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WANT TO BE A BILLIONAIRE?

The effect of money priming through music lyrics on consumer product preferences.

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The effect of money priming through music lyrics on consumer product preferences.

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ABSTRACT

The effects of music lyrics have been widely researched and compared with different behavioural outcomes within the field of social psychology. However, the impact of music lyrics has seldom been studied within the field of sensory marketing. Neither has the concept of money priming been tested through music lyrics. The benefit of money has been studied widely for decades, but we have yet to discover how retailers can prime their customers through music lyrics. Through an online experiment, we tested if money priming through music lyrics affects consumers' choice of beer and their perception of the quality and value of the two types of beer. In comparison to the findings in the article "Diverging Influences of Money Priming on Choice; The Moderating Effect of Consumption Situation" by Hee Jin Kim (2017), our hypotheses were rejected. Neither did we find any effect when incorporating the moderating variable of public vs. private consumption situation or other objective independent variables.

KEYWORDS: sensory marketing, money priming, music lyrics, background music, quality, value for money.

INTRODUCTION

Most of the experiences we have every day are multisensory. The sensory marketing research tend to focus separately on vision, audition, or olfaction, but store atmospherics are more than this. The environment, the smell, and our perception of them are multisensory (Spence, Puccinelli, Grewal and Roggeveen, 2014). This entails all constructed factors within a service design, such as lightning, furnishing and sound, which intentionally is implemented in order to stimulate perceptual and emotional responses. Ultimately, the atmospherics are used to trigger certain behaviour with consumers, especially in a purchase setting. One of the most utilized components in atmospherics is background music. Background music has been proven to influence sales, time spent in store and the mood of the customers (North, Shilcock & Hargreaves, 2003). Over the last decades there have been carried out various experiments, both laboratory and in field, that show the different effects of background music on consumer behaviour. Different components within the music have been investigated in published research, such as tempo and genre (North, Sheridan & Areni, 2016; Milliman, 1982). However, there is little research on possible effects from music lyrics on consumer behaviour within the field of marketing. We have yet to find research on how the effects of music lyrics in background music can influence consumers' perception of quality and increase the expenditure.

A recent study by Kim (2017) utilized visual money priming to influence consumers into preferring expensive premium beer over local cheap beer, with the moderating effects of public vs private consumption situations. This effect is a potential outcome of money priming. By replacing the visual video component with music lyrics in a similar experiment to Kim's study (2017), we could establish if the effects of music lyrics can be utilized as a money priming tool. As consumers, we process large amounts of music throughout our everyday lives. Therefore, it can be of interest for restaurants, retailers and marketers to understand how consumers can be influenced by all the components within background music. We aim at presenting theoretical support for money priming in music lyrics as an effective tool for influencing consumers in different consumption situations.

Research question

Previous research has established that money priming can influence consumers' behaviour in different consumption situations. According to Kim (2017) there is a significant effect of visual money priming through video on consumers' choice and quality/value perception of beer. Those primed with money showed a greater preference for the higher-priced, higher-quality beer compared to the lower-priced, lower-quality beer. Kim also found a moderating effect of the money priming in a public vs. private consumption situation. Thus, the participants primed with money in an imagined public consumption situation had a higher preference for the higher-priced, higher-quality beer. On the other hand, the opposite effect occurred for participants in the private imagined consumption situation, as they preferred the lower-priced, lower-quality beer. The purpose of this study was to examine if we could replicate the findings from Kim's study (2017), by replacing visual money priming through video with money priming through music lyrics. The research question we have established is:

How does money priming through music lyrics influence consumers' product choice and perception of quality and value in different consumption situations?

To our current knowledge, the effect of money priming in music lyrics is yet to be tested within the field of sensory marketing. Other dimensions, such as violence, romance and prosocial effects in music lyrics have been tested and compared to different behavioural outcomes. However, the majority of these findings are tested within the field of social psychology. Thus, if money priming in music lyrics has a significant effect on consumers' behaviour, a new dimension in music lyrics should be of interest to the field of sensory marketing and researchers on background music. The findings from our study will be of relevance to marketers that utilizes background music as a priming tool to influence people's behaviour. If money priming through music lyrics is proved to have a significant effect, the background music in different retail contexts can be manipulated into influencing consumers to behave in a certain way. In the following section, we will present current theory on background music, the effects of music lyrics and money priming.

LITERATURE REVIEW

Music's influence on consumer behaviour

According to Yalch and Spangenberg (1990), music is the most frequently used atmospheric factor to enhance the delivery of services to customers. Published research on music in retail settings are consistent in identifying some kind of effect, especially on sales. For instance, Milliman (1982) reported a 38% increase in sales when playing slow background music compared to playing fast music. The sales increase stemmed from the pace of the customers, as they spent more time in the store with slow background music. Additionally, Milliman (1986) found evidence of how slow music made customers spend more time in a restaurant and consume more alcohol, compared to fast music. Thus, both papers found evidence of how music tempo influences time spent in different buying settings.

Similar research on music's effect in-store have emerged more frequently in recent years. For instance, the significance of tempo has been further researched, and tested with other structural elements of music, in order to detect possible interaction effects (Knöferle, Spangenberg, Herrmann, & Landwehr, 2012). The authors managed to identify an interaction effect between music tempo and mode, and that these factors jointly have an influence on consumer behaviour. Thus, exploring other components of music and potential interaction effects could detect new findings in its influence on consumer behaviour.

Another aspect of music that can have an influence on consumer behaviour, is genre. Different music genres activate different concepts in consumers' memory. Hence, hearing a specific genre of music might influence a wide range of perceptions and behaviours, where a common finding has been that the coherence between the association of the musical genre, format or style can influence the sales and perception of the products (North et al., 2016). Research on consumer behaviour indicates that by creating certain atmospherics, such as lighting, decoration and music in retail environments can influence several elements of consumer behaviour (North et al., 2003). North et al., (2003), found evidence that classical music in a restaurant setting was associated with higher spending per person than pop music or no music.

When looking at music genre as the influencer on consumers' buying behaviour, there should be a defined fit and context between the music and the setting where the music is played (Macinnis & Park, 1991). As seen in the wine cellar experiment done by Areni and Kim (1993), customers did not buy more items or spent more money in the wine store when classical music was played (US\$7,34) compared to when top-forty music was played (US\$2,18) (North et al., 2016). Results from Areni and Kim (1993) are supporting the fact that the music must fit the context where the music is played. Therefore, if customers associate wine with sophistication, classical music might have a greater fit than top-forty chart music. A study done by North, Hargreaves and McKendrick (1999) looked at the linkage between the theme of the music and how this could prime the buying behaviour of the consumer. An experiment on wine preference in a supermarket was carried out with two separate music conditions, French-themed and German-themed music. The results demonstrated a strong correlation between product attribute, the country of origin, and the theme of the music. These findings indicate that music can prime related knowledge and certain products, if the customer perceives it as a good fit. The following section will discuss the effects and influence of music lyrics on behaviour.

The effects and dimensions of music lyrics

Relevant studies on the effect of music lyrics is limited in the context of sensory marketing. However, a few studies have results proving that music lyrics can have an effect on people's behaviour (North & Hargreaves, 2008). For instance, a study conducted by Anderson, Carnagey and Eubank (2003) examined the effects of violent music lyrics on aggression related variables. The results demonstrated that violent song lyrics can prime aggressive thoughts, feelings and behaviour, compared to neutral song lyrics. Another study by Fischer and Greitemeyer (2006) confirmed the findings, as they found a direct linkage between exposure to aggressive song lyrics and aggressive behaviour. However, Greitemeyer (2009) extended his research on the effects of music lyrics in different dimensions. By investigating the cognitive and behavioural responses of exposure to prosocial music lyrics, compared to neutral ones, the prosocial thoughts, feelings and

behaviours of the participants increased. Thus, priming of other dimensions in music lyrics, and not only violence, can potentially affect a large spectre of feelings and behaviours that have not been tested before. For instance, the results in one of the experiments demonstrated that participants primed with prosocial lyrics had a bigger intent to donate to a charity, compared to those in the control condition (Greitemeyer, 2009). Another similar study even found that prosocial lyrics triggers prosocial thoughts and suppress aggressive thoughts (Böhm, Ruth & Schramm, 2016). The experiment primed the participants with the prosocial lyrics first, and then asked them to complete a word completion task with aggressive-related terms. Those in the prosocial priming condition had less aggressive thoughts in comparison to the control group, hence they were in a prosocial state of mind.

Greitemeyer's (2009) findings opened up for testing different dimensions of music lyrics and the potential effects on behaviour. Guéguen, Jacob and Lamy (2010) conducted a study with an experiment testing the effects of romantic lyrics on courtship. They found that participants primed with romantic lyrics, relative to neutral lyrics, had an increased incentive for accepting a date request after the music exposure. A similar study on the effects of romantic music lyrics in a retail environment was conducted by Jacob, Guéguen, Boulbry and Sami (2009). The authors measured the amount spent in a florist shop in three different background music conditions; music with romantic lyrics, pop-music and no music. The results showed that consumers spent more money when being primed with romantic lyrics, compared to pop-music and no music. There was no difference in amount spent when pop-music and no music were played, leading the authors to confirm that the romantic music lyrics had a positive effect on expenditure. Romantic lyrics primed the participants to spend more, due to the congruent fit of the product offerings and the background music. Thus, the authors concluded that consumers are more likely to respond positively when there is a congruent fit between the background music and retail context. These results demonstrated that different dimensions in music lyrics can be utilized in priming consumers into act in a certain way. The following section discuss theoretical findings of priming effects on consumer behaviour.

Priming effects on consumer behaviour

In psychological research, a common finding is that exposure to stimuli/prime can influence people's behaviour. There are currently questions and debates within the field of psychological science regarding the reliability and validity of the established findings in behavioural science, and a significant part of the debate has fallen on the so-called behavioural priming studies. A behavioural priming study is when exposures to stimuli under supraliminal or brief supraliminal conditions alter subsequent behaviours (Katzky and Creswell, 2014). Recent research has focused on the possibility that stimulating sensory can influence socially directed behaviours.

Even though priming is often utilized as a tool for influencing consumer behaviour, repeated incidental priming effects in the everyday consumer environments can have an impact on product evaluation, purchase likelihood and choice (Berger & Fitzsimons, 2008). Thus, recently primed environmental cues might be translated into product features, and these are more likely to be in a consumer's consideration set. Hence, intentional priming might be diluted by incidental priming through cues in the everyday life, which are difficult or almost impossible to interfere with. In recent years, there have been an increase in employing unusual visual identifiers with little or almost no relevance to the product (Labroo, Dhar & Schwarz, 2007). Eventually, these symbols might become a part of a brand's equity, which is assumed to garner consumer attention. Thus, processing these visual identifiers are expected to enhance product preference. Therefore, incidental priming of everyday cues might benefit the brands with unusual visual identifiers, such as increasing the preference for Puma sneakers after incidental priming of cats and dogs (Berger & Fitzsimons, 2008). Further on we will focus on theoretical findings regarding the concept of money priming and how this can influence the buying- and choicebehaviour of the consumer.

Previous studies found that when consumers are primed with the idea of money, it evoked the incentive to maximize economic value and to choose low-priced and utilitarian options compared to premium-priced hedonic options (Mandel &

Johnson, 2002; Okada & Hoch, 2004; Liu & Aaker, 2008; Mogilner & Aaker; 2009; Tong, Zheng & Zhao, 2013; Lee, Ahn, Nam, 2013). For instance, Liu and Aaker (2008) found evidence of decreased purchase intention when mentioning money for a lemonade advert, compared to a neutral lemonade advert. Also, Mandel and Johnson (2002) found evidence of preference towards low-priced options and increased time spent in cost-based research in an online shopping experiment, when participants were primed with a background image of coins. Overall, these findings demonstrate how money priming trigger associations of costs and threats in purchase and consumption situations for consumers. Thus, increased price sensitivity and less willing to choose high-quality options can be consequences of money priming (Kim, 2017).

On the contrary, the mentioned findings are challenged by other studies where money priming is associated with feelings of personal strength, self-sufficiency, confidence and social status (Zhou, Vohs & Baumeister, 2009; Mogilner, 2010; Bornemann & Homburg, 2011; Kim, 2017). In these studies, the cost related associations are replaced by money as a symbol for socially efficient resources. For instance, Vohs et al. (2006) found that money priming led to reduced requests for help and increased self-sufficiency, even when the task was difficult. Research by Bornemann and Homburg (2011) identified a link between higher prices and perception of enhanced product quality, and that higher prices are associated with social status. The link between higher prices and social status stems from people's tendency to judge each other based on the monetary value of objects they own (Richins & Fournier, 1991). Thus, when money priming triggers associations regarding social status, consumers tend to prefer the option with high quality and/or high price. This can also depend on the consumption situation that the consumer is situated in.

Kim (2017) found a significant moderating effect of consumption situation on product choice and perception of product quality and value. When the product is to be consumed in a public situation in front of others, people tend to link their consumption to how they are perceived by others (Graeff, 1996; Graeff, 1997). Thus, the social status aspect of money priming is most likely to occur in these situations. On the contrary, purchasing a product to be consumed in a private setting

can make people care more about themselves (Graeff, 1996; Graeff, 1997). Thus, the concern about cost aspect of money priming is most likely to be triggered when the consumer is purchasing for a private consumption situation. As the consumption situation can prompt both aspects of money priming, reminding consumers of money will potentially cause different outcomes when they have to choose between products with different prices and product quality and value (Kim, 2017). Hence, the consumers' decision process will involve a trade-off between price and quality when being reminded of money.

The findings from the literature made the basis for our hypotheses to be tested in this study. These will be presented and explained further in the next section.

OVERVIEW OF EXPERIMENTS

In this section, the methodology and testing procedure of the hypotheses are described. The hypotheses were tested through two studies. The two studies focused on replicating findings from Kim (2017). However, we wanted to test the effect of money priming through music lyrics, instead of using money priming through video. We chose the song "Billionaire" by Bruno Mars and Travis Scott (Appendix 2) as the money priming condition. The lyrics of the song express the perks of a luxurious lifestyle and relates to lavish consumption. Hence, we assessed this particular song as an effective tool for money priming.

Study 1 tests the effects of money priming in music lyrics on consumers' product choice, perception of quality and perception of value. In study 1 our aim was to test whether the effect of money priming in music lyrics would give a different outcome on consumers choosing the higher-priced beer compared to the lower-priced beer. Hence, study 1 tests H1.

H1: Individuals exposed to money priming in music lyrics, will have a higher preference for a high-quality, high-priced product.



Figure 1: Conceptual model of H1

The purpose of study 2 was to further investigate the findings from Kim's study 2 (2017), regarding the effect on individuals primed with money as a symbol of social status and the social value of money. Therefore, we wanted to see if the moderating effect of consumption situation would have an effect on product choice, product quality and product value. Our prediction was; when the product was to be consumed privately, money priming will highlight the importance of cost, due to no effect of social status, and therefore increase the preference for the lower-priced, lower-quality beer. However, when the product was to be consumed publicly, the effect of social status would appear, and therefore increase the preference for the higher-priced, higher-quality beer.

H2a: When the product is to be consumed publicly, money priming will highlight the importance of social status, and therefore increase the preference for the higher-priced, higher-quality product, as compared to the lower-priced, lower-quality product.

H2b: When the product is to be consumed privately, money priming will highlight the importance of cost for the consumer, and therefore increase the preference for the lower-priced, lower-quality product as compared to the higher-priced, higher-quality product.

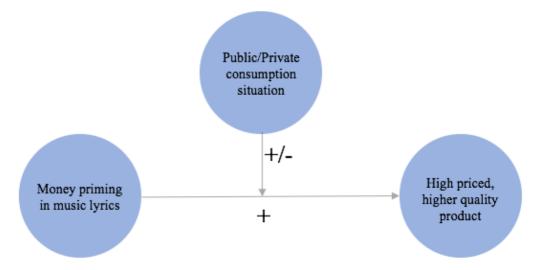


Figure 2: Conceptual model of H2a and H2b

In the next sections, the procedure and methodology of the online experiment is described in more detail, followed by analyses and discussions of the results.

Procedure

The research was conducted through a survey (Appendix 1) distributed on Amazon Mechanical Turk (MTurk). By using MTurk, the participants covered a larger base of demographics in the USA, hence contributed to a high external validity of the study. Initially, the participants were informed that they would be participating in a study that investigated the usage of shopping lists and how consumers memorize them while doing grocery shopping. This was a cover-story to distract the participants from the actual purpose of the study. They were instructed that further in the survey there would be a simulated shopping task, which included background music. The participants were informed to use headphones or speakers on their computer, and to avoid altering the music volume during the survey. In order to proceed to the survey, the participants faced a control question for ensuring that the sound was at an acceptable level. The participants had to type in the word "Friday", which was given in the Captcha auditory instruction.

Before the participants could start the simulated shopping task they were asked to memorize a list of 20 groceries, within the time-limit of one minute. This was followed by a cognitive recall task, where they were given 40 different groceries, 20 groceries from the list and 20 that was not on the list (Lynch & Srull, 1982;

Mazzoni, Cornoldi, Tomat & Vecchi, 1997). From the given grocery list, the participants were asked to indicate whether or not the grocery given was on the shopping list. One of the two background music conditions (with lyrics or without lyrics) was automatically playing during the recall task. The chosen background music was "Billionaire" by Bruno Mars (Appendix 2), a song about lavish consumption and chasing a billionaire's life style. Thus, the song was considered as having a good fit with the concept of money priming.

After the recall task, the participants were asked to choose between two different six-packs of beer, the higher-priced beer (Heineken, \$7,46) or the lower-priced beer (Keystone Light, \$3,68). The two options were provided with a product image and price of the product. The randomization function distributed an equal number of participants in the three different consumption situations; public, private and neutral (control group). In order to motivate the participants to choose as they would in real life for different occasions, each consumption situation condition phrased the question regarding the product choice differently; private: "The shopping list included a 6-pack of beer. Imagine that you are buying beer to be consumed alone, without the company of others. Which of the products would you purchase? Try to decide as you would in real life", public: "The shopping list included a 6-pack of beer. Imagine that you are buying beer to serve at a barbecue, with your family/friends/colleagues. Which of the products would you purchase? Try to decide as you would in real life", neutral: "The shopping list included a 6-pack of beer. Which of the products would you purchase? Try to decide as you would in real life". Further, the participants were instructed to assess the quality and value for the money of both Heineken and Keystone Light. Additionally, the participants were instructed to answer questions regarding the background music for screening of the data, as described in the preliminary analysis. At the end of the survey, the participants answered questions regarding their demographics.

Preliminary analysis

A total of 307 participants responded to the survey, and a total of 64 participants were removed after executing quality checks, which left us with 243 (male 124, 51%) participants. All participants were 21 years of age or older due to the legal

drinking age in the US. One participant was removed due to a typing error within the age variable. Of the 64 participants removed, 53 were dismissed due to failing to answer the control question asking if the participants changed the volume or turned off the music. This enabled us to exclude participants that were not exposed to the music as intended. Further, we excluded those who categorized the background music within the classical music genre, as the chosen song differs greatly from this genre (North et al., 2003). Additionally, 10 participants were dismissed due to spending too little time on the survey. The mean of time spent was 5.61 minutes (336.34 seconds). The recall task with background music was intended and tested to last approximately 2.5-3 minutes. Therefore, we anticipated participants who had used less than the mean of time 5.61 minutes (336.34 seconds) minus the standard deviation 2.47 minutes (147.97 seconds) to not have been primed long enough. We then identified participants who had used less than 3.14 minutes (188.37 seconds) on the survey, and they were therefore screened out.

STUDY 1

Study 1 focus solely on the effect of money priming through music lyrics and how this influence consumers' choice of product, product quality rating and product value for the money rating. The aim of study 1 was to replicate the findings from Kim (2017), by replacing visual priming with money priming in music lyrics. This study was conducted to test our main hypothesis.

H1: *Individuals exposed to money priming in music lyrics, will have a higher preference for a high-quality, high-priced product*. In this study, a two (money priming in lyrics vs. no lyrics) x three (product choice/product quality rating/product value rating) logistic binary regression and mixed ANOVA of between- and within-subjects design were used.

In the experiment, 127 participants were primed with money and 116 were in the control group. The primed participants listened to "Billionaire" by Bruno Mars and Travis Scott with lyrics, while the control group listened to a karaoke version without lyrics.

Dependent, (DV), Independent (IV) and Moderating Variables

A binary logistic regression was conducted to evaluate the effects of music condition, focus, age, gender and grocery shopping responsibility on the likelihood of choosing Heineken or Keystone Light. Thus, the dependent variable in the regression was product choice, a nominal variable with two potential outcomes. The independent variable was music, a nominal variable with two conditions (with lyrics and without lyrics). We also included some objective independent variables; focus on the music (high and low), age (year range of 21-100), gender (male/female) and grocery shopping responsibility (1% - 100%). These variables were used to check for moderating effects.

A mixed repeated measures ANOVA was performed to ascertain the effects of money priming in music lyrics on consumers' perception of product quality and product value. The dependent variables used in this analysis were therefore; participants' rating of product quality and product value. The participants were asked to rate their perceived quality of Heineken and Keystone Light on a five point likert scale (Very low quality - Very high quality). The participants were then asked to rate their perceived value for the money of Heineken and Keystone Light on a five point likert scale (Very low value for the money - Very high value for the money). The independent variable utilized in this analysis was music, a nominal variable with two conditions (with lyrics and without lyrics). Objective independent variables were included; focus on the music (high and low), age (year range of 21-100), gender (male/female), grocery shopping responsibility (1% - 100%).

Results

Product choice

A binary logistic regression was conducted to ascertain the effects of music condition, focus, age, gender and grocery shopping responsibility on the likelihood of choosing Heineken or Keystone Light. There were no outliers detected, as assessed by the Casewise List. The adequacy of the logistic regression model to predict the categorical outcomes were assessed by analysing the Hosmer and Lemeshow goodness of fit test. As the result was not statistically significant ($p = \frac{1}{2}$)

.651), the model was assessed to not have poor fit. The model explained 2.3% (Nagelkerke R²) of the variance in product choice. According to the classification table (Table 1), 63.8% of the cases were correctly classified. We also examined the sensitivity, which explains that 98.0% of the participants choosing Heineken were correctly predicted by the model. The specificity explains that 10.5% of participants choosing Keystone Light were correctly predicted by the model. As shown in Table 2, none of the five predictors were statistically significant. Thus, none of the predictors add significantly to the model.

Classification Table

		Predicted				
			Cho	Percentage		
	Observed		1	2	Correct	
Step 1	Choice	1	145	3	98	
		2	85	10	10,5	
	Overall Percentage				63,8	

a The cut value is ,500

Table 1: Observed and predicted classifications of participants' product choice

Variables in the equation

	В	S.E	Wald	df	Sig.	Exp(B)	95%	% CI
							Lower	Upper
Music	0,314	0,270	1,352	1	0,245	1,369	0,806	2,326
Gender	-0,203	0,279	0,529	1	0,467	0,816	0,472	1,411
Age	0,013	0,011	1,343	1	0,246	1,013	0,991	1,034
Grocery Shopping responsibility	0,008	0,006	1,747	1	0,186	1,008	0,996	1,020
Focus	0,129	0,272	0,226	1	0,635	1,138	0,668	1,938
Constant	-1,632	0,828	3,889	1	0,049	0,195		

Table 2: Logistic regression predicting likelihood of product choice based on music condition, gender, age, grocery shopping responsibility and focus.

Quality

Initially, we conducted a two-way repeated measures ANOVA to ascertain the effect from our main hypothesis H1, the effect of money priming in music lyrics on consumers' perception of product quality. If money priming through music lyrics

works, we would expect to detect an interaction effect of money priming through music lyrics on participants' perception of product quality (Kim, 2017). There were seven outliers assessed as a value greater than 1.5 box-lengths from the edge of the box, but the outliers were not a result of a data entry error or measurement error. The results provided did not sufficiently differ from the result without the outliers. Hence, the outliers were kept for further analysis. The assumption of normality for product quality was satisfied, as assessed by visual inspection of Normal Q-Q Plots. Additionally, there were homogeneity of variances, as assessed by Levene's test for equality of variances, p > 0.05. There was not a significant two-way interaction between music and product quality, F (1, 241) = 2.372, p = 0.125 (Table 3). Hence, there are no interaction effects of music lyrics on product quality, and H1 was rejected.

Dependent variable: Product quality

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Product quality* Music condition	1,618	1	1,618	2,372	0,125
Error(Product)	164,447	241	0,682		

Table 3: Test of within-subject's effects and between-subject's effects (Study 1, DV: Product quality)

All pairwise comparisons run were reported at 95% CI and a Bonferroni adjustment for p-value was applied. The product quality variable has a statistically significant mean difference between Heineken and Keystone Light of 1.357, 95% CI [1.209, 1.505], p < 0.001 (Figure 3).

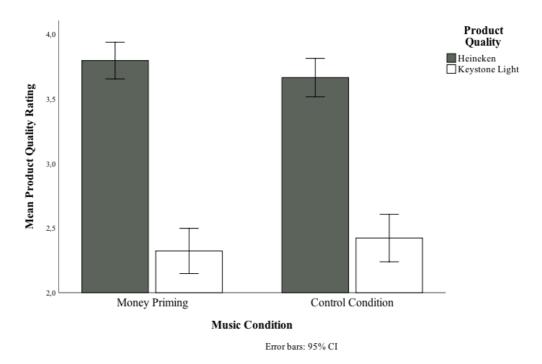


Figure 3: Mean rating of perceived product quality in different music conditions

Value

Initially, we conducted a two-way repeated measures ANOVA to ascertain the effect from our main hypothesis, the effect of money priming in music lyrics on consumers' perception of product value. No outliers were detected in the dataset, as assessed by inspections of boxplots. The assumption of normality for product quality was satisfied, as assessed by visual inspection of Normal Q-Q Plots. Also, there were homogeneity of variances, as assessed by Levene's test for equality of variances, p > 0.05. There was not a significant two-way interaction between music and product value, F (1, 241) = 0.020, p = 0.887.

Dependent variable: Product value

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Product value* Music condition	0,024	1	0,024	0,020	0,887
Error(Product)	288,955	241	1,199		

Table 4: Test of within-subject's effects and between-subject's effects (Study 1, DV: Product value)

Additional analyses

None of the key analyses in study 1 showed any statistically significant effects of money priming having any influence on the participants' product choice, or their perception of quality and value for the two different types of beer. Therefore, we conducted some additional analyses with other variables, to see if there could be any other effects of interest.

Quality

We therefore examined potential interaction effects with other objective independent variables that could have a moderating effect in a three-way repeated measures ANOVA. Hence, three-way repeated measures ANOVA's were conducted to ascertain the effects of music condition, age, gender, grocery shopping responsibility and focus on product quality. There were not any statistically significant three-way, nor two-way or main interactions between product quality*music*gender or between product quality*music*age (Table 5). However, there was a statistically significant three-way interaction between product quality, grocery shopping responsibility and music condition, F (18, 176) = 1.710, p = 0.041. There were not any statistically significant two-way interactions (i.e., product quality*grocery shopping responsibility; p = 0.186, product quality*music; p = 0.150). The analysis showed a significant simple main effect for grocery shopping responsibility on product quality, F (47, 176) = 1.517, p = 0.028.

However, regarding our hypothesis, when doing additional analyses, it was more of interest to look at the interaction between music condition and focus on product quality rating. There was not a statistically significant three-way interaction between product quality, music and focus, F(1, 239) = 1.109, p = 0.293. For the simple two-way interaction between product quality and focus we detected a statistically significant interaction, F(1, 239) = 5.345, p = 0.022. The analysis showed a significant simple main effect for focus on product quality, F(1, 239) = 6.832, p = 0.010. All pairwise comparisons run were reported at 95% CI and a Bonferroni adjustment for p-value was applied.

Dependent variable: Product quality

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	4359,146	1	4359,146	4541,590	,000
Focus	6,558	1	6,558	6,832	0,010
Product quality* Music condition	1,436	1	1,436	2,147	0,144
Product quality* Focus	3,575	1	3,575	5,345	0,022
Product quality* Music condition* Focus	0,742	1	0,742	1,109	0,293
Error(Product)	159,858	239	0,669		

Table 5: Test of within-subject's effects and between-subject's effects (Additional analyses for Study 1, DV: Product quality)

Value

Due to the non-significant results from the two-way repeated measures ANOVA in study 1, several three-way repeated measures ANOVA's were carried out to further ascertain the effects of other objective independent variables that could be of interest. We included music condition, age, gender, grocery shopping responsibility and focus on the music, to detect how these variables interact with perceived product value. All potential interaction effects were tested and proved to not be statistically significant. However, the variable of most interest was focus. We did not find a statistically significant three-way interaction between music and focus on product value, F (1, 239) = 1.000, p = 0.318, as shown in Table 6. Neither did we find any statistically significant two-way interactions; product value*music, p = 0.961, and product value*focus, p = 0.104. All pairwise comparisons run were reported at 95% CI and a Bonferroni adjustment for p-value was applied, however, the analysis did not detect any statistically significant simple main effects.

Dependent variable: Product value

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	4588,205	1	4588,205	5350,229	,000
Focus	0,439	1	0,439	0,511	0,475
Product value* Music condition	0,003	1	0,003	0,002	0,961
Product value* Focus	3,161	1	3,161	2,658	0,104
Product value* Music condition* Focus	1,189	1	1,189	1,000	0,318
Error(Product)	284,284	239	1,189		

Table 6: Test of within-subject's effects and between-subject's effects (Additional analyses for Study 1, DV: Product value)

Discussion

The aim of study 1 was to replicate study 1 in Kim's article (2017), and to provide support for H1, to see if money priming in music lyrics could affect product choice, product quality rating and product value rating. According to results in Kim's study (2017), there should have been a significant effect of money priming on product choice, product quality rating and product value rating. However, we did not find any support for H1. In the binary logistic regression, nor the independent variable (music condition) or objective independent variables (focus, age, gender and grocery shopping responsibility) had a statistically significant effect on product choice. An interesting finding was that 57,8% of the participants chose Heineken compared to 42,2% choosing Keystone Light. However, according to the binary logistic regression model, their product choice was made independently from the background music. Thus, it seems that the participants of the study were not primed in to choosing the most expensive product. We will further elaborate on reasoning behind product choice in the limitations section.

The mixed repeated measures ANOVA conducted to test the main hypothesis on product quality, without any moderating effects did not show a statistically significant two-way interaction. Thus, the rating of the quality on Heineken and the rating of the quality on Keystone Light were not different enough to create a statistically significant interaction. Even though the difference in Figure 3 is not significant, it is of interest to see that Heineken's quality was rated higher when the participants had been primed with money in the music lyrics. This effect is similar to the significant findings in Kim's study 1 (2017). We suspect that the significant findings of Kim (2017) were due to money priming being more effective visually as compared to in music lyrics.

Even though we expanded the model to a three-way repeated measures ANOVA with objective independent variables, we could not identify statistically significant interaction effects that were of relevance to this study. An unforeseen statistically significant three-way interaction was product quality*grocery shopping responsibility* music condition. Hence, those participants who had rated high on grocery shopping responsibility had rated the quality of the two products differently. However, it was of more interest to look at the interaction between product quality, music condition and how the participants rated their focus on the music. We assumed that those with high focus on the music would be more easily primed. Hence, we expected them to rate the quality of Heineken higher. The results demonstrated no statistically significant three-way interaction effect. We did find a two-way interaction between focus and product quality, indicating that there was a difference between the rating of quality depending on the participants' focus.

We further analysed the rating of value for the money on the two different products, but there were no statistically significant interactions in the two-way ANOVA. Neither did we find any significant interactions in the three-way ANOVA with the objective independent variables. We decided to stop the analysis on product value at this point, as there were no simple main effects. Therefore, it is of interest to see if there is a moderating effect of consumption situation on the two different product value ratings. This was tested and analysed in Study 2.

STUDY 2

Study 2 was conducted to replicate the findings from Kim (2017), and to further expand on the model in Study 1, by incorporating the potential moderating effect of consumption situation. A two (money priming in lyrics vs. no lyrics) x three (product choice/ product quality/product value for the money) x three (consumption situations: neutral/private/public) binary logistic regression and a mixed ANOVA of between- and within-subjects design were used. This study was conducted to assess **H2a**: When the product is to be consumed publicly, money priming will highlight the importance of social status, and therefore increase the preference for the higher priced, higher-quality product, as compared to the lower-priced, lower-quality product. Additionally, this study was conducted to assess **H2b**: When the product is to be consumed privately, money priming will highlight the importance of cost for the consumer, and therefore increase the preference for the lower-priced, lower-quality product as compared to the higher-priced, higher-quality product.

As in study 1, 127 participants were primed with money and 116 were in the control group. Regarding the different consumption situation conditions, 90 were assigned to the neutral condition as a control group, 74 were assigned to the private condition and 79 were assigned to the public condition.

Independent (IV), Dependent, (DV) and Moderating Variables

A binary logistic regression was conducted to evaluate the effects of music condition, focus, age, gender and grocery shopping responsibility on the likelihood of choosing Heineken or Keystone Light in different consumption situations. Thus, the dependent variable in the regression was product choice, a nominal variable with two potential outcomes. The independent variable was music, a nominal variable with two conditions (with lyrics and without lyrics) and the moderating variable of consumption situation, with three different conditions (neutral, private and public). We also included the interaction variable consumption situation by music lyrics to test the moderating effect on product choice. Additionally, we included some objective independent variables; focus on the music (high and low), age (year range of 21-100), gender (male/female), grocery shopping responsibility (1% - 100%).

A mixed repeated measures ANOVA was conducted to ascertain the effects of money priming in music lyrics on consumers' perception of product quality and product value, in different consumption situations. The dependent variables used in this analysis were therefore; participants' rating of product quality and product value. The participants were asked to rate their perceived quality of Heineken and Keystone Light on a five point likert scale (Very low quality - Very high quality). The participants were then asked to rate their perceived value for the money of Heineken and Keystone Light on a five point likert scale (Very low value for the money - Very high value for the money). The independent variable utilized in this analysis was music, a nominal variable with two conditions (with lyrics and without lyrics). The moderating variable was consumption situation, with three different conditions (neutral, private and public). Objective independent variables were added; focus on the music (high and low), age (year range of 21-100), gender (male/female), grocery shopping responsibility (1% - 100%).

Results

Product choice

A binary logistic regression was conducted to ascertain the effects of music condition, consumption situation, focus, age, gender, grocery shopping responsibility and consumption situation by music condition on the likelihood of choosing Heineken or Keystone Light. We would expect from our hypotheses H2a and H2b that there would be a significant interaction effect for music condition and consumption situation on product choice. Thus, there would be a moderating effect of consumption situation as stated in H2a and H2b.

There were no outliers detected, as assessed by the Casewise List. The adequacy of the logistic regression model to predict the categorical outcomes were assessed by analysing the Hosmer and Lemeshow goodness of fit test. As the result was not statistically significant (p = .101), the model was assessed to not have poor fit. The model explained 2.6% (Nagelkerke R^2) of the variance in product choice. According to the classification table (Table 7), 63.4% of the cases were correctly classified. We also examined the sensitivity, which explained that 96.6% of the

participants that chose Heineken were correctly predicted by the model. The specificity explained that 11.6% of the participants that chose Keystone Light were correctly predicted by the model. As shown in Table 8, none of the seven predictors were statistically significant. Thus, none of the predictors add significantly to the model.

Classification Table

			Predicted					
			Cho	Percentage				
	Observed		1	2	Correct			
Step 1	Choice	1	143	5	96,6			
		2	84	11	11,6			
	Overall Percentage				63,4			
a The cu	t value is ,500							

Table 7: Observed and predicted classifications of participants' product choice

Variables in the Equation

	В	S.E	Wald	df	Sig.	Exp(B)	95% CI	
							Lower	Upper
Music	-0,139	0,689	0,041	1	0,840	0,871	0,226	3,357
Consumption situation	-0,385	0,524	0,538	1	0,463	0,681	0,224	1,902
Gender	-0,238	0,286	0,697	1	0,404	0,788	0,450	1,379
Age	0,012	0,011	1,186	1	0,276	1,012	0,991	1,034
Grocery Shopping responsibility	0,008	0,006	1,832	1	0,176	1,008	0,996	1,021
Focus	0,130	0,272	0,227	1	0,634	1,138	0,668	1,941
Consumption situation by Music	0,239	0,333	0,512		0,474	1,1269	0,661	2,441
Constant	-1,161	1,409	0,679	1	0,410	0,313		

Table 8: Logistic regression predicting likelihood of product choice based on music condition, consumption situation, gender, age, grocery shopping responsibility, focus and consumption situation by music condition

Quality

First, we conducted a three-way repeated measures ANOVA to ascertain the effect from H2a and H2b, the effect of money priming in music lyrics on consumers' perception of product quality with the moderating effect from consumption situation (neutral, private and public). If money priming through music lyrics has an effect, we expect to observe an interactive effect of money priming vs. no money

priming and consumption situations (neutral, private and public) on participants rating of the quality of the different beers.

There were seven outliers assessed as a value greater than 1.5 box-lengths from the edge of the box, but the outliers were not the result of a data entry error or measurement error. The results provided did not sufficiently differ from the result without the outliers. Hence, the outliers were kept for further analyses. The assumption of normality for product quality was satisfied, as assessed by visual inspection of Normal Q-Q Plots. Also, there were homogeneity of variances, as assessed by Levene's test for equality of variances, p > 0.05. According to the results (Table 9) there was not a three-way interaction between music condition, consumption situation and product quality, F (2, 237) = 0.800, p = 0.451. Neither did we find any significant two-way interactions; product quality*music, p = 0.548, product quality*consumption situation, p = 0.114. However, the simple main effects on product quality were not statistically significant; music, F (1, 237) = 0.003, p = 0.953 and consumption situation, F (2, 237) = 1.603, p = 0.204. All pairwise comparisons run were reported at 95% CI and a Bonferroni adjustment for p-value was applied. The product quality rating of Heineken and Keystone Light had a statistically significant mean difference of 1.358, 95% CI [1.209, 1.507], p < 0.001.

Dependent variable: Product quality

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	4489,647	1	4489,647	4654,144	,000
Music	0,003	1	0,003	0,003	0,953
Consumption situation	3.092	2	1,546	1,603	0,204
Product quality* Music condition	1,725	1	1,725	2,515	0,114
Product quality* Consumption situation	0,827	2	0,414	0,603	0,548
Product quality* Music condition* Consumption situation	1,097	2	0,549	0,800	0,451
Error(Product)	162,547	237	0,686		

Table 9: Test of within-subject's effects and between-subject's effects (Study 2, DV: Product quality)

We also noticed a statistically significant mean difference between the money priming condition and control condition in the public consumption situation for the product quality rating of Keystone Light, 0.486, 95% CI [0.031, 0.942], p = 0.036. Thus, the results showed an opposite effect to what was anticipated in H2a and H2b, as shown in Figure 4. As shown in Figure 5, the overall quality rating of Heineken was higher compared to Keystone Light. However, the mean difference was insignificant. Hence, H2a and H2b were rejected.

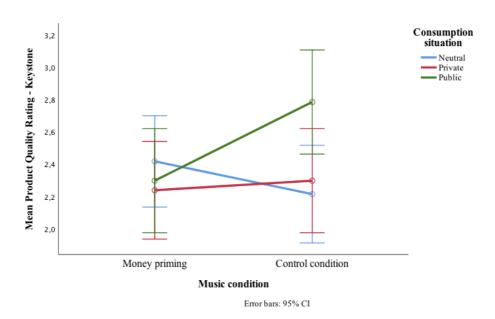


Figure 4: Mean rating of product quality of Keystone Light in different consumption situations and music conditions

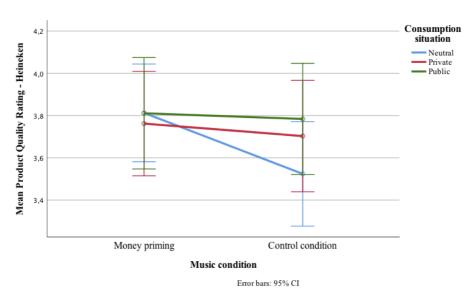


Figure 5: Mean rating of product quality of Heineken in different consumption situations and music conditions

Value

Initially, we conducted three-way repeated measures ANOVA's to ascertain the effects from H2a and H2b, the effect of money priming in music lyrics on consumers' perception of product value with the moderating effect from consumption situation (neutral, private and public). If money priming through music lyrics has an effect, we would expect to observe an interactive effect of music condition (money priming vs. control condition) and consumption situations (neutral, private and public) on participants' rating of the value for the money of the two types of beer.

No outliers were detected in the dataset, as assessed by inspecting boxplots. The assumption of normality for product quality was satisfied, as assessed by visual inspection of Normal Q-Q Plots. Additionally, there were homogeneity of variances, as assessed by Levene's test for equality of variances, p > 0.05. We did not find a statistically significant three-way interaction between music condition, consumption situation and product value, F (1.237) = 0.196, p = 0.822. Neither did we find any statistically significant two-way interactions; product value*consumption situation, p = 0.797 or product value*music, p = 0.846, as shown in Table 10. The analysis was stopped at this point due to the lack of statistically significant two-way interactions and simple main effects.

Dependent variable: Product value

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	4735,083	1	4735,083	5421,693	,000
Music	0,105	1	0,105	0,120	0,729
Consumption situation	0,822	2	0,411	0,471	0,625
Product value* Music condition	0,046	1	0,046	0,038	0,846
Product value* Consumption situation	0,551	2	0,275	0,227	0,797
Product value* Music condition* Consumption situation	0,475	2	0,238	0,196	0,822
Error(Product)	287,955	237	1,215		

Table 10: Test of within-subject's effects and between-subject's effects (Study 2, DV: Product value)

Additional analyses

None of the key analyses in study 2 showed any statistically significant effects of money priming having any influence on the participants' product choice, or their perception of quality and value for the two different types of beer. Therefore, we conducted some additional analyses with other objective independent variables, to detect any other effects of interest.

Quality

Further, we conducted several four-way repeated measures ANOVA's to evaluate the effects of other objective independent variables, such as music condition, consumption situation, age, gender, grocery shopping responsibility and focus on the music. We did not find any statistically significant four-way interactions. However, the variable of most interest was focus on the music, but no statistically significant four-way interaction was observed in the analysis, F (2, 231) = 0.240, p = 0.787 (Table 11). Neither did we find any three-way interactions (i.e. product quality*music*focus, p = 0.383 and product quality*consumption situation*focus, p = 0.845). The results did show a statistically significant two-way interaction within product quality and focus, F (1, 231) = 5.574, p = 0.019. Further, we also noticed a statistically significant simple main effect of focus on product quality, F (1, 231) = 6.408, p = 0.012. All pairwise comparisons run were reported at 95% CI and a Bonferroni adjustment for p-value was applied. The product quality ratings of Heineken and Keystone Light had a statistically significant mean difference of 1.330, 95% CI [1.176, 1.483], p < 0.001.

Dependent variable: Product quality

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	4248,658	1	4248,658	4473,875	,000
Focus	6,086	1	6,086	6,408	0,012
Product quality* Music condition	1,649	1	1,649	2,424	0,121
Product quality* Consumption situation	0,891	2	0,446	0,655	0,520
Product quality* Focus	3,792	1	3,792	5,574	0,019
Product quality* Music condition* Consumption situation	1,267	2	0,634	0,932	0,395
Product quality* Music condition* Focus	0,519	1	0,519	0,763	0,383
Product quality* Context* Focus	0,229	2	0,114	0,168	0,845
Product quality* Music condition* Consumption situation* Focus	0,326	2	0,163	0,240	0,787
Error(Product)	157,145	231	0,680		

Table 11: Test of within-subject's effects and between-subject's effects (Additional analyses for Study 2, DV: Product quality)

Value

Due to the mentioned results, several four-way repeated measures ANOVA's were conducted to further ascertain the effects of other objective independent variables, such as music condition, consumption situation, age, gender, grocery shopping responsibility and focus on the music. We did not find any statistically significant four-way interactions. As mentioned in Study 1, the factor of most interest was

focus on the music. We did not find a statistically significant four-way interaction between music condition, consumption situation and focus on product value, F (2, 231) = 0.279, p = 0.757 (Table 12). Neither did we find any statistically significant three-way interactions (i.e., product value*music*focus, p = 0.290 and product value*consumption situation*focus, p = 0.440). The analysis was stopped at this point due to the lack of statistically significant two-way interactions and simple main effects.

Dependent variable: Product value

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Product value* Music condition	0,044	1	0,044	0,036	0,849
Product value* Consumption situation	0,446	2	0,223	0,184	0,832
Product value* Focus	2,849	1	2,849	2,345	0,127
Product value* Music condition* Consumption situation	0,141	2	0,071	0,058	0,943
Product value* Music condition* Focus	1,364	1	1,364	1,123	0,290
Product value* Context* Focus	2,002	2	1,001	0,824	0,440
Product value* Music condition* Consumption situation* Focus	0,677	2	0,339	0,279	0,757
Error(Product)	280,576	231	1,215		

Table 12: Test of within-subject's effects and between-subject's effects (Additional analyses for Study 2, DV: Product value)

Discussion

The aim of Study 2 was to replicate study 2 in Kim's article (2017), and to provide support for H2a and H2b of this study. Thus, we anticipated that money priming in music lyrics could have an effect on product choice, product quality rating and product value rating depending on the moderating effect of consumption situation. However, we did not find any support for H2a or H2b. The binary logistic regression had no statistically significant independent variables. Thus, money priming through music lyrics with the moderating effect of consumption situation had no effect on the choice of product. We anticipated that the participants primed with money in the public consumption situation would prefer Heineken, but H2a was rejected. Additionally, we anticipated that participants primed with money in the private consumption situation would prefer Keystone Light, but H2b was also rejected.

The mixed ANOVA conducted to test the main hypothesis on product quality, with solely including the moderating effect of consumption situation, did not show any statistically significant three-way or two-way interactions. However, we did observe a statistically significant mean difference on the quality ratings between Heineken and Keystone Light, where Heinken was rated 1,358 higher than Keystone Light. Additionally, we did find an interesting significant mean difference between the money priming condition and the control condition in the public consumption situation, for the product quality rating of Keystone Light. As seen in Figure 4, the quality rating of Keystone Light was significantly higher in the public consumption situation in the control group compared to the group that had been primed. This was opposite of what we anticipated. We assume that participants primed with money were reminded of the cost aspect, and therefore they showed a greater preference towards the cheaper product. Even though Heineken had a higher overall quality rating, the mean difference in the consumption conditions were not statistically significant (Figure 5). When running the four-way ANOVA with focus as an objective independent variable, we only found a statistically significant twoway interaction between product quality and focus on the music, as in study 1.

The analysis of product rating on value for the money showed similar results as in Study 1. The rating of value for the money on the two different products did not show any statistically significant interactions in the three-way ANOVA. Neither did we find any significant interactions in the four-way ANOVA with the objective independent variables. The analysis was therefore stopped at this point, due to the lack of significant two-way interactions and simple main effects.

GENERAL DISCUSSION

The aim of our research was to establish: *How does money priming through music lyrics influence consumers' product choice and perception of quality and value in different consumption situations?*

We have examined this topic with two studies; one to explore solely the effect of money priming in music lyrics on product choice, product quality rating and product value rating. The other study was conducted to explore if different consumption situations (neutral, private and public) had a moderating effect on money priming in music lyrics, and how this can affect product choice, product quality rating and product value rating. We conducted one online experiment, to assess our research hypotheses. We did not find any support for our hypotheses, which is thoroughly explained in the overall findings and implications. Additionally, the limitations provide possible explanations for why our hypotheses were rejected. We also provide recommendations for further research.

Overall findings

As mentioned in the research question above, the purpose of the study was to detect if money priming could be utilized in music lyrics to affect product choice and perception of product quality and value for the money. Additionally, we wanted to examine the moderating effect of public vs. private consumption situation. This study aimed at replicating the findings of Kim (2017). However, our study had implemented money priming through music lyrics in background music as opposed to visual video priming.

We conducted one online experiment with two different paths for music condition; one with money priming in lyrics and one control group with a karaoke version of the same song. These paths led to our hypothesis H1, which tested the effects of money priming in music lyrics on product choice, product quality and product value. Further on, the participants were divided into three different paths with three possible consumption situations; public, private and neutral (control group). Hence, H2a and H2b were established, as we wished to examine the moderating effect of consumption situation on the participants' product choice and perception of quality and value for the money. No support was found for our hypotheses and no direct effects of our models were established. The logistic regressions, in both H1 and H2a and H2b, had no significant variables that could explain the choice of beer. Neither could we establish any interaction effects measuring the perceived quality and value of the beer to support H1, H2a and H2b. However, when conducting additional analyses, we detected a significant two-way interaction between focus on the music and perceived product quality in both studies. This indicates that level of focus, high vs. low, has a moderating effect when participants were asked to rate the quality of Heineken and Keystone Light.

Implications

As mentioned in the literature review, there is little research on the effects of music lyrics within the field of sensory marketing. We have yet to discover any published peer reviewed research that connects the effects of music lyrics and money priming. Thus, this paper could provide some theoretical contribution to further research in background music, money priming and the effects of music lyrics. Even though we had to reject our hypotheses, some interesting findings are worth mentioning. For instance, the focus on the music has a moderating effect when participants primed with money vs. the control group were asked to rate product quality. Thus, focus on the music is of importance when evaluating priming effects in background music.

We wanted to investigate if the findings from our study could be of relevance to marketers that utilizes background music as a priming tool to influence people's behaviour. However, from a managerial perspective, our results did not provide the use of money priming through music lyrics as a useful tool to influence consumers' product choice, the perception of product quality and product value. The effect was

neither significant when the participants were told to imagine a private or public consumption situation. The only effect that is possible to detect from the analysis that could be of relevance to marketers, was focus on the music. Thus, priming through music lyrics seems to be ineffective in consumption situations with high cognitive load, especially when the task-orientation compromises the focus on the music. However, if the consumption situation facilitates for attentive listening, we suspect that the priming effect could be more significant (Anderson et al., 2003).

Previous research has found significant effects of other dimensions in music lyrics, such as romance and prosocial, on people's behaviour (Greitemeyer, 2009; Guéguen et al., 2010). Thus, if marketers intend to utilize music lyrics for priming, other dimensions than money priming seems to be more effective. However, this depends on the congruence of fit between the music lyrics and the retail context and brand image (Jacob et al., 2009). For instance, Jacob et al. (2009) found a significant effect between the romantic music lyrics and expenditure in a florist shop. However, we assume that the correlation between beer and the lavish consumption promoted in the music lyrics in this study, might have had a poor fit.

We recommend that managers should consider the effect of other components of background music, that has shown significant results in previous studies. For instance, when playing sophisticated classical music in restaurants, the expenditure per customer was higher, compared to when the pop-music was played (North et al., 2003). Another study provided evidence of how music genre can influence product choice (North et al., 1999). For instance, the participants that were primed with German-themed music tended to show a greater preference for German wine. Hence, our study could benefit from having products with a stronger correlation between the music and the product attributes.

Limitations and Further research

In this section, the possible limitations of the study and suggestions for further research will be discussed. Other studies within the same topic have used laboratory experiments. Our experiment was conducted through an online survey on MTurk. This excluded the possibility of controlling for the participants taking breaks,

adjusting the volume, turning off the music and other disturbing factors in the environment around the participants. Control questions in the survey were established to control for these limitations, but there is no guarantee that the participants have answered truthfully. We suggest that conducting the experiment in a lab would resolve the majority of these issues as they are more easily controlled. Especially when considering the music settings, such as start, stop and volume adjustments. It should be a cause for concern that some of the previous research, especially within the field of priming, have small sample sizes, very large effect sizes and few direct replications (Cesario, 2014). Therefore, in further research it could be of interest to conduct the same study with larger sample sizes. It could be interesting to conduct a field study, where it is possible to control for the background music, as well as measuring actual product choice and quality/value rating data.

There is a difference between being an attentive listener and people who are listening to music while doing a cognitive task. Anderson et al. (2003) argue that lyrics in music may be attenuated, due to lyrics not being processed by the listener. Therefore, some participants were removed from the study, since their recorded time was considered as below the benchmark level in the preliminary analysis. However, it is still possible that the music lyrics have not been consciously recognised (Bargh, Chen and Burrows, 1996). This could explain the lack of significant results in the analysis.

Regardless of conducting the experiment in a lab setting or in a field study, people will be exposed to an infinite number of cues in everyday life (Peter and Olson, 2005). Thus, it is hard to control for the incidental priming that occurs continuously. Hence, we have little control of what the participants might have been incidentally primed with prior to the survey. Nedungadi (1990) found evidence of that recently primed brands are more likely to be in a consumer's consideration set. Thus, this might have interfered the product choice, product quality and value evaluation made by our participants.

As we aimed at replicating the findings from Kim's study (2017), we decided to test the hypotheses with the same product category, which was high-priced, high-

quality beer vs. low-priced, low-quality beer. Further research should test if the impact of money priming through music lyrics can have an effect on other products, especially where the trade-off between price and quality is more significant. We assume that more luxurious products have a closer fit to money priming, which in our study was prompted through the music lyrics. Thus, we suspect that our results could have been impacted by ineffective money priming, due to beer being perceived as a regular product that often requires low involvement. Another possible explanation of our results is product preference due to the existing liking of taste and brand. Hence, our study might have benefitted from including some data on the participants' knowledge and preference of both Heineken and Keystone Light. However, by including these questions in the survey, we would be at risk of compromising the purpose of the study, which was to detect the effect of money priming in the music lyrics. Therefore, the cover story was implemented throughout the survey.

A possible explanation for the insignificant results can be other components of the music that was played during the survey. According to Böhm, Ruth and Schramm (2016) song stimulus that is insufficient in triggering the predicted emotions caused by the dominance of the melody, might compromise the interpretation and effects of the lyrics. In further research, the same study can be tested with other songs that involve money priming lyrics, with different components in the song, compared to "Billionaire".

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APPENDICES

Appendix 1 – Survey

Survey screenshot

Dear Participant,

This study is part of a master thesis on the topic of consumer behavior. The study will take approximately **6-7 minutes**, and the data from the survey will be confidential and will only be reported on an aggregate level.

Thank you very much for your participation!

Kind regards,

Maiken Næss and Even Mohagen

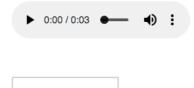
Master of Science in Strategic Marketing Management, BI Norwegian Business School

This study is about the usage of shopping lists and how consumers memorize and recall them while doing grocery shopping. Later in the survey, you will therefore complete some simulated shopping tasks that include background music.

Please do not turn off the music or change the volume during the survey.

Please turn off any other music or sound sources in your surroundings (to the extent possible), and put on your headphones / activate your speakers.

Then play the sound recording below. Adjust the volume to a pleasant level so that the voice is clearly intelligible and follow the auditory instructions.



While out grocery shopping, people often have to remember what to buy without the help of a written shopping list. Imagine that you are going grocery shopping without a shopping list, with only the help of your memory.

On the following page you will be asked to memorize a list of groceries. You will be given one minute to memorize the items. Please do not take any notes and try to solely rely on your memory.

Shopping list:

Hamburgers

Strawberries

Napkins

Hamburger buns

Potato chips

Tomatoes

Plastic forks

Onion dip

Watermelon

Jar of pickles

Two 6-packs of beer

Hot dogs

Barbecue sauce

Milk

Eggs

Vanilla ice cream

Bacon

Dijon mustard

Plastic cups

Lettuce

You will now need to recall the items from the shopping list in a memory task. We will show you a list of different groceries; please indicate whether or not each of the groceries was on the shopping list you just memorized.

In order to increase the realism of the task (i.e., to "simulate" a real shopping situation), there will be background music.

The memory task will automatically finish after 3 minutes. Please do not rush and be as accurate as possible.

Vanilla ice cream	
○ Was on the shopping list	
Was not on the shopping list	
<u></u>	
Orange juice	
○ Was on the shopping list	
Was not on the shopping list	
Onion dip	
○ Was on the shopping list	
Was not on the shopping list	
Jar of pickles	
O Was on the shopping list	
O Was not on the shopping list	
French fries	
○ Was on the shopping list	
O Was not on the shopping list	
Soda	
Was on the shopping list	
Was not on the shopping list	
Erro	
Eggs	
○ Was on the shopping list	
O Was on the shopping list	
Was on the shopping listWas not on the shopping list	

Hamburgers	
Was on the shopping listWas not on the shopping list	
Spare ribs	
Was on the shopping listWas not on the shopping list	
Mayonaise	
Was on the shopping listWas not on the shopping list	
Two 6-packs of beer	
Was on the shopping listWas not on the shopping list	
Salad dressing	
Was on the shopping list	
O Was not on the shopping list	
Ketchup	
O Was on the shopping list	
Was not on the shopping list	
Barbecue sauce	
O Was on the shopping list	
O Was not on the shopping list	
Plastic knives	
O Was on the shopping list	
O Was not on the shopping list	

Tomatoes
Was on the shopping list Was not on the shopping list
— — — — — — — — — — — — — — — — — — —
Napkins
Was on the shopping list
Was not on the shopping list
Asparagus
O Was on the shopping list
O Was not on the shopping list
Cheddar cheese
O Was on the shopping list
O Was not on the shopping list
Marshmallows
O Was on the shopping list
Was not on the shopping list
Strawberries
○ Was on the shopping list
O Was not on the shopping list
Hamburger buns
Was on the shopping list
O Was not on the shopping list
Chicken wings
Chicken wings O Was on the shopping list

Corn
Was on the shopping listWas not on the shopping list
Wine
O Was on the shopping list O Was not on the shopping list
Potato chips
O Was on the shopping list O Was not on the shopping list
ce cubes
O Was on the shopping list O Was not on the shopping list
Blueberry pie
O Was on the shopping list O Was not on the shopping list
Plastic forks
Was on the shopping listWas not on the shopping list
Watermelon
O Was on the shopping list O Was not on the shopping list
Hot dogs
Was on the shopping listWas not on the shopping list

Milk
Was on the shopping listWas not on the shopping list
Bacon
Was on the shopping listWas not on the shopping list
Plastic cups
Was on the shopping listWas not on the shopping list
Water
Was on the shopping listWas not on the shopping list
Pork chops
Was on the shopping listWas not on the shopping list
Lettuce
Was on the shopping listWas not on the shopping list
Brownies
Was on the shopping listWas not on the shopping list
Mushroom
Was on the shopping listWas not on the shopping list

The shopping list included a 6-pack of beer.

Which of the products would you purchase? Try to decide as you would in real life.

Heineken - \$7,46

0



0

The shopping list included a 6-pack of beer. Imagine that you are buying beer to be consumed alone, without the company of others.

Which of the products would you purchase? Try to decide as you would in real life.





0





0

The shopping list included a 6-pack of beer. Imagine that you are buying beer to serve at a barbecue, with your family/friends/colleagues.

Which of the products would you purchase? Try to decide as you would in real life.



Heineken - \$7,46

0

Heineken - \$7,46



How do you rate this product's overall quality?

Very low quality	Low quality	Neither high nor low quality	High quality	Very high quality		
How do you rate this product in terms of value for the money?						
Very low value for the money	Low value for the money	Neither high nor low value for the money	High value for the money	Very high value for the money		
0	0	0	0	0		

Keystone Light - \$3,68



How do you rate this product's overall quality? Neither high nor Very low quality High quality Low quality low quality Very high quality 0 0 0 0 0 How do you rate this product in terms of value for the money? Neither high nor Very low value for Low value for the low value for the High value for the Very high value for the money the money money money money 0 0 \bigcirc \bigcirc 0 To which extent did you focus on the music while doing the memory task? Focused very Did not focus at all on the much on the music music 5 6 7 0 0 0 0 0 0 0 Which of the following music genres did the background music belong to? O Classical music O Rock music O Pop music O Country music O House/electro music

O N	ou recognize the					
_	es, vaguely					
O Y	es, I know the title	and/or artist:				
Did yo	ou at any point d	luring the surve	y change the volur	ne or turn off the	music?	
Pleas	e provide an hor	nest answer.				
O Y	'es					
0 1	lo					
Did y	ou at any take a	break from the	survey or experien	nce any interrupti	ons?	
0	/es					
0 1	No					
What	is your gender?					
0 1	A olo					
	emale					
0						
Wha	at is your age?					
Wha	at is your age?					
Wha	at is your age?					
Wha	at is your age?					
Wha	at is your age?					
		which extent (i	a %) are vou respo	nsible for doing t	he aroceries?	
		which extent (in	n %) are you respo	nsible for doing t	he groceries?	
		which extent (in			he groceries? 80 90	100
In you	ur household, to					100

Appendix 2 – Content of Audio stimuli

Music lyrics condition

Billionaire -Bruno Mars and Travis McCoy

[Intro: Bruno Mars]

I wanna be a billionaire so fucking bad

Buy all of the things I never had

I wanna be on the cover of Forbes magazine

Smiling next to Oprah and the Queen

[Chorus: Bruno Mars]

Oh, every time I close my eyes

I see my name in shiny lights, yeah

A different city every night, oh, I, I swear

The world better prepare for when I'm a billionaire

[Verse 1: Travie McCoy]

Yeah, I would have a show like Oprah, I would be the host of

Everyday Christmas, give Travie a wish list

I'd probably pull an Angelina and Brad Pitt

And adopt a bunch of babies that ain't never had shit

Give away a few Mercedes, like, here lady have this

And last but not least, grant somebody their last wish

It's been a couple months that I've been single so

You can call me Travie Claus minus the ho ho

Aha, get it?

I'd probably visit where Katrina hit

And damn sure do a lot more than FEMA did

Yeah, can't forget about me, stupid

Everywhere I go I'mma have my own theme music

[Chorus: Bruno Mars & *Travie McCoy*]

Oh, every time I close my eyes (what you see, what you see brah?)

I see my name in shiny lights (uh-ha, uh-ha, yeah, what else?)

Yeah, a different city every night, oh, I, I swear

The world better prepare (for what?) for when I'm a billionaire

Oh-oh, oh-oh, when I'm a billionaire

Oh-oh, oh-oh (let's go)

[Verse 2: Travie McCoy]

I be playing basketball with the president

Dunking on his delegates

Then I compliment on his political etiquette

Toss a couple milli' in the air just for the heck of it

But keep the fives, twennies, tens, and bens completely separate

And yeah, I'll be in a whole new tax bracket

We in recession but let me take a crack at it

I'll probably take whatever's left and just split it up

So everybody that I love can have a couple bucks

And not a single tummy around me

Would know what hungry was

Eating good, sleeping soundly

I know we all have a similar dream

Go in your pocket pull out your wallet

And put it in the air and sing

[Bridge: Bruno Mars & *Travie McCoy*]

I wanna be a billionaire so fucking bad (so bad)

Buy all of the things I never had (buy everything, ha ha)

I wanna be on the cover of Forbes magazine

Smiling next to Oprah and the Queen (what up Oprah? Ha ha)

[Chorus: Bruno Mars & *Travie McCoy*]

Oh, every time I close my eyes (what you see, what you see brah?)

I see my name in shiny lights (uh-ha, uh-ha, yeah, what else?)

Yeah, a different city every night, oh, I, I swear

The world better prepare (for what?) for when I'm a billionaire

Oh-oh, oh-oh, *(sing it)* when I'm a billionaire Oh-oh, oh-oh, *(oh)*

[Outro: Bruno Mars]

I wanna be a billionaire so fucking bad

Control condition

The karaoke version of the song above was played.

Audio file can be found here:

https://soundcloud.com/user-746323804/sets/master-thesis/s-xOBi3