensure the best possible accuracy of the data. These calibrations were conducted by asking the participants to follow a number of calibration points on the screen with their eyes. During this calibration, the eye tracker would measure the characteristics and personal differences of the participants, such as where their pupils were located in relation to the cornea and fovea in the back of the eyes (Tobii, n.d.). During the calibration, the Tobii hardware illuminates infrared light into the participants' eyes, which creates a reflection that enables the eye tracker to pick up the gaze point on the screen (Tobii, n.d.). After each calibration, the software would reveal the quality. The quality criteria set for this thesis requires the calibration to be classified as “excellent” to avoid any unnecessary errors in the results, which could deem the experiment less valid.

Secondly, as mentioned earlier, the screen-based eye tracker requires the participants to stay within the limits of the headbox, which is the area in which the eye tracker can accurately follow the eyes. If a respondent moves too far away from the eye tracker, the camera will not be able to reliably detect the eyes (Farnsworth, 2017). Therefore, the participants were asked to sit comfortably, placed within the range of the headbox, which could be seen in the iMotions software.

Thirdly, linked to the above, it was essential to consider the data quality, which involves how long and how accurately the device was able to track the participants' eyes (Farnsworth, 2017). The iMotions software has a built-in function, that reveals the data quality of the individual stimuli as well as of the overall study for each participant. The default setting for acceptable quality data was set at 80%, and as such, the software automatically marked all stimuli with a poorer quality with a red color. Such potential poorer quality can be argued to be partly due to the functional blindness caused by saccades and

blinking, which according to Land and Tatler happens 15% of the time (Land & Tatler, 2009, p. 27). The last 5% can be argued to function as a buffer and account for minor errors, such as participants shortly moving out of the headbox or having different blink rates. As it is recognized that a participant might blink more during one stimulus than another, thus resulting in a data quality of less than 80% on one stimulus and more than 80% on another stimulus, it is the data quality of the overall study of each participant that is deemed relevant to this study. As such, the criterion of having data quality of at least 80% for the overall study per participant, was proposed.

### **Ethical Considerations**

Based on the ethical principles of psychology and code of conduct from the American Psychological Association (APA), the following ethical considerations will be outlined, namely; institutional approval, maintaining confidentiality, obtaining general informed consent, obtaining consent for audio/video recordings, and lastly giving a proper debriefing (iMotions B, 2015). These will all be taken into consideration to ensure an ethical experiment.

The institutional approval requires an academic institution's (in this case CBS) approval of the desired research project, the methods, and procedures included. Institutional approval ensures that ethical principles are fulfilled and that the study is performed in accordance with the protocols (iMotions B, 2015). In the case of this particular study, a thesis contract was signed with CBS as well as with the supervisor. This ensured that the desired research project was pre-approved, while the supervisor advised during the establishment of the research design to ensure that all ethical principles would be respected before conducting the experiment.

Maintaining confidentiality requires that all personal information such as name, age, and gender of the participants must be protected (iMotions B, 2015). This was taken into consideration in several ways. Firstly, the participants signed a contract which ensured that all personal data would be deleted six months after the conduction of the experiment. Secondly, code schemes were used instead of the participants' names, to ensure anonymity, e.g. "Participant 023" (Appendix 4). Lastly, the contracts would be stored securely and thrown out after 6 months.

Next, it was important to obtain general informed consent from the participants of the study, ideally in written and oral form. This required that the language was reasonably understandable and contained an

explanation of whether any risks were involved (iMotions B, 2015). In appendix 4, a contract exemplifies how this ethical consideration was accounted for, of course blurring out all personal data. Furthermore, all formalities were explained to the participants before each experiment to both ensure oral and written consent and to allow for any further questions and clarification towards the experiment.

Regarding the fourth ethical consideration of obtaining consent for audio/video recordings, this was not deemed of relevance to the particular study, as no audio or video recordings were necessary to assess the problem statement.

Lastly, a proper briefing was given prior to and after the data collection. Before the data recording of each participant, comprehensive instructions were given orally, as well as on the test screen (Appendix 5). As the nature of the study could not be communicated before the study, to avoid influencing the answers and creating biases, this was explained after the actual recording. According to APA, this would reduce stress and potential negative emotions for the participant related to possible embarrassment of their recorded actions (iMotions B, 2015).

## **Limitations**

This section will provide an overview and elaboration of the limitations of the research design, as these are important to consider going forward with the analysis of the thesis. For each of the presented limitations, mitigations were included to minimize the extent of the limitations as much as possible.

Firstly, the scarcity messages included in the stimuli were written in the specific fonts of the brands. This was chosen after careful considerations to increase the ecological validity by making the stimuli appear more credible and similar to a real-life advertisement. However, it was noted that this might simultaneously pose a limitation, as some fonts might be more difficult for the respondents to read, resulting in longer fixation times. To mitigate the limitation, the fonts that included special characters were avoided.

Another consideration worth mentioning is the placement of the messages relative to the images. As the study was conducted in English, the order of reading was from left to right, which might entail that participants would instinctively be biased towards the left. This would then entail that the first fixations would be on the messages rather than on the sneaker, simply due to the natural order of reading. On

the other hand, the potential saliency of the sneaker might cause an instinctive first fixation to the right. To control the first fixation, the “+” on the interslide between stimuli forced the participants to place their first fixation in the center of the screen, which allows the researchers to disregard the first fixation since there were no AOIs placed in the center.

Next, it is considered a limitation that some may read slower than others e.g. due to a participant reading a word at a time, vocalizing the words (reading the words out loud), or regressing (rereading a text because it has become a habit) (HealthStatus, n.d.). Furthermore, some participants may suffer from dyslexia, potentially causing slower reading of the messages as well. However, to mitigate this limitation, the messages were no longer than 11-15 characters, which is considered as lower than the usual perceptual span that allows for the processing of 17-19 letters (iMotions, 2018, p. 13).

Furthermore, as mentioned in the stimuli section, the classification of luxury and streetwear products was noted as a possible limitation. This is due to the perception of brands being a somewhat subjective matter. This limitation also reflects the emergent objectivity of postpositivism, as it was potentially influenced by the researchers. However, this was mitigated by asking for the respondents’ perception of the brands in the following survey section, thus enabling the examination of whether an agreement in perception was present between the researchers and the participants.

Furthermore, the researchers consist of two females and one male, which can be argued to have contributed to the skewed demographic distribution of respondents. This may damage the likelihood that the experiment will produce the same results if reproduced by others, which is often the premise of reliability (Kvale, 2007, p. 122).

Lastly, it is acknowledged that errors will inevitably occur throughout the eye tracking study, e.g. due to a participant moving outside the headbox too much, or due to a blinking rate above average. Therefore, to ensure the most accurate and valid study possible, some participants would have to be taken out of the datasheet during the data processing, if their overall data quality was below 80%. This represents the principle of critical realism of the postpositivist paradigm, which assumes that the truth is out there but never fully attainable, why it will never be possible to reach a data quality of 100%. This data processing will be accounted for in the following section.

## **Data Processing**

The following section will account for how the raw data sheet should be prepared for statistical analysis. However, significant limitations were encountered due to the global COVID-19 pandemic, which hindered the collection of data. Therefore, the following will explain how the data would have been processed, had this been extracted.

### **Limitations as a Cause of COVID-19**

Once the study was set up, the data collection was initiated on Wednesday, 11 March 2020. However, due to the government's restrictions concerning COVID-19, CBS shut down their premises on Thursday, 12 March (see appendix 8), prohibiting the researchers from accessing the SenseLab. As a consequence, only 23 of 90 respondents participated in the eye tracking experiment (Appendix 7).

Since the SenseLab was not accessible, it was not possible to extract the data of the 23 recordings. Even if this had been possible, the data would not have been useful since all the recorded participants were placed within the same group. This means that all the participants had seen the same stimuli with the same messages, why it would not be possible to analyze and compare the data across groups (See figure 4). As such, it would not be possible to assess the problem statement and examine the effect of the scarcity messages on the perceived value, status, and quality of the sneakers.

As the pandemic occurred so late in the writing process, it was not optimal to discard the current problem statement and compose a new one within the restricted time frame. It was considered whether the study should have been converted into a survey to ensure a source of primary data, however, this would not have provided any insights into which AOIs were fixated on to form the evaluations. Therefore, it was argued that a survey alone would not be sufficient to assess the problem statement and hypotheses. Also, the restricted time-frame inevitably posed a challenge in regards to receiving sufficient responses for each of the three groups in time. Consequently, the following analysis and the rest of the thesis will be based solely on theoretical arguments.



## **Data Cleansing**

Had the recordings of the 90 participants been completed, the first step of data processing would have been concerned with cleaning the raw data and preparing it for statistical analysis to assess the hypotheses. Prior to the extraction of the raw data, all participants not complying with the quality criterion of having an overall data quality of 80% would be removed within the iMotions software. Next, if it would have been possible, all AOI fixations would have been extracted from iMotions using Microsoft Excel to produce the raw datasheet. The raw data would include all fixations of each respondent, which would be studied to detect any potential errors or inconsistencies caused by the used software. The third step would entail removing all the first fixation durations of the participants, as these would naturally be at the center of the stimuli, due to the fixation on the “+” of the interslides. Also, the metrics of time to first fixation, the ratio, the fixation count, the revisitors, and the visitors would be removed, as these were not deemed of relevance and would not have been applied in the assessment of the hypotheses. Additionally, all columns with data from individual gaze points should be removed, as the analysis would have been based on fixations.

Lastly, the data from the survey would be examined to disclose whether any respondents did not have knowledge of one or more of the brands presented in the study. If this was the case, all the recorded data from the particular respondent would be taken out of the final data sheet, to ensure that all participants included in the final datasheet belonged to the target group.

## **Analysis and Discussion**

Since no raw data were extracted due to the restrictions regarding COVID-19, the data analysis will be based on theoretical arguments and as such approach the hypotheses with reasoned discussions based on the methodological and theoretical framework. Specifically, the theories that will be incorporated are; the Two-Factor Structure of Affect, theories on basic emotions, the CBBE model, theories on co-branding and luxury consumption, the Fundamental Motives Framework, theories on conspicuous consumption and costly signaling, as well as the Iterative Reprocessing model. Throughout these arguments, Corman’s five main principles of postpositivism are considered, namely falsificationism, naturalism, realism, transformational models, and emergent objectivity (Corman, 2005, p. 6-11). For the sake of the analysis and discussion, it is assumed that all the hypotheses would have been accepted, except hypothesis three, where it is assumed that no difference between the variables exists. However,

it is, of course, unlikely that all the hypotheses would have shown a notable difference due to the limited number of respondents. Lastly, appraisal theories will be included in a discussion of the emotions which might arise in a potential, real-life, purchase situation.

**H<sub>1</sub>: Participants exposed to "available online" perceived value, status, and quality to be lower than those exposed to a scarcity message.**

To assess H<sub>1</sub>, an independent t-Test would be conducted to compare the evaluations of value, status, and quality of each sneaker between those respondents who were exposed to "available online" and those exposed to a scarcity message (either "limited edition" or "700 produced").

Specifically, a t-Test would examine whether there was a significant difference between the evaluations of the two groups, by determining the significance level with a so-called p-value (Muijs, 2013, p. 115). Based on Levene's test significance level, a p-value <0.05 would indicate a high significance meaning that there was a significant difference between the evaluations of the two groups (Muijs, 2013, p. 119). On the other hand, if the p-value was >0.05 the significance level would be low, meaning there was no significant difference between the evaluations of the group that was exposed to a scarcity level and the group exposed to "available online" (Muijs, 2013, p. 115).

The significance level would be found in order to reject the so-called null hypothesis, in line with the principle of falsification in the postpositivist paradigm, and simultaneously accept the so-called alternative hypotheses (H<sub>1</sub>). Generally, the null hypothesis assumes that there is no difference between the variables, whereas the alternative hypothesis assumes the opposite. As such, H<sub>01</sub> would be described as: *"Participants exposed to "available online," perceived value, status, and quality to be equal to those exposed to a scarcity message."*

In order to assess the null hypothesis (H<sub>01</sub>), the t-Test would be applied to compare the numerical variables of value, status, and quality (which are evaluated on a continuous measure scale ranging from 1-7) for each of the groups; those exposed to scarcity messages and those exposed to "available online". As such, the evaluations would be compared across the groups to determine if the evaluations were generally higher within the group exposed to a scarcity message than those exposed to "available online". Three independent t-Tests would be applied; one for each of the three factors (value, status,

and quality). This method would be repeated for each of the presented stimuli to determine whether the higher evaluations could be applied for all the sneakers.

Had the study been completed, it is assumed that the results would have shown a p-value  $<0.05$ , indicating a significant difference in the evaluations between the two groups. This would enable the rejection of the null hypothesis ( $H_{01}$ ) and the acceptance of the alternative hypothesis ( $H_1$ ). However, it is acknowledged that a notable difference might not have been found due to the limited sample size, why the p-value might have been just below 0.05. The acceptance of  $H_1$  is based on the theoretical framework outlined throughout the thesis, supporting the assumption that scarcity messages can increase consumer perceptions in various ways and raise a product's perceived value, status, and quality in the eyes of consumers (Aggarwal et al., 2011, p. 20) (Chae et al., 2019, p. 3). This assumption will be discussed in the following.

As the Iterative Reprocessing Model prescribes, evaluations are part of an iterative cycle of automatic and reflective processes that continuously repeats and adjusts itself to develop a nuanced evaluation in line with the context and the goal of assessing the value, status, and quality, as well as finer details in the stimulus. As such, some judgments may be reached rapidly while others may be continuously altered and updated every few hundred milliseconds as new information is processed. Within the first few iterations after stimulus perception, evaluations will often be based on heuristics and preexisting attitudes during the automatic processing, while subsequent iterations will include reflective processing that allows for more nuanced evaluations to also account for complex social environments as well as the possible rewards. This interaction between the processes creates a dynamic tension that helps decision-makers strike a delicate balance between initial "gut" responses and more nuanced evaluations (Cunningham et al., 2007, p. 739 + 741).

It is assumed that a respondent's first fixations on the presented stimulus would initiate automatic processing and generate quick evaluations based on the valence of preexisting attitudes. As it is argued that the message "available online" is neutral and does not carry any notion of scarcity, it is assumed that exposure to this message would not trigger any recall of particular preexisting attitudes. As such, it is assumed that the neutral message will not trigger any emotional attitudes during the initial evaluations, thus not leading to higher perceptions of value, status, and quality, as when presented with a scarcity message. In contrast, if a respondent had previous, positive experiences with scarce products,

the valence, and arousal related to the experiences would influence the first quick evaluations based on heuristics. As Jang et al. argue, scarcity messages are proved to be effective in creating positive evaluations (Jang et al. 2015, p. 989), why it is assumed that exposure to these messages would lead to overall higher evaluations compared to those exposed to “available online”.

In the following iterations, reflective processing would allow respondents to consider the social mechanisms as well as the possible rewards related to the situation. During these iterations, it is assumed that respondents might consider social rewards such as e.g. attaining status. As previously mentioned, humans are evolutionarily a group-living species and as such, they naturally desire to acquire status within their groups by attaining a higher position compared to others based on some dimension that is considered important within their society (for example wealth) (Griskevicius & Kenrick, 2013, p. 378) (Nelissen & Meijers, 2011, p. 343). However, as argued above, the message “available online” is neutral and is argued to not contribute to the motive of attaining status. Furthermore, it is assumed that a neutral message does not provide any cues of the value and quality of the product, why it is assumed that it will not contribute to higher evaluations of either value, status, and quality. On the other hand, scarcity messages can be argued to feed into the motive of attaining status, as consumers can signal high social status and wealth to others through the possession of scarce and expensive conspicuous products (Jang et al., 2015, p. 990). In addition, previous studies have indicated that scarcity messages can help raise a product’s perceived value and quality (Aggarwal et al., 2011, p. 20) (Chae et al., 2019, p. 3). As such, it is argued that scarcity messages can contribute positively to the perceived value, status, and quality of the products, in contrast to the neutral message of “available online”.

As stated by Cunningham et al., the longer the time an individual has to make an evaluation, the more reflective processes may occur (Cunningham et al., 2007, p. 739). On the other hand, if the time to evaluate a certain stimulus is limited, it is assumed that less reflective processes may occur. As such, more iterations will allow for the foregrounding and backgrounding of the different patterns of activation in the brain that make either automatic or reflective processes dominant within the specific evaluation based on the context and goals (Cunningham et al., 2007, p. 751). Since the exposure time of the stimuli was fixed to six seconds, it is assumed that the automatic processes would have been at the foreground in the evaluation process meaning that the evaluation might, to a large extent, be influenced by heuristics. However, as the message of “available online” is argued to not carry any connotations of

scarcity or affect as mentioned earlier, it is assumed that this message will not function as a heuristic to increase value, status, or quality.

Based on the above arguments, it is assumed that the eye tracking study would have shown that the perceived value, status, and quality was lower for those participants exposed to “available online,” than those exposed to a scarcity message.

**H<sub>2</sub>: If the average fixation duration on the scarcity messages was longer than 250 milliseconds, the value, status, and quality were perceived to be higher than if the average fixation duration was shorter than 250 milliseconds.**

*H<sub>02</sub>: If the average fixation duration on the scarcity messages was longer than 250 milliseconds, the value, status, and quality were perceived to be the same as if the average fixation duration was shorter than 250 milliseconds.*

Had the data been extracted, hypotheses H<sub>2</sub> and H<sub>02</sub>, would be assessed using an independent t-Test to compare the evaluations of value, status, and quality of each sneaker between those respondents whose fixation duration on the scarcity message (either “limited edition” or “700 produced”) were longer than 250 milliseconds and those whose fixation duration was equal to or shorter than 250 milliseconds.

The t-Test would be applied to compare the numerical variables of value, status, and quality, which are evaluated on a continuous measure scale ranging from 1-7 across two groups, to determine if the evaluations were generally higher within the group whose fixation duration on the scarcity message was longer than 250 milliseconds. Three independent t-Tests would be applied to all the stimuli to compare the average evaluation of the three factors: value, status, and quality. This method would be repeated for each of the presented stimuli to determine whether the higher evaluations applied for all the sneakers.

Had the study been completed, it is assumed that the results would have shown a p-value <0.05, indicating a significant difference in the evaluations between the two groups. This would enable the rejection of the null hypothesis (H<sub>02</sub>), in line with the falsification principle of postpositivism, and the acceptance of the alternative hypothesis (H<sub>2</sub>). However, it is acknowledged that a notable difference

might not have been found due to the limited sample size, why the p-value might have been just below 0.05. This assumption is based on the theoretical framework outlined in the thesis.

As previously mentioned in the section on applied methods, simple reading tasks generally require a fixation of approximately 250 milliseconds. However, if longer fixations occur, this might indicate increased levels of processing of the specific AOI (Meißner & Oll, 2017, 596). More specifically, the assumption is that short fixations up to 250 milliseconds indicate scanning and automatic processes, whereas longer fixations indicate deeper processing, such as deliberate considerations of information (Meißner & Oll, 2017, p. 597).

As the participants were presented with the task of evaluating the perceived value, status, and quality of the sneakers after being exposed to each stimulus, it can be argued that goal-directed processes were in place, which requires both automatic and more reflective processes. Goal-directed processes, which can elicit top-down attention, will lead to a behavior to fulfill one's goals (Meißner & Oll, 2017, 596). As such, it can be argued that, if the fixation duration was longer than 250 milliseconds on the scarcity messages of "limited edition" and "700 produced," these were deemed as relevant for the participants to assess the goal of evaluating the perceived value, status, and quality. However, if the average fixation was equal to or lower than 250 milliseconds, the scarcity messages were primarily automatically processed and scanned. As such, it is argued that this would result in lower evaluations of value, status, and quality than if the scarcity messages would have been given top-down attention and thereby be deemed as an important factor for the following evaluations. Lastly, it is of course also acknowledged that reading disabilities or a slower reading pace might be the cause of a longer fixation duration of the scarcity messages for some of the participants.

Concerning the goal-oriented behavior, it can be argued that participants will look for cues that indicate the value, status, and quality of the presented stimuli to evaluate the product. As scarcity messages can make consumers believe that products are special, unique, and valuable, this can be argued to feed into the status attaining behavior (Jang et al. 2015, p. 989). As such, scarcity messages function as strong indicators to determine whether a product signals high status or not and will arguably result in higher evaluations of status. Furthermore, it is found in previous studies, that scarcity messages can help raise a product's perceived value and quality (Aggarwal et al., 2011, p. 20) (Chae et al., 2019, p. 3). Furthermore, limited quantity scarcity messages, as the ones in the study, are proved effective in

creating positive evaluations (Jang et al. 2015, p. 989). As such, it is assumed that if the average fixation duration on the scarcity message was above 250 milliseconds, the perceived value and quality of the sneakers were higher than if the average fixation was equal to or lower than this.

As stated throughout the paper, eye tracking only records fixations and does not allow one to gain knowledge of any particular cognitive processes and the emotional states driving the eye movements (iMotions, 2018, p. 18). Therefore, the following section will consider the Iterative Reprocessing Model to understand the underlying and unobservable mental processes involved in evaluation. In this way, the theories are included to support the experimental data in line with the fourth principle of transformational models in the postpositivist paradigm. This is done to further support the argument that hypothesis two is accepted and shed further light on the problem statement.

The Iterative Reprocessing Model accounts for the highly dynamic nature of human evaluations as well as the underlying thoughts and emotions hereof. The model describes how evaluations are formed by multiple cognitive and affective processes that collaborate to make evaluations about stimuli (Cunningham et al., 2007, p. 750-751). These evaluations are influenced by preexisting attitudes as well as the context and the specific goal (Cunningham et al., 2007, p. 737). Cunningham et al., argue that during the early stages of processing, the strongest weights associated with an attitude give rise to a specific pattern of activation and result in quick and automatic evaluations (Cunningham et al., 2007, p. 751). As such, some judgments may be reached rapidly, being dominated by automatic processing, while others may be continuously altered and updated as new information is processed (Cunningham et al, 2007, p. 739). Thus, the longer the time an individual has to make an evaluation, the more reflective processes may occur and visa versa (Cunningham et al., 2007, p. 739).

As the exposure time of each stimulus was limited to six seconds, it can be argued that the automatic processes were in the foreground affecting the final evaluation primarily based on heuristics related to preexisting attitudes towards scarce products. These preexisting attitudes may have been either positively or negatively valenced, as the Two-Factor Structure of Affect prescribes (Bagozzi, et al, 1999, p. 189). In this way, the evaluative processes will be influenced based on the valence of the preexisting attitudes towards these scarce products. As Aggarwal argues, buying scarce products can create a joy-of-winning sensation, which can feel as a pride like satisfaction almost like winning a game (Aggarwal et al., 2011, p. 20). If respondents have had such a prior experience, this can be argued to have formed a

positively valenced preexisting attitude, which will influence the following iterations. Within the six seconds, more iterations might happen to allow for reflective processes to occur being influenced by the context and the goal of evaluating the perceived value, status, and quality. With each iteration, the two processes would function in parallel and influence one another to finally reach the most appropriate evaluation.

It can be argued that the scarcity messages would be of interest to assess the goal and provide more detailed information to the iterations. Furthermore, it is argued that scarcity messages would make the participants believe that the presented products are special, unique, and valuable, arguably leading to more positively valenced evaluations of the value, status, and quality of the sneakers. As such, it is argued that if the average fixation duration on the scarcity message was longer than 250 milliseconds, it might indicate reflective processing of the scarcity messages. This will arguably lead to higher perceptions of value, status, and quality compared to when the fixation duration was equal to or lower than 250 milliseconds.

**H<sub>3</sub>: The more revisits on the scarcity messages, the higher the perceived value, status, and quality.**

*H<sub>03</sub>: The perceived value, status, and quality are unchanged, regardless of the number of revisits.*

To assess hypotheses H<sub>3</sub> and H<sub>03</sub>, three linear regression analyses would be conducted to examine the correlation between each of the three dependent variables (value, status, and quality) and the independent variable (revisits of the scarcity messages). This method would naturally be applied to all stimuli containing scarcity messages. Specifically, the basic linear regression equation is;  $Y = a + b \cdot x$ . In this context, “Y” should be understood as the evaluation of the particular dependent variable (e.g. status), whereas “X” would describe the independent variable, namely the number of revisits. “a” describes the intercept i.e. the value of the dependent variable (status) when the independent variable (number of revisits) is zero. Lastly, “b” describes the slope i.e. the value that the dependent variable will change, if the independent variable changes by one unit (Muijs, 2004, p. 140).

To describe the degree of linear correlation between revisits and each of the dependent factors (value, status, and quality), the correlation coefficient would be calculated. If the correlation coefficient (r) was <0, the slope would be descending. On the other hand, if r=0 there would be no linear correlation between the independent and dependent variables. Lastly, if r>0, there would be an increasing linear



correlation between the variables. This means that if  $r > 0$ , the null hypothesis would be rejected, in line with the falsification principle, while the alternative hypothesis ( $H_3$ ) would be accepted.

It is assumed that  $r > 0$ , which means that a higher number of revisits on the scarcity messages, would result in higher evaluations of the perceived value, status, and quality. However, it is noted that linear regression does not account for causality (Madsen, 2015, p. 150). Therefore, as described in the fourth principle of postpositivism (the transformational models), the theoretical framework will be included to examine the unobservable mechanisms causing higher evaluations with more revisits.

As stated earlier, the number of revisits describes how many times a respondent has returned their fixation at a certain AOI, and can thus provide insight into which AOIs repeatedly attracted the respondents' eyes (Farnsworth, 2018). However, revisits alone cannot explain the attraction towards an AOI, why the theory on scarcity messages will be incorporated to examine the underlying mechanisms causing the revisits. In addition, the fixation sequence is also interesting to consider, as it can provide detailed information regarding the order and direction in which the fixations occur as well as what caught the participants' attention first (Farnsworth, 2019). Therefore, the following discussion will be based on how the fixation sequence and the revisits on scarcity messages might influence the final evaluations of value, status, and quality.

The central idea behind offering a scarce product is to create a sense of exclusivity among the target group (Jang et al. 2015, p. 989). As previously argued, scarcity messages can make consumers believe that products are special, unique, valuable, and of good quality. In addition, seen from an evolutionary point of view, humans are a group-living species that desire to attain status within their group, why it is assumed that scarcity messages can feed into the fundamental motive of attaining status (Jang et al. 2015, p. 989) (Chae et al., 2019, p. 3) (Griskevicius & Kenrick, 2013, p. 378). Therefore, participants might have had the feeling that the more scarce the product, the more it might fulfill their need for status and prestige. In this respect, the participants who processed and revisited a scarcity message might have generated a positive feeling, that the scarce sneakers would provide respect and acknowledgment from surrounding others (Jang et al. 2015, p. 991). Therefore, it can be argued that scarcity messages might have attracted the respondents' attention repeatedly, as these function as cues of assessing the goal of evaluating the value, status, and quality of the sneakers in question. In relation to this, it can be assumed that the last fixation would be on the scarcity message, as the fixation

sequence can provide clues about which strategy the participants used when processing the respective stimuli to reach a decision (Meißner and Oll, 2017, p. 597).

To further argue why  $H_3$  is accepted, the Iterative Reprocessing Model, as explained in  $H_1$  and  $H_2$ , states that evaluations are part of an iterative cycle that continuously repeats and adjusts itself to develop a nuanced evaluation in line with finer stimulus details, as well as the context and goal of evaluating the perceived value, status, and quality. As such, some judgments may be reached rapidly, being dominated by automatic processing, while others may be continuously altered and updated as new information is processed (Cunningham et al, 2007, p. 739). In this way, it is assumed that participants' initial iterations would firstly generate automatic evaluations, after which additional iterations accompanied by reflective processes would allow for more deliberate evaluations.

Specifically, it could be assumed that the participants' first revisits on the scarcity message would, during the initial iterations of automatic processing, function as heuristics to provide an easy evaluation. In this context, Jang et al. state that scarcity messages tend to facilitate consumers' decision making heuristics and to some extent reduce their ability to make rational decisions. Put in other words, this suggests that scarcity messages can facilitate and foreground the automatic processes leading to positively valenced initial evaluations. This argument is further supported by Chae et al., who argue that scarcity of goods stimulates consumers and disrupts their ability to reflectively process information, which induces impulsive behavior (Chae et al., 2019, p. 2). As such, it is assumed that the participants might have been driven primarily by their heuristics rather than rational considerations during the first revisits of the scarcity message, resulting in high initial evaluations.

Thereafter, the following iterations would result in updated evaluations, where finer stimulus details would be processed between each revisit. During these iterations, it can be assumed that the participants' automatic and reflective processing might be based on their preexisting attitudes towards scarce products as well as the goal of assessing the perceived value, status, and quality. If the preexisting attitudes towards scarce products were positively valenced, in line with the Two-Factor Structure of Affect, it is assumed that the final evaluations would be high.

Based on the above arguments, it is assumed that the higher the number of revisits on a scarcity message, the higher the evaluations of value, status, and quality of the sneakers.

**H<sub>4</sub>: If the total fixation duration was longer on the luxury brand than on the streetwear brand, value and status were perceived higher.**

*H<sub>04</sub>: If the total fixation duration was longer on the luxury brand than on the streetwear brand, the value and status were perceived the same.*

Had the data been extracted, hypotheses H<sub>4</sub> and H<sub>04</sub> would be assessed using an independent t-Test (as in H<sub>1</sub> and H<sub>2</sub>) to compare the evaluations of value and status of each co-branded sneaker, between those respondents whose fixation duration was longer on the luxury brand and those whose fixation duration was longer on the streetwear brand.

The t-Test would be applied to compare the numerical variables of value and status, which are evaluated on a continuous measure scale ranging from 1-7, across the two groups to determine, whether the evaluations were generally higher within the group whose fixation duration was longer on the luxury brand than on the streetwear brand. Specifically, two independent t-Tests would be applied to measure the average evaluation of value and status and compare across the two groups. This method would be repeated for each of the presented stimuli to determine whether the higher evaluations applied for all the co-branded sneakers, where the fixation duration was higher on the luxury brand.

It is assumed that the results would have shown a p-value <0.05, indicating a significant difference in the evaluations between the two groups. However, it is acknowledged that a notable level might not have been found due to the limited sample size, why the p-value might have been just below 0.05. This would, however, still enable the rejection of the null hypothesis (H<sub>04</sub>) and the acceptance of the alternative hypothesis (H<sub>4</sub>). This assumption is based on the theoretical framework outlined in the thesis.

As mentioned in the theoretical framework, Kotler and Keller state that brands play many roles out of which two are functional and emotional. Specifically, the functional role is related to the performance of the product in terms of the utilitarian needs of a consumer (Kotler & Keller, 2012, p. 468-469), while the emotional role is related to the social and hedonic aspects of a product and is understood primarily in terms of a consumer's expression of self-concept and self-image (Aggarwal et al., 2011, p. 21). As previously argued, sneakers are assumed to play both a functional and emotional role. However, if they are made in collaboration between a streetwear brand and a luxury brand they are argued to play a somewhat more emotional role, than if they were made solely by a streetwear brand. This is because

hedonic luxury brands appeal to consumers' self-expression and self-image and thus help to raise emotional value. This is supported by Gallo and Mosca, who state that luxury consumption is often conducted with the intention of using it to publicly display and gain esteem, and the psychological benefits are thus considered to be the main factor that distinguishes luxury from non-luxury products (Gallo & Mosca, 2016, p. 2).

The argument that luxury brands help raise the emotional value of a sneaker, can be linked to the assumption that a longer total fixation duration on the luxury brand increases the perceived status. Specifically, it is interesting to discuss the fundamental motive of attaining status and how luxury brands feed into this. As a group-living species, humans desire to attain status among their groups. Status is defined as a higher position compared to others in some dimension; for example, in terms of wealth (Nelissen & Meijers, 2011, p. 343). Research investigating the link between luxury consumption and the fundamental motive of attaining status supports the idea that engaging in conspicuous consumption by displaying luxury products may be an evolutionary adaptive strategy and that the preference for luxury consumption comes from the universal tendency for signaling traits that might increase one's status (Nelissen & Meijers, 2011, p. 343). As such, it can be argued that the luxury brand serves as an interesting AOI to assess the goal of determining the status of the product. Thus, if the fixation duration was longer on the luxury brand than on the streetwear brand, it is assumed that the perceived status would be higher.

Next, it is interesting to discuss how a longer fixation duration on the luxury brand than on the streetwear brand results in higher evaluations of value. As value in our study refers to the monetary value of a product, a comparison of the prices of sneakers from six of the selected luxury brands and six of the streetwear brands have been conducted (see figure 5). This comparison clearly highlights the large differences in price between otherwise expensive streetwear sneakers and luxury branded sneakers. The most expensive streetwear sneaker in the comparison is sold at a price of 1,600.86 DKK, while the cheapest luxury branded sneaker is sold at a price of 4,667.24 DKK, indicating a large difference amongst these (see figure 5). Having ensured that the participants had prior knowledge of all the presented brands, it is argued that they would perceive the value to be higher on the co-branded sneaker if the fixation duration was longer on the luxury brand than on the streetwear brand.

**FIGURE 5**

**LUXURY BRANDS**



**PRADA**  
4.775,62 DKK



**FENDI**  
5.156,00 DKK



**GUCCI**  
5.894,67 DKK



**CHANEL**  
6.180,00 DKK



**DIOR**  
6.640,00 DKK



**STELLA MCCARTNEY**  
4.667,24 DKK

**STREETWEAR BRAND**



**ADIDAS**  
1.499,00 DKK



**NIKE**  
1.499,95 DKK



**PUMA**  
850,00 DKK



**NEW BALANCE**  
1.600,86 DKK



**FILA**  
900,00 DKK



**REEBOK**  
999,00 DKK

\*See appendix 9 for sources

As the participants were presented with the task of evaluating the perceived value and status of the products after being exposed to each stimulus, it can be argued that goal-directed processes were in place which requires both automatic and more reflective processing, as prescribed in the Iterative Reprocessing Model. Goal-directed processes, which can be linked to top-down attention, are transmitted to a behavior to fulfill one's goals; in this case the evaluation of value and status of the product (Meißner & Oll, 2017, 596). As previously mentioned in hypothesis two, longer fixation durations might indicate increased levels of processing of the specific AOI (Meißner & Oll, 2017, 596). As

such, it can be argued that if the fixation duration was longer on the luxury brand than on the streetwear brand, the luxury brand was deemed as a relevant factor for the final evaluation.

The Iterative Reprocessing Model will be used once again, to shed further light on the processes resulting in higher evaluations of value and status, when the fixation duration is longer on the luxury brand. Furthermore, the CBBE Model will be linked to the automatic and reflective processes within the Iterative Reprocessing Model. This will be done to help examine the effect of the brand equity of the luxury brand on the final evaluation.

As argued by Cunningham et al., some judgments may be reached rapidly, being dominated by automatic processing, while others may be continuously altered and updated as new information is processed (Cunningham et al, 2007, p. 739). Thus, the longer the time an individual has to make an evaluation, the more reflective processes may occur and vice versa (Cunningham et al., 2007, p. 739). Therefore, as the exposure time of each stimulus was set to six seconds, it can be argued that the automatic processes were in the foreground affecting the final evaluation primarily based on heuristics.

During the automatic processes, it is assumed that respondents might consider the initial stage of brand development of the CBBE Model, namely the brand identity, which consists of the building block of brand salience. Specifically, brand salience is connected to the respondents' awareness of the particular luxury brand, for example how easily the brand is recalled and to what extent the brand is top-of-mind (Keller, 2001. p. 8). The brand salience of the luxury brand is concerned with more than just knowing the brand name, logo, and slogans, but also relates to how the respondent links these to certain associations in the memory, which can be derived from preexisting attitudes. As such, if the preexisting attitude towards the luxury brand was positively valenced based on prior experiences, this might trigger immediate bottom-up attention and strong positive brand salience.

During the following iterations, more reflective processing occurs, gathering additional information, while being influenced by the valence of the preexisting attitudes. With each iteration, the automatic and reflective processes influence one another to finally reach the most appropriate evaluation (Cunningham et al., 2007, p. 741).

During the reflective processes, the respondents might consider the social mechanisms, in line with the transformational models of postpositivism, as well as the possible rewards of the situation; in this case e.g. attaining status. This can be linked to the second stage of brand development of the CBBE Model; namely, the brand meaning, which consists of the brand performance and the brand imagery. Brand performance relates to how the brand and its products attempt to accommodate the consumers' utilitarian needs (Keller, 2001, p. 10). As this aspect links primarily to the quality of the product, this will be elaborated on in the following hypothesis (H<sub>5</sub>), that investigates how the quality of the product is perceived to be the same, even if the fixation duration was longer on the luxury brand. The brand imagery, on the other hand, relates to how the brand meets the consumers' hedonic wants and needs, and how the brand is evaluated related to the consumers' self-reflection (Keller, 2001, p. 10-12). During these reflective processes, the more goal-directed processes take place, allowing the respondent to take into account information about the brand imagery, which helps to assess the perceived value and status of the product. If the fixation duration was longer on the luxury brand, reflective processing, as well as automatic processing, would recall and gather information about the brand to evaluate how it relates to the value and status of the product. As previously argued, the presented luxury brands are expensive relative to the streetwear brands and displaying these conspicuous products may function as a costly signal and an evolutionary adaptive strategy for signaling status (see figure 5) (Nelissen & Meijers, 2011, p. 343). Furthermore, luxury brands can be linked to the intangible category of personality and values. This category considered that brands take on personality traits and values similar to those of people, which are divided into five dimensions, namely; sincerity, excitement, competence, sophistication, and ruggedness (Keller, 2001, p. 12). Of these five dimensions, it is argued that the dimension of sophistication can be directly linked to luxury brands, as these represent the most prestigious brands in the marketplace (Gallo & Mosca, 2016, p. 2) and therefore, relates to the sub-dimension of being upper-class as presented by Keller (Keller, 2001, p. 12). As such, it can be argued that the brand imagery of a luxury brand will be high, as it will fulfill the respondents' hedonic wants and needs. Thus, it is argued that this contributes to higher evaluations of value and status.

Other information that might influence the evaluation of the value and status of the product, is related to the third stage of brand development of the CBBE Model, namely brand responses. This stage encompasses how the participants respond to the luxury brand and its marketing activity i.e. what customers think or feel about the brand. This stage can be divided into two building blocks, brand judgment and brand feelings, which according to Keller relates to evaluations from the head (reflective

processing) and the heart (automatic processing) (Keller, 2001. p. 14). Brand judgment focuses mainly on the customers' personal opinions and assessments of the brand out of which the categories of considerations and superiority were considered of relevance to determine the brand judgment of a luxury brand (Keller, 2001. p. 14). The brand considerations relate to whether the participants deem the brand relevant and meaningful for themselves e.g. to carry out impressions management, whereas brand superiority refers to the extent to which participants view the brand as unique and better than other brands (Keller, 2001. p. 13-14). In line with the theories presented earlier, Gallo and Mosca state that luxury brands demonstrate both physical and psychological values and represent the most prestigious brands in the marketplace (Gallo & Mosca, 2016, p. 2). Accordingly, luxury brands are often consumed with the intention of displaying it to others to gain esteem and be perceived as high-status personas, why, if the brand was considered as relevant to the participants themselves, the brand considerations contributed positively to the perceived status (Kang & Park, 2016, p. 3813). As the luxury brands are more expensive than the streetwear brands, the possession of luxury products can be used to display superiority in terms of wealth (see figure 5). Therefore, it can be argued that when processing information regarding brand judgment, fixation on the luxury brand might influence higher evaluations of value and status.

Brand feelings, on the other hand, relate more to heuristics, and what the participant feels about the brand. As previously argued; if the preexisting attitude towards the luxury brand was positively valenced (in line with the Two-Factor Structure of Affect), this will, according to Cunningham et al., influence the following iterations (Cunningham et al., 2007, p. 749-750). Related to this, it could be relevant to look into Panksepp's theory on basic emotions, as these are argued to be most deterministic when triggers are closely related to evolutionary motives; in this case the motive of attaining status (Tracy & Randles, 2011, p. 400). Panksepp outlines seven basic emotions; seeking, rage, fear, lust, care, panic/grief, and play (Panksepp & Watt, 2011, p. 387). These basic emotions are systems that generate feelings. Two out of the seven emotions can be identified as positively valenced and relevant in the context of evaluating the value and status of the product, namely seeking and play. According to Panksepp and Watt (2011), the basic emotion system of seeking generates the feeling of enthusiasm and helps to mediate our desires and our positive expectations. This happens in the VTA to the nucleus accumbens as well as the lateral hypothalamus and the PAG (Panksepp, 2014, 04:20-06:40) (Panksepp, 2011, p. 9). Furthermore, play brings great joy and happiness in the dorsomedial diencephalon parafascicular area and the PAG (Panksepp, 2014, 04:20-06:40) (Panksepp, 2011, p. 9). Based on these positively valenced basic



emotions, it can be assumed that if the participants had a positively valenced preexisting attitude towards the luxury brand in question, the basic emotions of enthusiasm and joy might influence the final evaluation of the value and status to be positively increased.

The fourth and last stage of brand development of the CBBE Model is the brand relationships, which might also be deemed relevant by the respondents to take into account during the iterations to reach the most optimal evaluation of value and status. Brand relationships consist of brand resonance and only occur when all other stages have been established. As described in the theoretical framework, brand resonance specifically describes the extent to which the consumers feel connected to the brand and can be divided into four categories; behavioral loyalty, attitudinal attachment, sense of community, and active engagement (Keller, 2001, p. 15). However, as the participants were not specifically asked about their brand preference and loyalty towards the brands in the study, this stage of brand development is more complicated to assess. Nevertheless, a discussion will take place to consider the potential influence of the brand relationships that could potentially affect the final evaluation of value and status.

If any of the respondents were particularly attached to any of the luxury brands by being brand loyal, attitudinally attached, feel a sense of brand community, and/or actively engaged with the brand, this would arguably have been influenced by heuristic processing and potentially have resulted in the foregrounding of automatic processing. As such, this would arguably have influenced the overall evaluation of value and status to be higher when the fixation duration was longer on the luxury brand than on the streetwear brand.

If the respondents, however, had no particular attachment to any of the luxury brands, it is assumed that the potential of gaining a sense of community might still influence the final iterations. In these iterations, it is argued that the goal of evaluating the value and status of the sneakers would possibly foreground reflective processing, as opposed to the situation above, where the respondents feel a strong attachment towards the luxury brand. Specifically, as earlier argued, owning and consuming expensive, conspicuous products especially benefits people who want to express conformity to exclusive and prestigious social groups (Jang et al, 2001, p. 991). In this way, it is argued that luxury brands can possibly contribute to the motive of attaining status since respondents might imagine being affiliated with other members of the group who own products from the particular luxury brand. As such, it is

assumed that if the fixation duration was longer on the luxury brand, this might influence the evaluations of status to be higher than if the fixation duration was longer on the streetwear brand.

Based on the above discussion, it can be argued that a longer fixation duration on the luxury brand than on the streetwear brand would result in overall higher evaluations of value and status - particularly if the preexisting attitudes towards the luxury brands were positively valenced.

**H<sub>5</sub>: If the total fixation duration was longer on the luxury brand than on the streetwear brand, the quality was perceived higher.**

*H<sub>05</sub>: The perceived quality was roughly equal whether the fixation duration was longer on the luxury brand or the streetwear brand.*

Before the assessment of hypothesis five, it is assumed that there is no significant difference between the perception of quality whether the total fixation duration was longer on the luxury brand or the streetwear brand. This assumption is founded in the following theoretical argumentation, which supports that the quality is roughly equal regardless of which brand was fixed on the longest. Therefore, the null hypothesis will be argued to be accepted, why hypotheses four and five were split into two separate hypotheses to allow for an easier overview of the theoretical argumentation.

In order to assess the hypotheses H<sub>5</sub> and H<sub>05</sub>, an independent t-Test would be conducted to compare the evaluations of quality between two groups; those respondents who had longer fixation durations on the luxury brands and those who had longer fixation durations on the streetwear brands. Specifically, as described in the previous hypotheses, the t-Test would compare the average value of the evaluations between each group, based on their numerical values of 1-7. This method would be applied across all stimuli containing sneakers made in collaboration between luxury and streetwear brands, to examine whether the longer fixation duration on the luxury brands generally resulted in higher perceptions of quality.

To do so, the t-Test would determine the p-value to examine whether there was a significant difference in the quality evaluations of the two groups. Like in the previous hypotheses, the difference would be considered significant if the p-value <0.05. However, as it will be argued in the following theoretical discussion, the perceived quality is assumed to be somewhat equal between the luxury and the

streetwear brands, why it is assumed that the p-value would be  $>0.05$ , resulting in the acceptance of the null hypothesis and rejection of the alternative hypothesis. To support this assumption and establish an understanding of both the observable and unobservable mechanisms affecting the evaluation of quality, the outlined theories on eye tracking, branding, and decision making will be applied and analyzed in the following. This is done to comply with the fourth principle of transformational models of postpositivism.

As previously mentioned, the fixation duration describes how long a respondent has been looking at a specific AOI and can be used as an indication of motivation and conscious top-down attention towards the AOI (iMotions, 2018, p. 15). As Meißner and Oll argue, short fixations (up to 250 milliseconds) indicate scanning and automatic processes, whereas longer fixations (about 500 milliseconds or more) indicate deeper processing such as deliberate considerations of information (Meißner & Oll, 2017, p. 597). As such, it is argued that the brand that receives the longest fixation duration may be more determining for the evaluation since this particular brand is assumed to have been processed more through the repetition of the iterative cycle to provide information on the quality.

As previously mentioned, the first iterations that happen after stimulus perception will often base evaluations on heuristics and preexisting attitudes towards the AOIs through automatic processing. Therefore, it can be assumed that the respondents would rather quickly turn their bottom-up attention towards the brands they were familiar with, which would then function as heuristics to form the initial evaluations based on the respondents' prior experiences with the brands. If the prior experiences were primarily positive, it is assumed that the initial automatic processing would, in turn, be positively valenced. This relates to the notion of brand identity which constitutes the first stage of brand development in the CBBE Model presented by Keller (Keller, 2001, p. 3). As earlier described, brand identity is concerned with the saliency of the brand, which describes how easily a brand is recalled and recognized, as well as how it is linked to certain associations in the memory based on prior experiences. To examine the brand saliency and ensure that all respondents were familiar with the presented brands, they were asked to divide the brands into categories of either "budget," "average," or "luxury" based on their associations of the brands. If any respondents were unfamiliar with one or more of the brands, they would be excluded from the datasheet. Therefore, it is assumed that all remaining respondents would have some preexisting attitudes towards the brands, which would function as heuristics and influence the valence within the first, automatic evaluations of the quality.

In the following iterations, it is assumed that reflective processing would allow for more nuanced evaluations. During the reflective processing, it can be assumed that the goal of evaluating the quality of the sneaker would activate respondents' top-down attention to make them fixate longer on the specific brand they believe could provide information of the quality. One of the elements that could influence this is the second stage of brand development of the CBBE Model, namely the brand meaning.

The brand meaning is divided into two distinct building blocks, namely the brand performance and brand imagery. These can arise directly from a respondent's own experiences with the brand or indirectly through the representation of the brand in e.g. an advertisement (Keller, 2001. p. 10). Firstly, brand performance is related to how the brand accommodates the functional needs of the respondents and will often entail an assessment of the quality. Furthermore, brand performance also includes the aesthetic aspects of style and design and considers e.g. size, materials, price, color, etc. (Keller, 2001, p. 11).

On the other hand, brand imagery refers to how the brand tries to meet the hedonic, psychological, or social needs of the respondents. As mentioned above in the discussion of H<sub>4</sub>, it is argued that the brand imagery mainly relates to the factors of status and value, since it seeks to fulfill the hedonic needs. Since the quality of the product is argued to be mainly a functional matter, it is assumed that the respondents would primarily refer to their experiences with the brand performance when trying to evaluate the quality of both the luxury and streetwear brand. This is assumed to happen during the reflective processing. As such, it is assumed that the respondents who fixated longer on the luxury brands might associate previous experiences with a premium price, high-quality materials, or stylish design, which would then affect the brand equity and ultimately result in higher evaluations of quality. Similarly, it is assumed that respondents who fixated longer on the streetwear brand would potentially associate their previous experiences with the brand performance and base their evaluations on quality characteristics such as comfort and durability. Furthermore, as mentioned in the introduction, sneakers are part of a global trend (Salpini, 2018), why it is assumed that aesthetic considerations such as style and design would also contribute to the evaluation. As such, it is assumed that both the luxury and the streetwear brands might carry positive associations of performance and thereby can contribute to the perception of quality in different ways. Therefore, it is assumed that the evaluation of quality will be roughly equal, regardless of which brand the respondents fixate on the longest.

It is assumed that the respondents would continue to process more information about the brands, as the iterative cycle would continuously be repeated throughout the evaluation process. As Cunningham et al. argue, this repetition would allow for the automatic and reflective processing to interact dynamically and influence one another, such that the evaluation would continuously be updated for each iteration based on both affective and cognitive processes (Cunningham et al., 2007, p. 739+751). This would allow respondents to process the third stage of brand development of the CBBE Model, namely brand responses, which Keller divides into two building blocks; brand judgments and brand feelings (Keller, 2001, p. 13) (Figure 2).

As previously mentioned, brand judgments refer to the respondents' opinions of the brand, constituted by their performance and image associations. As Keller argues, these opinions stem from the "head" (reflective processes) and include judgments such as brand quality, brand credibility, and brand superiority (Keller, 2001, p. 13). Firstly, as stated above, it is assumed that respondents would consider the brand quality to be high if they had positive associations of the quality from previous experiences with the brand. As mentioned, this can be assumed to apply to both the luxury and the streetwear brands, as it is argued that they carry different associations of quality. Secondly, the notion of brand judgment includes credibility based e.g. on the perceived expertise of the brands. As mentioned in the introduction, luxury brands have recently started to tap into the trend of sneakers, while streetwear brands have a long history of producing sneakers (Beauloye, 2018) (Beauloye, 2020). Therefore, it can be assumed that the expertise of the streetwear brands will contribute to the perceived quality of those respondents with a long fixation duration on the streetwear brand. Finally, the notion of brand superiority relates to whether a brand is perceived to be unique and better than others (Keller, 2001, p. 14). As Gallo and Mosca state, luxury brands represent the most prestigious brands in the marketplace and demonstrate both physical and psychological values (Gallo & Mosca, 2016, p. 2), why it can be argued that luxury brands contain elements that can be perceived by respondents as unique and better than other brands, which can increase the brand superiority and ultimately the evaluation of the quality evaluations.

Next, Keller describes the notion of brand feelings that, together with the brand judgments outlined above, constitute the brand responses. He argues that, whereas brand judgments mainly stem from the head, brand feelings mainly stem from the heart (automatic processes). Specifically, brand feelings refer to the emotional responses that are associated with the brand, which can be either positive or negative

as well as mild or intense (Keller, 2001, p. 14). As previously mentioned, automatic processing provides information about the valence and arousal level of the preexisting attitudes, as prescribed in the Two-Factor Structure of Affect (Bagozzi, et al, 1999, p. 189), which will influence the following evaluations. As such, it is argued that if respondents have positively valenced brand feelings towards either of the brands, it will naturally influence their evaluations. As argued in the discussion of H<sub>4</sub>, basic emotions of seeking and play are assumed to potentially influence the brand feelings and thus influence the final evaluation of the sneakers. However, since brand feelings refer mainly to the hedonic associations of a brand, it can be difficult to consider the effect of brand feelings on quality, since this is argued to be more tied to the utilitarian association (Voss et al., 2003, p. 310).

Lastly, the fourth and final stage of brand development in the CBBE Model is the brand relationships which is concerned with the brand resonance and loyalty towards a brand (Keller, 2001, p. 15). However, this stage is assumed to not be of relevance for the assessment of quality, which this hypothesis specifically deals with. This is assumed since the brand relationship is more related to the hedonic associations of the brand, whereas the quality perception is more related to the utilitarian.

Based on the above discussion, it is argued that the luxury brands and streetwear brands each carry different cues of quality. Therefore, it is argued that the perception of quality would be roughly equal, whether respondents fixated longer on the luxury brands or the streetwear brands.

**H<sub>6</sub>: Participants exposed to "700 produced" scarcity messages perceived value, status, and quality to be higher than those exposed to "limited edition".**

*H06: Participants exposed to "700 produced" scarcity messages perceived value, status, and quality to be the same as those exposed to "limited edition".*

Had the necessary data been extracted, hypotheses H<sub>6</sub> and H<sub>06</sub> would, once again, be assessed using an independent t-Test to compare the evaluations of value, status, and quality of each sneaker between two groups; those respondents who were exposed to the scarcity message "700 produced" and those who were exposed to the scarcity message "limited edition".

As described and applied in the previous hypotheses, the t-Test would be applied to compare the numerical variables of value, status, and quality across the two groups (Sullivan & Artino, 2013, p. 541).

This would be done to determine if the evaluations were generally higher within the group who were exposed to the “700 produced” scarcity messages compared to “limited edition” scarcity messages. Three independent t-Tests would be applied to compare the average evaluation of the three factors: value, status, and quality between the two groups. This method would be repeated for each of the presented stimuli containing scarcity messages to examine whether the higher evaluations on “700 produced” rather than on “limited edition” could be applied for all the sneakers.

Had the study been completed, it is assumed that the results would have shown a p-value  $<0.05$ , indicating a significant difference in the evaluations between the two groups. However, it is acknowledged that a notable difference might not have been found due to the limited sample size and therefore it is assumed to be just below 0.05. However, this would still enable the rejection of the null hypothesis and the acceptance of the alternative hypothesis ( $H_6$ ). This assumption is based on the theoretical framework outlined in the thesis, supporting the assumption that scarcity messages can increase consumer perceptions in various ways and raise a product’s perceived value, status, and quality. This is assumed to be particularly true for the scarcity message of “700 produced”, as this message emphasizes just how scarce the product is (Aggarwal et al., 2011, p. 20) (Chae et al., 2019, p. 3).

As previously mentioned, scarcity messages make consumers feel limited edition products are special, unique, and valuable and thereby positively influence their evaluation of the products (Jang et al. 2015, p. 989). Since the scarcity message of “700 produced” emphasizes just how scarce the product is, combined with the uniqueness it represents, it is assumed that it would have impacted the participants’ evaluation of the perceived value, status, and quality even more than “limited edition”. This argument can be supported by the fundamental motive of attaining status, as consumers acquire scarce and expensive conspicuous products (as the ones presented in the study), to signal their high social status and wealth to others (Jang et al, 2015, p. 990-991). Furthermore, Sundie et al. (2011) argue that people are generally able to fulfill the need for status and prestige through the possession of conspicuous products that signal high social status, wealth, and power to surrounding others (Jang et al., 2015, p. 991). This can be related to impression management, as consumers may purchase scarce conspicuous products to be perceived by others as high-status personas. This fits perfectly with the assumption that those respondents who were exposed to “700 produced” would presumably evaluate status to be higher than those exposed to “limited edition”.

This can be related to the Iterative Reprocessing Model, which accounts for the highly dynamic nature of human evaluation as well as the underlying thoughts and emotions (Van Bavel et al., 2012, p. 438). In general, Jang et al. explain that people appear to make their judgments primarily based on heuristic information under scarcity conditions. Specifically, they explain that a scarcity message reduces people's ability to think clearly when they see something, they desire become less available (Jang et al. 2015, p. 995). Therefore, it is assumed that the scarcity messages might function as heuristics, as the reflective processes are backgrounded and the automatic foregrounded during the initial iterations. Since “700 produced” emphasizes just how scarce the sneakers are, it is assumed that this might be associated with higher monetary value, as such scarce products are frequently sold at a premium price. Furthermore, this might also affect the perceived status, as the acquisition of such expensive sneakers would enable an individual to signal status in terms of wealth. Lastly, it is argued that the quality of such expensive, scarce sneakers are usually considered to be high (Chae et al., 2019, p. 3).

In the following iterations, reflective processes would also occur being influenced by the context and the goal of evaluating the perceived value, status, quality. It can, therefore, be argued that the scarcity messages would be of interest to assess the goal and provide more detailed information to the iterations. Furthermore, reflective processing would also allow respondents to consider the social mechanisms as well as the possible rewards or punishments of the situation. During these iterations, it is assumed that respondents might consider social rewards such as e.g. attaining status, as humans naturally desire to acquire status within their groups by attaining a higher position compared to others based on some dimension that is considered important within their society (Griskevicius & Kenrick, 2013, p. 378) (Nelissen & Meijers, 2011, p. 343). As such, since scarcity messages are argued to be of importance to assess the goal of evaluating the status of sneakers, and since scarcity is argued to feed into the fundamental motive of attaining status; the status is assumed to be perceived as high for products presented with a scarcity message.

It is argued that, if the respondents had positively valenced prior attitudes towards scarce products, as described in the Two-Factor Structure of Affect, this would positively affect the evaluations. Furthermore, as earlier mentioned, scarcity messages can increase consumer perceptions in various ways and raise a product's perceived value, status, and quality in the eyes of consumers (Aggarwal et al., 2011, p. 20) (Chae et al., 2019, p. 3). As such, it is assumed that participants would evaluate sneakers



with the “700 produced” scarcity message as higher than those exposed with “limited edition”, as it was assumed that this scarcity message emphasizes just how scarce the sneakers are.

**H<sub>7</sub>: The effect of scarcity messages on perceived value, status, and quality was higher when used for sneakers made in collaboration between luxury and streetwear brands compared to a single streetwear brand.**

*H<sub>07</sub>: The effect of scarcity messages on perceived value, status, and quality was the same when used for sneakers made in collaboration between luxury and streetwear brands compared to a single streetwear brand.*

Had the necessary data been extracted, hypotheses H<sub>7</sub> and H<sub>07</sub> would again be assessed using an independent t-Test to compare the evaluations of value, status, and quality of each sneaker between two groups; those respondents exposed to co-branded sneakers with a scarcity message and those respondents exposed to single-branded sneakers with a scarcity message. As described and applied in some of the previous hypotheses, a t-Test would also be applied here to compare the averages of the numerical variables of value, status, and quality. This would be done to determine whether the use of scarcity messages generally resulted in higher evaluations within the group who were exposed to the co-branded sneakers compared to those exposed to sneakers with a single streetwear brand. Furthermore, three independent t-Tests would be applied to compare the average evaluations of the three factors: value, status, and quality across the two groups. This method would be repeated for each of the presented stimuli containing scarcity messages to examine whether the higher evaluations on co-branded sneakers compared to single-branded sneakers could be applied for all the stimuli.

Had the study been completed, it is assumed that the results would have shown a p-value <0.05, indicating a significant difference in the evaluations between the two groups. This would then enable the rejection of the null hypothesis and the acceptance of the alternative hypothesis (H<sub>7</sub>). However, it is acknowledged that a notable might not have been found, due to the limited sample size, and therefore it is assumed that the p-value would be just below 0.05. The assumption that the alternative hypothesis would be accepted is based on the theoretical framework outlined in the thesis, supporting that scarcity messages can help raise a product’s perceived value, status, and quality (Aggarwal et al., 2011, p. 20) (Chae et al., 2019, p. 3). Furthermore, the assumed acceptance of H<sub>7</sub> is supported by the outlined theories on branding that describe how co-branding can increase the brand equity perceptions of

consumers (Washburn et al., 2000, p. 600). To thoroughly account for the acceptance of H<sub>7</sub>, relevant theories on scarcity messages, branding, emotions, and decision making will be accounted for in the following.

Firstly, it has been established throughout the thesis that scarcity messages can make consumers believe that products are special, unique, and valuable, which might increase their perception of value and quality (Aggarwal et al., 2011, p. 20). Furthermore, it was stated by Jang et al. that consumers might acquire scarce and expensive conspicuous products to signal their high social status and wealth to others (Jang et al, 2015, p. 990), which can be linked to the notion of impression management. In the current hypothesis, it is suggested that the positive effects of scarcity messages on value, status, and quality would be further enhanced when presented together with a co-branded sneaker made in collaboration between a luxury and a streetwear brand. This can be argued to be the main advantage of co-branding, as it allows for the combination of the positive characteristics of two or more brands, which can lead to a stronger position on the market (Kotler & Keller, 2012, p. 595). This can, in turn, create more sales from existing target markets and create opportunities for new customers and channels. As argued by Washburn et al., co-branding thus has the potential to improve brand equity perceptions of consumers, regardless of whether the co-branding partner has a high or low equity brand (Washburn et al., 2000, p. 600). This suggests that both the luxury and the streetwear brands might benefit from the collaborations since they would be able to combine each of their strengths. Specifically, it is argued that the streetwear brand would benefit from the assumed high perception of value, status, and quality of the luxury brand, while the luxury brand might be able to tap into a new market of sneakers, with which the streetwear brands already have extensive expertise. In the following, this argument that co-branding allows for the combination of the positive characteristics of each brand will be supported by the assessment of Keller's CBBE Model, in which each of the brands' equity will be examined.

As previously mentioned, the first stage of brand development of the CBBE Model is brand identity, which consists of the initial building block, namely brand salience, which refers to the respondents' awareness of the brand (Keller, 2001. p. 8). To examine the brand salience and ensure that all respondents had knowledge of the presented brands, they were asked to divide the brands into categories of either "budget," "average," or "luxury" based on their associations of each brand.

If any respondents were unfamiliar with one or more of the brands, they would be excluded from the datasheet. Therefore, it is assumed that all the remaining respondents had knowledge of all the brands and thus, it is argued that both the luxury and streetwear brands had some degree of brand salience. Depending on the respondents' classification of the brands as either "budget," "average," or "luxury," it is assumed that this would affect their evaluations of the monetary value accordingly. For example, had a respondent classified a brand as "luxury", it would be assumed to affect the evaluations of monetary value to be high. On the other hand, if a respondent classified a brand as either "average" or "budget," it is assumed that this would affect the evaluation of monetary value to be lower.

To ensure that luxury brands were, in fact, more expensive than streetwear brands, a comparison of the prices of sneakers from six of the selected luxury brands and six of the streetwear brands was conducted (see figure 5). This comparison clearly highlighted the large differences in price between otherwise expensive streetwear sneakers and luxury sneakers (see figure 5), thus supporting the assumption that luxury brands are in fact more expensive. As such, if the participants had knowledge of all the brands, it is assumed that they would evaluate the monetary value of the brands classified as "luxury" to be higher than those classified as "budget" or "average." Therefore, it is assumed that co-branding between a streetwear and a luxury brand would allow the streetwear brands with a lower monetary value to benefit from the perceived higher monetary value of the luxury brand.

The second stage of brand development in the CBBE Model is brand meaning, which is divided into two building blocks, namely the brand performance and brand imagery. Firstly, brand performance relates to how the brand accommodates the functional needs of the respondents and will often entail an assessment of the quality. As such, it is argued that the brand performance will support and strengthen the effect of the scarcity messages on the perceived quality of both brands, since rare products are usually considered to be of good quality (Chae et al., 2019, p. 3). Furthermore, brand performance also includes the aesthetic aspects of style and design and considers e.g. size, materials, price, color, etc. (Keller, 2001, p. 11). As previously argued, both the luxury and the streetwear brands can be assumed to contain brand performance. Specifically, the luxury brands are assumed to be associated with a premium price, high-quality materials, or stylish design, while the streetwear brands can be assumed to be associated with characteristics such as comfort and durability. Furthermore, as mentioned in the introduction, sneakers are part of a global trend (Salpini, 2018), why it is assumed that aesthetic considerations such as style and design would also contribute to the brand performance. Therefore, it is

argued that the positive characteristics of brand performance will be strengthened when the brands are combined in a collaboration, resulting in higher evaluations of quality for co-branded sneakers compared to single-branded. Furthermore, the brand performance also considers the price of a brand. As such, since scarcity messages can make consumers believe that products are valuable (Jang et al. 2015, p. 989), it is argued that when brands are presented with such messages, the perceived value will be high. Moreover, since luxury brands have higher monetary value than streetwear brands (see figure 5), it is assumed that the collaboration between the two would increase the perceived value of the co-branded sneaker to be higher compared to the single-branded streetwear sneaker.

Secondly, brand imagery relates to how the brand meets the consumers' hedonic wants and social needs, and how the brand is evaluated related to the consumers' self-reflection. Specifically, Keller highlights four categories that can be linked to brand imagery, namely; user profiles, purchase and usage situations, personality and values, as well as history, heritage, and experiences (Keller, 2001. p. 11-12). In this context, both the luxury and the streetwear brands can be assumed to contain brand imagery. For the luxury brands, it is assumed that the brand imagery is linked to the intangible category of personality and values. With this category, Keller argues that brands can take on personality traits and values similar to those of people. Specifically, he highlights five dimensions out of which it is argued that the dimension of sophistication can be directly linked to luxury brands. As previously mentioned, luxury brands represent the most prestigious brands in the marketplace (Gallo & Mosca, 2016, p. 2) and therefore, relate to the sub-dimension of sophistication, which is upper-class as presented by Keller. As such, it is argued that luxury brands contain strong brand imagery. Similarly, it is assumed that streetwear brands contain brand imagery, specifically through the category of user profiles. As Keller mentions, consumers might believe that a brand is used by numerous people and therefore view the brand as "popular" (Keller, 2001, p. 11). As mentioned in the introduction, streetwear sneakers are currently on-trend (Salpini, 2018), why it can be assumed that respondents would have experienced many people wearing the brands and therefore consider them to be popular. In this way, it is argued that the streetwear brands also have brand imagery. As previously mentioned, brand imagery can be directly related to the fulfillment of social needs, and thus it is argued that both brands contribute to the perception of status. However, it is assumed that luxury brands might play a somewhat more emotional role than streetwear brands since hedonic luxury brands appeal more to consumers' self-expression and self-image (Aggarwal et al., 2011, p. 21). Furthermore, it is argued that the positive characteristics of brand imagery in each brand will be strengthened when the brands are combined in a collaboration.

This is assumed to reinforce the effect of the scarcity messages and thus lead to overall higher evaluations of status in the co-branded sneakers compared to the single-branded sneakers.

The third stage of brand development of the CBBE Model is brand responses, which refer to how participants think and feel about a brand. Keller divides brand responses into two building blocks, namely; brand judgments and brand feelings (Keller, 2001, p. 13). As previously mentioned, brand judgments refer to the respondents' opinions of the brand, constituted by their performance and imagery associations described above. As Keller argues, these opinions stem from the "head" (reflective processes) and include judgments such as brand quality, brand credibility, and brand superiority (Keller, 2001, p. 13). Firstly, Keller states that brand quality is one of the most important brand judgments consumers can hold towards a brand (Keller, 2001, p. 13). As previously mentioned, it is assumed that both the luxury and streetwear brands hold brand performance, which enhances the perception of quality for each brand. Furthermore, it was argued earlier in the assessment of this hypothesis, that the use of scarcity messages would further strengthen the brand performance, leading to higher evaluations of quality. Secondly, the notion of brand credibility includes judgment based e.g. on the perceived expertise of the brands. As previously argued in H<sub>5</sub>, streetwear brands have a long history of producing sneakers, why it can be assumed that the expertise of the streetwear brands will contribute to the perceived quality. Finally, the notion of brand superiority relates to whether a brand is perceived to be unique and better than others. As Gallo and Mosca state, luxury brands represent the most prestigious brands in the marketplace and demonstrate both physical and psychological values (Gallo & Mosca, 2016, p. 2). As such, it can be argued that luxury brands contain elements that could be perceived by respondents as unique and better than other brands, which might increase brand superiority and ultimately the assessment of the quality evaluations. As such, it is argued that both brands might contribute to the combined brand judgment and thus result in higher evaluations of the quality of co-branded sneakers compared to the single-branded sneakers. This is argued to reinforce the effect of the scarcity messages, as rare products are usually considered to be of good quality (Chae et al., 2019, p. 3).

Keller describes the notion of brand feelings which, together with the brand judgments outlined above, constitute the brand responses. He argues that brand feelings mainly stem from the heart, which can be argued to reflect primarily automatic processing. Specifically, brand feelings refer to the emotional responses that are associated with the brand, which can be either positive or negative as well as mild or intense (Keller, 2001, p. 14). As Keller mentions, one of the important types of brand feelings is social

approval, which he argues arise based on positive reactions from others (Keller, 2001, p. 14). This can be related to the fundamental motive of attaining status which, as previously mentioned, can trigger individuals' basic emotions (Tracy & Randles, 2011, p. 400). As argued earlier, Panksepp outlines seven basic emotions; seeking, rage, fear, lust, care, panic/grief, and play (Panksepp & Watt, 2011, p. 387). Specifically, two out of the seven emotions can be identified as positively valenced and relevant in the context of evaluating the status of the sneakers, namely seeking and play. As touched upon earlier, the basic emotion system of seeking generates the feeling of enthusiasm and helps to mediate our desires and our positive expectations, whereas play brings great joy and happiness (Panksepp, 2011, p. 9). In this context, both luxury and streetwear brands can be assumed to contain brand feelings. For the luxury brands, it can be argued that creating emotional bonds with consumers is the key to their survival (Gallo & Mosca, 2016, p. 2). Specifically, luxury brands can create such emotional bonds by feeding into the fundamental motive of attaining status, since consumers tend to buy luxury products and services to be perceived as high-status personas (Kang & Park, 2016, p. 3813). As such, it can be assumed that consumers might experience emotions of joy or enthusiasm if they are able to acquire a luxury product, as these feed into the fundamental motive of attaining status, which according to Panksepp is a trigger for basic emotions. It is argued that scarcity messages can further enhance these emotions, since buying scarce products can create a joy-of-winning sensation (Aggarwal et al., 2011, p. 20). Had the participants previously had such positive experiences with the luxury brands, it is assumed that these emotions might influence their evaluations of status.

Similarly, for the streetwear brands, it is assumed that the acquisition of streetwear sneakers might provide some degree of status within the millennial group that follows the sneaker trend, as one would be considered by them as being on-trend. However, it is argued that the level of status associated with streetwear brands might be lower compared to luxury brands since the price of these are significantly lower and thus, more accessible for a larger population. As such, it is argued that the collaboration between the two brands will increase the perception of status and thus result in higher evaluations for co-branded sneakers compared to the single-branded sneakers. This is argued to reinforce the effect of the scarcity messages since consumers might acquire scarce products to signal their high social status to others (Jang et al., 2015, p. 990).

Finally, the fourth stage of brand development in the CBBE Model is brand relationships. This stage is concerned with brand resonance and is divided into four categories namely behavioral loyalty,

attitudinal attachment, sense of community, and active engagement, all of which are concerned with the loyalty and sense of community a consumer feels towards a brand. As Keller argues, a strong affirmation of loyalty occurs when consumers identify with a brand community and feel an affiliation with other people associated with the brand (Keller, 2001, p. 15). However, as the participants were not specifically asked about their brand preference and loyalty towards the brands in the study, this stage of brand development is more complicated to assess. Nevertheless, a discussion will take place to consider the potential influence of the brand relationships that could potentially affect the final evaluation of value, status, and quality.

It is assumed that the potential of gaining a sense of community might influence the evaluations of the co-branded sneakers. As earlier argued, owning and consuming expensive, conspicuous products especially benefits people who want to express conformity to exclusive and prestigious social groups (Jang et al, 2001, p. 991). In this way, it is assumed that the luxury brand in a co-branded sneaker could potentially feed into the fundamental motive of attaining status since the participants might imagine being affiliated with other members of the group. This effect of affiliation is assumed to be especially true for symbolic rather than functional brands. As previously stated, streetwear brands are argued to play a more functional role in single-branded sneakers, while it was argued that collaborating with a luxury brand would bring more symbolic value to the co-branded sneaker. As such, it is assumed that a collaboration might strengthen the brand relationship and potentially lead to overall higher evaluations of status for the co-branded sneakers. In addition, this is assumed to further enhance the effect of the scarcity messages. Similarly, it might be assumed that the streetwear brands could possibly have associations of affiliation in the minds of the participants as well. Specifically, since streetwear sneakers are currently part of a global trend amongst millennials, the acquisition of these might create a sense of belonging to this particular group. As such, it is assumed that the acquisition of streetwear sneakers might provide some degree of status within the millennial group that follows the sneaker trend. However, the status gained as a result of the affiliation towards the brand would arguably be stronger for luxury brands, since these are deemed as more prestigious in terms of social status and monetary value.

In the above, it has been argued that the collaboration between luxury and streetwear brands would combine the positive characteristics of each brand and thus enhance the effect of the scarcity messages during the evaluations of value, status, and quality of limited edition sneakers. As a last point, it is

relevant to account specifically for how these evaluations are formed through the assessment of the Iterative Reprocessing Model.

As earlier mentioned, the Iterative Reprocessing Model describes the dynamic interaction between the automatic and reflective processes that continuously influence each other to form nuanced evaluations of the presented stimuli through multiple repetitions of the iterative cycle. As mentioned, the first iterations that happen after stimulus perception will often base evaluations on heuristics and preexisting attitudes towards the AOIs. Therefore, it can be assumed that the respondents would rather quickly turn their bottom-up attention towards the brand that had the most brand salience, which would then function as a heuristic to form the initial evaluations based on the respondents' prior experiences. As it was ensured that all respondents were familiar with all the brands, it was argued that all of the brands had some degree of brand salience. Therefore, it is assumed that they would, in the following iterations, also focus their attention towards the remaining brand, which would similarly function as a heuristic. In this way, it is argued that preexisting attitudes towards both brands would continuously affect the following iterations by providing information about the valence of prior experiences, in line with the Two-Factor Structure of Affect. In the following reflective processing, it is argued that the goal of evaluating the sneakers would activate respondents' top-down attention to make them look for cues that might provide information on the value, status, and quality. During these processes, it is argued that co-branding would allow for the combination of the positive characteristics of each brand's identity, meaning, response, and relationships as outlined in the CBBE Model above. By combining the positive characteristics, it is argued that the evaluations would be higher for scarce co-branded than for scarce single-branded sneakers. Specifically, it is assumed that previous experiences with scarce products would necessarily influence the valence of respondents' preexisting attitudes during their automatic processing. This would then influence their reflective processing, in which it is assumed that they would consider the goal of evaluating the value, status, and quality of the sneakers. As scarcity messages can make consumers believe that products are special, unique, and valuable, this can be argued to feed into the status attaining behavior (Jang et al. 2015, p. 989). As such, scarcity messages function as strong indicators to determine whether a product provides high status or not and will arguably result in higher evaluations of status. Regarding the value and quality, previous studies indicate that scarcity messages can help raise a product's perceived value, as well as quality (Aggarwal et al., 2011, p. 20) (Chae et al., 2019, p. 3).



During the entire evaluation process, it is argued that respondents will continue to seek information regarding the value, status, and quality and thus shift focus between the scarcity message, the luxury brand, and the streetwear brand. As such, it is argued that each of the three AOIs will continue to influence each other during the processing. Furthermore, it is argued that the collaboration between luxury and streetwear brands would enable combining the positive characteristics of each brand. This is assumed to enhance the effect of the scarcity messages and result in higher evaluations of value, status, and quality of the co-branded limited edition sneakers compared to a single streetwear brand.

### **Appraisal Theories in a Real-Life Setting**

Based on the above discussion of each of the seven hypotheses, it was argued that scarcity messages have a positive impact on the perceived value, status, and quality of sneakers. Particularly, the message “700 produced” was argued to be more effective in influencing high product evaluations than “limited edition”. Furthermore, they were argued to be even more effective when displayed with co-branded luxury and streetwear sneakers, than with single-branded streetwear sneakers. Based on these arguments and scarcity messages’ contribution to product evaluations, the following section will take departure.

As stated in the introduction, the purpose of the study was to examine how consumers evaluate scarce products, to later apply this to a real-life purchase situation. As appraisal theories are situational and, therefore, did not make sense to apply to the eye tracking study, these will now be applied in a discussion of emotions involved in a potential purchase situation. This is done to shed light on how appraisal theories can contribute to the discovery of the more complex emotions involved in such a situation. In order to do so, Roseman’s Appraisal Theory of Emotions will be used to determine which of the 16 unique emotions might be experienced in relation to different potential purchase situations. This will be done based on the five appraisals; namely, (1) motive consistent/motive inconsistent, (2) appetitive/aversive, (3) agency, (4) probability, and (5) power (Bagozzi et al., 1999, p. 185-186).

As previously mentioned in the theoretical framework, appraisals are evaluative judgments and interpretations of either an incident or episode that happens to oneself, a behavior one performs, a result one produces, or a change in an object, person or thought that has personal meaning (Bagozzi et al., 1999, p. 185). It is important to note that appraisal theories are not related to how a specific event

produces an emotion, but rather the subjective psychological appraisal made by the person in given circumstances (Bagozzi et al., 1999, p. 185).

As stated by Keller, high brand salience is of vital importance during possible purchase or consumption opportunities (Keller, 2001. p. 9). As argued in the assessment of the hypotheses, the scarce sneakers were argued to have high brand salience as all participants knew the brands prior to the study. Furthermore, all the scarce sneakers were argued to contribute to the consumers' hedonic needs and were argued to feed into the consumers' status attaining behavior. Furthermore, LQS messages have a great impact on purchase intention for conspicuous scarce products. With this in mind, it can be assumed that if a consumer scrolled through a website, on social media, or flipped through a magazine, the scarce sneakers would catch their attention and potentially create a purchase situation to fulfill their hedonic needs.

Related to this, two potential scenarios will be presented and discussed; one where the consumer was able to acquire the scarce sneakers, and one where the consumer was unfortunately not able to acquire the sneakers. This is done to portray reality in the best way possible, as scarce sneakers, of a limited quantity, are naturally not attainable for all.

### First Scenario

Assuming that the consumer has previously been able to acquire scarce sneakers or has previous positive experiences with scarce products, it can be argued that when the consumer is exposed to a scarce sneaker i.e. on a website, on social media, or in a magazine, a potential purchase situation may arise. As argued throughout the assessment of the hypotheses, such positive preexisting attitudes would arguably influence the following evaluations of the scarce sneakers and thereby potentially contribute to the positive expectation towards the purchase situation. Therefore, it is interesting to discuss how this might influence the appraisal of the purchase situation and thereby the possible emotions arising from the appraisals.

Firstly, looking at Roseman's Appraisal Theory of Emotions (Appendix 2), motive consistency or inconsistency refers to whether a situation is evaluated to be consistent with one's goal and thereby elicits positive emotions, or inconsistent and thereby elicits negative emotions (Roseman, 1996, p. 243). As the consumer had assumedly previously been able to acquire a scarce sneaker or had positive

experiences with scarce products, it can be argued that they would have a positive outlook on the situation and thereby consider the situation to be consistent with their goal of purchasing scarce sneakers. Secondly, appetitive versus aversive refers to whether a goal is strived to be attained (appetitive) or whether a punishment is strived to be avoided (aversive) (Bagozzi et al., 1999, p. 186), which in this case is argued to be appetitive due to the goal of acquiring a pair of scarce sneakers. Thirdly, agency refers to whether the outcome of the situation is perceived to be caused by impersonal circumstances, some other person, or oneself (Bagozzi et al., 1999, p. 186). If the consumer is able to purchase the scarce sneaker, the agency could either be evaluated to be self-caused or circumstance-caused. According to Roseman's framework (Appendix 2), a self-caused situation could potentially lead to the emotion of pride, which can be linked to the previous argument by Aggarwal et al., which states that buying scarce products can create a joy-of-winning sensation, which can feel as a pride like satisfaction almost like winning a game (Aggarwal et al., 2011, p. 20). On the other hand, if the situation was evaluated as circumstance-caused, several different emotions could be evoked. In order to determine which emotion might occur, the probability has to be discussed. According to Bagozzi et al., probability refers to whether the outcome is certain or uncertain. For example, once a sneaker has been purchased, the achievement of the goal is certain, which according to Roseman's framework leads to the emotion of joy if the situation is evaluated to be circumstance-caused and pride if evaluated as self-caused (Appendix 2). However, if the outcome was suddenly considered as uncertain, due to e.g. temporary loss of internet connection, it would according to Roseman result in the emotion of hope if the situation was evaluated as circumstance-caused (Appendix 2). Lastly, power refers to whether the consumer has high or low coping potential in a situation. As the scarce sneakers were acquired in this scenario, there is nothing to have to cope with. However, whether the power was appraised as strong or weak makes no difference, as long as the probability was certain (see appendix 2), most likely giving rise to either the emotion of pride or joy.

### Second Scenario

The second scenario describes that the consumer has previously been able to acquire scarce sneakers or has previous positive experiences with scarce products, however in this current scenario, the consumer would unfortunately not be able to acquire the scarce sneakers. This scenario is put forward, as it is acknowledged that not all would be able to acquire a product of limited quantity, which is exactly why the acquirement of such a product feeds particularly into the motive of attaining status.

As with the first scenario, the prior positive experiences would possibly lead to a potential purchase situation, if the consumer was exposed to scarce sneakers i.e. on a website, on social media, or in a magazine. In line with the arguments put forward when assessing the hypotheses, prior positive attitudes would influence the following evaluations, why it is assumed that the motive of purchasing the sneakers would initially be evaluated as consistent, as the person would supposedly have a positive outlook towards attaining the sneakers. However, once the consumer would realize that the scarce sneakers were no longer attainable e.g. due to them being out of stock, the motive would arguably change into being inconsistent with the goal. Secondly, as the scenario regards the pursuit of a goal, it is argued to be appetitive. Thirdly, regarding the agency of the situation, several appraisals may be made, either evaluating the situation as circumstance, other or self-caused. Each of these appraisals of agency would lead to several potential emotional reactions, being altered based on the two last appraisals, namely probability, and power. If the situation was subjectively evaluated by the individual as circumstance-based, e.g. due to a sudden loss of internet connection or the particular shoe size being out of stock, this would according to Roseman's framework give rise to either the emotion of surprise, fear, sadness, or frustration (Appendix 2). If the situation, however, was evaluated as other-caused, e.g. due to another consumer getting a hold of the last pair of sneakers, this would potentially give rise to the emotion of dislike towards the other consumer or anger (Appendix 2). Lastly, if the situation was evaluated as self-caused, e.g. due to too long contemplation on whether to purchase the product or not, causing the sneakers to be sold out, this would according to Roseman either lead to the emotion of regret or guilt (Appendix 2).

To determine which of these emotions may arise due to the situation, the appraisals of probability and power will be considered for each of the above possible situations. If the situation was evaluated as circumstance-caused and it was certain that the sneakers could no longer be acquired, sadness or frustration could be experienced. Furthermore, as the coping potential would arguably be appraised as low, the emotion would most likely end up as sadness. If the situation, on the other hand, is evaluated as other-caused, the probability and power could arguably be appraised in several ways. For example, if another consumer skipped the line in a physical store, one might evaluate the probability of acquiring the sneakers as uncertain, but their power to be strong, as they might still be able to acquire the sneaker by complaining. These appraisals, according to Roseman, would most likely cause the emotion of anger towards the other person and the situation as a whole. However, if the situation went by fairly, the probability would assumedly be evaluated as certain, as the goal of purchasing the sneakers would

no longer come true. Furthermore, the power would most likely be evaluated as low, as there is nothing the person could do to reverse the situation, causing the emotion of dislike towards the situation and the person who stood in front of them in the line and thereby attained the last pair of sneakers. Lastly, was the situation evaluated as self-caused, the probability could either be certain or uncertain. Certain if the consumer e.g. took too long to process whether to purchase the product or not, causing the sneakers to be sold out. Related to this, it can be argued that the coping potential would be evaluated as low, as the consumer could do nothing to reverse the situation. This would, according to Roseman's framework, cause the emotion of regret (Appendix 2). The situation could also be evaluated as uncertain e.g. if the consumer realized that they had forgotten their wallet in a physical store once they were at the cashier but evaluated that it might be possible to ask the person behind to pay by card if they immediately transferred money through e.g. Mobilepay. However, it can be argued that the coping potential in such a situation might be evaluated as low, as it might be assumed that the person behind does not want to help you purchase the sneakers since this would potentially be the last pair available. This would according to Roseman's framework result in the emotion of regret (Appendix 2). However, if the situation was appraised as having high coping potential by the individual, the emotion would, according to Roseman, be guilt, arguably related to having to ask the other person a favor.

## **Conclusion**

The overall interest of the current study was founded in the global sneaker trend that was identified among millennials. Particularly, limited edition sneakers were described as having gained massive attention, thus contributing to the preservation of the global trend. Additionally, it was found that the same millennial group showed a tendency of pairing streetwear with luxury products, which posed an opportunity for luxury brands to tap into the group, which was predicted to account for approximately 45 percent of the global luxury market by 2025. It was found that luxury brands had successfully started doing this by engaging in sneaker collaborations with streetwear brands, thus assumedly becoming more relevant in the eyes of the millennial target group. Based on these observations, it was considered interesting to investigate these phenomena at a deeper level. As such, the study sought to investigate how the use of scarcity messages might affect the perceived value, status, and quality of limited edition sneakers, both single-branded and in collaborations between luxury and streetwear brands.

In order to examine this, an eye tracking study was considered of relevance to provide indications of the attention and cognitive processes involved in the evaluation of scarce, limited edition sneakers.

However, to further account for the underlying psychological processes involved, theories from consumer psychology and marketing were included.

Based on the methodological and theoretical framework, seven hypotheses were formulated in order to assess the problem statement, using eye tracking measures. However, due to the COVID-19 pandemic, CBS shut down their premises during the conduction of the study, thus hindering the completion and data extraction hereof. Therefore, the assessment of the hypotheses was based solely on methodological and theoretical arguments drawing on the presented literature from neuromarketing and consumer psychology. As such, the theories that were incorporated in the analysis and discussion were; the Two-Factor Structure of Affect, theories on basic emotions, appraisal theories, the Customer Based Brand Equity Model, theories on co-branding and luxury consumption, the Fundamental Motives Framework, theories on conspicuous consumption and costly signaling, as well as the Iterative Reprocessing Model. Specifically, the Iterative Reprocessing Model functioned as an overarching framework to account for the complex and dynamic interaction between cognition and emotion when forming an evaluation, while the other theories were incorporated during each stage of the evaluative process.

During the assessment of the hypotheses, it was first argued that scarcity messages would potentially influence the perception of value, status, and quality of limited edition sneakers, whereas the neutral message of “available online” was argued to carry no connotations of scarcity and thereby have no influence on the evaluations. This argument was primarily based on prior research that found that scarcity messages can make consumers believe that limited edition products are special, unique, and valuable, which will thus influence product evaluations positively. Moreover, this was assumed to be particularly true for the scarcity message labeled as “700 produced,” compared to “limited edition,” as the number “700” emphasizes just how scarce the quantity of the sneaker is. This was expressed as it was found that when restrictions are put on a product, the product itself becomes a scarce resource and thus more attractive. Therefore, the scarcity message “700 produced” would supposedly help raise a sneaker’s perceived value, status, and quality even more than the message of “limited edition.”

Secondly, it was argued that scarcity messages would be of interest to assess the goal of evaluating the value, status, and quality of limited edition sneakers. Specifically, it was found that fixation durations above 250 milliseconds indicate increased processing of the scarcity messages, whereas fixation

durations equal to or below 250 milliseconds only indicate scanning and automatic processes. Therefore, knowing that scarcity messages influence evaluations positively, it was assumed that if the fixation duration hereon was above 250 milliseconds, this would indicate increased processing of the message and thereby influence the perceived value, status, and quality to be higher than if it was equal to or below 250 milliseconds.

Thirdly, it was argued that the number of revisits on a scarcity message could indicate whether the message was considered an interesting cue to evaluate the value, status, and quality of the limited edition sneakers. Related, it was argued that the sequence of the fixations could provide additional information about the strategy that the respondents used when processing the stimuli to reach a decision. For example, it was argued that, if the last fixation was on the scarcity message, this was considered interesting for the evaluation. As such, it was assumed that more revisits on the scarcity messages would result in higher evaluations of value, status, and quality.

Additionally, luxury brands were argued to be more symbolic than streetwear brands, and thus the psychological benefits were considered to be the main factor distinguishing luxury from non-luxury products. In relation, it was found that luxury consumption is often conducted with the intention of using it to publicly display and gain esteem, which was argued to feed into the fundamental motive of attaining status. To account for the perceived value of the limited edition sneaker, a comparison of the monetary value of luxury versus streetwear sneakers was created. As it was found that that the monetary value was, in fact, higher for luxury brands than streetwear brands, it was argued that this would supposedly be reflected in the participants' evaluations of value. This was argued, as it was ensured that all participants had knowledge of the presented brands through a survey at the end of the study. As such, if the total fixation duration was longer on the luxury brand than on the streetwear brand, it was argued that the value and status would be perceived as higher by the participants.

On the other hand, it was argued that the perceived quality of the luxury sneakers would be roughly equal to that of the streetwear sneakers. Most importantly, it was found that the building block of brand performance, which is mostly related to the functional aspects of a brand (e.g. quality), would possibly create strong associations towards both the luxury and streetwear brands in different ways. As for the luxury brands, it was argued that respondents might associate these brands with premium prices, high-quality materials, or stylish designs, which would then affect the brand equity and ultimately result in

higher evaluations of quality. For the streetwear brands, on the other hand, it was assumed that the respondents would potentially associate these brands with characteristics such as comfort and durability. Additionally, since sneakers are part of a global trend, it was assumed that aesthetic considerations such as style and design would also contribute to the evaluation of the quality of streetwear brands. As such, it was argued that the perceived quality would be evaluated as roughly equal regardless of whether the fixation duration was longer on the luxury brand or the streetwear brand.

Lastly, through the assessment of the final hypothesis, it was found that co-branding allows for the combination of positive characteristics associated with both the luxury and the streetwear brand. As it was already found that luxury brands were associated with higher value and status than the streetwear brands, it was assumed that the effect of scarcity messages would be higher for participants exposed to a co-branded sneaker, than those exposed to a single branded streetwear sneaker. As such, this would supposedly result in higher evaluations of value, status, and quality for the co-branded sneakers.

Appraisal theories were incorporated during the discussion of the emotional processes potentially arising in a real-life purchase situation concerning limited edition sneakers. Specifically, it was argued that many possible emotions could arise depending on the subjective psychological appraisals made by an individual in given circumstances. As such, this would provide a thorough overview of all possible emotional reactions.

The assumed findings of the study, which were based on thorough theoretical arguments, are believed to provide valuable insights, not only for fellow academics but also for professionals within the sneaker industry. Specifically, the study explains how the industry could use scarcity messages on limited edition sneakers (this be either co-branded or single-branded) to enhance consumers' product perceptions, thereby potentially leading to increased purchase intention and ultimately increased sales.

## **Further Research**

In the following section, suggestions for future research related to the findings of the current thesis will be presented. Firstly, the natural suggestion will be concerned with the actual conduction of the eye tracking study to examine whether the arguments put forward in the assessment of the hypothesis would be verified. Secondly, alterations to the stimuli design are suggested to potentially strengthen the



ecological validity of the study. Thirdly, suggestions for the sample size and population are made to make the study more representative and generalizable. Next, the combination of an eye tracking and an EEG study will be suggested to account for the conversion of attention from immediate to focused as well as whether a stimulus is liked or disliked. Thereafter, and perhaps most optimally, the combination of eye tracking and the neurometric of fMRI will be suggested. This is suggested to account for the respondents' deeper brain activity and the underlying brain structures involved in product evaluations and decision making to examine whether the arguments put forward in this thesis are applicable in reality. Lastly, it is suggested that the findings of the thesis would be interesting to investigate across other product categories to see whether the study would be applicable for these as well.

### **Conduction of an Eye Tracking Study**

Firstly, it is suggested that a replication and conduction of the presented eye tracking study could take place, as this would enable the examination of whether the theoretical argumentation put forward for each of the hypotheses would be validated.

### **Stimuli Design**

Secondly, to strengthen the ecological validity of the study, a redesign of the stimuli is proposed. A fictive website design in which the presented AOIs would be incorporated might boost the ecological validity of the study, as it is likely that the participants would have seen sneakers in this setting before, rather than on a simple white background. However, such a design would arguably require a rather simplistic design to avoid too many distractors in the stimuli i.e. due to bright colors, faces, etc. By doing so, the results might have been even closer to a real-life situation, and thereby be more applicable for organizations.

### **Sample Size and Generalizability**

Thirdly, while the current study encompassed 90 participants, Harboe states that a large number of respondents reinforce the generalizability and testability of the study (Harboe, 2006, p. 33). Therefore, to enhance the generalizability of the sample in the current study, assembling a larger sample size is proposed. Furthermore, as previously argued, the positive impact of LQS messages have even been strong across countries and cultures (Aggarwal et al., 2011, p. 19), why expanding the sample population could provide new insights to the current study if it was conducted across countries and cultures.

## **Eye Tracking and EEG**

Next, it could be interesting to combine an eye tracking study in combination with electroencephalography (EEG). EEG, which is a neurometric measure, focuses on changes in brain activity, whereas biometrics, such as eye tracking, focuses on measuring physical changes. As such, the combination of the two would allow for a deeper analysis and examination of the mental processes occurring while being exposed to the various stimuli, arguably influencing the final evaluation of value, status, and quality. More specifically, Pozharliev et al. state that EEG is a reliable tool to investigate the conversion of consumers' attention from immediate to focused and distinguishing the two in relation to marketing-relevant stimuli (Pozharliev et al., 2017, p. 352- 353). Furthermore, EEG directly measures brain activity by detecting electrical signals from neural activity, which account for cognitive activity and indications of emotions, based on whether the test person likes or dislikes certain stimuli. Furthermore, EEG can also be used to effectively investigate the brain locations of visual memory encoding of the visual stimuli displayed in the study (Pozharliev et al., 2017, p. 353).

Based on the above knowledge of what EEG can contribute with in relation to the current study, the combination of the two measures would inevitably provide the current study with additional, valuable knowledge.

## **Eye Tracking and fMRI**

Next, it is suggested that the conduction of an eye tracking study in combination with the neurometric of fMRI would enable an even deeper investigation of the underlying brain mechanisms of consumer behavior, related to the evaluation of products (Bell et al., 2018, p. 9). fMRI indirectly measures deep brain activity by localizing and observing changes in blood oxygenation during cognitive tasks (Bell et al., 2018, p. 8-9). As such, fMRI can be used to measure activity in the dopaminergic target in the brain (the ventral striatum) that according to Venkatraman et al. is the strongest predictor of subsequent purchases (Venkatraman et al. 2015, p. 440). This would contribute positively to the current study and enable possible indications of which sneakers the participants would most likely purchase in a real-life situation and whether these were co-branded or single-branded and which scarcity messages they were presented with. Furthermore, fMRI has previously been used in the field of marketing to investigate a range of mental processes, attention, arousal, affect, reward, decision making, and memory, which are all processes that are highly relevant to consumer behavior (Bell et al., 2018, p. 9). Previous studies by Erk et al. (2002) and Schaefer and Rotte (2007), on decision making related to visual processing, even

showed increased activity in the striatum for brands rated as luxury, which is an area specifically identified as a so-called reward area (Bell et al., 2018, p. 9). As such, it would be interesting to investigate whether luxury brands in collaboration with streetwear brands would also indicate increased activity in the striatum, as when luxury products are presented on their own. As such, it is argued that the conduction of an eye tracking study combined with an fMRI would provide additional, valuable insight to the current study.

It is acknowledged, however, that such a study would require a company to support the research, as fMRI is a very expensive neurometric measure. Furthermore, it is acknowledged that the ecological validity of this study is lower than the above combination of an eye tracking and EEG study, as the respondents would be asked to lie down in a machine. Nonetheless, it would enable future researchers to gain a deeper knowledge of the underlying brain mechanisms involved in product evaluations.

### **The Application of the Findings to Other Product Categories**

Lastly, it would be interesting to investigate whether the study and the findings would be applicable across other product categories as well. Based on the presented research in the study, the findings would presumably be most applicable for symbolic brands rather than functional brands, as this is where LQS messages are argued to be most effective in generating positive product evaluations. Nonetheless, it would be interesting to examine to what extent the findings would be applicable for functional brands and products as well.

# Bibliography

## Academic Articles

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior And Human Decision Processes*, 50(2), 179-211. doi: 10.1016/0749-5978(91)90020

Bagozzi, R., Gopinath, M., & Nyer, P. (1999). The Role of Emotions in Marketing. *Journal Of The Academy Of Marketing Science*, 27(2), 184-206. doi: 10.1177/0092070399272005

Bell, L., Vogt, J., Willemse, C., Routledge, T., Butler, L., & Sakaki, M. (2018). Beyond Self-Report: A Review of Physiological and Neuroscientific Methods to Investigate Consumer Behavior. *Frontiers In Psychology*, 9. doi: 10.3389/fpsyg.2018.01655

Chae, H., Kim, S., Lee, J., & Park, K. (2019). Impact of product characteristics of limited edition shoes on perceived value, brand trust, and purchase intention; focused on the scarcity message frequency. *Journal Of Business Research*. doi: 10.1016/j.jbusres.2019.11.040

Cunningham, W., Zelazo, P., Packer, D., & Van Bavel, J. (2007). The Iterative Reprocessing Model: A Multilevel Framework for Attitudes and Evaluation. *Social Cognition*, 25(5), 736-760. doi: 10.1521/soco.2007.25.5.736

Griskevicius, V., & Kenrick, D. (2013). Fundamental motives: How evolutionary needs influence consumer behavior. *Journal Of Consumer Psychology*, 23(3), 372-386.

Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research, 8, 597-607.

Han, Y., Nunes, J., & Drèze, X. (2010). Signaling Status with Luxury Goods: The Role of Brand Prominence. *Journal Of Marketing*, 74(4), 15-30. doi: 10.1509/jmkg.74.4.015

Harris, J., Ciorciari, J., & Gountas, J. (2018). Consumer neuroscience for marketing researchers. *Journal Of Consumer Behaviour*, 17(3), 239-252. doi: 10.1002/cb.1710

Helmig, B., Huber, J., & Leeflang, P. (2008). Co-branding: The State of the Art. *Schmalenbach Business Review*, 60(4), 359-377. doi: 10.1007/bf03396775

Hox, J., & Boeije, H. (2005). Data Collection, Primary vs. Secondary. *Encyclopedia Of Social Measurement*, 1.

Jang, W., Ko, Y., Morris, J., & Chang, Y. (2015). Scarcity Message Effects on Consumption Behavior: Limited Edition Product Considerations. *Psychology & Marketing*, 32(10), 989-1001. doi: 10.1002/mar.20836

Kahneman, D., & Frederick, S. (2002). Representativeness revisited: Attribute substitution in intuitive judgment. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases: The psychology of intuitive judgment* (p. 49–81). Cambridge University Press.  
<https://doi.org/10.1017/CBO9780511808098.004>

Kang, Y., & Park, S. (2016). The perfection of the narcissistic self: A qualitative study on luxury consumption and customer equity. *Journal Of Business Research*, 69(9), 3813-3819. doi: 10.1016/j.jbusres.2015.12.073

Keller, K. (2009). Building strong brands in a modern marketing communications environment. *Journal Of Marketing Communications*, 15(2-3), 139-155. doi: 10.1080/13527260902757530

Martin, J., & Sloman, S. (2013). Refining the dual-system theory of choice. *Journal Of Consumer Psychology*, 23(4), 552-555. doi: 10.1016/j.jcps.2013.04.006

Meißner, M., & Oll, J. (2017). The Promise of Eye-Tracking Methodology in Organizational Research: A Taxonomy, Review, and Future Avenues. *Organizational Research Methods*, 22(2), 590-617. doi: 10.1177/1094428117744882

Nelissen, R., & Meijers, M. (2011). Social benefits of luxury brands as costly signals of wealth and status. *Evolution And Human Behavior*, 32(5), 343-355. doi: 10.1016/j.evolhumbehav.2010.12.002

Panksepp, J. (2011). Cross-Species Affective Neuroscience Decoding of the Primal Affective Experiences of Humans and Related Animals. *Plos ONE*, 6(9). doi: 10.1371/journal.pone.0021236

Panksepp, J., & Watt, D. (2011). What is Basic about Basic Emotions? Lasting Lessons from Affective Neuroscience. *Emotion Review*, 3(4), 387-396. doi: 10.1177/1754073911410741

Pozharliev, R., Verbeke, W., & Bagozzi, R. (2017). Social Consumer Neuroscience: Neurophysiological Measures of Advertising Effectiveness in a Social Context. *Journal Of Advertising*, 46(3), 351-362. doi: 10.1080/00913367.2017.1343162

Reimann, M., & Bechara, A. (2010). The somatic marker framework as a neurological theory of decision-making: Review, conceptual comparisons, and future neuroeconomics research. *Journal Of Economic Psychology*, 31(5), 767-776. doi: 10.1016/j.joep.2010.03.002

Roseman, I. (1996). Appraisal Determinants of Emotions: Constructing a More Accurate and Comprehensive Theory. *Cognition & Emotion*, 10(3), 241-278. doi: 10.1080/026999396380240

Sullivan, G., & Artino, A. (2013). Analyzing and Interpreting Data From Likert-Type Scales. *Journal Of Graduate Medical Education*, 5(4), 541-542. doi: 10.4300/jgme-5-4-18

Tatler, B. (2007). The central fixation bias in scene viewing: Selecting an optimal viewing position independently of motor biases and image feature distributions. *Journal Of Vision*, 7(14), 4. doi: 10.1167/7.14.4

Tian, K. T., Bearden, W. O., & Hunter, G. (2001). Consumer need for uniqueness: Scale development and validation. *Journal of Consumer Research*, 28, 50–66

Tracy, J., & Randles, D. (2011). Four Models of Basic Emotions: A Review of Ekman and Cordaro, Izard, Levenson, and Panksepp and Watt. *Emotion Review*, 3(4), 397-405. doi: 10.1177/1754073911410747

Tuan Pham, M. (2004). The Logic of Feeling. *Journal Of Consumer Psychology*, 14(4), 360-369. doi: 10.1207/s15327663jcp1404\_5washb

Van Bavel, J., Jenny Xiao, Y., & Cunningham, W. (2012). Evaluation is a Dynamic Process: Moving Beyond Dual System Models. *Social And Personality Psychology Compass*, 6(6), 438-454. doi: 10.1111/j.1751-9004.2012.00438.x

Van der Laan, L., Hooge, I., de Ridder, D., Viergever, M., & Smeets, P. (2015). Do you like what you see? The role of first fixation and total fixation duration in consumer choice. *Food Quality And Preference*, 39, 46-55. doi: 10.1016/j.foodqual.2014.06.015

Venkatraman, V., Dimoka, A., Pavlou, P., Vo, K., Hampton, W., & Bollinger, B. et al. (2015). Predicting Advertising success beyond Traditional Measures: New Insights from Neurophysiological Methods and Market Response Modeling. *Journal Of Marketing Research*, 52(4), 436-452. doi: 10.1509/jmr.13.0593

Voss, K., Spangenberg, E., & Grohmann, B. (2003). Measuring the Hedonic and Utilitarian Dimensions of Consumer Attitude. *Journal Of Marketing Research*, 40(3), 310-320. doi: 10.1509/jmkr.40.3.310.19238

Wang J., & Minor, M. S. (2008). Validity, Reliability, and Applicability of psychosociological techniques in marketing research. *Psychology and Marketing*, 25(2), 197-232.

Washburn, J., Till, B., & Priluck, R. (2000). Co-branding: brand equity and trial effects. *Journal Of Consumer Marketing*, 17(7), 591-604. doi: 10.1108/07363760010357796

## **Books**

Aaker, D.A. (1991), *Managing Brand Equity*, The Free Press, New York, NY.

Andersen, I. (2009). *Den skinbarlige sandhed - om vidensproduktion inden for samfundsvidenskaberne*. 4. udgave, 2. oplag. Samfundslitteratur.

Brier, S. (2012). *Informationsvidenskabsteori* (2nd ed.). Frederiksberg C: Forlaget Samfundslitteratur.

Corman, S. (2005). *Engaging Organizational Communication Theory & Research: Multiple Perspectives* (pp. 15-34). Thousand Oaks: SAGE Publications, Inc.

Damasio, A. (1994). *Descartes' Error: Emotion, Reason and the Human Brain*. New York: Avon Books.

Dattalo, P. (2008). *Determining sample size*. Oxford: Oxford University Press.

Gallo, R., & Mosca, F. (2016). *Global marketing strategies for the promotion of luxury goods*. Business Science Reference.

Halkier, Bente (2002). Fokusgrupper. Samfundslitteratur & Roskilde Universitetsforlag. Frederiksberg, 1. Udgave.

Harboe, T. (2006) Indføring i samfundsvidenskabelig metode, 4th edn. Frederiksberg C: Samfundslitteratur.

iMotions. (2018). *Eye Tracking The Complete Pocket Guide*.

Keller, K. (2001). *Building customer-based brand equity*. Cambridge, MA.

Kotler, P., & Keller, K. (2012). *Marketing management* (2nd ed.). Upper Saddle River, N.J.: Pearson/Prentice Hall.

Land, M., & Tatler, B. (2009). *Looking and Acting: Vision and Eye Movements in Natural Behaviour* (pp. 27-55). Oxford: Oxford University Press.

Madsen, B. (2015). *Statistik for ikke-statistikere*. Frederiksberg: Samfundslitteratur.

Muijs, D. (2004). *Doing Quantitative Research in Education with SPSS*. London: SAGE Publications

Muijs, D. (2013). *Doing Quantitative Research in Education with SPSS*. SAGE Publications Ltd, 11-30 + 98-123.

Nygaard, C. (2012). *Samfundsvidenskabelige analysemetoder* (2nd ed.). Frederiksberg C: Samfundslitteratur.



## Websites

Beauloye, F. (2018). When Streetwear And Social Media Hype Win Over Luxury Fashion. Retrieved 9 May 2020, from [https://luxedigital.com/business/digital-luxury-reports/when-streetwear-and-social-media-hype-win-over-luxury-fashion/?fbclid=IwAR17t4YvU-j1\\_VCmEyS1GLPUmnqdc\\_mvUjWoRf93rq6IBKYAs\\_d1BWW-xl](https://luxedigital.com/business/digital-luxury-reports/when-streetwear-and-social-media-hype-win-over-luxury-fashion/?fbclid=IwAR17t4YvU-j1_VCmEyS1GLPUmnqdc_mvUjWoRf93rq6IBKYAs_d1BWW-xl)

Beauloye, F. (2020). Marketing to Millennials: How Luxury Brands Build Hype. Retrieved 9 May 2020, from <https://luxedigital.com/business/digital-luxury-trends/marketing-hype-millennials/>

Bhasin, H. (2019). Keller's Brand equity Model – CBBE Model - Brand Equity Pyramid. Retrieved 13 March 2020, from <https://www.marketing91.com/kellers-brand-equity-model/>

CBS. (2020). Retrieved 8 April 2020, from <https://www.cbs.dk/bibliotek/databaser/alfabetisk-liste>

Dahlitz, M. (2017). Prefrontal Cortex | The Science of Psychotherapy. Retrieved 25 April 2020, from <https://www.thescienceofpsychotherapy.com/prefrontal-cortex/>

Euromonitor. (2014). Couture Sneakers Give Performance Footwear a Run for its Money as Comfort Becomes Cool. Retrieved 12 May 2020, from <https://www.portal-euromonitor-com.esc-web.lib.cbs.dk:8443/portal/Analysis/Tab>

Farnsworth, B. (2017). 5 Essentials for an Optimal Eye Tracking Research Setup - iMotions. Retrieved 23 April 2020, from <https://imotions.com/blog/essentials-eye-tracking-research/>

Farnsworth, B. (2018). 10 Most Used Eye Tracking Metrics and Terms - iMotions. Retrieved 7 April 2020, from <https://imotions.com/blog/7-terms-metrics-eye-tracking/>

Farnsworth, B. (2019). What is Eye Tracking and How Does it Work? - iMotions. Retrieved 3 May 2020, from <https://imotions.com/blog/eye-tracking-work/>

Farrell, S. (2016). Open-Ended vs. Closed-Ended Questions in User Research. Retrieved 2 May 2020, from <https://www.nngroup.com/articles/open-ended-questions/>

George-Parkin, H. (2019). From 'Drops' to Hip-Hop Stars: How Luxury Brands Are Borrowing From the Sneaker Industry. Retrieved 9 May 2020, from

<https://footwearnews.com/2019/business/retail/sneakers-luxury-retail-drops-resale-1202780515/>

Haagerup, J. (2015). Unge ligger i kø i fire dage for at købe sneakers til 1.600 kroner. Retrieved 9 May 2020, from <https://www.berlingske.dk/samfund/unge-ligger-i-koe-i-fire-dage-for-at-koebe-sneakers-til-1.600-kroner>

HealthStatus. Slow Reading Reasons & Reading Disorder In Children. Retrieved 23 April 2020, from [https://www.healthstatus.com/health\\_blog/add-adhd-attention-deficit/reasons-why-some-people-read-slowly/](https://www.healthstatus.com/health_blog/add-adhd-attention-deficit/reasons-why-some-people-read-slowly/)

iMotions. Eye Tracking: Screen-Based - iMotions Software and Eye Trackers. Retrieved 17 April 2020, from <https://imotions.com/biosensor/eye-tracking-screen-based/>

iMotions A. (2015). Screen-Based Eye Tracker vs Eye Tracking Glasses - What's the Difference? - iMotions. Retrieved 10 April 2020, from <https://imotions.com/blog/screen-based-eye-tracker-vs-eye-tracking-glasses/>

iMotions B. (2015). 5 Ethical Guidelines in Cognitive-Behavioral Research - iMotions. Retrieved 17 April 2020, from [https://imotions.com/blog/ethical-guidelines-cognitive-behavioral-research/?fbclid=IwAR1eAV\\_WRVad3I5DxrP4GFaVAb6-GI39hztgvxJ2HdRjn5szFNDCKVGOZNC](https://imotions.com/blog/ethical-guidelines-cognitive-behavioral-research/?fbclid=IwAR1eAV_WRVad3I5DxrP4GFaVAb6-GI39hztgvxJ2HdRjn5szFNDCKVGOZNC)

Kiprop, V. (2018). Which Languages Are Written From Right to Left?. Retrieved 23 April 2020, from <https://www.worldatlas.com/articles/which-languages-are-written-from-right-to-left.html>

Mitzuv. (2006). Brand development. Retrieved 6 March 2020, from <https://www.slideshare.net/inbarperry/brand-development-6487196>

Pahwa, A. (2016). Brand Positioning: Characteristics, Types, Examples & Ideas | Feedough. Retrieved 13 March 2020, from <https://www.feedough.com/positioning/>

Panksepp, J. (2014). The science of emotions: Jaak Panksepp at TEDxRainier. Retrieved 9 April 2020, from [https://www.youtube.com/watch?v=65e2qScV\\_K8](https://www.youtube.com/watch?v=65e2qScV_K8)

Qualtrics. (2020). Brand Equity: Keller vs Aaker Brand Equity Models | Qualtrics. Retrieved 25 March 2020, from <https://www.qualtrics.com/experience-management/brand/keller-vs-aaker>

Salpini, C. (2018). What's driving retail's sneaker obsession?. Retrieved 9 May 2020, from <https://www.retaildive.com/news/whats-driving-retails-sneaker-obsession/518625/>

The Prada Group. (2018). Annual Report 2018. Retrieved 17 April 2020, from <https://www.pradagroup.com/en/balance2018/the-prada-group.html>

Tobii. How does the calibration work?. Retrieved 23 April 2020, from <https://help.tobii.com/hc/en-us/articles/360023794433-How-does-the-calibration-work->

Weimer, M. (2018). Advantages, Disadvantages of Different Types of Test Questions. Retrieved 2 May 2020, from <https://www.facultyfocus.com/articles/educational-assessment/advantages-and-disadvantages-of-different-types-of-test-questions/>

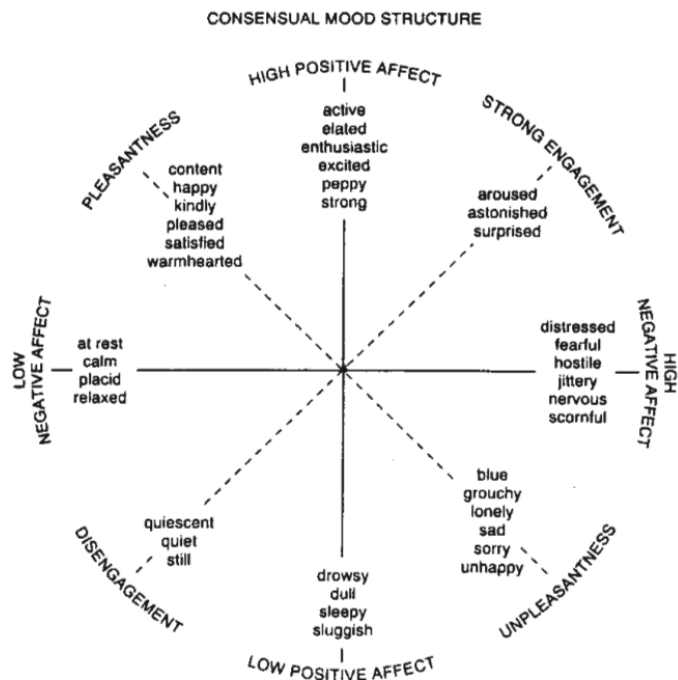
Williams, M. (2016). 6 Examples of Great Co-Branding. Retrieved 13 March 2020, from <https://altitudebranding.com/6-examples-great-co-branding/>

Wood, J. (2019). Huge queues as trainer fans try to get their hands on £140 Nike shoes. Retrieved 9 May 2020, from <https://www.dailymail.co.uk/news/article-6678257/Trainer-fans-queue-three-days-hands-limited-edition-140-Nike-shoes.html>

## Appendices

Appendix 1, retrieved from Bagozzi, R., Gopinath, M., & Nyer, P. (1999). The Role of Emotions in Marketing. *Journal Of The Academy Of Marketing Science*, 27(2), 184-206. doi: 10.1177/0092070399272005

**FIGURE 2**  
**Watson and Tellegen's Two-Factor**  
**Structure of Affect**



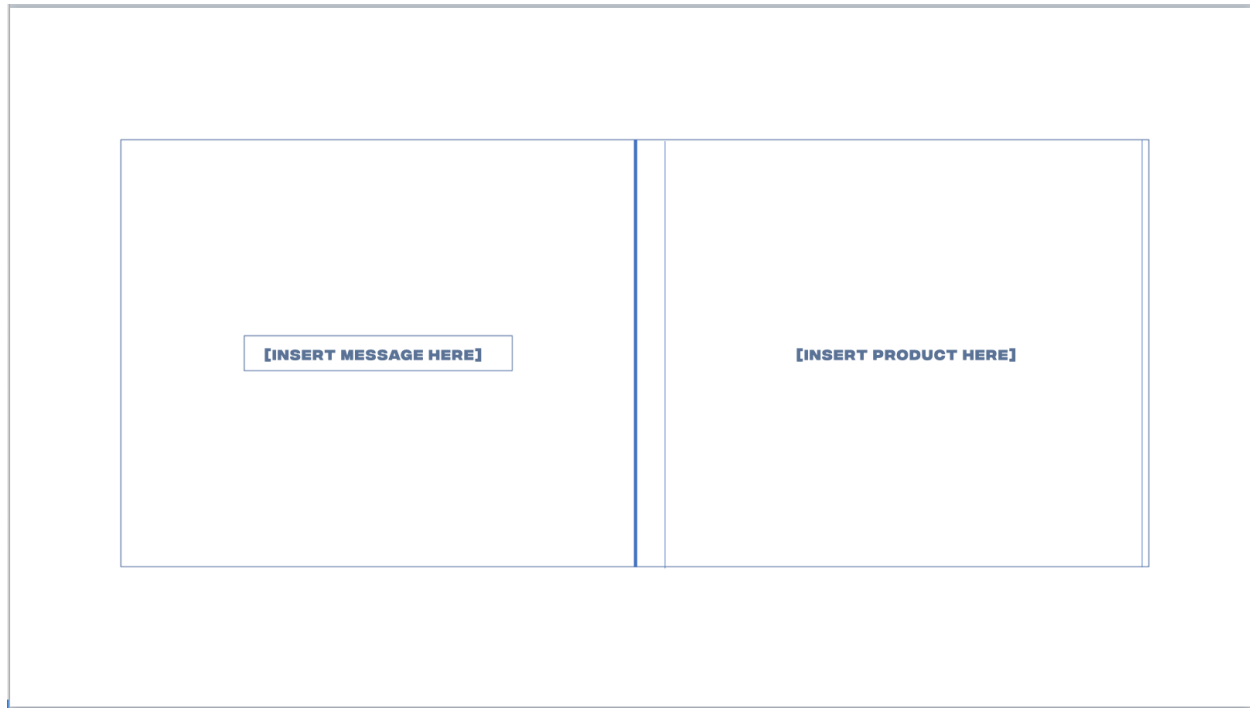
SOURCE: Watson and Tellegen (1985:225). Copyright © 1985 by the American Psychological Association. Reprinted with permission.

Appendix 2, retrieved from Roseman, I. (2013). Appraisal in the Emotion System: Coherence in Strategies for Coping. *Emotion Review*, 5(2), 141-149. doi: 10.1177/1754073912469591

		Positive Emotions		Negative Emotions			
		Motive-Consistent		Motive-Inconsistent			
		Appetitive Motive (+)	Aversive Motive (-)	Appetitive Motive (+)	Aversive Motive (-)		
(Circumstance-Caused)							
UNEXPECTED		SURPRISE PHE: unexpectedness; stunned EXP: brows raised, arched; eyes wide; mouth open, oval; gasp BEH: interrupt, inquire EMV: understand <suspend movement>					
Not Unexpected							
Uncertain		Hope PHE: potential; focused EXP: brows slightly raised, eyes widened, upward gaze BEH: anticipate, approach EMV: make happen <prepare to move toward or to stop moving away from it>		Fear PHE: danger; cold, heart pounding EXP: brows raised, straight; eyes wide, lips drawn back BEH: vigilance, inhibition or flight (run) EMV: get to safety, prevent <prepare to move away from or to stop moving toward it>		Low Control Potential	
Certain		Joy (+) PHE: attainment; excited, light EXP: smile BEH: jump up, celebrate EMV: sustain <move toward it>	Relief (-) PHE: amelioration; calming EXP: exhalation, sigh BEH: rest, relax EMV: return to normal <stop moving away from it>	Sadness (+) PHE: missing; lethargy, throat lump EXP: weep, inner brows raised BEH: inaction EMV: recover <stop moving toward it>	Distress (-) PHE: harm; agitated EXP: cry out BEH: move around, leave EMV: terminate, get away <move away from it>		
	Uncertain	Hope PHE: potential; focused EXP: brows slightly raised, eyes widened, upward gaze BEH: anticipate, approach EMV: make happen <prepare to move toward or to stop moving away from it>		Frustration PHE: obstacle; tense EXP: brows lowered BEH: exert effort EMV: overcome <move against it>		Disgust PHE: repulsiveness; nausea EXP: wrinkled nose BEH: expel, purge, reject EMV: eliminate contact <move it away from you>	High Control Potential
Certain		Joy (+) PHE: attainment; excited, light EXP: smile BEH: jump up, celebrate EMV: sustain <move toward it>	Relief (-) PHE: amelioration; calming EXP: exhalation, sigh BEH: rest, relax EMV: return to normal <stop moving away from it>				
	Other-Caused						
Uncertain				Dislike PHE: disapproval; cool EXP: refuse eye contact BEH: decrease attention to EMV: dissociate <move away from other>		Low Control Potential	
Certain		Love PHE: appreciation; drawn to someone EXP: sustained relaxed eye contact, lean toward BEH: touch, hold EMV: connect <move toward other>					
	Uncertain			Anger PHE: injustice; explosive EXP: brows lowered, square mouth BEH: yell, hit, criticize EMV: hurt, get revenge <move against other>		Contempt PHE: other unworthy; revulsion EXP: sneer, head raised BEH: look down on, disparage EMV: exclude <move other away>	High Control Potential
Certain							
	Self-Caused			Regret PHE: mistake; sick, sinking EXP: eyes closed; lips stretched, pressed together BEH: do over, do differently EMV: correct, improve <move away from self>		Low Control Potential	
Uncertain							
Certain		Pride PHE: self-worth; big, powerful EXP: head back, expanded posture BEH: exhibit, assert EMV: recognition, dominance <move toward self>		Guilt PHE: transgression; heavy EXP: shift gaze BEH: reproach, punish self EMV: redress <move against self>		Shame PHE: self unworthy; small EXP: head and gaze down BEH: withdraw, conceal, submit EMV: get self out of sight <move self away>	High Control Potential
	Uncertain						
Certain							
				INSTRUMENTAL PROBLEM		Intrinsic Problem	

### Appendix 3

Stimuli and distractor template.



## Appendix 4



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Marketing

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www.cbs.dk

### Statement on experiments with eye-tracking in DNRC Lab at CBS

Participant no: 023 date: 11/8-20

1. You have the right to decline participation and to withdraw from the experiment at any time. This will have no consequences for you as a respondent.
2. Your participation will be anonymous, and your name won't be related to the project.
3. The collected data from this experiment will be used for scientific purposes only.
4. You will be informed about the equipment and how it works and there is no risk of joining.
5. You are always welcome to request further information.
6. All personal data will be erased 6 months after the end of data collection.

I have read and understood the statement above, and I agree with the experiment conditions.

name in capital letters

Anders Rasmussen

signature

## Appendix 5

The image displays three horizontal Likert scales, each consisting of a line with a slider at the midpoint. The scales are arranged vertically and are used to measure agreement with three statements. Each scale has 'Highly disagree' at the left end and 'Highly agree' at the right end.

Statement	Highly disagree	Highly agree
This product is high quality		
This product is expensive		
This product signals high status		



## Appendix 6

### **Thank you for participating in our experiment.**

In the following you will be presented with several photos of fashion items, which you will each see for six seconds. After each photo you will be asked to indicate how much you agree or disagree with the three following statements. You will have 60 seconds to answer.

Statement 1: This product is high quality  
Highly disagree - highly agree

Statement 2: This product is expensive  
Highly disagree - highly agree

Statement 3: This product signals high status  
Highly disagree - highly agree

Get ready to start the experiment. Focus on the "+" in the middle of the screen before each photo :-)

Next ➡

## Appendix 7

Tidspunkt	11. Marts	12. Marts	13. Marts		18. Marts
8:30	Participant 1	Participant 24	Participant 51		
9:00	Participant 2	Participant 25	Participant 52		
9:30	Participant 3	Participant 26	Participant 53		
10:00	Participant 4	Participant 27	Participant 54		
10:30	Participant 5	Participant 28	Participant 55		
11:00	Participant 6	Participant 29	Participant 56		
11:30	Participant 7		Participant 57		Participant 72
12:00	Participant 8	Participant 30	Participant 58		
12:20	Participant 9	Participant 31	Participant 59		
12:40	Participant 10	Participant 32			
13:00		Participant 33			
13:20	Participant 11	Participant 34			
13:40	Participant 12				
14:00	Participant 13		Participant 60		
14:20		Participant 35	Participant 61		
14:40		Participant 36	Participant 62		
15:00	Participant 14	Participant 37			
15:20	Participant 15	Participant 38	Participant 63		
15:40	Participant 16	Participant 39	Participant 64		
16:00	Participant 17	Participant 40	Participant 65		Participant 73
16:20	Participant 18	Participant 41			Participant 74
16:40	Participant 19		Participant 66		Participant 75
17:00	Participant 20	Participant 42	Participant 67		Participant 76
17:20		Participant 43	Participant 68		Participant 77
17:40		Participant 44	Participant 69		Participant 78
18:00	Participant 21	Participant 45	Participant 70		Participant 79
18:30	Participant 22		Participant 71		Participant 80
19:00	Participant 23	Participant 46			
19:30		Participant 47			
20:00		Participant 48			
20:30		Participant 49			
21:00		Participant 50			
		<b>TOTAL: 80</b>			
		<b>45 kvinder</b>	Completed		
		<b>35 mænd</b>			

## Appendix 8

**11. marts 2020, 23:15**

### **CBS lukker campus**

Regeringen har onsdag aften meddelt, at alle studerende på landets uddannelsesinstitutioner skal sendes hjem for at bremse smittespredning med Coronavirus. Campus lukker derfor omgående fra og med torsdag morgen og indtil videre til og med fredag den 27. marts. Forsknings- og uddannelsesaktiviteter fortsætter i videst muligt omfang online.

## Appendix 9

Sources for figure 5:

Prada: [https://danishfashionliving.com/shop/prada-2og064-black/?gclid=Cj0KCQjw7qn1BRDqARIsAKMbHDbPnwoQw5ISfO7RL5Y838WEFsk9IGwhmJ-VqUjsZa\\_sjF9w4WJFOEsaAvTjEALw\\_wcB](https://danishfashionliving.com/shop/prada-2og064-black/?gclid=Cj0KCQjw7qn1BRDqARIsAKMbHDbPnwoQw5ISfO7RL5Y838WEFsk9IGwhmJ-VqUjsZa_sjF9w4WJFOEsaAvTjEALw_wcB)

Fendi: [https://www.24s.com/en-dk/suede-trainers-fendi\\_FENKGQ9R?defaultSku=FENKGQ9RGRYSI40000&color=macaron\\_martora\\_skin&lgw\\_code=5154-FENKGQ9RGRYSI40000&gclid=Cj0KCQjw7qn1BRDqARIsAKMbHDZClgwNk15iVhF14KTCRnvMBXt316Y2Pj180z5wmSfMi4pTfsAvDtMaAoyuEALw\\_wcB&gclsrc=aw.ds](https://www.24s.com/en-dk/suede-trainers-fendi_FENKGQ9R?defaultSku=FENKGQ9RGRYSI40000&color=macaron_martora_skin&lgw_code=5154-FENKGQ9RGRYSI40000&gclid=Cj0KCQjw7qn1BRDqARIsAKMbHDZClgwNk15iVhF14KTCRnvMBXt316Y2Pj180z5wmSfMi4pTfsAvDtMaAoyuEALw_wcB&gclsrc=aw.ds)

Gucci: [https://www.gucci.com/dk/en\\_gb/pr/women/shoes-for-women/sneakers-for-women/womens-rhyton-gucci-logo-leather-sneaker-p-528892DRW009522?gclid=Cj0KCQjw7qn1BRDqARIsAKMbHDZp64xyMX6citOiNxBcf2YJ6ZzZUPujj9s6yTeTGfQ1w33AxYH5I9gaAgFNEALw\\_wcB&gclsrc=aw.ds](https://www.gucci.com/dk/en_gb/pr/women/shoes-for-women/sneakers-for-women/womens-rhyton-gucci-logo-leather-sneaker-p-528892DRW009522?gclid=Cj0KCQjw7qn1BRDqARIsAKMbHDZp64xyMX6citOiNxBcf2YJ6ZzZUPujj9s6yTeTGfQ1w33AxYH5I9gaAgFNEALw_wcB&gclsrc=aw.ds)

Chanel: <https://www.chanel.com/dk/fashion/p/G34360Y54059K2052/trainers-fabric-suede-calfskin/>

Dior: [https://www.dior.com/en\\_dk/products/couture-3SH118YJP\\_H069-b23-high-top-sneakers-in-dior-oblique?size=T43&gclid=Cj0KCQjw7qn1BRDqARIsAKMbHDaMJF5YLcs11QOWWEOKsRg2OizU0IA0asNxLp4MoiE\\_dq1YxiqLcaAi6sEALw\\_wcB](https://www.dior.com/en_dk/products/couture-3SH118YJP_H069-b23-high-top-sneakers-in-dior-oblique?size=T43&gclid=Cj0KCQjw7qn1BRDqARIsAKMbHDaMJF5YLcs11QOWWEOKsRg2OizU0IA0asNxLp4MoiE_dq1YxiqLcaAi6sEALw_wcB)

Stella McCartney: [https://www.stellamccartney.com/us/stella-mccartney/sneakers\\_cod11729575pj.html#dept=main\\_shoes](https://www.stellamccartney.com/us/stella-mccartney/sneakers_cod11729575pj.html#dept=main_shoes)

Adidas: <https://sportmaster.dk/adidas-ultra-boost-20-cblackngtmetftwwht-2146976>

Nike:

[https://www.nike.com/dk/en/t/air-max-97-shoe-4m8StN/921826-101?cp=64019520724\\_search\\_%7c%7c905742136%7c51993157184%7c%7cc%7cEN%7cgsproducts%7c213911679333&ds\\_rl=1252249&gclid=Cj0KCQjwka\\_1BRCPARIsAMlUmEoM8l8Dq59pMe7pt\\_PUDgZP\\_wGqvU\\_tfUwvpvUUXbkEY\\_tigdhvfuuAaAs0YEALw\\_wcB&gclsrc=aw.ds](https://www.nike.com/dk/en/t/air-max-97-shoe-4m8StN/921826-101?cp=64019520724_search_%7c%7c905742136%7c51993157184%7c%7cc%7cEN%7cgsproducts%7c213911679333&ds_rl=1252249&gclid=Cj0KCQjwka_1BRCPARIsAMlUmEoM8l8Dq59pMe7pt_PUDgZP_wGqvU_tfUwvpvUUXbkEY_tigdhvfuuAaAs0YEALw_wcB&gclsrc=aw.ds)

Puma:

[https://eu.puma.com/dk/en/pd/rs-x-puzzle-trainers/371570.html?dwvar\\_371570\\_size=0260&dwvar\\_371570\\_color=01&gclid=Cj0KCQjwka\\_1BRCPARIsAMlUmEoaXnqx3ynVjagkYfeQQrZxam2sp7H9fZm4Zn0j5XmX9C3bnMEiY0laAm0qEALw\\_wcB](https://eu.puma.com/dk/en/pd/rs-x-puzzle-trainers/371570.html?dwvar_371570_size=0260&dwvar_371570_color=01&gclid=Cj0KCQjwka_1BRCPARIsAMlUmEoaXnqx3ynVjagkYfeQQrZxam2sp7H9fZm4Zn0j5XmX9C3bnMEiY0laAm0qEALw_wcB)

New Balance:

[https://dk.newbalance.eu/en/pd/made-in-us-990v5/M990V5-26577-M-EMEA-M990GL5.html?dwvar\\_M990V5-26577-M-EMEA-M990GL5\\_style=M990GL5#style=M990GL5](https://dk.newbalance.eu/en/pd/made-in-us-990v5/M990V5-26577-M-EMEA-M990GL5.html?dwvar_M990V5-26577-M-EMEA-M990GL5_style=M990GL5#style=M990GL5)

Fila:

[https://www.boozt.com/dk/da/fila/d-formation-wmn\\_27107316/212382067?localLanguage=1&gclid=Cj0KCQjwka\\_1BRCPARIsAMlUmEr-NhzMXHMBk51b9qAbrEtzhhp0bfWEZMXLpB-RZhrSParOVyRysyQaAorIEALw\\_wcB](https://www.boozt.com/dk/da/fila/d-formation-wmn_27107316/212382067?localLanguage=1&gclid=Cj0KCQjwka_1BRCPARIsAMlUmEr-NhzMXHMBk51b9qAbrEtzhhp0bfWEZMXLpB-RZhrSParOVyRysyQaAorIEALw_wcB)