

This item is the archived peer-reviewed author-version of:

The influence of gender on the effectiveness of probability markers in advertising

Reference:

Banks Ivana Busljeta, Dens Nathalie, De Pelsmacker Patrick.- The influence of gender on the effectiveness of probability markers in advertising

International journal of advertising - ISSN 0265-0487 - 35:4(2016), p. 682-705

Full text (Publishers DOI): <http://dx.doi.org/doi:10.1080/02650487.2015.1075300>

To cite this reference: <http://hdl.handle.net/10067/1316880151162165141>

The Influence of Gender on the Effectiveness of Probability Markers in Advertising

Introduction

Probability markers are specific words or phrases used to signal to which degree is it likely that a given claim or argument is true, a technique frequently used in advertising (Areni 2002). As pragmatic features that determine the linguistic style of a message, probability markers are used to modify the intended assertion of that message without actually changing the content or meaning it conveys (Holtgraves 2001, Blankenship & Craig 2011). Those markers that indicate probable truth of a claim are known as *hedges*, whereas the markers that indicate complete commitment to the truthfulness of the claim are called *pledges*. Hedges, which can be adverbs (“possibly”, “probably”), verbs (“can”, “may”, “help”), particles (“about”, “sort of”), or other expressions (“9 out of 10”, “85% of”, etc.), weaken the impact of a claim by allowing for exceptions or avoiding total commitment. Language which contains hedges is considered powerless (Bradac & Mulac 1984). Some well-known examples of hedges are the famous Carlsberg campaign (“*Probably* the best beer in the world”) and numerous drug advertisements (such as a “Nutra-Life Cold and Flu fighter *may* reduce the severity and duration of colds”). Pledges, on the other hand, examples of which also include adverbs (“definitely”, “undoubtedly”), verbs (“will”, “guarantee”), and other expressions (“have been proven to”, “you can be sure”), are absolute and signal total confidence in the truthfulness of the claim (Berney-Reddish & Areni 2005). They are considered markers of powerful language (Bradac & Mulac 1984). Examples of advertising campaigns that make use of pledges include the Absolut Vodka’s “*Absolut* Perfection” and Fed Ex’s “When it *absolutely, positively* has to be there overnight”.

Gender is one of the most often used bases for market segmentation (Darley & Smith 1995). The last couple of decades have seen an increased interest for research topics regarding

gender differences in the field of marketing, especially in marketing communications and consumer behavior (e.g., Dens et al. 2009). A number of theories, such as the Selectivity Model (Meyers-Levy & Sternthal 1991) and the Item-Specific versus Relational Processing Theory (Hunt & Einstein 1981) indicate that men and women use different processing strategies and have different preferences regarding the types of claims they choose to process, providing insights into the differences in the way that men and women approach and process promotional information, such as advertisements and advertising copy. Linguistics studies have also proven that women and men use and process language differently (e.g., Tannen 1991).

Although the relationship between language and gender is well documented, only a few studies have examined possible differences in the effects of various linguistic features of an advertising claim on male or female consumers, despite the fact that language plays an instrumental role in persuasion. One such study was conducted by Berney-Reddish and Areni (2006) on gender differences in responses to probability markers (words such as “probably” and “definitely”, which signal the likelihood of the truthfulness of a claim) in advertising. They found negative effects of usage of both hedges and pledges on advertising claim acceptance, and the effects were more pronounced for women than for men (2006). The present paper builds upon Berney-Reddish and Areni’s findings by re-testing their main postulates for both products and services, and by introducing several possible moderators, such as brand familiarity (new vs. familiar brand), purchase decision involvement (low vs. high), and buying motivation (utilitarian vs. hedonic) to the relationship between the use of probability markers and the effectiveness of an advertising claim for men and women. While Berney-Reddish and Areni based their study on stimuli that consisted only of the advertising claim, written in plain black letters on a white background, and examined claim acceptance as a dependent variable, in our research we use full advertisements to more closely resemble a

natural processing environment. Such stimuli enable us to examine, in addition to claim persuasiveness, two more dependent variables – brand attitude and purchase intention.

The research consists of two studies in which advertisements using different types of probability markers (hedge, pledge, no probability marker) are tested with a sample of men and women. In the first study probability markers, brand familiarity, and involvement are manipulated in ads for physical products. Study 2 aims to extend the results of the first study by focusing on services, and adding the buying motivation (hedonic vs. utilitarian) dimension. Both studies were conducted in Belgium with different samples of young participants.

Gender Differences in Response to Probability Markers in Advertising

The Selectivity Model. According to the Selectivity Model (Meyers-Levy & Sternthal 1991), women tend to process information and form judgments comprehensively, taking into account all the available cues, assigning equal importance to information relevant to themselves and to others, and exhibiting great sensitivity to detail and all relevant information. Women encode a greater number of claims than men do and process each of the claims more extensively (Darley & Smith 1995). In other words, women could be considered as more systematic (central) processors. Men most often do not use comprehensive processing of all available information when forming judgments. They instead tend to make use of heuristic (peripheral) processing, relying on a highly available, salient single cue or subset of cues.

Item-Specific vs. Relational Processing theory. Some cognitive psychologists (e.g., Hunt & Einstein 1981) distinguish between relational and item-specific processing, rather than heuristic (peripheral) and systematic (central). Relational processing occurs in situations in which people receive a number of similar cues, and relies on emphasizing similarities among these cues. Since women are considered to be relationship-driven, cooperative and communal,

researchers have concluded that it is more likely for them to engage in relational processing than it would be for men (Folse et al. 2012; Putrevu 2004, 2001). The other type of processing, according to this classification, is item-specific processing. This type is more likely to occur when one must process multiple contextually unrelated message cues and, instead of applying relational processing strategies, focuses on individual, message- or item-specific attributes. Men are believed to rely on item-specific processing more often than on relational processing, focusing only on those attributes that affect them directly, as they are considered to be mainly concerned with self-relevant, agentic goals (Folse et al. 2012; Putrevu 2004, 2001).

Based on the Selectivity Model and the Item-Specific vs. Relational Processing theory, which both predict women's tendency for systematic and relational processing and men's preference for single heuristic cues, as well as on the fact that language power has been empirically proven to act as a peripheral (heuristic) cue (Sparks & Areni 2008), we expect that probability markers will have a greater impact on the responses of men than women. Additionally, men are also expected to respond differently to hedges and pledges. Although men generally use powerful language more frequently, while women tend to use more tentative, powerless language (Bradac & Mulac 1984), studies have shown that both genders are more easily persuaded when the message content is communicated in a language style more appropriate to the opposite gender's typical usage (Sistrunk & McDavid 1971). More specifically, Carli (1990) found that women who use powerless language in an attempt to persuade men are considered more likeable and can influence men better than women who use more powerful language. Her results were confirmed by a considerable number of other studies, such as Reid et al. (2009), which also posits that women, on the other hand, will be more easily persuaded by women who use powerful language than by women who use powerless language, i.e. by the opposite gender's vernacular, regardless of the gender of the

speaker. It, therefore, seems that, regardless of the speaker's gender, men and women might be more easily persuaded by the linguistic style associated with the opposite gender.

According to the Psychological Reactance Theory, when people are faced with a threat to their behavioral freedom, they become motivationally aroused against further loss of freedom and towards the re-establishment of the freedom that has already been lost (Brehm 1966). Previous research adopting this theory in communication science has found that assertive messages (and the use of pledges in an advertising claim would definitely characterize it as assertive) generally reduce consumer compliance (Dillard & Shen 2005; Lord 1994). Moreover, men are less likely than women to rely on the opinions of others in making a judgment (Meyers-Levy 1998), and have been described as more risk-seeking and competitive than women (Areni & Kiecker 1993; Tannen 1991). We, therefore, predict that men will show higher preference for hedges and will dislike pledges the most. When exposed to an advertising claim containing powerful language (i.e. a pledge), men might feel the need to compete against the claim in such an ad, as it does not give them sufficient opportunity to make up their own, self-generated information. Resisting another person's definite claim, they would in turn also resist the entire advertisement containing it. Based on these theories and arguments, we expect the following:

H1a: For men, the use of hedges in advertising will result in the most positive claim persuasiveness, brand attitude, and purchase intention, compared to the pledge and no probability marker conditions.

H1b: For women, the use of probability markers (either hedges or pledges) in advertising will have less of an impact on claim persuasiveness, brand attitude, and purchase intention, when compared to advertisements without probability markers, than it does for men.

Purchase decision involvement as a moderator. As we have already mentioned, language power has been empirically proven to act as a heuristic cue (Areni 2003; Sparks & Areni 2008). Studies have shown, for example, that the impact of language power is more prominent in audio or video stimuli, where the ability for central processing is reduced and recipients rely largely on peripheral cues, than in written stimuli (Blankenship & Holtgraves 2005; Sparks, Areni & Cox 1998). While low involvement heuristic processing effects have been documented in the past, it is unclear from extant literature in which way do probability markers influence ad effectiveness in situations of high involvement. In situations of low involvement or elaboration, previous studies agree that language power acts as a simple heuristic cue.

When elaboration (or involvement) is high, however, language power can either act as a persuasive argument, bias attitude-relevant processing, or influence the perceived validity of thoughts by the receiver (Bradac & Mulac 1984; Sparks & Areni 2008; Blankenship & Craig 2011). The direction of the impact of language power on persuasion in high involvement or elaboration conditions is also not clear. Pledges could be considered as an element of argument strength, which has been shown to positively influence persuasion under high elaboration. Powerless language in high-elaboration situation, for example, might leave the impression that the communicator lacks confidence in his/her arguments (Bradac & Mulac 1984) and increase recipients motivation to counter-argue (Sparks & Areni 2002), but it can also be distracting, increase susceptibility to later persuasion, and disrupt the perceived strength of the message, making a weak argument seem less weak (Blankenship & Craig 2011). Most empirical studies to date, however, agree that language power in general, and more specifically probability markers, primarily and most effectively act as a peripheral cue (Areni 2003; Blankenship & Holtgraves 2005; Sparks & Areni 2008; Sparks, Areni & Cox 1998). It can, therefore, be assumed that involvement influences the effectiveness of

probability markers used in advertising, namely, that the impact of probability markers is greater in low than in high involvement situations. This assumption finds support in previous studies (e.g., Bušljeta Banks & De Pelsmacker 2013b).

There is no reason to expect that the introduction of gender as a moderator would negate the influence of involvement. The expected differences between men and women posited in the Selectivity Theory are expected to disappear in situations in which the higher comprehensive elaboration threshold attributed to men (Meyers-Levy & Sternthal 1991) is reached and surpassed, i.e. when high involvement motivates men to engage into comprehensive processing as well (Darley & Smith 1995).

H2a: For men, probability markers in advertising will more strongly impact claim persuasiveness, brand attitude, and purchase intention in low involvement situations than in high involvement situations.

H2b: For women, the impact of probability markers (compared to advertisements without probability markers) will be lower than for men in both high and low involvement situations.

Brand familiarity. Brand awareness of existing brands brings with it a greater degree of certainty regarding what to expect from the product of a given brand, while the expectations connected with new brands are far more uncertain. Therefore, hedges can be regarded as more congruous with new brands, while pledges are more congruous with familiar brands. Are congruous advertising claims (hedges for new brands, pledges for familiar brands) more effective than incongruous advertising claims (hedges for familiar brands, pledges for new brands)? On the one hand, based on Mandler's (1982) Incongruity Theory, one would expect that moderately incongruent stimuli lead to greater attention and can engender a positive attitude. On the other hand, incongruity also requires the devotion of cognitive capacity. Especially with new brands, where people still need to learn about the brand itself, cognitive

resources may deplete quickly (Campbell & Keller 2003), causing negative reactions if this results in overload. At the same time, consumers' processing motivation differs between new and familiar brands, and new brands are more likely to engender central processing (Dens & De Pelsmacker 2010), under which route probability markers may be of less influence.

Gender differences further complicate the issue. Since men are considered greater risk-takers than women, we might conclude that they should show greater preference than women for incongruous advertising claims. Studies show that women are generally more accepting of advertising claims (McDaniel & Kinney 1998). One might, therefore, conclude that women should show greater preference for all types of claims than men do. Studies, however, also show that women pay more attention to product information (Krugman 1966) and incongruent information (Meyers-Levy & Sternthal 1991) in advertising, as well as to subtle differences in product claims (Darley & Smith 1995). This could lead us to conclude that women might show preference for congruous claims, but from a different point of view might also result in assumptions regarding women's preference for incongruent claims. Since no unequivocal predictions can be made about the relationship between gender, brand familiarity, and the effectiveness of probability markers, we explore:

RQ: What, if any, influence does brand familiarity play on the interaction between gender of the consumer and the type of probability marker (hedge, pledge, or no probability marker) used in advertising claims on claim persuasiveness, brand attitude, and purchase intention?

Buying motivation. The difference between the absolutistic pledge and a more conditional hedge corresponds to the categorization of buying motivation into hedonic and utilitarian. Satisfaction with a hedonic product/service relies on the sensations derived from consumption (Voss et al. 2003) and is hard to assess objectively, being dependent on personal, subjective tastes and experiences. Using pledges, and thus implying universal applicability of the

advertising claims, in ads of hedonic products/services causes consumers to question the absolute truth of the claim. Placing a claim with a hedge into a hedonic product/service advertisement, conversely, increases the perceived credibility of the advertiser (Areni 2002). Previous research (Bušljeta Banks & De Pelsmacker 2013b) indeed showed that hedges were more effective in a hedonic service context. In line with this reasoning, and consistent with H2ab, we expect that men will also prefer hedges for a hedonic product/service. The same result can be expected for women. Although we argued that women, as comprehensive processors, are not likely strongly influenced by probability markers, women do tend to elaborate on incongruent cues (Meyers-Levy & Sternthal 1991), such as matching a pledge with a hedonic product/service. This might make them more sensitive to the use of probability markers in certain cases. Particularly, women's intense processing may trigger persuasion knowledge (Friestad & Wright 1994) when pledges are being used for hedonic products/services.

Utilitarian consumption is less person-specific, enabling easier objective assessment of product/service quality and customer satisfaction. Using pledges in advertisements of utilitarian products/services, therefore, shows the advertisers' full confidence in the truthfulness of the claim (Areni 2002). A hedge in an ad for a utilitarian product/service, on the other hand, might signal that the advertiser does not stand behind the claim, weakening the claim itself, and undermining the advertiser's credibility (Berney-Reddish & Areni 2006). Women, especially, might favor pledges for utilitarian products, as they are generally risk-averse (Areni & Kiecker 1993), and pledges can serve as strong arguments, which are likely to influence judgments under central processing. Men, on the other hand, are usually described as competitive risk-takers (Areni & Kiecker 1993) who prefer to rely on their own judgments (Meyers-Levy 1998), hedges may be more effective to target men even for a utilitarian product/service advertisement, as hedges represent an opportunity to take a risk and

form their own evaluation. A pledge, on the other hand, can be considered as a challenge to their status/authority and an attempt, on the part of the advertiser, to control their opinions, which might result in a form of rebellion. Hence, we expect the following:

H3a: For men, advertisements using hedges will result in the most positive claim persuasiveness, brand attitude, and purchase intention, compared to advertisements with pledges or no probability markers, while ads with pledges will be the least effective, regardless of whether the product/service advertised is hedonic or utilitarian.

H3b: For women, ads for hedonic products/services with hedges will result in the most positive claim persuasiveness, brand attitude, and purchase intention (compared to ads with pledges or no probability markers), while for utilitarian products/services pledges will be most effective.

Study 1

The aim of the first study was to test H1a and H1b – namely, that men react better to the usage of hedges in advertising than either pledges or advertising claims without probability markers, and that women are generally much less sensitive to the usage of probability markers in advertisements. Additionally, in Study 1 we test H2a and H2b regarding the moderating role of purchase decision involvement. Finally, we explore the effect of brand familiarity by examining how the inclusion of hedges or pledges into advertising claims for new vs. existing brands impacts the effectiveness of those claims with men and women, if at all, to answer the RQ.

Pretests. The aim of the first pretest was to select two products, low and high in purchase decision involvement, as well as identify brands in these product categories with which consumers are highly familiar. The first pretest (n = 25) measured purchase decision

involvement (Vaughn 1986) for 20 products on a 7-point semantic differential scale, based on which potato chips were chosen as a low involvement ($M = 2.32$) and a digital camera as a high involvement product ($M = 5.75$, $t(24) = 10.411$, $p < .001$). Respondents were also asked to write down 3 brand names that came to mind for each product. For potato chips, 24 out of 25 respondents spontaneously mentioned Lay's (1 respondent did not write down any brands), 22 of which mentioned Lay's as the top-of-mind brand. For digital cameras, 15 respondents wrote down Sony, 8 of which listed Sony as the first brand. For the "new brand" conditions, we invented two fictitious brand names (Roberts potato chips and Pixcam digital cameras). In a second pretest ($n = 25$), we verified the brand familiarity of the brands by measuring brand recognition. For potato chips, 24 out of 25 respondents indicated they had heard of Lay's before, while none of the respondents had heard of our fictitious brand Roberts before. For digital cameras, 23 respondents indicated they knew Sony, whereas 3 respondents wrongfully thought Pixcam already existed.

Once the product categories and brand names were chosen, two versions of advertisements were drafted, one for potato chips and one for a digital camera. Apart from the brand name and the product category featured in the ads, all other elements were kept identical between the two advertisements to minimize the impact of potential confounds. The advertising copy used in these two ads did not include probability markers. The two ads were then pre-tested (using the Madden, Allen & Twible's (1988) scale) to confirm that they did not differ significantly on ad liking ($t(24) = 1.608$, $p = .121$). Advertising claims with probability markers were subsequently added to the existing ads.

Main experiment. A 3 (probability marker: hedge, pledge, no probability marker) x 2 (brand familiarity: new, familiar brand) x 2 (product category involvement: low, high) x 2 (respondent gender: male, female) full factorial between-subjects experiment was designed. The first three

factors (probability marker, brand familiarity and involvement) were manipulated in the design, resulting in 12 different ads. The fourth factor for further analyses, gender, was measured at the end of the questionnaire. To avoid confounds of other ad elements than those manipulated, the advertisements were kept very simple and the image and lay-out were kept constant and identical for all conditions. Only the necessary elements were manipulated – brand name, product depiction, and probability marker (“possibly” for the hedge condition, and “without a doubt” for the pledge condition) (Table 1).

Product	Probability Marker	Advertising copy (English translation)
Potato chips	no pm	The best potato chips in the market!
	hedge	Possibly the best potato chips in the market!
	pledge	Without a doubt the best potato chips in the market!
Digital cameras	no pm	The best digital cameras in the market!
	hedge	Possibly the best digital cameras in the market!
	pledge	Without a doubt the best digital cameras in the market!

Table 1. Probability marker manipulations for Study 1

Sample. The study was conducted in Belgium. The Belgian society has previously been used as a fitting population for obtaining internationally relevant results, especially in gender studies (e.g. Dens, De Pelsmacker & Janssens, 2009; Van Hellefont & Van den Bulck 2012). Belgium is a country of just over 11 million inhabitants, and is a cultural and political center of the European Union, with Brussels being considered the unofficial capital of the EU as the seat of the European Parliament. Belgium is a small open economy centrally located in Western Europe, and has historically been subjected to influences from many other cultures. It

is at the crossroads of the Latin culture and the German and Nordic culture, in a strongly internationalized economy where companies share a level-playing field, because of the absence of strong national brands. Popular television (sitcoms, reality shows, game show formulas, etc.), movies (all major blockbusters) and music (charts and video clips) are dominated by American productions (e.g. De Bens & de Smaele 2001). Consequently, the Belgian advertising and consumer market has in many aspects a profile similar to that of the European Union (EU) (Dens et al. 2009). Belgium, thus, provides an appropriate population, from which internationally relevant conclusions and managerial implications can be made.

A snowball sample of 638 Belgians was collected via an online survey. The link to the survey was first emailed to students enrolled in a Marketing class, together with a request to forward the link to their recipients' contacts. In the sample, 53.1% of the respondents were female, the average age was 27. A comparison was made with the Belgian national demographic data obtained from Eurostat (www.epp.eurostat.europa.eu), which showed that the gender structure of the sample does not differ statistically from the gender structure of the entire Belgian population ($X^2(1) = 1.321$, $p = .250$). The sample over-represents relatively highly educated and younger people. This group is an interesting segment for many products, including the ones under study, as generation Y consumers constitute a vast group (approximately 74 million) with very high buying power (Holbrook, 2000; Nowak et al., 2006). Since probability markers are used in advertising for all types of products and target groups (Busljeta Banks & De Pelsmacker 2013a), the sample is relevant for this study. Moreover, the two product categories used in this study are relevant to young people.

Respondents were asked to participate in an advertising research study and were randomly assigned to conditions. They first rated their purchase decision involvement with the test product category (Vaughn 1986) ($\alpha = .896$), and indicated whether they knew the test brand (yes-no). They then saw one of the 12 test ads, after which they completed a

questionnaire measuring the persuasiveness of the advertising claim (Pers) (4 items, e.g., not very convincing – very convincing, not very decisive – very decisive, $\alpha = .862$), the respondents' attitude toward the advertised brand (Ab) (6 items, e.g., bad – good, low quality – high quality, $\alpha = .974$) and purchase intention (Pi) (It is very likely that I will buy (brand) (product), The next time I need (product), I will choose (brand), I will definitely try (brand) (product), $\alpha = .907$) on 7 point scales.

Manipulation checks. Just as in the pretest, potato chips ($M = 2.02$) scored significantly lower in purchase decision involvement than digital cameras ($M = 5.22$, $t(636) = 34.447$, $p < .001$). The difference in brand awareness between the new and familiar brand names was also highly significant (1.2% vs. 89.8%, $\chi^2(1) < .000$, $p < .001$). The probability marker manipulation was not tested in the main study to avoid unduly overestimated effects on the dependent variables.

Results. An initial 3 (probability marker: hedge, pledge, no probability marker) x 2 (gender: male or female) MANOVA was conducted, with claim persuasiveness, attitude towards the brand and purchase intention (Pers, Ab, Pi) as the dependent variables, to test H1a and H1b. The main effects of gender ($p = .922$) and probability marker usage ($p = .603$) were not significant. The MANOVA showed a significant multivariate effect of the interaction between the use of a probability marker in the advertisement and the gender of the respondent (Wilks' Lambda = 0.958, $F(4, 467) = 3.285$, $p = .003$). As expected, univariate testing found a significant impact of the gender x probability marker interaction for Pers ($F(2, 467) = 4.939$, $p = 0.008$), Ab ($F(2, 467) = 4.559$, $p = .011$), and Pi ($F(2, 474) = 6.836$, $p < .001$). In the case of female respondents, no significant differences (all $p > .281$) are found between the three probability marker conditions, neither for Pers (hedge $M = 2.79$, pledge $M = 2.97$, no

probability marker $M = 2.99$), Ab (hedge $M = 4.17$, pledge $M = 4.41$, no probability marker $M = 4.37$), nor Pi (hedge $M = 2.92$, pledge $M = 3.06$, no probability marker $M = 3.28$), supporting H1b. A Bonferroni post-hoc test shows, as expected by H1a and presented in Figure 1, a preference of men for hedges (Pers $M = 3.01$, Ab $M = 4.66$) over pledges (Pers $M = 2.58$, Ab $M = 4.07$; Pers $p = 0.086$, Ab $p = .042$) and a pronounced preference for hedges over the no probability marker condition (Pers $M = 2.42$, Ab $M = 4.11$; Pers $p = .008$, Ab $p = .052$), with regards to claim persuasiveness and brand attitude. The results are similar for purchase intention. For men advertisements with hedges result in significantly highest Pi ($M = 3.57$, $p < 0.01$), when compared to ads without probability markers ($M = 2.64$). The differences between hedges and pledges ($M = 3.08$, $p = .210$) or pledges and the no probability marker conditions ($p = .278$) were not significant for Pi.

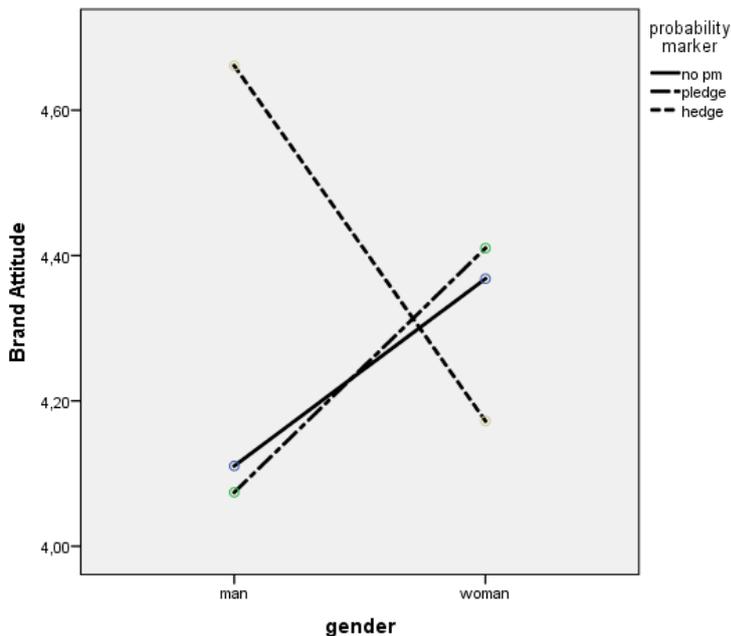


Figure 1. Influence of the gender x probability marker interaction on Ab

Table 2: Sample size, mean and standard deviation per condition (Study 1)

Gender	Men						Women					
	Low			High			Low			High		
Purchase decision involvement	No	Pledge	Hedge	No	Pledge	Hedge	No	Pledge	Hedge	No	Pledge	Hedge
Probability marker (n)	40	34	27	43	38	35	38	52	41	34	39	47
Claim	2.613	2.27	3.315	2.244	2.513	2.800	2.737	3.029	2.664	3.279	2.885	2.915
Persuasiveness	(1.400)	(1.104)	(1.367)	(.933)	(1.1084)	(.983)	(1.319)	(1.061)	(1.106)	(1.094)	(1.112)	(1.079)
Attitude to brand	4.117	4.172	4.852	4.105	3.987	4.514	4.180	4.426	4.150	4.578	4.389	4.192
	(1.198)	(1.413)	(1.694)	(1.189)	(1.305)	(1.526)	(1.358)	(1.351)	(1.406)	(1.049)	(1.330)	(.924)
Purchase intention	2.883	3.137	3.815	2.426	2.930	3.324	3.439	3.308	3.098	3.049	2.727	2.674
	(1.776)	(1.806)	(1.668)	(1.360)	(1.359)	(1.600)	(1.539)	(1.545)	(1.594)	(1.464)	(1.026)	(1.316)

Gender	Men						Women					
	Unfamiliar brand			Familiar brand			Unfamiliar brand			Familiar brand		
Brand familiarity	No	Pledge	Hedge	No	Pledge	Hedge	No	Pledge	Hedge	No	Pledge	Hedge
Probability marker (n)	45	48	25	38	27	38	38	54	56	35	37	34
Claim	2.372	2.453	2.720	2.480	2.854	3.230	2.539	2.754	2.656	3.500	3.291	3.047
Persuasiveness	(1.069)	(1.034)	(.934)	(1.328)	(1.168)	(1.299)	(1.000)	(1.068)	(.990)	(1.297)	(1.027)	(1.229)
Attitude to brand	3.474	3.490	3.493	4.864	5.243	5.450	3.697	3.698	3.696	5.118	5.450	5.005
	(.959)	(1.134)	(1.134)	(.972)	(.995)	(1.369)	(.900)	(.929)	(.909)	(1.119)	(1.577)	(1.087)
Purchase intention	2.037	2.465	2.440	3.368	4.153	4.279	2.588	2.543	2.446	4.000	3.811	3.615
	(.980)	(1.266)	(1.220)	(1.847)	(1.557)	(1.460)	(1.167)	(1.076)	(1.220)	(1.506)	(1.420)	(1.561)

Note: Figures between brackets represent standard deviations

With regards to H2a and H2b, the results of a 3 (probability marker: hedge, pledge, no marker) x 2 (gender: male, female) x 2 (involvement: low, high) MANOVAs on Pers, Ab, and Pi shows no significant three-way interaction of involvement x gender x probability marker ($p = .721$). Univariate ANOVAs support the results of multivariate testing (Pers $p = .173$, Ab $p = .889$, Pi $p = .816$) – for full results see Table 2. The 3 (probability marker) x 2 (gender) x 2 (brand familiarity: new, familiar) MANOVA conducted to answer the RQ shows that the three-way interaction was also not significant ($p = .499$), with univariate test confirming lack of a significant impact on Pers ($p = .156$), Ab ($p = .307$), and Pi ($p = .465$). These results indicate that the differential impact of probability markers between men and women is not further moderated by whether the advertised brand is familiar or not, or by whether the product category is highly or lowly involving. Thus, no support is found for H2a and H2b. The answer to RQ is that brand familiarity does not moderate the responses of men and women to different types of probability markers (Table 3.).

		<i>Wilks'</i> λ	<i>F-value</i>	<i>p-value</i>	<i>Supported</i> ?
H1ab	gender	1.000	.081	.922	yes
	probability marker	.994	.684	.603	
	gender * probability marker	.958	3.285	.003	
H2ab	gender	.999	.147	.863	no
	probability marker	.993	.778	.539	
	involvement	.972	6.435	.002	
	gender * probability marker	.962	4.437	.001	
	involvement * gender	.993	1.617	.200	
	involvement * probability marker	.995	.594	.667	
	involvement * gender * probability marker	.992	.612	.721	
RQ	gender	.997	.593	.553	no impact found
	probability marker	.992	.908	.458	
	brand familiarity	.621	139.080	<.001	
	gender * probability marker	.976	2.769	.026	
	brand familiarity * gender	.996	.989	.373	
	brand familiarity * probability marker	.995	.566	.687	
	brand familiarity * gender * probability marker	.988	.894	.499	

Table 3. Overview of Study 1 MANOVA results

Discussion. The results of the study show a significant impact of gender as a moderator of probability marker effectiveness. As expected, men are more strongly affected by the use of probability markers in advertising than women, and they show a significant preference for hedges. For women, the differences between the levels of advertising claim persuasiveness, brand attitude, and purchase intention for the three manipulation conditions (no probability marker, hedge, pledge) are not significant. Women, in other words, are virtually unaffected by the presence or absence of a probability marker in advertising copy. Brand familiarity does not seem to have any impact on the effects of probability markers for either gender. While the results of Study 1 also show no significant impact of involvement on the interaction of probability markers and gender, these results could be confounded by the fact that we only test one low involvement hedonic product (potato chips) and one high involvement utilitarian product (digital camera). These products represent two quadrants of the Rossiter-Percy Grid (Bergkvist & Rossiter 2008; Rossiter & Percy 1997). Previous studies have shown the moderating impact of buying motivation (hedonic or utilitarian) on the effectiveness of advertising claims containing probability markers (Bušljeta Banks & De Pelsmacker 2013b). These considerations lead us to Study 2.

Study 2

The main goal of Study 2 is to disentangle the effects of buying motivation and product category involvement, by manipulating all four quadrants of the Rossiter-Percy Grid. Specifically, we test the predictions made in H2a and H2b – that men will be more sensitive to the impact of probability markers in low involvement cases than in high involvement, and that women will remain less sensitive to probability markers in advertising claims, regardless of involvement. We also test whether for men hedges in advertising copy will result in highest levels of persuasiveness, attitude toward the brand, and purchase intention, while

pledges will result in the lowest levels, regardless of buying motivation, as H3a posits, as well as the claim of H3b that for women the combinations of advertising claims that incorporate hedges with an ad for a hedonic product or service and of claims containing pledges with advertisements for utilitarian products or services will be the most effective. Second, we wish to test the robustness of the probability marker x gender interaction results of Study 1 in the context of services. As the previous study shows no significant impact of brand familiarity on the probability marker x gender interaction, this manipulation was left out in Study 2. Instead, the four brands chosen (one for each quadrant) were all fictitious brand names, to avoid the potential confound of pre-existing brand attitude.

Pretests. Two pretests were conducted on a convenience sample of business students. The first pretest was designed to flesh out the appropriate services to include in the study ($n = 48$). Sixteen services were tested on a 7-point scale (1 = low, 7 = high) for the level of product category involvement (Zaichkowsky 1994) and on a 5-point scale (1 = totally utilitarian, 5 = totally hedonic) for the degree to which each of the services was either hedonic or utilitarian in nature (Voss, Spangenberg & Grohmann 2003). The results showed that graduate school was the best option for a utilitarian ($M = 2.04$) high-involvement ($M = 6.37$) service, a copy/printing shop for a utilitarian ($M = 1.40$) low-involvement ($M = 3.45$) service, a bar for a hedonic ($M = 4.83$) high-involvement ($M = 5.59$) service, and a sandwich shop for a hedonic ($M = 3.64$) low-involvement ($M = 3.83$) service. The significant differences on both dimensions between the services were verified by a t-test ($p < .05$).

Four ads were created first, one for each service, containing no probability markers. Since ad likeability is a potential confound, the second pretest ($n = 27$) was conducted to confirm that there were no significant differences in ad liking (Madden, Allen & Twible 1988) between the four ads ($F(3, 26) = 1.874, p = .141$).

Main experiment. A 3 (probability marker: hedge, pledge, no probability marker) x 2 (buying motivation: hedonic, utilitarian) x 2 (product category involvement: high, low) x 2 (gender: male, female) between-subjects experiment was carried out to test the hypotheses. The product categories and basic ad layouts were selected based on the pretest mentioned above. For each of the four products, three versions of the ads were created, containing either a hedge or a pledge or no probability marker (for all advertising claims used, see Table 4), resulting in 12 ads.

Product	Marker	Advertising copy (English translation)
Bar	no pm	Come... Relax... Have fun
	hedge	Come... Relax... You might have fun
	pledge	Come... Relax... You will definitely have fun
Copy/print	no pm	Best quality copies in town
Shop	hedge	Probably the best quality copies in town
	pledge	Definitely the best quality copies in town
Graduate school	no pm	Reach your career goals with an MBA from International Business School
	hedge	An MBA from International Business School might help you reach your career goals
	pledge	An MBA from International Business School guarantees you will reach your career goals
Sandwich Shop	no pm	Come to Tace Tee's – your taste buds will thank you!
	hedge	Come to Tace Tee's – your taste buds might thank you!
	pledge	Come to Tace Tee's – we guarantee your taste buds will thank you!

Table 4. Probability marker manipulations for Study 2

Sample. The survey was e-mailed to approximately 1800 students from two major Belgian universities. Ultimately, 343 of them responded (19%), out of which 331 were usable ($N_2 = 331$). Sample demographics show that 51.4% of the respondents were female. Again, a comparison was made with the Belgian national demographic data obtained from Eurostat (www.epp.eurostat.europa.eu), which showed that the gender structure of the sample is representative of the entire Belgian population ($X^2(1) = .033, p = .856$). The majority of the participants were from the 22 to 26 (38.4%) and the 18 to 21 (36.5%) age groups. The remainder fell into the following age groups: 20.6% under 18, 3.2% over 30, and 1.3% between 27 and 30. Again, the sample over-represents highly educated young people. All care was taken in the selection of services for the study to ensure that the services chosen were appropriate for the studied sample, namely, the original list of services that were pretested for inclusion into the study was compiled by asking a number of undergraduate and graduate students to name a few services they use regularly or had used recently. Each participant was randomly assigned to one of the twelve conditions. The respondents rated the ad they were exposed to on advertising claim persuasiveness (Pers) on a six-item, seven-point Likert scale (Pham & Avnet 2004) ($\alpha = .968$), brand attitude (Ab) on a three-item, five-point Likert scale ($\alpha = .915$) (Sengupta & Johar 2002), and purchase intention (Pi) on a four-item, five-point Likert scale ($\alpha = .939$) (Dodds, Monroe & Grewal 1991).

Results. An initial 3 (probability marker: hedge, pledge, no marker) x 2 (gender: male, female) between-subjects MANOVA was again conducted with Ab and Pi as dependent variables, to re-test H1a and H1b (for full results of all MANOVAs, see Table 5). A similar significant interaction effect between gender and probability marker as in study 1 was found (Wilks' Lambda = .959, $F(4, 326) = 2.206, p = .041$), and further confirmed by univariate tests for both Ab ($F(2, 326) = 3.324, p = .037$) and Pi ($F(2, 326) = 4.667, p = .010$); the claim

persuasiveness ANOVA was, however, not significant ($p = .464$). As represented in Figure 2, the results of Study 2, which are in line with the findings of Study 1 for both Ab and Pi, offer further support for H1a and H1b. While the results do show a significant difference between the impact of using a hedge vs. a pledge in advertising copy on purchase intention for women ($p = .035$), there are no other significant differences between conditions when the respondent is female. Quite oppositely, in cases when the respondent is male, all differences are significant (all $p < 0.20$), except for the difference between advertisements that include pledges and those without probability markers (Ab $p = .228$; Pi $p = .081$).

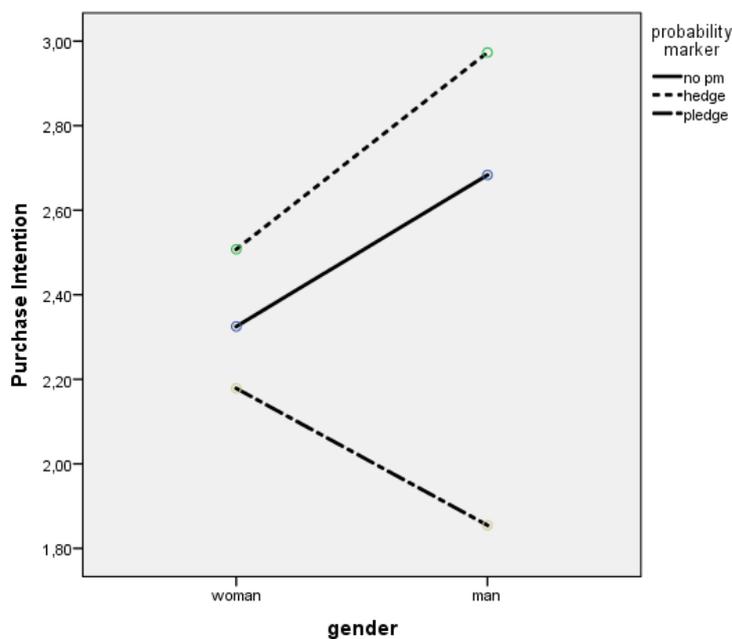


Figure 2. Influence of the gender x probability marker interaction on Pi

Further, a 3 (probability marker: hedge, pledge, no marker) x 2 (gender: male, female) x 2 (involvement: high, low) MANOVAs was conducted to re-test H2ab, as well. Unlike in Study 1, the results of Study 2 (Table 3) show a significant moderating impact of involvement on the interaction of gender and probability markers (Wilks' Lambda = .931, $F(4, 326) = 3.759$, $p = .001$). Univariate ANOVAs confirm the significant results for all three

dependent variables (Pers: $F(2, 326) = 3.545, p = .030$; Ab: $F(2, 326) = 6.988, p < .001$; Pi: $F(2, 326) = 8.935, p < .001$). More precisely, the difference in the levels of Pers, Ab, and Pi among male customers is considerably larger in the low involvement than in the high involvement cases, as can be seen in Figures 3 and 4 (for Pi). Therefore, we can conclude that H2a is supported. As expected in H2b, for women, probability markers do not have an impact on Ab or Pi in either high or low involvement situations equally (all $p > .207$). The results do, however, show that women find hedges ($M = 3.3704$) significantly more persuasive in cases of low involvement than pledges ($M = 2.1724, p = .009$).

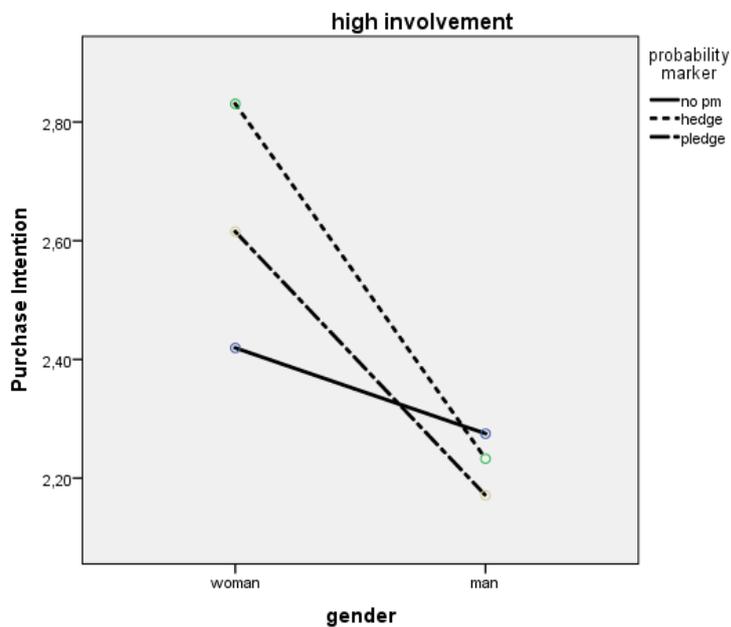


Figure 3. Influence of the gender x probability marker interaction in high involvement for Pi

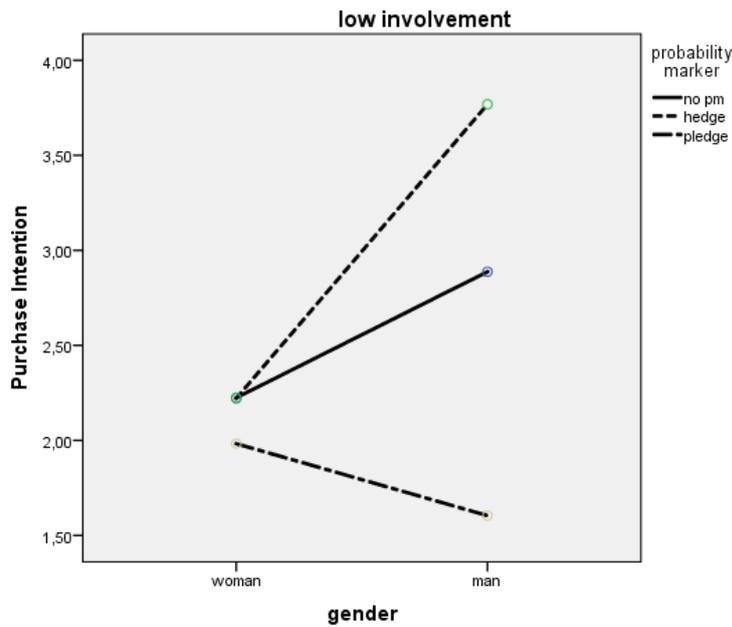


Figure 4. Influence of the gender x probability marker interaction in low involvement for Pi

		Wilks ' λ	F- value	p- value	Supported?
H1ab	gender	.992	1.296	.275	
	probability marker	.905	8.213	<.001	
	gender * probability marker	.959	2.206	.041	yes
H2ab	gender	.996	.586	.557	
	probability marker	.911	7.526	<.001	
	involvement	.918	13.936	<.001	
	gender * probability marker	.959	3.288	.011	
	involvement * gender	.926	12.473	<.001	
	involvement * probability marker	.888	9.596	<.001	
	involvement * gender * probability marker	.931	3.759	.001	yes
H3ab	gender	.983	2.701	.069	
	probability marker	.894	9.068	<.001	
	buying motivation	.951	8.109	<.001	
	gender * probability marker	.959	3.285	.011	
	buying motivation * gender	.991	1.402	.248	
	buying motivation * probability marker	.955	3.641	.006	
	buying motivation * gender * probability marker	.979	1.682	.152	partially

Table 5. Overview of Study 2 MANOVA results

The last 3 (probability marker: hedge, pledge, no marker) x 2 (gender: male, female) x 2 (buying motivation: hedonic, utilitarian) MANOVA was conducted to test the assumptions

of H3a and H3b. The results of multivariate testing show an insignificant three-way interaction of the use of probability markers in advertising copy, gender, and buying motivation, hedonic or utilitarian, (Wilks' Lambda = .979, $F(4, 326) = 1.682$, $p = .152$).

While the univariate ANOVA results show no significant influence of buying motivation on the interaction between gender of the respondent and the use of probability markers in advertising copy ($p = .217$) for Pi, there does seem to be a significant impact of buying motivation on this interaction on Pers ($F(2, 326) = 8.837$, $p < .001$), as well as a marginally significant one with regards to Ab ($F(2, 326) = 2.668$, $p = .071$). Once again, the results, represented in Figures 5 and 6, show that women are not particularly sensitive to probability markers – in the case of hedonic buying motivation, there are no significant differences in Ab between the hedge ($M = 2.63$), pledge ($M = 2.54$), and no probability marker ($M = 2.73$) conditions (all $p > .999$); for utilitarian buying motivation there is only the expected significant difference between the pledge ($M = 3.12$) and the hedge ($M = 2.35$) conditions ($p = .017$), whereas the differences between the no probability marker condition and hedges ($p = .914$) or pledges ($p = .198$) are not significant. Thus, H3b is only partially supported. Men, however, display a clear dislike of pledges, with their usage resulting in significantly lowest Ab (all $p < .030$), both in the case of hedonic ($M = 1.900$) and utilitarian ($M = 2.385$) services; the differences between the advertisements with hedges (hedonic $p = .160$, utilitarian $p = .934$) or without probability markers do not approach statistical significance. These results provide partial support for H3a.

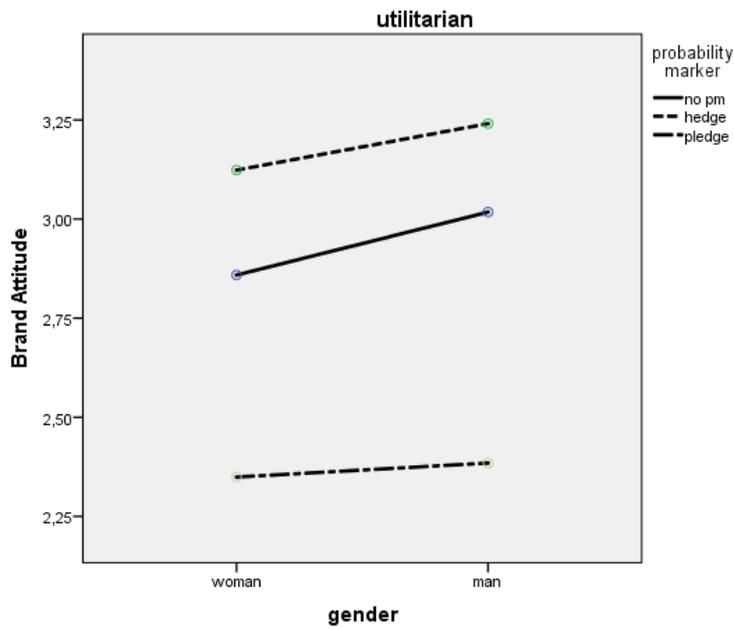


Figure 5. Influence of the gender x probability marker interaction for utilitarian buying motivation on Ab

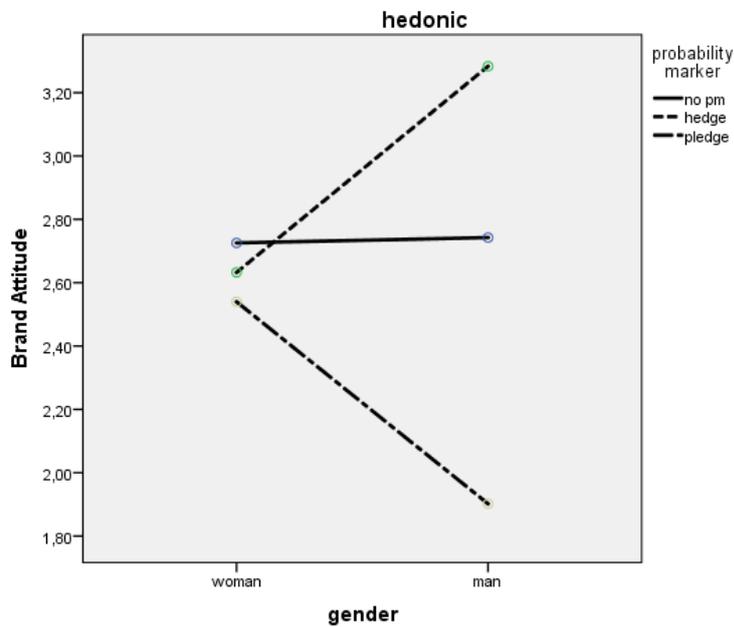


Figure 6. Influence of the gender x probability marker interaction for hedonic buying motivation on Ab

Table 6: Sample size, mean and standard deviation per condition (Study 2)

Gender	Men						Women					
	Low			High			Low			High		
Purchase decision involvement	No	Pledge	Hedge	No	Pledge	Hedge	No	Pledge	Hedge	No	Pledge	Hedge
Probability marker (n)	40	24	27	20	19	29	27	29	35	31	13	30
Claim	2.800	2.160	4.624	2.367	2.640	2.494	2.864	2.172	3.324	2.473	2.756	2.856
Persuasiveness	(.848)	(1.327)	(1.574)	(.968)	(.786)	(1.059)	(.982)	(1.294)	(2.096)	(1.006)	(1.027)	(.832)
Attitude to brand	2.875	1.7639	3.901	3.000	2.737	2.655	2.679	2.126	2.638	2.989	3.154	3.044
	(.731)	(.466)	(1.049)	(.852)	(.879)	(.838)	(.551)	(.814)	(1.282)	(.796)	(.618)	(.682)
Purchase intention	2.888	1.604	3.769	2.275	2.171	2.233	2.315	1.983	2.221	2.4194	2.615	2.783
	(.736)	(.551)	(1.291)	(.892)	(.825)	(.759)	(.876)	(.782)	(1.238)	(.900)	(.634)	(.544)

Gender	Men						Women					
	Utilitarian			Hedonic			Utilitarian			Hedonic		
Purchase decision involvement	No	Pledge	Hedge	No	Pledge	Hedge	No	Pledge	Hedge	No	Pledge	Hedge
Probability marker (n)	38	26	36	22	17	20	26	21	27	32	21	38
Claim	2.601	2.237	3.181	2.750	2.578	4.133	2.551	2.135	4.031	2.740	2.571	2.452
Persuasiveness	(.873)	(.959)	(1.509)	(.973)	(1.367)	(1.889)	(.978)	(1.038)	(1.777)	(1.034)	(1.609)	(1.181)
Attitude to brand	3.018	2.385	3.241	2.480	1.902	3.283	2.859	2.349	3.124	2.833	2.540	2.614
	(.706)	(.893)	(1.170)	(1.328)	(.643)	(1.078)	(.379)	(.93)	(1.248)	(.892)	(.859)	(.861)
Purchase intention	2.691	1.971	2.743	2.671	1.677	3.388	2.279	2.226	2.509	2.445	2.131	2.461
	(.853)	(.785)	(1.353)	(.825)	(.630)	(1.102)	(.726)	(.829)	(1.206)	(.997)	(.765)	(.869)

Note: Figures between brackets represent standard deviations

Discussion. The results of Study 2 confirm those found in Study 1. Men again display a strong preference for hedges and especially dislike pledges, while the differences fail to reach significance for women. As expected, once manipulations for all four quadrants of the Rossiter-Percy Grid are introduced, the impact of involvement becomes significant. More precisely, in conditions of low involvement, men exhibit greater variance in Pers, Ab, and Pi depending on the type of probability marker used than in conditions of high involvement. The influence of buying motivation (hedonic or utilitarian) is much less clear, with the results showing a clear significant impact of buying motivation on advertising claim persuasiveness, only a marginally significant influence on the gender x probability marker interaction with regards to Ab, and no significant impact on Pi. Since previous studies (e.g., Bušljeta Banks & De Pelsmacker 2013b) show a clear impact of buying motivation on the effects of probability markers used in advertising copy on both Ab and Pi, the question arises why gender seems to weaken this impact. Further research might be needed to clear up this issue.

Conclusion and discussion

The present study provides evidence to the claim that men, but not women, are sensitive to the use of probability markers in advertising copy, which seems contradictory to Berney-Reddish and Areni's findings that the effect of probability marker usage is more pronounced for women than for men. Specifically, we find that, regardless of their involvement with the product category, their familiarity with the advertised brand or the buying motivation (utilitarian or hedonic), men greatly prefer advertising claims containing hedges to those with pledges. Since probability markers, as signals of language power, are primarily used as peripheral cues (Sparks & Areni 2008, Areni 2003), men's tendency to rely on heuristic (Meyers-Levy & Sternthal 1991) and item-specific (Folse et al. 2012; Putrevu 2004, 2001) processing, the fact that men are more influenced by the usage of probability

markers in advertising, especially in cases of lowly-involving products or services, than women are, as is evidenced by the results of this study, seem logical. This difference in variance among men towards the use of probability markers decreases in high-involvement situations, once men surpass their comprehensive elaboration threshold, just as is predicted by Selectivity Model (Meyers-Levy & Sternthal 1991).

Women, as comprehensive processors, are much less sensitive to probability markers. This could be due to the fact that they base their evaluations of the advertisements not on one single heuristic cue (that of language power, i. e. the use of probability markers), like men seem to do, but on a holistic elaboration of all attributes of the advertisement (Folse et al. 2012; Putrevu 2004, 2001; Meyers-Levy & Sternthal 1991). The indifference of women toward the use of probability markers persisted for different levels of product category involvement, brand familiarity, and buying motivation. Just like for men, different product or brand characteristics do not seem to moderate the (in)effectiveness of probability markers in advertising, and these results are stable in a test of both products and services. The only exceptions occur in terms of claim persuasiveness. In low involvement and utilitarian buying motivation cases, probability markers do have an impact on how persuasive women find the advertising claims containing them to be (hedges are significantly more persuasive than pledges in advertising claims for lowly-involving products/services and more persuasive than either pledges or no probability marker condition in cases of utilitarian products/services). However, while in these cases women do find advertising claims more persuasive, this does not significantly impact their brand attitude or purchase intention – indeed, women seem to process the advertisement and its elements more elaborately, and base their attitude and intentions on more than just one element of the ad, even if that is the actual advertising claim. This means that the results for men and women seem to be fairly consistent, and could be generalized across other products, services and brands.

Managerial implications

In order to be able to deliver products and services that match the differing needs and wants of men and women, as well as to create promotional materials that will appeal to the targeted gender, marketers need to understand how gender differences influence information processing and the effectiveness of promotional claims. When targeting men, hedges are the best strategy and especially pledges must be avoided. Carlsberg seems to have understood that being “probably the best beer in the world” gives them an edge. Moreover, this appears to be the case, regardless of the type of service (utilitarian or hedonic) and whether the advertisement is for a new or a familiar brand. When targeting men, advertisers are therefore advised to use hedges in all these circumstances. However, when advertising generally high involvement products or services or highly involved males, this male preference for hedges disappears. Indeed, in general it seems irrelevant to use any probability marker for highly involved target groups. Probability markers primarily influence responses in low involvement situations, also for men.

Women don't seem to be influenced very much by probability markers, regardless of the type of service, their familiarity with the brand, or their involvement. Just like men, probability markers do not affect their responses when they are highly involved. But also in case of low involvement, there is no difference in the effectiveness of using a probability marker or not, regardless whether the service is hedonic or utilitarian, and whether the advertised brand is new or familiar. When catering to women, the advertising focus should be on other aspects than probability markers in the claims, as no benefit in terms of brand attitude or purchase intention can be gained by any strategizing here. Women, for example, do seem to be more influenced by warm, emotional advertising (Geuens & De Pelsmacker 1999), so a focus on visual or emotional elements may be called for. In addition, as our research

seems to support the findings that women process information more centrally (in line with e.g., Darley & Smith 1995), providing strong, objective arguments, could likely persuade them better than trying to bias their perception through the use of probability markers.

When targeting a mixed lowly involved gender audience, and probability markers are considered, hedges may be the most effective strategy. Women are not affected by them, and men clearly respond most positively to hedges in most situations. In case of a highly involved mixed audience, probability markers are not of much use, and other, more relevant message strategies should be used.

Limitations and Suggestions for Further Research

Each of the treatment conditions in both studies was represented by one product or service only. For instance, although our propositions were tested for products and services, and for hedonic and utilitarian products, there are various other ways to categorize products and services. Products can also be classified as durable or non-durable. Both goods and services can be symbolic or functional, or search versus experience products. For instance Pham et al. (2013) showed that consumers react differently to ads for search vs. experience products. Besides familiar or new, brands can also have a symbolic or a functional connotation, or they can be of lower and higher quality, or more or less prestigious...

Although our results show the conclusions seem to hold in different product category and brand conditions, future research should test the conclusions of this study using other product or service per types and different types of brands, to investigate whether results are indeed generalizable and, if not, which product category and brand characteristics moderate the responses of men and women on different types of probability markers.

In the current design, only one possible probability marker was tested as a hedge or a pledge. But hedges, for example, can convey various degrees of uncertainty (e.g., possibly

versus probably). Even for pledges, different wordings might trigger different responses, and pledges may thus vary in strength. Further research should compare the reactions of men and women to hedges and pledges of varying intensity.

In addition, as mentioned in Study 1, a potential confound existed in that the low-high involvement manipulation was confounded with buying motivation. We disentangled this potential confound in Study 2, in which the involvement effect came out very clear. However, the effects of buying motivation are hardly undisputable or clear. Further research is called for to study the effect of buying motivation more in-depth.

Since involvement was found to play an important role with regards to effectiveness of the usage of probability markers in advertising, it should also be noted that in the present studies involvement is measured as product category buying involvement. While the product and services used in the studies do differ in this involvement level, as is confirmed by the pre-test measures and the manipulation checks, the motivation of participants to process information about products in ads may also depend upon their situational involvement at the time they are exposed to the ads. It would, therefore, be interesting and valuable to test the robustness of the results found here in a study that would use situational involvement manipulation at the very time of participation.

Although the present study investigates a number of boundary conditions on the effect of probability markers towards men and women, and although relevant theoretical frameworks were used to form hypotheses and to explain the results, more work needs to be done to unravel the mechanisms behind the responses of men and women to probability markers, by investigating potential mediators, such as, for instance, the role of ad credibility, counter-arguing, evoked thoughts and psychological reactance. Additionally, the evaluative responses of consumers may partly be driven by their attitude towards the product category, or towards consuming potato chips or using a digital camera, or any other of the services we

tested. Future studies should try to overcome these limitations and consider covariates that may pick up the effect of relevant determinants of Ab and Pi other than the ones tested in the present study.

Finally, it should be noted that the results of both studies rely on a sample of young and relatively highly educated Belgian participants. Although every effort was taken to ensure that the services used in the study were appropriate for such samples, and such homogeneous samples have often been used in past studies to maximize statistical power (Berney-Reddish & Areni 2005), this comes at the cost of external validity. Additionally, although Belgium has a culturally diverse population and one of the most open economies in the world, it will definitely differ from other contexts in terms of cultural characteristics. Another interesting area to be explored is how audiences differing in cultural backgrounds and values respond differently to the use of probability markers in advertising. Generalizations of the findings of the study should, therefore, be made with caution, and additional research might be needed to strengthen the validity of the above reported results for other population contexts.

References

- Areni, C. S. (2002) "The proposition-probability model of argument structure and message acceptance," *Journal of Consumer Research*, 29 (2), pp.168-87.
- ___ (2003) "The effects of structural and grammatical variables on persuasion: an elaboration likelihood model perspective," *Psychology & Marketing*, 20 (April), pp 349-75.
- ___ & Kiecker, P. (1993) "Gender differences in competitiveness and risk aversion: theoretical foundations and some preliminary findings", in *Gender and Consumer Behavior* Volume 2, Association for Consumer Research, pp. 30-43.
- Bergkvist, L. & Rossiter, J. R. (2008) The role of ad likability in predicting an ad's campaign performance," *Journal of Advertising*, 37(2), pp. 85-97.
- Berney-Reddish, I. A. & Areni, C. S. (2006) "Sex differences in responses to probability markers in advertising claims," *Journal of Advertising*, 35(2), pp. 7-16.
- ___ & ___ (2005) "Effects of probability markers on advertising claim acceptance," *Journal of Marketing Communications*, 11(1), pp. 41-54.
- Blankenship, K. L. & Craig, T. Y. (2011) "Language use and persuasion: multiple roles for linguistics styles," *Social and Personality Psychology Compass*, 5(4), pp. 194-205.
- ___ & Holtgraves, T. (2005) "The role of different markers of linguistic powerlessness in persuasion," *Journal of Language and Social Psychology*, 24(1), pp. 3-24.
- Bradac, J. J. & Mulac, A. (1984) "Attributional consequences of powerful and powerless speech styles in a crisis-intervention context," *Journal of Language and Social Psychology*, 3(1), pp. 1-19.
- Brehm, J. W. (1966). *A theory of psychological reactance*. New York: Academic Press.
- Bušljeta Banks, I. & De Pelsmacker, P. (2013a) "An examination of the current usage of probability markers in print advertising: A content analysis," in *Advances in*

- Advertising Research (Vol. IV): The Changing Roles of Advertising, (Ed.) Rosengren, S., Dahlen, M. & Okazaki, S. pp. 299-312. Wiesbaden, Germany: Springer Gabler.
- ____ & ____ (2013b) "Involvement, tolerance for ambiguity, and type of service moderate the effectiveness of probability marker usage in service advertising," *Journal of Advertising*, forthcoming.
- Carli, L. (1990) "Gender, language, and influence," *Journal of Personality and Social Psychology*, 59(5), pp. 941-51.
- Darley, W. K. & Smith, R. E. (1995) "Gender differences in information processing strategies: An empirical test of the selectivity model in advertising response," *Journal of Advertising*, 24(1), pp. 41-56.
- De Bens, E. & de Smaele, H. (2001) "The inflow of American television fiction on European broadcasting channels revisited," *European Journal of Communication*, 16, pp. 51-76.
- Dens, N. & De Pelsmacker, P. (2010) "How advertising strategy affects brand and USP recall for new brands and extensions," *International Journal of Advertising*, 29(2), pp. 165-194.
- ____, ____ & Janssens, W. (2009) "Effects of scarcely dressed models in advertising on body esteem for Belgian men and women," *Sex Roles: A Journal of Research*, 60(5/6), pp. 366-78.
- Dillard, J. P. & Shen, L. (2005) "On the nature of reactance and its role in persuasive health communication," *Communication Monographs*, 72 (June), pp. 144-68.
- Dodds, W. B., Monroe, K. B. & Grewal, D. (1991) "The effects of price, brand, and store information on buyers' product evaluations," *Journal of Marketing Research*, 28(3), pp. 307-19.

- Folse, J. A., Moulard, J. G. & Raggio, R. D. (2012) "Psychological ownership: A social marketing advertising message appeal? Not for women," *International Journal of Advertising*, 31(2), pp. 291-315.
- Friestad, M. & Wright, P. (1994) "The Persuasion Knowledge Model: How people cope with persuasion attempts," *Journal of Consumer Research*, 21(Jun), pp. 1-31.
- Geuens, M. & De Pelsmacker, P. (1999) "Individual differences and the communication effects of different types of emotional stimuli: "Affect Intensity" revisited", *Psychology & Marketing*, 16(3), pp. 195-209.
- Hofstede, G. H., Hofstede, G. J. & Minkov, M. (2010) *Cultures and Organizations: Software for the Mind. Intercultural Cooperation and its Importance for Survival* (3rd edn), New York: McGraw-Hill.
- Holtgraves, T. M. (2001) *Language as Social Action*, New Jersey: Lawrence Erlbaum.
- Hunt, R. R. & Einstein, G. O. (1981) "Relational and item-specific information in memory," *Journal of Verbal Learning and Verbal Behavior*, 20, pp. 497-514.
- Krugman, H. E. (1966) "The measurement of advertising involvement," *Public Opinion Quarterly*, 30(4), pp. 583-96.
- Lord, K. R. (1994) "Motivating recycling behavior: A quasi-experimental investigation of message and source strategies," *Psychology and Marketing*, 11(September), pp. 341-59.
- Madden, T. J., Allen, C. T. & Twible, J. L. (1988) "Attitude toward the ad: An assessment of diverse measurement indices under different processing 'sets'," *Journal of Marketing Research*, 25(3), pp. 242-52.
- Mandler, G. (1982) "The structure of value: Accounting for taste," in *The 17th Annual Carnegie Symposium*, (Ed.) Clark, M. S. & Fiske, S. T. Hillsdale, NJ: Lawrence Erlbaum Associates.

- McDaniel, S. R. & Kinney, L. (1998) "The implications of recency and sex effects in consumer response to ambush marketing," *Psychology and Marketing*, 15(July), pp. 385-403.
- Meyers-Levy, J. (1989) "Gender differences in information processing: A selectivity interpretation," in *Cognitive and Affective Responses to Advertising*, (Ed.) Cafferate, P & Tybout, A. M., Lexington, MA: Lexington.
- ___ & Sternthal, B. (1991) "Gender differences in the use of message cues and judgments," *Journal of Marketing*, 28(February), pp. 84-96.
- Pham, M. T. & Avnet, T. (2004) "Ideals and oughts and the reliance on affect versus substance in persuasion," *Journal of Consumer Research*, 30(March), pp. 503-518.
- ___, Geuens, M., & De Pelsmacker, P. (2013) "The influence of ad-evoked feelings on brand evaluations: Empirical generalizations from consumer responses to more than 1000 TV commercials," *International Journal of Research in Marketing*,
<http://dx.doi.org/10.1016/j.ijresmar.2013.04.004>
- Putrevu, S. (2004) "Communicating with the sexes: Male and female response toward print advertisements," *Journal of Advertising*, 33(3), pp. 51-62.
- ___ (2001) "Exploring the origins and information processing differences between men and women: Implications for advertisers," *Academy of Marketing Science Review* [Online], <http://www.amsreview.org/articles/putrevu10-2001.pdf>
- Reid, S. A., Palomares, N. A., Anderson, G. L. & Bondad-Brown, B. (2009) "Gender, language, and social influence: A test of expectation states, role congruity, and self-categorization theories," *Human Communication Research*, 35(4), pp. 465-90.
- Rossiter, J. R. & Percy, L. (1997) *Advertising and Promotion Management*. New York: McGraw-Hill.

- Sengupta, J. & Johar, G. V. (2002) "Effects of inconsistent attribute information on the predictive value of product attitudes: Toward a resolution of opposing perspectives," *Journal of Consumer Research*, 29(1), pp. 39-56.
- Sparks, J. R. & Areni, C. S. (2008) "Style versus substance: Multiple roles of language power in persuasion," *Journal of Applied Social Psychology*, 38(1), pp. 37-60.
- _____, ____ (2002) "The effects of sales presentation quality and initial perceptions on persuasion: A multiple role perspective," *Journal of Business Research*, 55(June), pp. 517-28.
- _____, ____ & Cox, K. C. (1998) "An investigation of the effects of language style and communication modality on persuasion," *Communication Monographs*, 65, pp. 108-25.
- Tannen, D. (1991) *You Just Don't Understand: Women and Men in Conversation*. New York, NY: Ballantine Books.
- Van Hellefont, C. & Van den Bulck, H. (2012) "Impacts of advertisements that are unfriendly to women and men," *International Journal of Advertising*, 31(3), pp. 623-56.
- Vaughn, R. (1986) "How advertising works: A planning model revisited," *Journal of Advertising Research*, 26(1), pp. 57-66.
- Voss, K. E., Spangenberg, E. & Grohmann, B. (2003) "Measuring the hedonic and utilitarian dimensions of consumer attitude," *Journal of Marketing Research*, 11, pp. 310-20.
- Zaichkowsky, J. L. (1994) "The personal involvement inventory: Reduction, revision, and application to advertising," *Journal of Advertising*, 23(4), pp. 59-70.