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THE ROLE OF ANTICIPATED GUILT AND ITS NEUTRALISATION IN EXPLAINING RESPONSIBLE ONLINE SHOPPING

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Although responsible consumption has been the target of growing interest in academic research, the antecedents of responsible online shopping remain poorly understood. In this study, we address this gap in prior research by focusing on the role of anticipated guilt in explaining responsible online shopping. By using data from 479 Finnish consumers, we aim to answer two research questions: (1) how strong an antecedent of responsible online shopping intention is anticipated guilt in relation to other potential antecedents and (2) how efficiently can consumers regulate their resulting feelings of guilt by using different kinds of neutralisation techniques? We find anticipated guilt to be a strong antecedent of responsible online shopping intention and the denial of responsibility, the denial of injury, and the appeal to higher loyalties to be the most efficient neutralisation techniques for consumers to regulate their feelings of guilt that result from not engaging in responsible online shopping.

Keywords:
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1 Introduction

Sustainable development, which is commonly defined as development that meets the needs of the present without compromising the ability of future generations to meet their needs (United Nations, 1987), has become one of the main goals of most modern societies. One central component of sustainable development is responsible consumption (Jain et al., 2022), which refers to consumption that has a less negative or more positive impact on the environment, society, self, and others (Ulusoy, 2016). Although responsible consumption has been the target of growing interest also in academic research (cf. Webb et al., 2008; Gupta & Agrawal, 2018; Jain et al., 2022), few prior studies have focused on it in the context of online shopping, which can be seen as surprising when considering its widespread adoption among modern consumers. More specifically, no prior studies that we are aware of have holistically examined the antecedents of responsible online shopping in terms of what actually causes consumers to make or not to make responsible consumption choices when shopping online.

In this study, we aim to address this gap in prior research by focusing on the role of anticipated guilt in explaining responsible online shopping. Anticipated guilt refers to the feelings of guilt that arise from contemplating a potential deviation from one's standards (Rawlings, 1970), and it has been used in marketing research to explain various aspects of consumer behaviour (Antonetti & Baines, 2015), including sustainable and responsible consumer behaviour (e.g., Onwezen et al. 2013, 2014a, 2014b; Antonetti & Maklan, 2014a, 2014b; Theotokis & Manganari, 2015; Lindenmeier et al., 2017). Thus, it can be assumed to play an important role also in explaining responsible online shopping. More specifically, we focus on answering two research questions: (1) how strong an antecedent of responsible online shopping intention is anticipated guilt in relation to other potential antecedents and (2) how efficiently can consumers regulate their resulting feelings of guilt by using different kinds of neutralisation techniques? As our data, we use the responses from 479 Finnish consumers, which were collected with an online survey and are analysed with structural equation modelling (SEM).

After this introductory section, we briefly present the research model of the study in Section 2. The methodology and results of the study are reported in Sections 3 and 4, of which the results are discussed in more detail in Section 5. Finally, we conclude

the paper with a brief discussion of the limitations of the study and some potential paths for future research in Section 6.

2 Research Model

In order to examine the strength of anticipated guilt as an antecedent of responsible online shopping intention in relation to other potential antecedents, we apply the theory of planned behaviour (TPB) by Ajzen (1985, 1991), which is an extension of the theory of reasoned action (TRA) by Fishbein and Ajzen (1975, 1980) and one of the most commonly applied theories for explaining human behaviour in a variety of contexts (Fishbein & Ajzen, 2010). Some examples of these are the acceptance and use of various kinds of information technologies (IT) and information systems (IS) (e.g., Makkonen et al., 2010, 2012a, 2012b; Kari & Makkonen, 2014; Weigel et al., 2014), online shopping (e.g., Pavlou & Fygenson, 2006), sustainable and responsible consumption (e.g., Onwezen et al., 2013, 2014b; Han & Stoel, 2017), and even sustainable online shopping (Yang et al., 2018). In TPB, an individual's intention to engage in a particular behaviour is hypothesised to be explained by three antecedents (Fishbein & Ajzen, 2010): the attitude toward the behaviour (i.e., an individual's positive or negative evaluations of engaging in the behaviour), the subjective norm toward the behaviour (i.e., an individual's perception of social pressure to engage or not engage in the behaviour), and the perceived behavioural control over the behaviour (i.e., an individual's sense of capability, control, and self-efficacy to engage in the behaviour). In our research model, in line with the studies by Onwezen et al. (2014a, 2014b), we add anticipated guilt as the fourth antecedent of behavioural intention in order to compare its explanatory power with the three original antecedents of TPB. We hypothesise each of these four antecedents to have a positive effect on responsible online shopping intention, meaning that the more positive the attitude, the stronger the subjective norm and perceived behavioural control, and the more guilt an individual feels from not engaging in responsible online shopping, the stronger his or her responsible online shopping intention is hypothesised to be.

In turn, in order to examine how efficiently consumers can regulate the feelings of guilt that result from not engaging in responsible online shopping, we apply the neutralisation theory by Sykes and Matza (1957), which was originally developed for the context of juvenile delinquency to explain how individuals are able to justify and

deflect the feelings of guilt that result from deviant behaviour by using different kinds of neutralisation techniques. More recently, it has been applied to also various other contexts, such as employee IS security policy violations (Siponen & Vance, 2010), software piracy (Siponen et al., 2012), shadow IT use (Silic et al., 2017), employee unauthorised computer access (Lin et al., 2018), and digital media piracy (Riekkinen, 2018) in IS, as well as inappropriate consumer behaviour (Strutton et al., 1994), fair trade (Chatzidakis et al., 2007), sustainable consumption (Antonetti & Maklan, 2014b; Gruber & Schlegelmilch, 2014), and immoral and unethical consumption (McGregor, 2008) in marketing. Originally, Sykes and Matza (1957) proposed five neutralisation techniques: the denial of responsibility (i.e., claiming not to be responsible for the deviant behaviour), the denial of injury (i.e., claiming that the deviant behaviour caused no injury), the denial of victim (i.e., claiming that the deviant behaviour was rightful when considering the circumstances), the condemnation of the condemners (i.e., claiming that those who condemn the deviant behaviour engage themselves in similar behaviour), and the appeal to higher loyalties (i.e., claiming that the deviant behaviour was due to actualising a higher-order ideal or value). Later, also other neutralisation techniques have been proposed, of which the most prominent are the metaphor of the ledger (i.e., claiming that the prior good behaviour counterbalances the present bad behaviour) by Klockars (1974) and the defence of necessity (i.e., claiming that the deviant behaviour was necessary) by Minor (1981). These all except for the denial of victim have been found to be used by consumers in the context of sustainable consumption in the study by Gruber and Schlegelmilch (2014), which is why we assume them to be used by consumers also in the closely related context of responsible consumption. Thus, in our research model, we add these six neutralisation techniques, which are the same ones that have been used also in the studies by Siponen and Vance (2010), Silic et al. (2017), and Lin et al. (2018), as antecedents of anticipated guilt, hypothesising them to have a negative effect on it. The resulting research model is illustrated in Figure 1.

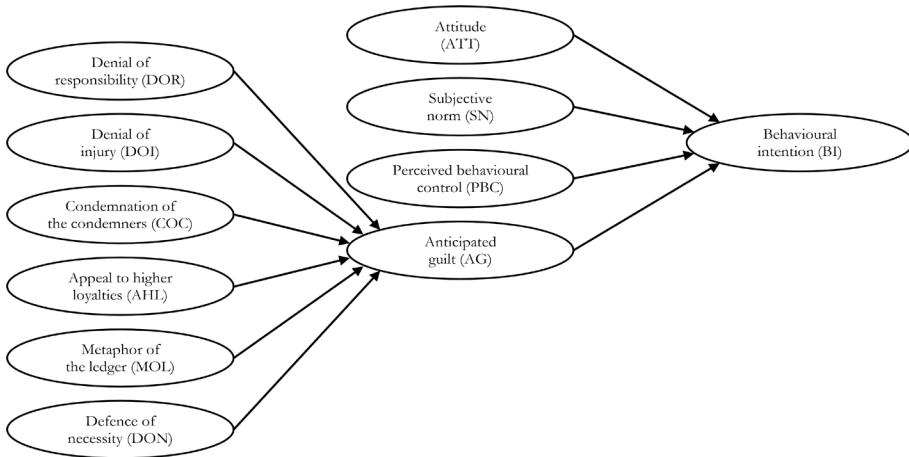


Figure 1: Research model

3 Methodology

We collected the data for testing the research model from Finnish consumers between February 2023 and March 2023 with an online survey that was conducted by using the LimeSurvey service. The respondents for the survey were recruited by promoting the survey on social media and via the various communication channels of Finnish universities and student associations. As an incentive for responding, all the respondents who completed the survey were able to take part in a prize drawing of ten gift boxes, which were worth about 25 € each.

Before measuring the constructs of the research model, responsible online shopping was first defined for the respondents as making consumption choices that take various ecological and ethical values (e.g., sustainable development and fair trade) into account while shopping online. Of the constructs, responsible online shopping intention, attitude, subjective norm, perceived behavioural control, and anticipated guilt were measured reflectively by three items each, whereas the six neutralisation techniques were measured reflectively by only two items each in order to avoid respondent fatigue. The wordings of these items are reported in Appendix A. The items for measuring responsible online shopping intention, attitude, subjective norm, and perceived behavioural control were adapted from the examples by Fishbein and Ajzen (2010), whereas the items for measuring anticipated guilt were adapted from the guilt inventory by Kugler and Jones (1992) as exemplified by

Onwezen et al. (2013, 2014a, 2014b). In turn, the items for measuring the six neutralisation techniques were developed for this study based on the format by Siponen and Vance (2010) and the contextualisations by Gruber and Schlegelmilch (2014), who examined the meaning of these neutralisation techniques to consumers in the context of sustainable consumption. A seven-point semantic differential scale ranging from -3 to +3 was used for measuring attitude, whereas the traditional five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree) was used for measuring all the other constructs.

In addition, we used three control variables to control the effects of gender, age, and social desirability bias on responsible online shopping intention and anticipated guilt. Of these, gender and age were each measured with a single item, whereas social desirability bias was measured with the ten items and the measurement procedure proposed by Kuokkanen (2017), in which the item scores are transformed into a single continuous social desirability bias variable ranging from one (minimum social desirability bias) to five (maximum social desirability bias). In order to avoid forced responses, responding to all the items in the survey was voluntary, and not responding to a particular item resulted in a missing value.

The data was analysed with covariance-based structural equation modelling (CB-SEM) by using the Mplus 8.8 software (Muthén & Muthén, 2023) and following the guidelines by Gefen et al. (2011) for SEM in administrative and social science research. As the model estimator, we used the robust maximum likelihood (MLR) estimator, which is able to handle also non-normal data. The potential missing values were handled by using the full information maximum likelihood (FIML) estimator, which uses all the available data in model estimation. As the threshold for statistical significance, we used $p < 0.05$.

4 Results

In total, we received 479 valid responses to the online survey. The descriptive statistics of this sample in terms of the gender, age, yearly personal taxable income, socioeconomic status, and average online shopping frequency of the respondents are reported in Table 1. As can be seen, most of the respondents were women, students, and relatively young, which was not surprising when considering our recruitment of the respondents. More specifically, the age of the respondents ranged

from 19 to 75 years, with a mean of 28.4 years and a standard deviation of 9.2 years. However, most of the respondents (68.7%) were relatively active online shoppers who shopped online at least monthly on average.

Table 1: Descriptive statistics of the sample (N = 479)

| | N | % | | N | % |
|---------------------------------------|-----|------|----------------------------------|-----|------|
| Gender | | | Socioeconomic status | | |
| Man | 88 | 18.4 | Student | 341 | 71.2 |
| Woman | 365 | 76.2 | Employee or self-employed | 132 | 27.6 |
| Other | 26 | 5.4 | Unemployed or unable to work | 10 | 2.1 |
| Age | | | Pensioner | 5 | 1.0 |
| Under 25 years | 206 | 43.0 | Other | 4 | 0.8 |
| 25–49 years | 253 | 52.8 | Online shopping frequency | | |
| 50 years or over | 20 | 4.2 | At least weekly | 31 | 6.5 |
| Yearly personal taxable income | | | At least monthly | 298 | 62.2 |
| Under 15,000 € | 286 | 59.7 | At least yearly | 140 | 29.2 |
| 15,000–29,999 € | 71 | 14.8 | Less frequently than yearly | 8 | 1.7 |
| 30,000 € or over | 98 | 20.5 | Has never shopped online | 1 | 0.2 |
| No response | 24 | 5.0 | No response | 1 | 0.2 |

In the following three subsections, we first evaluate the estimated model in terms of the reliability and validity of its constructs and indicators as well as its goodness-of-fit with the data. Finally, we report the model estimates.

4.1 Construct Reliability and Validity

Construct reliability was evaluated from the perspective of internal consistency by using the composite reliability (CR) of the constructs (Fornell & Larcker, 1981), which is commonly expected to be at least 0.7 (Nunally & Bernstein, 1994). The CR of each construct is reported in the first column of Table 2, showing that all the constructs met this criterion.

Table 2: Construct-level statistics

| | CR | AVE | Square roots of AVE and the correlations between the constructs | | | | | | | | | | | |
|------------|-------|-------|---|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|--|
| | | | BI | ATT | SN | PBC | AG | DOR | DOI | COC | AHL | MOL | DON | |
| BI | 0.917 | 0.787 | 0.887 | | | | | | | | | | | |
| ATT | 0.829 | 0.618 | 0.434 | 0.786 | | | | | | | | | | |
| SN | 0.940 | 0.840 | 0.341 | 0.272 | 0.916 | | | | | | | | | |
| PBC | 0.835 | 0.635 | 0.312 | 0.211 | 0.140 | 0.797 | | | | | | | | |
| AG | 0.838 | 0.634 | 0.443 | 0.205 | 0.118 | 0.030 | 0.796 | | | | | | | |
| DOR | 0.932 | 0.874 | -0.239 | -0.290 | -0.103 | -0.117 | -0.335 | 0.935 | | | | | | |
| DOI | 0.890 | 0.801 | -0.265 | -0.269 | -0.148 | 0.032 | -0.467 | 0.474 | 0.895 | | | | | |
| COC | 0.874 | 0.777 | -0.174 | -0.235 | -0.032 | -0.032 | -0.268 | 0.548 | 0.443 | 0.881 | | | | |
| AHL | 0.886 | 0.795 | -0.204 | -0.162 | -0.199 | -0.146 | -0.293 | 0.271 | 0.224 | 0.319 | 0.892 | | | |
| MOL | 0.787 | 0.650 | -0.112 | -0.119 | -0.077 | 0.060 | -0.191 | 0.413 | 0.493 | 0.540 | 0.283 | 0.806 | | |
| DON | 0.850 | 0.739 | -0.008 | 0.074 | 0.006 | -0.196 | 0.021 | 0.145 | 0.034 | 0.061 | 0.350 | 0.140 | 0.860 | |

In turn, construct validity was evaluated from the perspectives of convergent and discriminant validity by using the two criteria by Fornell and Larcker (1981). They are both based on the average variance extracted (AVE) of the constructs, which is the average proportion of variance that a construct explains in its indicators. The first criterion concerning convergent validity expects each construct to have an AVE of at least 0.5. This means that, on average, each construct should explain at least half of the variance in its indicators. The AVE of each construct is reported in the second column of Table 2, showing that all the constructs met this criterion. In turn, the second criterion concerning discriminant validity expects each construct to have a square root of AVE that is at least equal to its absolute correlations with the other constructs in the model. This means that, on average, each construct should share at least an equal proportion of variance with its indicators compared to what it shares with the other constructs. The square root of AVE of each construct (on-diagonal) and the correlations between all the constructs in the model (off-diagonal) are reported in the remaining columns of Table 2, showing that this criterion was also met by all the constructs.

4.2 Indicator Reliability and Validity

Indicator reliability and validity were evaluated by using the standardised loadings of the indicators, which are reported in Appendix B together with the means and standard deviations (SD) of the indicator scores as well as the percentages of missing

values. In the typical case of each indicator loading on only one construct, the standardised loading of each indicator is commonly expected to be statistically significant and at least 0.707 (Fornell & Larcker, 1981). This is equivalent to the standardised residual of each indicator being at least 0.5, meaning that at least half of the variance in each indicator is explained by the construct on which it loads. As can be seen, this criterion was met by all the indicators except for PBC3. However, because the slightly lower loading of this indicator was not found to compromise the reliability or validity of the perceived behavioural control construct (cf. Section 4.1), we decided to retain it in the model.

4.3 Model Fit and Model Estimates

The results of model estimation in terms of the standardised effect sizes and their statistical significance, the proportions of explained variance (R^2), and model fit are reported in Figure 2 (and in Appendix C for the effects of the control variables). Model fit was evaluated by using the χ^2 test of model fit and four model fit indices recommended by Hu and Bentler (1999): the comparative fit index (CFI), the Tucker-Lewis index (TLI), the root mean square error of approximation (RMSEA), and the standardised root mean square residual (SRMR). Of these, the χ^2 test of model fit rejected the null hypothesis of the model fitting the data, which is common in the case of large samples (Bentler & Bonett, 1980), whereas the values of the four model fit indices all met the cut-off criteria recommended by Hu and Bentler (1999): $CFI \geq 0.95$, $TLI \geq 0.95$, $RMSEA \leq 0.06$, and $SRMR \leq 0.08$. Thus, we consider the overall fit of the model acceptable. We also found no signs of multicollinearity or common method bias in the model. For example, the variance inflation factor (VIF) values calculated from the factor scores were all less than three (Hair et al., 2018), and the Harman's single factor test (Podsakoff et al., 2003) suggested a very bad fit with the data ($\chi^2(324) = 4,754.140$, $p < 0.001$, $CFI = 0.261$, $TLI = 0.199$, $RMSEA = 0.169$, $SRMR = 0.147$).

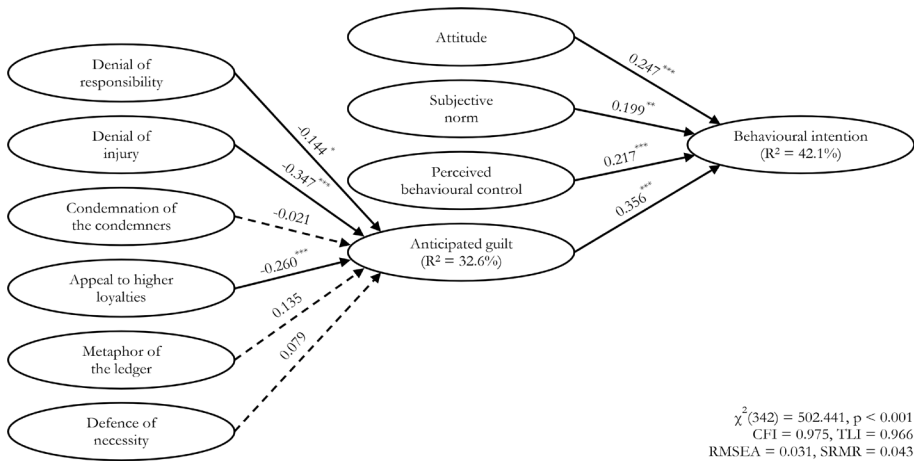


Figure 2: Model fit and model estimates (** = p < 0.001, * = p < 0.01, * = p < 0.05)

Of the three original antecedents of TPB, attitude, subjective norm, and perceived behavioural control were all found to have statistically significant and positive effects on responsible online shopping intention. Similarly, the effect of anticipated guilt on responsible online shopping intention was found to be statistically significant, positive, and even slightly stronger than the effects of the three original antecedents of TPB based on the point estimates of the effect sizes reported in Figure 2. However, the overlapping 95% confidence intervals of the estimated effect sizes of attitude ([0.122, 0.372]), subjective norm ([0.070, 0.327]), perceived behavioural control ([0.098, 0.335]), and anticipated guilt ([0.222, 0.489]) suggested that the differences in the strengths of all the effects were statistically not significant. In turn, of the six neutralisation techniques, the denial of responsibility, the denial of injury, and the appeal to higher loyalties were found to have statistically significant and negative effects on anticipated guilt, whereas the effects of the condemnation of the condemners, the metaphor of the ledger, and the defence of necessity were found to be statistically not significant. The effects of the control variables were found to be mostly statistically not significant, with the exception that age was found to have a statistically significant and negative effect on responsible online shopping intention and being a man was found to have a statistically significant and negative effect on anticipated guilt. In total, the model was able to explain 42.1% of the variance in responsible online shopping intention and 32.6% of the variance in anticipated guilt. Without anticipated guilt, the model would have been able to explain only 35.3% of

the variance in responsible online shopping intention, so its addition resulted in a 6.8 percentage point promotion in explanatory power.

5 Discussion and Conclusion

In this study, we examined the role of anticipated guilt in explaining responsible online shopping intention by focusing on answering two research questions: (1) how strong an antecedent of responsible online shopping intention is anticipated guilt in relation to other potential antecedents and (2) how efficiently can consumers regulate their resulting feelings of guilt by using different kinds of neutralisation techniques? In terms of the first research question, we found that anticipated guilt is indeed a strong antecedent of responsible online shopping intention, although not necessarily stronger than the three original antecedents of TPB. However, its addition to the research model was able to substantially promote explanatory power in comparison to the basic TPB model, thus highlighting the role of anticipated guilt as an important additional antecedent of responsible online shopping intention. This promotion was consistent with the meta-analysis by Ravis et al. (2009), which found that adding different types of anticipated affect as an additional antecedent in the basic TPB model tends to promote the explained variance in behavioural intention by about five percentage points.

In terms of the second research question, we found that neutralisation techniques are indeed an efficient way for consumers to regulate their feelings of guilt that result from not engaging in responsible online shopping. In total, the six neutralisation techniques in the research model were able to explain almost one-third of the variation in anticipated guilt, which can be seen as a substantial proportion, especially when considering that the neutralisation techniques are not assumed to act as the main antecedents of anticipated guilt but only to regulate the feelings of guilt that are caused by other antecedents, such as the dissonance between behavioural norms and one's behaviour. Of these six neutralisation techniques, the most efficient ones were found to be the denial of responsibility, the denial of injury, and the appeal to higher loyalties. In other words, consumers can most effectively regulate their feelings of guilt that result from not engaging in responsible online shopping by justifying their behaviour with the fact that they cannot really change anything with their own consumption choices alone, that this does not cause actual injury to anybody, and that they have to consider also other values or criteria (e.g., price) when

making their consumption choices. Of these, especially the last justification seemed to be used very often by consumers based on the high mean scores of the corresponding indicators reported in Appendix B. When comparing these findings with those of prior studies that have examined the effectiveness of individual neutralisation techniques, they seem to support the suggestion by Silic et al. (2017) that the effectiveness of specific neutralisation techniques varies considerably between contexts. For example, Silic et al. (2017) found the metaphor of the ledger to be the only neutralisation technique that affects the use intention and actual use of shadow IT, whereas Siponen et al. (2012) found the condemnation of the condemners and the appeal to higher loyalties to be the only two neutralisation techniques that affect software piracy intention. These are both very different findings from those of our study.

From a theoretical perspective, this study makes three main contributions. First, from the perspective of responsible consumption, the study promotes a more holistic understanding of the antecedents of responsible online shopping, in this case particularly anticipated guilt and the regulation of the feelings of guilt by using different kinds of neutralisation techniques. Second, from the perspective of TPB, the study responds to the calls by Richard et al. (1996) and Rivis et al. (2009) for more research on the role of different types of anticipated affect as additional antecedents for explaining behavioural intention and actual behaviour. Third, from the perspective of the neutralisation theory, the study continues the work of Chatzidakis et al. (2007) as well as Gruber and Schlegelmilch (2014) concerning the application of neutralisation techniques to explain responsible and sustainable consumption as well as the integration of neutralisation techniques with other prominent theories for explaining human behaviour, such as TPB.

In turn, from a practical perspective, the main contribution of the study is the implication that the most efficient way for businesses and society to promote responsible online shopping is not only to manipulate the attitudes, subjective norms, and perceived behavioural control of consumers but also to expose them to stronger feelings of guilt. This may be achieved not only by using different kinds of guilt appeals in consumer communication (cf. Turner & Rains, 2021) but also by restraining the use of different kinds of neutralisation techniques among consumers. Here, the most relevant neutralisation techniques are obviously the denial of responsibility, the denial of injury, and the appeal to higher loyalties, which were

found to be the most effective ones in our study. Of these, the use of the first two neutralisation techniques may potentially be restrained, for example, by providing consumers with more metrics on both the positive and the negative consequences of their consumption choices. This could help consumers to perceive that even the consumption choices of one person do have measurable consequences, thus undermining the main arguments behind the denial of responsibility and injury. These metrics could also be further coupled with goal setting, which together were found to result in an even stronger promotion of sustainable online shopping in the study by Kanay et al. (2021). In turn, the use of the appeal to higher loyalties may potentially be restrained by making responsible consumption choices more affordable or otherwise more accessible to average consumers. This way consumers would not be forced to choose between responsibility and other values or priorities, such as providing for one's family by choosing a cheaper but less responsible product or service, thus once again undermining the main argument behind this neutralisation technique.

6 Limitations and Future Research

We see this study to have three main limitations. First, although our sample was relatively heterogenous in demographic terms, it was biased toward women and younger consumers, which may limit the generalisability of our findings. Second, our research model focused only on the role of anticipated guilt as an antecedent of responsible online shopping intention and not, for example, on the potential cross-over effects between attitude, subjective norm, perceived behavioural control, and anticipated guilt, which have been proposed in some prior studies (e.g., Onwezen et al., 2013, 2014a, 2014b; Turel, 2016), or on the effects of anticipated guilt on actual responsible online shopping behaviour. Third, of the different neutralisation techniques, our research model focused only on the six neutralisation techniques that have been used also in the studies by Siponen and Vance (2010), Silic et al. (2017), and Lin et al. (2018) instead of others, such as the claim of relative acceptability and the claim of individuality by Henry and Eaton (1999), justification by comparison by Cromwell and Thurman (2003), and the claim of entitlement by Coleman (2005). Both these two latter limitations cannot be seen to compromise the findings of this study per se. However, addressing them could help to provide an even more complete understanding of the role of anticipated guilt and neutralisation techniques in explaining responsible online shopping. In addition to addressing the

aforementioned limitations, future research could focus on examining responsible online shopping in some more specific product or service contexts instead of only in general. One example of such context is fashion retailing, on which some prior research has already been conducted (e.g., Kempainen et al., 2021, 2022). Other potential paths for future research could be to examine also the role of other types of anticipated affect, such as anticipated anxiety, shame, and worry (cf. Rivis et al., 2009), the role of positive and negative emotions more generally (e.g., Makkonen et al., 2019b), or the role individual values (e.g., Makkonen et al., 2019a) in explaining responsible online shopping.

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Appendix A: Item Wordings

| Item | Wording |
|------|--|
| BI1 | In future, I intend to make responsible choices when shopping online. |
| BI2 | In future, I plan to make responsible choices when shopping online. |
| BI3 | In future, I will make responsible choices when shopping online. |
| SN1 | People who are important to me think that I should make responsible choices when shopping online. |
| SN2 | People who are important to me think that it would be good if I made responsible choices when shopping online. |
| SN3 | People who are important to me would want that I make responsible choices when shopping online. |
| PBC1 | If I want to, it is possible for me to make responsible choices when shopping online. |
| PBC2 | I am able to make responsible choices when shopping online if I want to. |
| PBC3 | It is up to me whether or not I make responsible choices online when shopping online. |
| | I find the idea of me making responsible choices when shopping online... |
| ATT1 | ... negative vs. positive. |
| ATT2 | ... harmful vs. beneficial. |
| ATT3 | ... unpleasant vs. pleasant. |
| | If I do not make responsible consumption choices when shopping online, I feel... |
| AG1 | ... guilty. |
| AG2 | ... remorseful. |
| AG3 | ... bad. |
| | I find that is OK for me not to make responsible consumption choices when shopping online because... |
| DOR1 | ... one person cannot really trigger any change with his or her choices. |
| DOR2 | ... one person cannot really change anything with his or her choices. |
| DOI1 | ... it causes no actual harm to anybody. |
| DOI2 | ... it caused no actual damage to anybody. |
| COC1 | ... people who call for responsibility from others sometimes do the same. |
| COC2 | ... people who call for responsibility from others do not always themselves make responsible choices. |
| AHL1 | ... I have to consider also other values or criteria (e.g., price) when making my choices. |
| AHL2 | ... I have to take into account also other values or criteria (e.g., price) when making my choices. |
| MOL1 | ... I have already made enough responsible choices earlier in my life. |
| MOL2 | ... the responsible choices that I have made earlier in my life compensate for it. |
| DON1 | ... the lack of responsible alternatives sometimes makes it necessary. |
| DON2 | ... responsible alternatives are not always available. |

Appendix B: Indicator-Level Statistics

| Item | Mean | SD | Missing | Loading | Item | Mean | SD | Missing | Loading |
|------|-------|-------|---------|----------|------|-------|-------|---------|----------|
| BI1 | 4.232 | 0.807 | 2.7% | 0.935*** | DOR1 | 2.160 | 1.176 | 0.8% | 0.919*** |
| BI2 | 4.292 | 0.862 | 1.5% | 0.855*** | DOR2 | 2.101 | 1.134 | 0.6% | 0.950*** |
| BI3 | 4.195 | 0.792 | 3.8% | 0.869*** | DOI1 | 1.886 | 0.983 | 0.8% | 0.861*** |
| ATT1 | 2.385 | 0.970 | 1.3% | 0.807*** | DOI2 | 1.943 | 1.007 | 1.0% | 0.928*** |
| ATT2 | 2.316 | 1.070 | 1.7% | 0.760*** | COC1 | 2.629 | 1.239 | 6.7% | 0.830*** |
| ATT3 | 1.928 | 1.275 | 1.7% | 0.790*** | COC2 | 2.456 | 1.219 | 4.4% | 0.930*** |
| SN1 | 3.558 | 1.067 | 15.4% | 0.911*** | AHL1 | 4.326 | 0.790 | 0.6% | 0.911*** |
| SN2 | 3.777 | 1.021 | 13.8% | 0.910*** | AHL2 | 4.224 | 0.878 | 0.4% | 0.872*** |
| SN3 | 3.640 | 1.046 | 17.1% | 0.928*** | MOL1 | 2.025 | 1.019 | 1.3% | 0.763*** |
| PBC1 | 4.102 | 0.953 | 1.7% | 0.855*** | MOL2 | 1.834 | 0.969 | 0.6% | 0.847*** |
| PBC2 | 4.054 | 0.960 | 2.5% | 0.901*** | DON1 | 4.025 | 0.985 | 1.3% | 0.863*** |
| PBC3 | 3.996 | 1.006 | 0.8% | 0.601*** | DON2 | 4.032 | 1.004 | 1.9% | 0.856*** |
| AG1 | 3.504 | 1.215 | 2.7% | 0.858*** | | | | | |
| AG2 | 3.104 | 1.185 | 3.3% | 0.722*** | | | | | |
| AG3 | 3.305 | 1.255 | 2.9% | 0.802*** | | | | | |

*** = $p < 0.001$

Appendix C: Effects of the Control Variables

| Variable | BI | AG | Variable | BI | AG |
|----------------|--------|-----------|--------------------------|---------|--------|
| Gender = man | -0.011 | -0.180*** | Age | -0.080* | -0.090 |
| Gender = other | -0.058 | 0.010 | Social desirability bias | 0.074 | -0.015 |

*** = $p < 0.001$, ** = $p < 0.01$, * = $p < 0.05$