

## GENDER-NEUTRAL PERCEPTIONS AND TOY PURCHASING BEHAVIOUR: A SOCIO-CULTURAL TRANSITION IN UK MILLENNIALS' ATTITUDES

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**Type of manuscript:** research paper

**Abstract:** *This paper summarizes the arguments and counterarguments within the scientific discussion on the issue of gender-neutral parenting. The main purpose of the research is to investigate UK Millennial parents' perceptions of gender-neutral parenting and their toy buying behaviour. Systematization of the literary sources and approaches for solving the problem of confusion between gender-neutral and gender-oriented parenting with a focus on children's toys' labelling, indicates that even with the subjective norm and strong initiatives of UK government who has been launching campaigns against gender-oriented parenting, still there has not agreed on the best solution for implementing gender-neutral mindset. Investigation of the topic of the research in the paper is carried out in the following logical sequence: introduction with research gap, literature review, methodology, findings and analysis, and conclusion. Methodological tools of the research were quantitative approach with SPSS ver.26. The object of research is the survey dataset collected from 1127 UK Millennial parents. The paper presents the results of an empirical analysis using Kruskal–Wallis test depending on children's gender, parents' birth years, and regression model. The result showed that, although there is recognition that gender-neutral parenting should be advocated as a social rule, the degree of final purchase behaviour towards gender-neutral toys is lower than these parents' beliefs would suggest. The research empirically confirms and theoretically proves that at least UK Millennials believe in the gender-free theory, however, their real behaviour does not necessarily go abide by the perceived rule. In other words, while people may agree with the concept of gender-neutral parenting, they do not necessarily agree with gender-neutral parenting as a behavioural principle. The results of the research can be useful for developing further social recognition of gender-naturalness, and other relevant industrial marketing strategies.*

**Keywords:** gender-neutral parenting, UK Millennials, beliefs, toys, quantitative approach.

**JEL Classification:** Z13, M39.

**Received:** 23.12.2022 **Accepted:** 30.01.2023 **Published:** 31.03.2023

**Funding:** There is no funding for this research.

**Publisher:** Academic Research and Publishing UG, Germany.

**Founder:** Academic Research and Publishing UG, Germany; Sumy State University, Ukraine.

**Cite as:** Oe, H., Yamaoka, Ya. (2023). Gender-neutral perceptions and toy purchasing behaviour: a socio-cultural transition in UK Millennials' attitudes. *SocioEconomic Challenges*, 7(1), 15-30. [https://doi.org/10.21272/sec.7\(1\).15-30.2023](https://doi.org/10.21272/sec.7(1).15-30.2023).



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## 1. Introduction

### 1.1 Gender stereotypes

Gender is defined by the interactions between men and women, both emotional and physical (FAO, 2004). It is also determined based on sexual characteristics of men and women and is otherwise understood as the degree of masculinity or femininity developed through social construction (FAO, 2004). Gender is embedded so deep in our everyday lives that it appears completely natural (Eckert & McConnel-Ginet, 2013).

A stereotype, as defined by Cardwell (1996), is a fixed over-generalised belief about a particular group or class of people. Gender stereotyping therefore refers to the beliefs held by individuals regarding the characteristics males and females should have. Gender stereotypes can either be positive or negative. A positive stereotype is a favourable assumption about a social group (Siy & Cheryan, 2016), while negative stereotypes include unfavourable traits and characteristics attributed to a group (Voci, 2014).

The gender stereotyping of children's toys can be labelled as a form of negative stereotyping. Many believe that restricting children to toys stereotypically aligned with their gender limits their true play desires, which has the potential to create mental health problems during later stages of development (Blum et al., 2017). Furthermore, some believe that gender-typing children's toys influences gender role identity, which could also cause identity problems (Campenni, 1999), such as low self-esteem. However, there is a lack of research on the effects of gender-neutral parenting in terms of purchase decisions regarding children's toys. Observing and discussing the relationship between gender-neutral parenting perceptions and their purchase behaviour could shed light on a new scope of consumer marketing research in the contemporary context.

### 1.2 Research rationale and aim of the study

The debate on gender stereotypes in children's toys is becoming increasingly popular, and it is clear that it is surrounded by a range of sensitivities (Translate Media, 2018). This topic has received a great deal of attention in recent years through campaigns such as the previously mentioned Let Toys Be Toys, which recognises toy companies that limit children's interests through gender stereotyping (Let Toys Be Toys, 2020).

However, researchers have yet to build up a body of knowledge on the extent to which Millennial parents' attitudes respond to such new social norms, including moves to promote gender freedom in the UK children's toy industry, and the extent to which they are actually practising gender freedom in their toy purchases. To fill this gap, this study aims to investigate the perceptions and attitudes of Millennial parents in the UK towards the concept of gender freedom and to obtain guideposts for the construction of a gender-neutral society.

## 2. Literature review

### 2.1 Discussion framework

As an analytical framework, the theory of planned behaviour (TPB) was here applied to design a conceptual framework for the study (Fishbein & Ajzen, 2011). A behavioural belief is the subjective probability that a certain behaviour will produce a given outcome, while an attitude is a firmly held idea that may be based on evidence. More typically, an attitude can neither be confirmed or explicitly shown to be wrong by available information. There are cognitive, affective, and conative dimensions of attitudes, as with many other aspects of consumer behaviour. The TPB proposes that intention is the most important predictor of behaviour and that this is influenced by a combination of considerations outlined in the following section.

### 2.2 Key factors influencing perceptions of gender neutrality

The target demographic for this study is the Millennial generation. The consensus obtained from reviewing relevant literature is that the Millennial generation encompasses individuals born between 1980 and 1990 (Abrams & Frank, 2014; Brito et al., 2019; Statista, 2019). Millennials make up the largest generational group in the UK, accounting for 26% of the total population (Brito et al., 2019). Because of this, the generation is often split into two groups: 'younger' (20–29) and 'older' (30–39) Millennials (Brito et al., 2019). Those in the latter group have jobs established and are starting families, whereas younger Millennials are still entering the workforce and undergoing income growth.

The consumer decision-making process comprises the stages individual goes through when making a purchasing decision (Dewey, 1910). Millennial shoppers are categorised as fast adopters of technology and are more likely to move across several platforms at once. This behaviour, otherwise known as dual screening, allows for easy access to multiple sources of information during the 'information search' stage (The Boston Consulting Group, 2016). Further along in the process, individuals may express their opinions towards a product in the 'post-purchase evaluation' stage via the use of product reviews or social media, which can significantly impact other individual's attitudes towards a product and thus their buying decisions (Hall & Towers, 2017). The use of online product evaluations has recently become more prevalent in decision-making processes, especially among Millennial consumers as their buying decisions tend to be influenced by one another's opinions and behaviours (The Boston Consulting Group, 2016).

The children of today's generation are more vocal than those of previous cohorts and hence have a greater influence on buying decisions. Therefore, marketers need to pay increasing attention to the persuasive power of children (Marketing Week, 2008).

### 2.2.1 Attitudes towards gender-neutral parenting

Attitudinal beliefs are positive or negative evaluations of a behaviour, whereas normative beliefs (perceived social and peer pressure) and control beliefs address the presence of factors that may facilitate or hinder performance of a behaviour. Furthermore, the latter are moderated by actual ability (such as demographic attributes).

Parents play a crucial role in a child's early development and serve as preliminary and major socialising agents within society (Basow, 1992). Studies have shown that as soon as 24 hours after a child is born, most parents have already engaged in gender stereotypic expectations and thus begin role modelling and encouraging different behaviours and activities (Martin & Ruble, 2010), for example, painting their child's bedroom pink or blue. These interactions have a long-lasting impact on how a child relates to gender-specific characteristics and behaviours (Witt, 1997).

Furthermore, developmental intergroup theory (Bigler & Liben, 2006) also suggests that the psychological importance of grouping criteria, such as gender, increases when adults apply labels to group members, for instance, by beginning a daily routine at a nursery school by welcoming children with, 'Good morning boys and girls'. This indicates that labelling plays a dominant part in the formation of gender stereotypes since the majority of children will encounter gender labelling, which further demonstrates the potential that adults have to influence a child's attitude and behaviour.

Based on this discussion, two variables were developed for analysis as observed variables: 'perceptions of gender-neutral parenting' and 'tendency to purchase gender-stereotypical toys and products'. And the first hypothesis is established as follows.

H1: One's attitudes has significant impact on belief in behaviour towards gender-neutrality.

### 2.2.2 Subjective norms

Gender-neutral parenting involves allowing children to be who they want to be without forcing them to conform to gender stereotypes with which they do not feel they coincide (Westbrook, 2018). The term first appeared after a critique was made by feminists concerning the socialisation of girls (Martin, 2005). Ever since its emergence, gender-neutral parenting has given rise to many controversial debates because it challenges traditional approaches to raising a child (Wharton, 2012).

There has been an evident shift in demand within developed markets, especially amongst Millennials, for gender-neutral parenting approaches, such as the use of neutral colours and names suitable for either gender (Westbrook, 2018). This also coincides with the way in which culture shapes our understanding of gender roles. In many parts of the world, male and female roles are shifting towards a more balanced approach; for example, women are becoming more likely to work full time, and men are taking on more childcare responsibilities (Westbrook, 2018).

Advocates of the gender-neutral parenting approach claim that it encourages children to involve themselves with a wider range of activities than they would have if they were restricted by gender stereotypes (Brown, 2014). However,

as mentioned, parents play a pivotal role in the socialisation of children, teaching children to understand what is expected of them. This emergence of sex-role socialisation from a young age demonstrates that gender-neutral parenting may be a challenging way to raise a child (Rubin et al., 1974). For example, when a child goes to nursery/school, they will inevitably encounter social situations misaligned with the gender-neutral approach (Mrunal, 2018).

Gender-neutral parenting is also critiqued for exploiting children as agents of social change and communicating to a child that it may not be appropriate to identify with their own sex, which can be confusing at such a young age and may result in issues regarding self-identity (Kay, 2011).

Thus, there can be no doubt that the values shared by the society, as the group to which the individual belongs, form the individual's cognition, whether consciously or unconsciously, and are critical factors constituting social norms. From a meso-microscopic and microscopic point of view, the cognition embedded in the more proximate norms shared among peers and the social connectedness among peers will greatly influence the behaviour of individuals. Based on the discussions above, to investigate the factor of subjective norms, we designed two observed variables for the study: 'shared value in society' and 'peer group norms'. And the second hypothesis is established as follows.

H2: Subjective norms have significant impact on belief in behaviour towards gender-neutrality.

### *2.2.3 Pressure from community*

The third and last factor we will focus on is pressure from society. As discussed in the previous section, this study confirmed that the values shared by the group to which an individual belongs influence the individual's subjective norms as critical factors constituting social norms. At the same time, subjective norms are not fixed or maintained in closed relationships and groups. Instead, they are constantly circulating and degenerating in the group and in each individual due to external factors and influences (Hasan & Suciarto, 2020). The present study is not primarily concerned with the relationship (interdependence or interrelationship) between the three key antecedent factors hypothesised here. It argues that certain controlling factors, in addition to attitudes and subjective norms, influence individual attitudes and behavioural change, as suggested by the TPB.

For example, the market environment for toy sales and purchases is subject to marketing pressure from toy suppliers. Companies naturally develop branding strategies to market their products to consumers and use a variety of marketing communications to stimulate buyers. Obviously, these marketing messages have an impact on consumers' motivations and purchasing behaviour (Copeland & Zhao, 2020).

In addition, in the process of transforming subjective norms under the influence of external factors, today's active online word of mouth and the experiences and recommendations of past purchasers can have a significant impact on consumers considering purchasing new products. It goes without saying that online development and consumer collaboration, together with the development of information and communications technology and the acceleration of information distribution, have had a profound impact on the marketing strategies of companies in relation to consumers (Bhat, 2020). The anonymous reviews of past purchasers who have never been online before and the comments and messages of online communities clearly influence consumer attitudes and purchasing behaviour.

Therefore, since this study focuses on the notion of gender neutrality and the purchasing attitudes and behaviours of gender-stereotyped toys, we broke down the influence from society into two components: 'marketing pressure' and 'online community'. And the third hypothesis is established as follows.

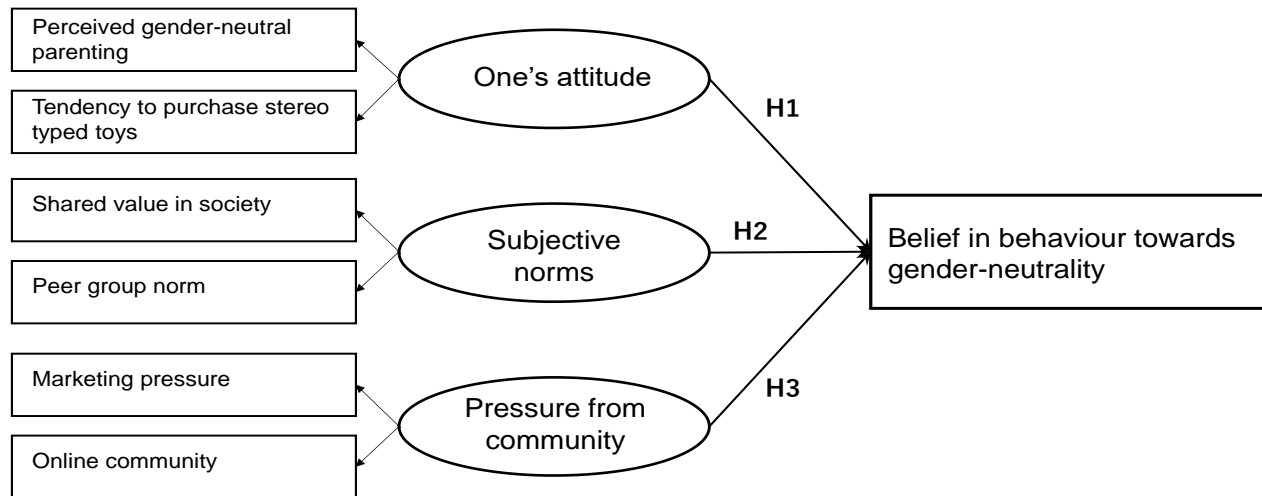
H3: Pressure from community has significant impact on belief in behaviour towards gender-neutrality.

### *2.3 Conceptual framework with hypotheses*

The conceptual framework shown in Figure 1 comprises all the factors, derived from the literature review, that influence attitude and behaviour. Ajzen (2008) explains that attitude informs behaviour in the following way: "When confronted with a choice between alternative brands, consumers select the alternative towards which they hold the most favourable overall attitude" (p. 543). This assumption is rarely validated (Ajzen, 2008); however, the relationship is important to this research as the literature review has highlighted the impact that attitude has

on behaviour under several circumstances. For example, parents evidently have different perspectives on gender-neutral toys, thus influencing their buying behaviour.

Surrounding these factors is the foundational theory of social constructionism in relation to what is deemed as ‘gender appropriate’ by society (Leeds-Hurwitz, 2009). This framework, paired with the field research will allow for a conclusive investigation of the research question.



**Figure 1. Conceptual model for the study**

Source: compiled by authors.

### 3. Methodology

#### 3.1 Methodological choice and strategy

A mixed method was applied in this study based on an online questionnaire distributed to carry out the intended research (Jones et al., 2013). The capability for a wide research reach is imperative for achieving a high response rate to improve overall credibility and validity, facilitating increased acceptance and consideration of the results (Fincham, 2008). The quantitative nature of this approach allowed for a numerical analysis of the data collected. However, the nature of the research question also favoured a qualitative approach so that personal opinions on matters such as gender-neutral parenting and the origin of attitudes towards gender stereotypes could be understood. These opinions were collected via open-ended questions towards the end of the questionnaire, resulting in both quantitative and qualitative data collections. As Morse (1991) discusses, a mixed-method design can follow a QUAN–QUAL approach. Accordingly, this questionnaire followed a sequential explanatory design comprising the two distinct phases necessary to the research question (Creswell et al., 2003).

A mixed-method approach provides grounds for richer data collection, allowing for a holistic analysis to be conducted as quantitative or qualitative methodological strategies alone have been proven to provide inadequate analyses (Miller, 2013). Furthermore, qualitative methods can also be used to validate quantitative results to support interpretation (Carrasco & Lucas, 2015).

#### 3.2 Questionnaire design and data collection

The research participants had to meet the criteria of being born between 1980–2000 and having at least one child aged five or under. These criteria were derived from secondary information collated in the literature review regarding the Millennial generation (Abrams & Frank, 2014; Brito et al., 2019; Statista, 2019) and the most formative years of a child’s development (Tomlinson, 2015).

Purposive sampling was initially used by the researchers to identify members of the population to participate in the study (Lavrakas, 2008). A form of non-probability sampling was adopted by identifying a parenting account on Instagram with a large following of the target respondent demographic and asking for the questionnaire link to be posted on the account’s story. A convenience sampling method was used via social media platforms



(Facebook and Instagram) to post the questionnaire link (Saunders et al., 2012). This resulted in a snowball effect based on the participants sharing the questionnaire link, helping us reach a wider population (Naderifar et al., 2017). The total number of samples was 1,127 (Male 371, Female 756; born 1980-1989 796, born 1990-2000 331). The survey was conducted during November-December 2021.

### 3.3 Data analysis

The data derived from the closed questions were pre-coded using the Statistical Package for the Social Sciences (SPSS) v. 26, allowing for the subsequent analyses using descriptive statistics and parametric and non-parametric tests (Hyman & Sierra, 2016). A descriptive analysis of the data profile was conducted, followed by a correlation analysis and a non-parametric test for the participants’ toy buying behaviour and perspectives towards gender-neutral parenting. The Kruskal–Wallis test was applied to determine whether there were any statistically significant differences among the independent variables, helping to validate the reliability of the results (Laerd Statistics, 2018). To follow up the quantitative analytical results, open-ended text data were analysed based on a thematic content analysis (TCA) to identify, develop and discuss key themes arising based on the participants’ perceptions (Braun & Clarke, 2006). The text mining method was applied using the KH Coder software programme, which was developed and distributed by Professor Koich Higuchi of Ritsumeikan University (Higuchi, 2020a). A descriptive analysis of frequently used key terms was conducted, and a word co-occurrence map was developed via KH Coder to evaluate the logic with key terms revealed from the dataset. The Jaccard coefficient was used to determine the degree of word-to-word co-occurrence, and a network diagram was created (Higuchi, 2020b). Then, a correspondence map with multivariate analysis and visualisation using the R language (Higuchi, 2020b) was developed to visualise the relationship between the extracted words and external variables (male and female) as a scatterplot. Based on the collected text data, the correspondence map was developed to reveal the participants’ views and thoughts regarding gender-free parenting.

## 4 Analysis and discussion

### 4.1 Data profile

Cleaning the data prior to analysis was imperative to the study process. Removing missing and inaccurate data can improve the overall reliability and validity of results (Salkind, 2010). The profile of the dataset used for the analysis after cleaning is provided in Table 1.

Table 1. Data profile for the study

	Frequency	Percent	Cumulative Percent
<b>Gender</b>			
Male	371	32.9	32.9
Female	756	67.1	100.0
Total	1127	100.0	
<b>Born Year</b>			
1980-1989	796	70.6	70.6
1990-2000	331	29.4	100.0
Total	1127	100.0	
<b>Occupation</b>			
Student	28	2.5	2.5
Employed	909	80.7	83.1
Unemployed	87	7.7	90.9
Self-employed	93	8.3	99.1
Prefer not to say	10	0.9	100.0
Total	1127	100.0	
<b>Income</b>			
Less than £19,000	253	22.4	22.4
£20,000-£39,000	501	44.5	66.9
£40,000-£59,000	231	20.5	87.4
£60,000+	106	9.4	96.8
Prefer not to say	36	3.2	100.0
Total	1127	100.0	

Source: compiled by authors.

## 4.2 Millennial consumer characteristics

### 4.2.1 Overall findings

The data regarding Millennial toy buying behaviour and their perspectives on gender-neutral parenting are summarised in Table 2.

Table 2. Descriptive statistics of key variables used in the study

	N	Minimum	Maximum	Mean	Std. Deviation
Q6. Do you refer to online reviews when you purchase toys?	1127	1	5	3.34	1.303
Q7. Do you find that your toy purchase decisions are influenced by others?	1127	1	5	2.96	1.411
Q8. Pester power is the ability children have to convince their parents to buy something.	1127	1	5	3.37	1.937
Q9. Did you find out the gender of your child/children?	1127	1	5	3.62	1.758
Q10. Prior to your child's arrival, did you purchase items stereotypically typed to their gender?	1127	1	5	3.11	1.998
Q11. Do you purchase toys for your child/children based on their gender?	1127	1	5	2.32	1.417
Q12. Do you find that your child/children prefer to play with toys stereotypically typed to their gender when they are not at home?	1127	1	5	2.88	1.872
Q13. Have you ever considered a gender-neutral approach to ?	1127	1	5	2.98	1.833
Q14. Do you feel pressure from society to purchase toys that are not stereotyped to?	1127	1	5	1.66	1.482
Q17. Have you experienced toy companies gender stereotyping? E.g. store signage 'for girls' and 'for boys'.	1127	1	5	3.97	1.751

Source: compiled by authors.

These results coincide with the researcher's conceptual framework as well as the secondary information collated in the literature review, which points out that Millennial consumers seek multiple sources of information during the 'information search' stage of the decision-making process. The literature also states that Millennials tend to be influenced by one another's opinions during this stage (The Boston Consulting Group, 2016).

### 4.2.2 Correlation analysis and non-parametric test among key variables

Pearson's test of correlation was conducted on the data set (Table 3). It revealed that both these questions were correlated, further supporting the secondary research regarding the buying behaviour of Millennial consumers.

Table 3. Correlation analysis

		Q6.	Q7.	Q10.	Q11.	Q13.	Q14.	Q17.
Q6. Do you refer to online reviews when you purchase toys?	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	1127						
Q7. Do you find that your toy purchase decisions are influenced by others?	Pearson Correlation	.303**	1					
	Sig. (2-tailed)	0.000						
	N	1127	1127					
Q10. Prior to your child's arrival, did you purchase items stereotypically typed to their gender?	Pearson Correlation	-.080*	-0.030	1				
	Sig. (2-tailed)	0.018	0.374					
	N	888	888	888				
Q11. Do you purchase toys for your child/children based on their gender?	Pearson Correlation	-0.006	-0.023	.395**	1			
	Sig. (2-tailed)	0.843	0.444	0.000				
	N	1127	1127	888	1127			

Table 3 (cont.). Correlation analysis

		Q6.	Q7.	Q10.	Q11.	Q13.	Q14.	Q17.
Q13. Have you ever considered a gender-neutral approach to ?	Pearson Correlation	0.054	-0.040	-.132**	-.238**	1		
	Sig. (2-tailed)	0.069	0.177	0.000	0.000			
	N	1127	1127	888	1127	1127		
Q14. Do you feel pressure from society to purchase toys that are not stereotyped to?	Pearson Correlation	.100**	.155**	-0.040	-0.047	.160**	1	
	Sig. (2-tailed)	0.001	0.000	0.235	0.117	0.000		
	N	1127	1127	888	1127	1127	1127	
Q17. Have you experienced toy companies gender stereotyping? E.g. store signage 'for girls' and 'for boys'.	Pearson Correlation	0.056	0.012	-0.057	-0.021	.149**	.064*	1
	Sig. (2-tailed)	0.062	0.695	0.088	0.477	0.000	0.031	
	N	1127	1127	888	1127	1127	1127	1127
** Correlation is significant at the 0.01 level (2-tailed).								
* Correlation is significant at the 0.05 level (2-tailed).								

Source: compiled by authors.

Table 4. Kruskal–Wallis test depending on children’s gender

	Q6. Do you refer to online reviews when you purchase toys?	Q7. Do you find that your toy purchase decisions are influenced by others?	Q10. Prior to your child's arrival, did you purchase items stereotypically typed to their gender?	Q11. Do you purchase toys for your child/children based on their gender?	Q13. Have you ever considered a gender-neutral approach to ?	Q14. Do you feel pressure from society to purchase toys that are not stereotyped to?	Q17. Have you experienced toy companies gender stereotyping? E.g. store signage 'for girls' and 'for boys'.
Kruskal-Wallis H	4.624	10.232	1.244	29.983	6.979	1.748	3.644
df	2	2	2	2	2	2	2
Asymp. Sig.	0.099	0.006	0.537	0.000	0.031	0.417	0.162
a. Kruskal Wallis Test							
b. Grouping Variable: 1=boy 2=girl 3=both							

Source: compiled by authors.

As shown in Table 4, dividing the respondents into two groups according to the gender of their children did not lead to many significant differences in the results. There were no statistically significant differences between the two groups in terms of whether they referred to online reviews (Q6), whether they prepared gender-specific toys before the birth (Q10), whether they felt social pressure to buy non-gender-stereotypical toys (Q14) or whether they felt marketing pressure from toy companies (Q17). Overall, there was a statistically significant difference for only three questions based on the gender of the child (Q7, Q11 and Q13).

Table 5. Kruskal–Wallis test depending on perceptions of gender-neutral parenting

	Q6. Do you refer to online reviews when you purchase toys?	Q7. Do you find that your toy purchase decisions are influenced by others?	Q10. Prior to your child's arrival, did you purchase items stereotypically typed to their gender?	Q11. Do you purchase toys for your child/children based on their gender?	Q14. Do you feel pressure from society to purchase toys that are not stereotyped to?	Q17. Have you experienced toy companies gender stereotyping? E.g. store signage 'for girls' and 'for boys'.
Kruskal-Wallis H	2.550	15.270	53.358	115.180	31.887	26.935
df	2	2	2	2	2	2
Asymp. Sig.	0.279	0.000	0.000	0.000	0.000	0.000
a. Kruskal Wallis Test						
b. Grouping Variable: Q13. Have you ever considered a gender-neutral approach to ?						

Source: compiled by authors.



However, when the two groups were tested according to the tendency of individual cognition (Q13), the results showed that only the online review did not change depending on the neutral tendency of the individual, while all other factors differed significantly.

#### 4.2.3 Regression analysis

After observing the descriptive statistics and correlations of the data up to the previous section, an estimation model was constructed by taking the gender-dependent willingness to buy toys (Q11) as the explained variable along with other key variables (Q6, Q7, Q10, Q13, Q14 and Q17). After selecting the valid variables for estimation using the stepwise method, three variables – Q10, Q13 and Q6 – were found to have significant explanatory power. Among them, Q13 was significantly negative, demonstrating that the estimation model was logically valid. As Table 6 demonstrates, stepwise model 3 was significant and valid.

Table 6. Regression results obtained from analysis of variance

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
3	.432 <sup>c</sup>	0.187	0.184	1.283	1.958
Predictors: (Constant), Q10. Prior to your child's arrival, did you purchase items stereotypically typed to their gender? , Q13. Have you ever considered a gender-neutral approach to ?, Q6. Do you refer to online reviews when you purchase toys?					
Dependent Variable: Q11. Do you purchase toys for your child/children based on their gender?					
ANOVA					
Model		Sum of Squares	df	Mean Square	F
3	Regression	334.460	3	111.487	67.771
	Residual	1454.225	884	1.645	
	Total	1788.685	887		
Predictors: (Constant), Q10. Prior to your child's arrival, did you purchase items stereotypically typed to their gender? , Q13. Have you ever considered a gender-neutral approach to ?, Q6. Do you refer to online reviews when you purchase toys?					

Source: compiled by authors.

Table 7. Coefficients of the regression analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3	(Constant)	1.641	0.159		10.320	0.000
	Q10. Prior to your child's arrival, did you purchase items stereotypically typed to their gender?	0.268	0.022	0.378	12.314	0.000
	Q13. Have you ever considered a gender-neutral approach to?	-0.129	0.024	-0.168	-5.496	0.000
	Q6. Do you refer to online reviews when you purchase toys?	0.065	0.033	0.061	2.003	0.045
Dependent Variable: Q11. Do you purchase toys for your child/children based on their gender?						

Source: compiled by authors.

As Table 7 shows, three variables – Q10, Q13 and Q6 – were found to have significant explanatory power ( $p < 0.05$ ). Q6 ('Do you refer to online reviews when you purchase toys?') was barely significant at the 5% level, and its influence was also found to be relatively small. On the other hand, among the three variables, Q10 ('Prior to your child's arrival, did you purchase items stereotypically typed to their gender?') was found to be the most effective for estimating the explained variable.

These results suggest an interesting conclusion: that young parents in the UK, a generation that have been actively exposed to the concept of a 'gender-free' society in education, tend to know the sex of their unborn child before the child is born and to buy toys according to the sex of the child.

Following this quantitative analysis, we further explored the respondents' perceptions and opinions of gender-free society and purchasing behaviour by text mining the open-ended responses collected in the same survey. The open-ended question asked respondents, ‘Where do you think your attitudes towards gender stereotypes have come from?’

### 4.3 Attitudes towards gender stereotypes

Table 8 provides an overview of the frequently appearing words that were candidates for the text mining analysis. The list includes the words that appeared 10 times or more.

Table 8. List of top words collected from open-ended fields

Extracted word	Frequency	Extracted word	Frequency	Extracted word	Frequency
parent	178	kid	21	personal	12
media	121	pressure	21	previous	12
child	119	passionate	20	probably	12
gender	100	raise	20	sister	12
grow	96	more	18	wider	12
toy	87	opinion	18	actively	11
society	86	sure	18	adult	11
media	75	education	17	bias	11
play	75	grandparent	17	clear	11
friend	74	son	17	clearly	11
stereotype	73	belief	16	different	11
boy	68	clothes	16	divide	11
upbringing	65	feel	16	educate	11
family	64	Minded	16	happy	11
girl	64	choose	15	ingrain	11
society	62	female	15	mainstream	11
generation	55	Issue	15	mean	11
experience	48	sex	15	middle	11
older	47	societal	15	pick	11
come	46	something	15	place	11
social	41	study	15	quite	11
family	40	example	14	section	11
view	39	pretty	14	shape	11
school	36	research	14	shops	11
open	35	advertising	13	tv	11
people	35	box	13	understand	11
see	34	conform	13	wrong	11
bring	33	even	13	younger	11
education	33	know	13	annoying	10
gay	33	learn	13	archaic/traditional	10
like	32	love	13	authority	10
way	32	male	13	believe	10
always	31	many	13	brother	10
neutral	30	mind	13	currently	10
attitude	29	option	13	difficulty	10
work	29	parenting	13	downs	10

Table 8 (cont.). List of top words collected from open-ended fields

Extracted word	Frequency	Extracted word	Frequency	Extracted word	Frequency
buy	28	Same	13	either	10
gender	27	sometimes	13	encounter	10
make	27	stereotyped	13	environmental	10
upbringing	27	teacher	13	fashion	10
doll	26	try	13	fee	10
childhood	25	year	13	figure	10
life	25	anything	12	filter	10
social	25	especially	12	first-hand	10
car	24	fit	12	give	10
expectation	24	force	12	hand	10
daughter	22	great	12	historic	10
influence	22	hobby	12	hobbies/interests	10
pink	22	industry	12	major	10
approach	21	male	12	moderate	10

Source: compiled by authors.

Among the 1,773 total words extracted after excluding common nouns, proper nouns and conjunctions, 112 words appeared more than 10 times. To examine the thematic relationships among these words using text mining, we decided to analyse the top 57 words that appeared more than 15 times using KHCoder.

A co-occurrence map was developed using KHCoder to discuss the word-to-word relationships and review the participants' perspectives (Figure 2). As indicated in Figure 2, six-word clusters were constructed. The largest block of words related to society, the social groups to which the respondent belonged and the influence of their own childhood experiences on their current perceptions. The second block seems to reveal the realisation that children actually prefer to play with toys that correspond to their gender.

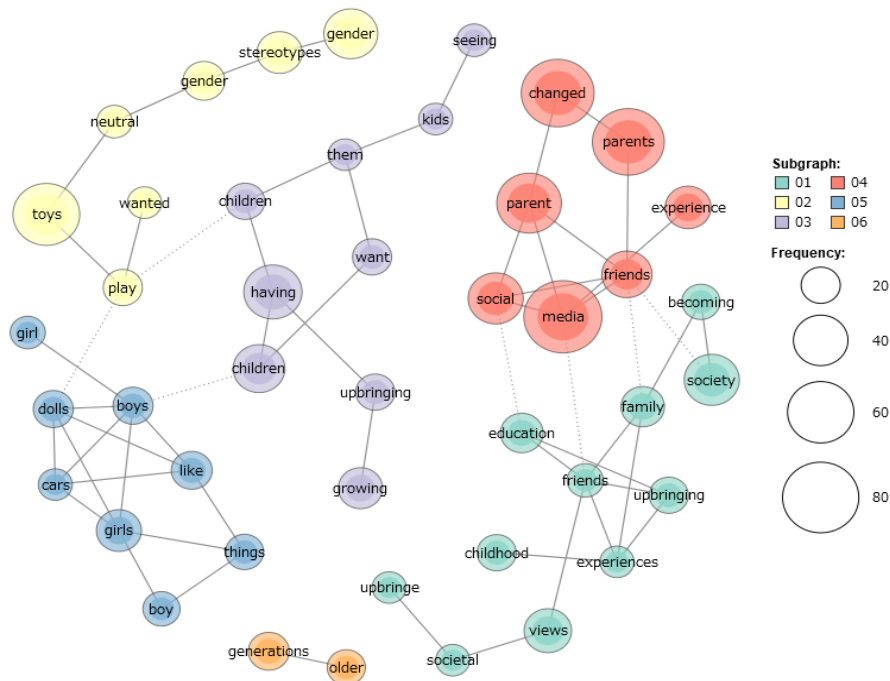
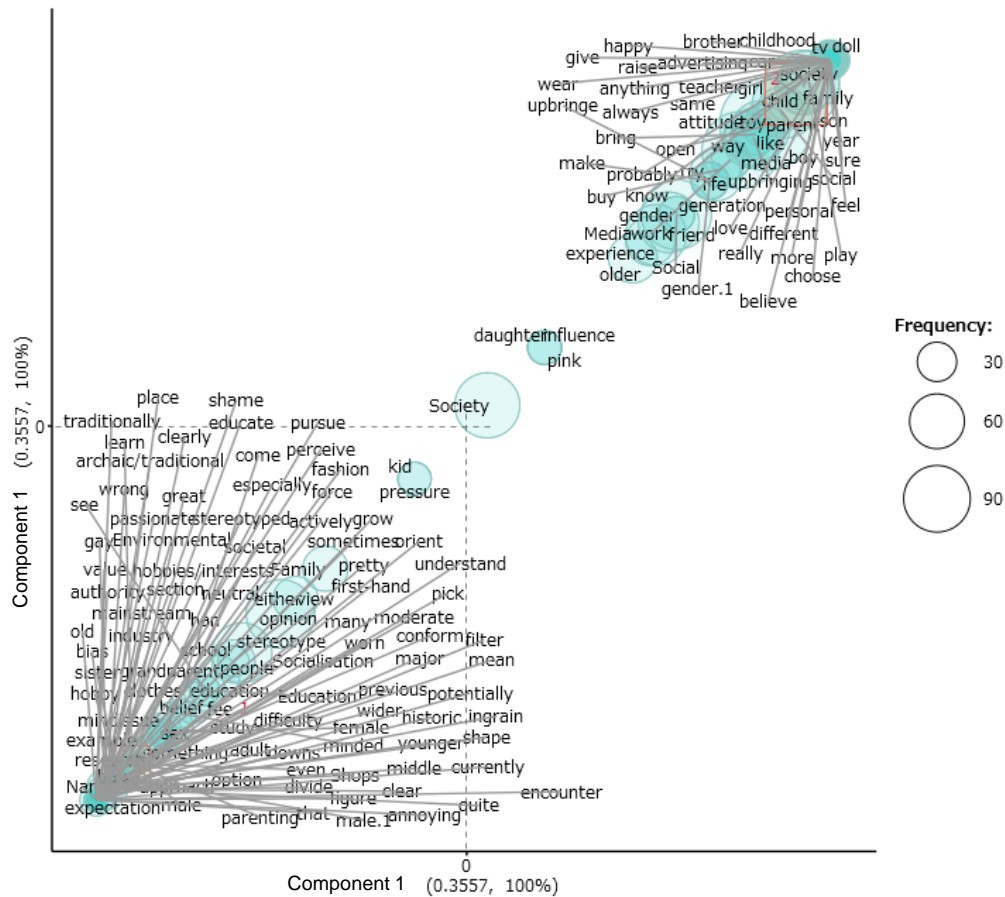


Figure 2. Co-occurrence map

Source: compiled by authors.

A second method of textual analysis – correspondence analysis – allowed us to determine the relationship between the extracted words and the external variable (the gender of the respondent) as a scatter plot. In this way, we were able to visualise how the parents of British Millennials perceive a gender-free society and how attitudes towards and purchasing behaviour in relation to the concept differ according to the gender of the parent.



**Figure 3. Results of correspondence analysis of frequently used words by gender**

Source: compiled by authors.

Among the 5,493 words found in the text data, 164 were used for the correspondence analysis. As shown in Figure 3, the cluster appearing in the first quadrant consists of the mothers' comments, while that appearing in the third quadrant consists of the fathers' comments. Interestingly, qualitatively speaking, the male parents appeared to be more active in expressing their opinions. The further away from the origin, the more characteristic the word was. As the diagram shows, the word 'society' appeared near the origin of the graph, indicating that, regardless of the gender of the parents, the respondents were equally aware of the relationship with society when purchasing toys for their children. In addition, regarding the proximity of the most relevant words to the external variable (the gender of the parent), in the case of female parents, words such as 'family' and 'society' stood out, while in the case of male parents, words such as 'education', 'beliefs', 'social values' and 'traditional ideas' were noticeable. Furthermore, the fact that the external variables appear in opposition to each other in the first and third quadrants means that the extracted words, and the number of times they appear, showed different tendencies depending on the gender of the parent.

#### 4.4 Discussion

##### 4.4.1 Gender-neutral parenting

Question 13 asked the UK Millennial parents whether they had ever considered a gender-neutral parenting approach. Among the respondents, 41.4% answered yes, with a further 12.8% stating that they were already

adopting this approach, equating to 54.2%. In contrast, 45.8% said that they had not considered it. However, when testing for trends in individual cognition (Q13), the results showed that online reviews do not change depending on the individual's tendency towards gender neutrality, while all other factors led to significant differences.

The secondary information regarding gender-neutral parenting in the literature review states that there has been an evident shift in its demand within developed markets (Westbrook, 2018), although this is a controversial topic that is often debated (Wharton, 2012). This could provide an explanation for the almost even split between parents who do and do not agree with this parenting approach. However, this split could also indicate that the approach is not significantly popular amongst UK Millennial parents in particular.

#### *4.4.2 Societal pressure*

One question based on an observed variable that was not judged as valid for the estimation in the multiple regression model, Q14, asked whether respondents felt pressure from society to buy toys that were not gender-stereotyped. To this question, 16.3% said they felt this pressure, while 83.7% said they did not. This result indicates that Millennial parents do not feel pressure from society to buy gender-neutral toys and already have their own criteria for making decisions.

This question was not correlated with Q13 on gender-neutral parenting, confirming that there is no statistical relationship between these variables. Although Q13, which is one of the independent variables in the multiple regression model, does have a statistical impact on the estimation of the purchase behaviour (partial regression coefficient =  $-0.129^{***}$ ), the concept of gender neutrality is already somewhat prevalent among UK Millennial consumers. This is in addition to the gender-neutral influence on certain toy purchasing behaviours.

## **5. Conclusions**

### *5.1 Contribution*

We are entering an era in which socio-economic factors are diversifying, and the future of the times is uncertain. The parenting and toy choice behaviour of Millennials, the subject of this study, may be a mirror of the times. There are calls for the promotion of gender-free practices in the street, and the companies and business groups involved will be forced to embrace this theme in the process of searching for sustainable development.

The contributions of this study are twofold. First, it articulates a significant and enduring theme in the straightforward context of toy purchasing behaviour and proposes a model and scale for analysis. Secondly, the results of the data analysis of Millennials in the UK, where the gender-neutral policy movement is one of the strongest among the global market, clearly indicate that, at present, parents are not necessarily gender-free in their purchasing behaviour and still have ambivalent feelings about it.

### *5.2 Limitations*

The data clean-up undertaken prior to the analysis was a time-consuming and labour-intensive process. Problems with the data were the result of inappropriate questionnaire design, which reduced the overall 'true' response rate from a potential 1,005 to 748. Complete pilot testing prior to the study is recommended for future research. We also recognise that we were unable to undertake an in-depth analysis of the relationship between income and employment status-related attributes and response trends. Finally, it cannot be denied that subtle questions relating to personal beliefs and values tended to be avoided by respondents and were a factor in the low response rate.

### *5.3 Recommendations for future research*

As mentioned above, discussions of and awareness regarding gender issues are steadily increasing. There is also a growing demand for gender-neutral parenting in developed markets, particularly among Millennial consumers (Westbrook, 2018). In the future, based on the outputs of this study, we plan to extend our examination further and generalise the implications, including whether the demand for gender neutrality among Millennial parents in the UK and elsewhere is increasing in the first place, from a broad perspective. One option for such a study would be to adopt a longitudinal approach along the time axis and follow the same sample over a longer period of time (Payne & Payne, 2004).



**Author Contributions:** conceptualization: Hiroko Oe; methodology: Hiroko Oe, Yasuyuki Yamaoka; software: Hiroko Oe, Yasuyuki Yamaoka; validation: Hiroko Oe; formal analysis: Hiroko Oe; investigation: Hiroko Oe, Yasuyuki Yamaoka; resources: Hiroko Oe; writing original: Hiroko Oe; draft preparation: Hiroko Oe; writing-review and editing: Hiroko Oe, Yasuyuki Yamaoka; visualization: Hiroko Oe, Yasuyuki Yamaoka; supervision: Hiroko Oe.

**Conflicts of Interest:** Authors declare no conflict of interest.

**Data Availability Statement:** Not applicable.

**Informed Consent Statement:** Not applicable.

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