Effects of the Qualification of Potentially Misleading Claims about Production Characteristics on Buying Intention

Tino Bech-Larsen
Aarhus, Denmark
Klaus Grunert
Aarhus University, MAPP Centre, Department of Management
George Tsalis
Aarhus University

Cite as:
Bech-Larsen Tino, Grunert Klaus, Tsalis George (2019), Effects of the Qualification of Potentially Misleading Claims about Production Characteristics on Buying Intention . *Proceedings of the European Marketing Academy*, 48th, (10004)

Paper presented at the 48th Annual EMAC Conference, Hamburg, May 24-27, 2019.

Effects of the Qualification of Potentially Misleading Claims about Production Characteristics on Buying Intention

Abstract

The latter years have witnessed an increasing employment of ambiguous production claims in food product marketing. Such practices may potentially lead to unsubstantiated product inferences and/or to inflated buying intentions. Under certain conditions, such deceptions may be mitigated by qualifications, i.e., explanations or disclosures related to the original claims. Based on the propositions that a) qualifications may work as positive cues, even though the opposite was intended, and that b) processing constraints may facilitate the intended effects, when qualifications work as negative cues, this article discusses the results of two conjoint studies of how qualification and time-restricted processing of original animal welfare claims influence Danish consumers' inference making and buying intentions for broiler (n=1420) and pork (n=1168) products.

The results of the two studies indicate that a moderate time constraint on information processing of qualified claims, when the qualification works as a negative cue, has a negative effect on consumer's buying intention, i.e., that the qualification scheme works as intended. When there are no time constraints and when qualification cues are positive, however, buying intentions increase, i.e., in such situations, the intentions behind the qualification scheme tend to be counteracted.

Keywords: Deception, Processsing, Production Claims

Track: Advertising and Marketing Communications

Introduction

Food product marketing is characterized by an increasing employment of production claims, i.e. statements of how a product is produced or processed, e.g., in respect for: authenticity; naturalness or animal welfare (Berry et al 2017). Because consumer's knowledge about food production and the related implications for product quality is limited, and as the effects on buying intentions of production claims are often mediated by consumer's inferences about the quality of product attributes (Berry et al 2017), production claims may often lead to unsubstantiated product beliefs, e.g., about wholesomeness and/or to inflated buying intentions. Traditionally (Armstrong, 1980; Grunert & Dedler, 1986) it has been recommended to mitigate such effects by the provision of additional information, i.e., qualifications or disclosures, which clarify the meanings and/or limits of the claims. However, the latter decade has seen a volume of empirically and conceptually based publications (cf. Berry et al 2017), which finds that qualifications may just as well lead to in- as to decreases in consumer's quality perceptions and buying intentions for the advertised product. Based on this, some authors recommend the total abolition of qualification and disclosure practices. Others, e.g., Bubb (2014) argue that abolition is premature, and that research should be conducted in order to enhance the under-standing of when and how the use of qualifications may be used to mitigate deception. Acknowledging this proposal, the purpose of the research discussed in this article is to study how processing constraints influence the effects of the qualification of potentially misleading production claims on perceptions and buying intentions for broiler and pork products.

The processing of original and qualified production claims

Although research publications about advertising deception abounds surprisingly little has been done to study the relation between deception and processing constraints (cf. Priester & Petty, 2003). As time and other processing constraints (cf. Chaiken & Chen, 1999) are generally associated with less deliberate and less qualified judgements, Bubb (2014) argues, that the constrained (time and otherwise) information processing environment characterizing most consumer buying situations is the main reason for the failure of qualification schemes. However, when spreading activation processes (Chaiken & Chen, 1999) are considered, such a simple relation between constraints and the effects of information qualification is unlikely. Thus, although it is undisputable that processing constraints will always set an upper limit on

the quantity of conscious deliberations, moderate constraints may sometimes improve the quality, i.e., the task-directedness, of the deliberations (cf. Suri & Monroe, 2003).
Hence, when people set out to perform a concrete task (cf. Suri & Monroe, 2003) the initial condition for information processing is comprised by both this task and the available information. In unconstrained as compared to time constrained processing of stimuli, the ensuing spreading activation processes and deliberations (Chaiken & Chen, 1999) are more likely to diverge from the task at hand, and hence to end up in more speculative inferences and daydreaming. In such situations, a moderate time constraint may increase the respondents' focus on the task at hand, and lead to more rather than less qualified judgements (cf. Suri & Monroe, 2003). Below we discuss and specify a number of hypotheses for the likely effects on buying intention of positive and negative qualification cues, in constrained and unconstrained buying situations.
When qualifications of production statements work as positive cues, unconstrained processing is likely to reinforce the spreading activation of positive inferences. Such cues may initiate a chain reaction of positive 'day-dreaming' inferences, which in unconstrained situations, are likely to pass the threshold of consciousness, and hence to enforce the buying intentions (cf. Chaiken & Chen, 1999). In constrained processing situations, consumers are prone to focus on the task at hand (cf. Suri & Monroe, 2003). Thus although the spreading activation of positive qualification cues will stimulate positive inferences, it is not likely that these will reach the threshold of consciousness. Hence, in the constrained situation positive cues are not likely to impact on purchase intentions.

> H1: Compared to original production statements, positive qualification cues lead to higher purchase intentions in unconstrained, but not in constrained processing situations.

When qualifications of production statements work as negative cues, it is more difficult to predict the dominating valence of spreading activation,, i.e. whether the process is dominated by negative or by positive inferences, and thus also of the influence of the qualification on buying intentions. Hence, when the initial connotation to the qualification is negative, the original production statement and it's focal issue, e.g., *animal welfare,* may still result in the production of positive inferences. When processing is unconstrained, such positive inferences can attenuate or even reverse the effects of the negative cue (Isaac & Poor, 2016). Thus although such 'sleeper effects' has traditionally been associated with longer time spans, recent

studies (Isaac & Poor, 2016) have shown that the attenuation of a negative cue can occur within days - or even immediately - after exposure. When processing is constrained, however, such immediate 'attenuation' effects are less likely, because the consumer's attention is focused on the task at hand (cf Suri & Monroe, 2016). Hence, in (moderately) constrained processing situations, the initial negative connotations to the qualification of a production statement is likely to endure, and hence to impact on the consumers purchase intentions:

> H2: Compared to original production statements, negative qualification cues lead to lower purchase intentions in (moderately) constrained, but not in unconstrained processing situations

The above reasoning builds on the assumption (cf. Chaiken & Chen, 1999) that processing of production statements produce positive connotations to non-advertised product, e.g., taste and wholesomeness attributes. If this is the case, unconstrained processing of positive qualify-cation cues should be manifested in a reinforcement of the effects of such non-advertised attributes on buying intentions.

> H3: In unconstrained, but not in constrained processing situations, positive qualify-cation cues will reinforce the positive effects of non-advertised attributes on buying intentions.

Method

Two survey studies were conducted by similar between subject (chicken: n=1420, pork: n=1168) web-based conjoint designs. Respondents in both studies were representative for the adult Danish population as regards to age, gender, education and household income. In each of the studies, the respondents were presented for 16 full profile full factorial conjoint cards as well as a number of additional questions about animal welfare and socio-demographics. Each card contained a product photo and a verbal description of four two level factors: AW Claim (*Present, Not present*), Price (*High, Low*), Origin (*Danish*, *Foreign*), Product (Chicken: *Parted, Whole*, Pork: *Chops, Minced*). The cards were rated on 7 point Likert scales on: buying intention, taste and wholesomeness.

Each study was implemented with two similar sized and comparable (in terms of distributions on: gender, age and household income) samples of Danish consumers[1]. Also, the samples were approximately representative for the Danish adult population on these criteria. Each respondent was either presented for a set of conjoint cards, with original (sample 1) or qualified (sample 2) AW claims. Also, half of the respondents in each sample were given 5 seconds to rate each of the 16 profiles on each of the three criteria, while time was unrestricted for the other half of the sample. Hence for both studies, there were four main conditions: AW claim with / without qualification, and processing with / without time restriction.

In each of the studies a total of six original (found in Danish retailing) and six qualified claims were included (see table 1 and 3 in the results section below). The wording of the qualifications of the AW claims for Broilers was inspired by the guidelines of a major Danish AW ngo (Dyrenes beskyttelse, 2018). In order to identify qualifications, which worked as positive (for broilers) and negative (for pork) cues, pre-tests with student samples (n=70, n=117) were conducted. These pre-tests also lead to the specification of the 5 seconds time restriction as a "moderate" processing constraint.

After the implementation of the conjoint task, respondents were asked to rate the original and qualified claims on their importance for animal welfare (7 point Likert scale). Finally, the survey contained questions on the involvement in animal welfare issues and socio-demographics.

Results

Below we discuss the results for study 1 (Broilers, positive qualification cues) and study 2 (Pork, negative qualification cues). For neither of the two studies, there were significant (t-test, $p < 0,05$) differences between the (average of 3 items, Cronbach $\alpha = 0,69$) in the four conditions of the conjoint design.

Study 1: Animal welfare claims for broilers

Table 1 below show respondents average ratings of the 6 original and 6 qualified claims as regards the animal welfare of broilers. As indicated in table 1 the average scores for all criteria are above 4, and four of the qualified claims score significantly higher on animal

[1] Only respondents who reported to buy and eat chicken respectively pork on a regular basis were included

welfare compared to the corresponding original claims. For the two remaining claims, there were no significant differences.

Table 1. Average ratings (n=1420) of welfare for original and qualified claims

Original claim	*20 % more space*	*Bred in smaller flock*	*Seasoned with wind & weather*	*Manual catch*	*Max 1,5 h. drive to kill*	*Vet control kill*
Qualification	*16 cp. to 20 per m²*	*4.800 cp. to 40.000*	*Access to free range*	*8 times less injury*	*Law says: max 12 h.*	*Demanded by the Law*
Animal welfare	4,47	4,52 *	4,15 *	4,35 *	4,29 *	4,05
	4,40	4,74	4,87	4,72	4,56	4,00

* Significant (t-test, $\alpha < 0,05$) differences between average ratings of original and qualified claims

For each of the four conditions in the conjoint design, three LMM models (one without and two with mediators: taste and healthiness) for the effects on buying intention were estimated. Table 2 below show the coefficients (fixed[2]) for each of the four conditions and each of the three models. That the effect (0,36) of 'Claim' on buying intention is significantly larger (t-test, $p < 0,05$), in the WQ/WOT (model 1.1) condition as compared to the effect (0,23) in the WQ/WT (model 2.1) condition supports H1. As it is only for mediation with taste (and not for health) that the effect (1,33) on buying intention, in the WQ/WOT (model 1.2) is significantly larger (t-test, $p < 0,05$) compared to the corresponding effects in the other conditions, H3 is only partly supported.

[2] Assumed to be constant across participants as recommended by Baron & Kenny (1986)

Table 2. Estimates of fixed effects on buying intention (chicken) as dependent variable (n=1420)

		Attributes				*Mediators*
Condition[1)]	*Explained Variance*[2)]	Inter-Cept	Product (whole)	Price (High)	Origin (DK)	Claim (Yes)	
WOQ/WT(n=356)							
1.1 No mediation	0,23	4,08	-0,24	-0,68	0,16	0,36[a]	-
1.2 Taste	0,27	1,33	-0,25	-0,76	*0,08*[*]	0,18[*a]	1,33
1.3 Health	0,27	1,48	-0,23	-0,74	0,09[*]	0,20[*a]	0,58
WQ/WT(n=356)							
2.1 No mediation	0,32	3,98	-0,17	-0,26	0,11	0,23[b]	-
2.2 Taste	0,42	0,65	-0,16	-0,44[*]	*0,05*[*]	*0,06*[*b]	0,78
2.3 Health	0,37	0,70	-0,14	-0,41[*]	*0,05*[*]	0,09[*b]	0,75
WOQ/WOT(n=359)							
3.1 No mediation	0,24	4,06	-0,35	-0,63	0,22	0,20[b]	-
3.2 Taste	0,29	1,26	-0,35	-0,72	0,12 [*]	0,10[*b]	0,65
3.3 Health	0,25	1,40	-0,32	-0,71	0,13[*]	0,11[*b]	0,60
WOQ/WT(n=359)							
4.1 No mediation	0,25	4,04	-0,20	-0,33	0,19	0,20[b]	-
4.2 Taste	0,35	1,11	-0,24	-0,45[*]	0,08[*]	0,11[*b]	0,69
4.3 Health	0,29	1,22	-0,20	-0,43[*]	0,10[*]	0,13[*b]	0,75

WQ = With qualification, WOQ = Without qualification WT = Time restriction, WOT = No time restriction. 2) Explained variance is the percentage drop in within-participants variance compared to the null-model (for the no mediation models) and to the no mediation models (the AW, Taste and Health models). Non-cero (t-test, $\alpha < 0,05$) coefficients are italicized. Coefficients representing significant (t-test, $\alpha < 0,05$) differences between mediated and unmediated models are supplied with different small cap letters. Finally, to indicate attenuation impacts, the conjoint coefficients in the mediated models, which are significantly (t-test, $\alpha < 0,05$) different from the corresponding coefficients in the non-mediated models, are indicated by a superscript asterisk.

Study 2: Animal welfare claims for pork products

Table 3 below show respondents average ratings of the 6 original and 6 qualified claims as regards the animal welfare of pork products. As indicated in table 3, five of the qualified claims score significantly lower on animal welfare compared to the corresponding original claims. For the remaining claim, there was no significant difference.

Table 3. Average ratings (n=1168) of Pork welfare for original and qualified claims

Original Claim	*Raised by mother*	*Piglets protected*	*Free life*	*30% more space*	*Natural life*	*No electric chocks*
Qualification	*Removed after 4 weeks*	*Mother cannot lay down*	*Access to outdoors*	*Equals 0,15 m^2 per pig*	*In stable*	*But use of strokes (or tools)*
Original	4,45	3,68	5,13	4,39	4,99	3,95
Qualified	3,99*	2,99*	5,25	3,73*	4,48*	3,48*

* Significant (t-test, $\alpha < 0,05$) differences between average ratings of original and qualified claims

Table 4 below show the coefficients (fixed[3]) for each of the four conditions and each of the three models. That the effect (0,12) of 'Claim' on buying intention is significantly (t-test, $p < 0,05$) lower in the WQ/WT (model 2.1) condition as compared to the corresponding effect (0,19) in the WQ/WOT (model 1.1) condition indicates that H2 is supported.

[3] Assumed to be constant across participants as recommended by Baron & Kenny (1986)

Table 4. Estimates of fixed effects using buying intention (Pork) as dependent variable (n=1168)

		Attributes					*Mediators*
		Inter-Cept	Product (Chops)	Price (High)	Origin (DK)	Claim (Yes)	
Condition[1)]	*Explained Variance*[2)]						
WQ/WOT(n=321)							
1.1 Attributes	0,28	3,61	*-0,01*	-0,52	0,28	0,19	-
1.2 Taste	0,32	0,78	*-0,05*	-0,62	0,16	*0,04* [a]	0,71
1.3 Health	0,36	0,56	*-0,09*	-0,59	0,20	*0,05* [a]	0,80
WQ/WT(n=321)							
2.1 Attributes	0,35	3,74	*0,00*	-0,31	0,21	0,12	-
2.2 Taste	0,44	0,55	*-0,04*	-0,45	0,11	*-0,02* [a]	0,79
2.3 Health	0,38	0,74	*-0,05*	-0,39	0,12	*0,01* [a]	0,78
WOQ/WOT(n=313)							
3.1 Attributes	0,23	3,60	*0,04*	-0,53	0,35	0,24	-
3.2 Taste	0,35	0,60	*0,00*	-0,65	0,20	*0,02* [a]	0,76
3.3 Health	0,32	0,72	*-0,03*	-0,59	0,23	*0,08* [a]	0,76
WOQ/WT(n=313)							
4.1 Attributes	0,27	3,53	*0,04*	-0,30	0,31	0,24	-
4.2 Taste	0,33	0,88	*0,00*	-0,45	0,17	*0,06* [a]	0,69
4.3 Health	0,34	0,75	*-0,02*	-0,41	0,19	*0,08* [a]	0,75

WQ = With qualification, WOQ = Without qualification WT = Time restriction, WOT = No time restriction, 2) Explained variance is the percentage drop in within-participants variance compared to the null-model (for the no mediation models) and to the no mediation models (the AW, Taste and Health models). Non-cero (t-test, $\alpha < 0,05$) coefficients are italicized. Coefficients representing significant (t-test, $\alpha < 0,05$) differences between mediated and unmediated models are supplied with different small cap letters. Finally, to indicate attenuation impacts, the conjoint coefficients in the mediated models, which are significantly (t-test, $\alpha < 0,05$) different from the corresponding coefficients in the non-mediated models, are indicated by a superscript asterisk.

Conclusion

Together the two studies reported in this paper supports H1 and H2, i.e. that compared to original production statements, positive qualification cues lead to higher purchase intentions in unconstrained, but not in constrained processing situations; whereas negative qualification cues lead to lower purchase intentions in (moderately) constrained, but not in unconstrained processing situations. The results also (partly) support H3, i.e. that positive qualification cues reinforce the effects of non-advertised attributes on buying intentions, in unconstrained, but not in constrained processing situations. However, other non-advertised attributes, which are not included in the study, may also have such effects.

All in all the study described above support the position that moderate constraints, i.e., such that allow for a minimum of conscious processing, may improve the quality of consumer

deliberations (cf. Suri & Monroe, 2003). Moreover, as most consumer buying decisions, and in particular those for foods and other FMCGs, are characterized by processing constraints, it is not possible to reject that the provisioning of additional information may sometimes work to hinder deception. Thus, although the findings reported here are only a first step towards a better understanding of when and how the use of claim qualifications may be used to mitigate deception, they do under-score the position that it is premature to reject the use of qualifications and disclosures as an instrument for the mitigation of advertising deception.

References

Armstrong, Gary M., Brucks, Merrie, Gurol, Metin N. and Russ, Frederick A. (1980). "Defining and Measuring Deception in Advertising: A Review and Evaluation,". *Current Issues & Research in Advertising*, 3: 17–39.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.

Berry, C., Burton, S. & Howlett, E. (2017) *J. of the Acad. Mark. Sci.,*45: 698.

Bubb, R. (2015). Tmi: Why the optimal architecture of disclosure remains tbd. *Michigan Law Review* 113(6), 1021-1042.

Chen, S., & Chaiken, S. (1999). The heuristic-systematic model in its broader context. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 73-96). New York, NY, US: Guilford Press.

Grunert, Klaus G., & Dedler, Konrad. (1985). Misleading Advertising: In Search of a Measurement Methodology. *Journal of Public Policy & Marketing*, 4, 153-165.

Hastak, & Mazis, Michael B. (2011). Deception by Implication: A Typology of Truthful but Misleading Advertising and Labeling Claims. *Journal of Public Policy & Marketing*, 30(2), 157-167.

Isaac, M. & Poor (2016) The sleeper framing effect: the influence of frame valence on immediate and retrospective judgments**.** *J. Consum. Psychol.,* 26 (1) , pp. 53-65

Suri, R., & Monroe, K. (2003). The Effects of Time Constraints on Consumers' Judgments of Prices and Products. *Journal of Consumer Research, 30*(1), 92-104.