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How to Implement Informational and Emotional Appeal in Print Advertisements

Abstract: Advertising nudges consumers along several steps to purchase, and each step necessitates that advertisers set different objectives and message strategy. This study offers a framework for the appropriate choice of advertising appeals based on advertisers' objectives and target group demographics. The study differentiates magazine advertisements' effects for five marketing objectives along the hierarchy-of-effect model, while accounting for moderating effects of age and gender. Results show that emotional appeals are superior to informational appeals for most marketing objectives, but not for achieving integration into the evoked set. Consumers' age and gender significantly influence the effects of advertising appeals and reveal interaction effects.

Keywords: advertising effects, informational appeal, emotional appeal, age, gender

Management Slant

- Emotional appeal should be used more frequently as compare to informational appeal as it is more effective in four of the five persuasion objectives with exception of integration into evoked set.
- Emotional appeal is also very effective when advertisement objectives are to create awareness and brand liking among target audience, irrespective of gender.
- Against generally accepted belief, emotional appeal is found to exert a stronger impact on male than on female target group across the five decision phases.
- When advertiser is addressing relatively younger audience, emotional appeal has a stronger effect than informational appeal, especially in the early stages of the persuasion process.
- As marketer starts dealing with more mature target audiences, informational appeal should be preferred over emotional appeal especially if marketers' objectives are to

induce information search intention, move the brand into the evoked set or influence consumer purchase intention.

1. Introduction

Creating effective advertisements has long been a key topic in advertisement, marketing, and business research. Two elements of advertisement design—namely, informational and emotional appeals—are widely acknowledged as key determinants affecting the effects of an advertisement (Hansen, 2005; Heath, 2011).

Despite the rich literature on advertising effects, consensus on which appeal should be pursued when developing advertisements for particular marketing objectives is lacking. Many studies have attempted to explore and compare the impact of informational (or rational) and emotional appeals. Johar and Sirgy (1991) conclude that neither appeal is per se superior but that their effects depends on the specific marketing situation of the advertisement. Research has also found that the impact of appeal effects differs across different countries (Albers-Miller and Stafford, 1999), message modality (Liu and Stout, 1987) and advertisement media settings (Liu and Stout, 1987; Stafford and Day, 1995). Also not publicly available are more detailed instructions tailored to particular user groups on a specific advertisement media, such as how to implement informational and emotional appeals in print advertisements for German consumers.

Advertisements serve a wealth of marketing objectives, from creating initial product awareness to initiating purchase acts (Barry, 1987). However, prior studies using laboratory-based experimental research settings have focused on examining the effects of appeals with the “dual mediation model” (Lutz et al., 1983), whereby attitude toward the ad both directly and indirectly influences the attitude toward the brand and, thus, purchase intention. The effects on other critical but “soft” consumer decision variables, such as knowledge acquisition, brand preference, and conviction, have received limited attention (Patti et al., 2015). This study aims to explore the effects of appeals in triggering different marketing objectives.

Specifically, this study compares the effects of informational and emotional appeals of magazine advertisements on five variables: (1) closer ad examination intention, (2) information search intention, (3) positive attitude change, (4) integration into evoked set, and (5) purchase intention. These five variables serve as proxies of marketing objectives along the hierarchy-of-effects model (Lavidge and Steiner, 1961). In contrast with previous studies taking only a few selected

objectives into consideration (for a review, see Table 1), this study simultaneously includes all five advertising objectives (from building awareness to influencing purchase intention) and suggests that advertising effects should be determined in connection with advertisers' goal diversity (Vakratsas and Ambler, 1999). This study also adopts multinomial regression analysis to examine the moderating effects of consumer demographics (age and gender).

The data come from a large-scale market research initiative of the major German print media companies (Ad Impact Monitor). Whereas previous studies have drawn conclusions from smaller sample sizes, mostly with student participants (e.g., Golden and Johnson, 1983; Wei et al., 2015), and from small numbers of fictitious advertisements (e.g., Naylor et al., 2008; Ruiz and Sicilia 2004) or a few real advertisements (e.g., Laskey et al., 1995; Liu and Stout 1987), the current study benefits from a sample of 77,628 interviewees and 1,141 real ads. Use of such a large sample and a high number of real advertisements offers empirical evidence with high external validity and generalizability. Study findings are not only relevant to research but also of immediate benefit for European advertising professionals. In Germany, the magazine advertising market reached approximately €1,235.00 million in 2013 (Emarketer, 2014).

2. Theoretical basis and hypotheses

2.1 Advertising effects: Informational versus emotional appeal

Advertising appeals broadly reflect “the general tone and nature of the commercial or message” (Clow and Baack, 2005, p. 5). Two underlying message strategies are distinguished: advertisements with informational and emotional appeals (Liebermann and Flint-Goor, 1996). Research on the impact of either appeal on advertising effects abounds (e.g., Friestad and Thorson, 1986; Shao et al., 2015). Although advertisements stimulate both thought and emotions, leading to consumer choice (McKay-Nesbit et al., 2011), the degree of cognitive and affective consumer processing and behavior varies depending on the type of appeal used in a advertisement (Zarantonello et al., 2014).

Goldberg & Gorn (1987) are among the first to specify an informational-emotional dichotomy: They define thinking commercials as appealing to the rationality of the receiver by making “objective appeals.” Feeling commercials are defined as creating a mood and appealing to the emotions by relying on music or drama. In this regard, informational appeals reflect the presentation of objective and explicit product features to persuade consumers by triggering their

rationality and thus largely focus on cognitive consumer responses (Albers-Miller and Stafford, 1999). Therefore, advertisements using informational appeals typically emphasize product quality, economy, and value performance (Kotler and Armstrong, 1994). Conversely, emotional appeals aim to arouse consumers' emotional and affective responses by presenting images of implicit product features (Albers-Miller and Stafford, 1999). Therefore, emotional appeals largely contain joy, love, humor, pride, and so on, to encourage people to act in the intended manner.

Persistent debate surrounds the effects of these two appeals. One set of researchers provides evidence showing the importance of informational appeals. Aaker and Norris (1982) suggest that informational advertisements are highly appropriate and effective when factual information is to be communicated and commercials are perceived as information, as in the case of print advertisement presenting many information cues (Fay and Currier, 1994). Vaughn (1980) presented a FCB grid and argued that an advertisement with functional and salient information works best in the *Informative* quadrant, characterized by a high involvement thinking situation. Holbrook (1978) reports a stronger effect of factual content on consumers' positive beliefs. Rational appeals also work better than emotional appeals for different types of services (Stafford and Day, 1995).

Another set of scholars suggests that emotional appeals result in more positive reactions (Goldberg and Gorn, 1987) and more positive judgments (Friestad and Thorson, 1986). Emotions can influence behavior even without building cognitions and thus are focal for advertising effectiveness (Brown et al., 1998). Cutler et al. (2000) report that emotional or transformational appeals have a greater impact on consumers' product acceptance than informational appeal. In line with FCB grid's *affective* quadrant (Vaughn, 1980), an advertisement should build emotional chord with consumer by first grabbing their attention and then creating emotional arousal towards the brand. In a service context, Matilla (1999) show that emotional appeals are more effective for service offerings.

These inconsistent findings may partly be caused by cultural differences of research settings, media differences (e.g., television vs. print advertisements), individual differences (e.g., age, gender), and even study restrictions (e.g., non-representativeness caused by small sample sizes of advertisements and respondents). For example, most studies investigating print advertisements include few artificial images (typically $N < 8$) with student samples of a particular socio-cultural

background. The current study uses real print ads presented to consumers representative of the German population.

Recent studies (see Table 1) provide empirical comparisons of advertising effectiveness according to advertising appeal. This overview provides insights into the recent issues raised and methods applied and shows inherent limitations of prior research. Studies using the persuasion approach have nomologically widened the dichotomy of emotional versus informational appeals to rational, functional, or informational versus emotional and experiential message strategies. The focus of the studies, however, is on advertisements' context. Results reveal a high context specificity in the superiority of either message strategy, in which context is mainly operationalized by product category and category-specific consumer characteristics (e.g., obesity, product involvement).

However, different marketing objectives are disregarded as relevant context. Instead, attitude toward the ad or brand commonly serves as the dependent variable, which shows the prominence of the dual mediation model of advertising effectiveness (Lutz et al., 1983). According to this model, consumer perceptions of an advertisement directly influence attitude toward this ad and indirectly influence both brand cognition and attitude toward the advertised brand (see Brown and Stayman, 1992).

The current study postulates that a change of the dependent variable is necessary to overcome these prior limitations and solve controversial findings. Commonly applied measurements merge all three elements of attitude (affective, cognitive, and conative) into one measurement instrument. Here, the majority of questionnaire items typically consist of statements emphasizing feelings and emotions in consumer decision making. Such an aggregation into a higher-order variable may be potentially biased (toward emotional aspects in decision making) but definitely leads to a loss of information. This holds true because it is unrealistic to assume that all persuasion elements are equally addressed with a single advertisement. Only limited effects can arise considering the typically short exposure to single ads and the inherent difficulties of opinion change. Thus, more specific effect measures are required to design advertisements in integrated marketing communications to better accompany recipients along their customer journey. The next section uses a set of action-oriented dependent variables to disentangle the effects of single ads.

Table 1. Advertising appeal, objective, and context of previous studies

Study	Persuasion appeals	Stimuli	Sample Size	Dependent Variables	Context	Result
Ruiz and Sicilia 2004	Informational, informational/emotional, expert judgment	3 artificial print ads	260 undergraduate students	Brand attitude, attitude toward the ad, brand choice, purchase intention	Type of individual (NFC/PFA)	Superiority of informational appeals congruent with consumer processing style
Yang, 2004	Emotional/informational	4 Internet advertisements	120 students	Depth of search, width and amount of search on Internet	Internet advertising	Emotional appeal results in more search and total time spent on search
Naylor et al. 2008	Informational/transformational	6 artificial print ads	128 undergraduate students	Pre-consumption expectation/post-consumption experience	Prior consumption experience	Transformational appeal is more effective than informational appeal
Geuens et al. 2011	Emotional (product congruent)/non-emotional	a,b) 8 artificial print ads c) 323 real television commercials	400/ 391/ 909 respondents	Ad attitude/brand attitude (three studies a,b,c)	Product category (high/low involvement and hedonic/utilitarian)	Emotional ads lead to more positive attitudes than non-emotional ads in case of (1) product-congruent and (2) erotic emotions and (c) higher appreciation
McKay-Nesbitt et al. 2011	Rational, positive/emotional, negative/emotional	3 artificial print ads	151 younger and 124 older adults	Ad attitudes, involvement, and recall	Product category, age (younger vs old), affective intensity, need for cognition	Young adults recall emotional appeals better than informational appeals
Zarantonello et al. 2014	Functional/ experiential	257 television commercials	150 respondents per ad test	Brand knowledge, attitude, brand uniqueness	Product category (FMCG)	Emotional appeals are more effective on brand knowledge, attitude, and uniqueness than informational appeals
Wei et al. 2015	Emotional/informational	4 artificial print ads	70 undergraduate students	Attitude toward food advertisement, attitude toward food	Ad appeal and weight level	Emotional appeals are more effective for normal and overweight students than informational appeals
Shao et al. 2015	Rational/emotional	4 artificial ad	2,419 respondents	Attitude toward ad, attitude toward brand, purchase intention	Self-regulatory focus	Highly prevention-focused individuals respond more positively to rational advertising appeals
Akbari, 2015	Rational/emotional	4 artificial condition	160 undergraduate student	Attitude toward ad, purchase intention	High vs. low involvement product category	Rational and emotional appeal have significant effect on attitude toward ad and purchase intention

2.2 Effect of age and gender on advertising effects

Studies suggest that individuals differ in their processing of informational/emotional appeals (Ruiz and Sicilia, 2004). From an individual psychological perspective, consumers' needs for cognition and affect (McKay-Nesbit et al., 2011; Ruiz and Sicilia, 2004) are related to rational (cognitive) and emotional (affect) appeals. Age is one important variable that moderates the relationship between advertising appeal and advertising effectiveness (Drolet et al., 2007). Spero and Stone (2004, p. 154) note that "young people must be emotionally engaged.... A brand will not succeed unless young people connect with the brand emotionally." Young consumers are thus receptive to emotional appeals (Charles et al., 2003).

H1. Emotional appeals have a stronger impact on younger consumers' reactions to advertisements than on older consumers' reactions.

Compared with younger consumers, older consumers respond differently to message strategies (Charles et al., 2003). Emotional ads are also associated with increased liking and recall among older consumers (Williams and Drolet, 2005). Furthermore, while younger consumers can recall emotional better than rational messages, older adults tend to prefer rational and positive messages to negative and emotional messages (McKay-Nesbit et al., 2011). Thus, older consumers should react more strongly to informational appeals of advertisements than younger consumers.

H2. Informational appeals have a stronger impact on older consumers' reactions to advertisements than on young consumers' reactions.

Gender might also matter. Women respond differently to advertisements than men, thus resulting in different advertising effectiveness (Moore, 2007). Noble, Pomeroy, and Johnson (2014) show that women respond more strongly to negative emotional appeals. However, findings on the effect of gender on the preferability of advertising appeal are controversial: Naylor et al. (2008) report no significant differences between men and women in terms of the effects of transformational (emotional) appeals. Similarly, Rosselli et al. (1995) find that gender has no significant effect on emotional or rational appeals or advertising effectiveness. Therefore, the purpose of the following hypothesis is to further test the interaction between advertisements' emotional appeal and gender:

H3. Emotional appeals have a stronger impact on women's reactions to advertisements than on men's reactions.

Gender should also have effects related to informational appeals. For example, girls have a stronger preference for image-oriented advertisements than boys (Covell, 1992). Similarly, men tend to favor rational appeals more than women (Hsu et al., 2013). Therefore, informational appeals may affect men more than women.

H4. Informational appeals have a stronger impact on men's reactions to advertisements than on women's reactions.

2.3 Consumer persuasion process

Behavioral research notes that a series of changes occur in consumers' mindset between unawareness of a brand/product and its eventual purchase (Barry, 1987). Exposure to an advertisement can trigger a multi-faceted and complex information-processing procedure (Hansen, 2005; Petty et al., 1983). For example, according to the Defining Advertising Goals for Measured Advertising Results (DAGMAR) Model, advertising should aim to support consumers through different steps that take them from awareness, to comprehension, to conviction, to action (Hansen, 2005). Originally proposed by Lavidge and Steiner (1961), the hierarchy-of-effects model is one of the best-known models regarding the persuasion process of advertising. According to the model, advertisement messages nudge consumers along several steps: *awareness, knowledge, liking, preference, conviction*, and, finally, *purchase* (Lavidge and Steiner, 1961). Research has developed a wealth of variants on the basis of the hierarchy-of-effects model (Barry, 1987) and revealed a variety of context-dependencies of the effect sequence (Vaughn, 1986), whereby characteristics of categories, products and persons involved were classified in grids (Ratchford, 1987; Rossiter et al, 1991): Whereas the normal hierarchy of "learn-feel-do" generally holds true for highly involved and rational decision makers, the sequence might turn into "feel-learn-do," "do-learn-feel," or "do-feel-learn" for low-involvement, hedonic products. Independent of the specific sequence at hand, advertisements can serve as an important instrument to trigger each stage of the consumer persuasion process, contingent upon its fit with consumers' involvement profile (Ray, 1973). Here, traditional means of mass communication are considered more effective for achieving DAGMAR's "upper-funnel" metrics

of awareness, knowledge, and liking than fostering “lower-funnel” metrics of preference and conviction (Briggs et al., 2005).

To empirically examine different persuasion effects with large-scale secondary data, this study differentiates five specific consumer actions along DAGMAR’s hierarchy-of-effects model. Please note that this classification primarily serves as a means for structuring the following thoughts. Results are derived at the level of the single persuasion stage, thus most of the reasoning applies independent of the specific sequence undergone by consumers. Specifically, the indicator of advertising *awareness* is *closer ad examination intention*. That is, consumers who intend to examine the brand more closely should obtain an awareness of the brand (e.g., brand existence and name). *Information search intention* serves as an indicator of the advertising goal of *knowledge* accumulation. That is, consumers’ knowledge about the brand should improve if they search for more information about the brand. *Positive attitude change* represents the advertising goal of increased *liking* of a brand. *Integration into the evoked set* is an indicator of the two marketing goals *preference* and *conviction*. That is, consumers feel more confident about a brand after integrating it into their preferred list of brands. Finally, *purchase intention* measures the advertising goal of *purchase*.

An in-depth literature review reveals mixed effects of informational and emotional appeals on these stages of persuasion processes. Prior studies have found that emotional advertising in particular affects consumers’ immediate reactions to advertisements (Edell and Burke, 1987), captures their attention (Olney et al., 1991), and affects brand attitudes (Aaker et al., 1986). Correspondingly, Geuens et al. (2011) show that emotional advertisements in general outperform non-emotional ones in terms of generating ad appeal and initial brand image.

While the effects of emotional appeals may persist throughout different phases of consumer decision making, the degree of the effects should vary in different phases. The effect of emotional appeals should be stronger in the “upper” than “lower” funnel of consumers’ purchase decision making. Thus:

H5. The effects of emotional appeal advertisements are stronger at “upper funnel” stages of consumer decision making (ad examination, information search) than at “lower funnel” stages (attitude change, integration into evoked set, and purchase intention).

Along the steps of consumer decision making, consumers' involvement tends to increase with their knowledge about the product (Greenwald and Leavitt, 1984). In other words, consumers accumulate knowledge about and increasingly process products along the hierarchy-of-effects stages when there is more information, which then raises consumer involvement. Thus, the closer consumers move to purchase along the hierarchy of effects, the greater is their involvement (Petty et al., 1983). Therefore, an increase in central processing strengthens the processing of informational appeals (Greenwald and Leavitt, 1984) and reduces the impact of advertisements' emotional appeals (Batra and Stephens, 1994).

The "lower" funnel is about converting more or less informed shoppers into actual buyers. Stafford and Day (1995) compare the effects of rational and emotional appeals and find that retail advertisements with a rational appeal are more effective than those with an emotional appeal close to the point of purchase. Golden and Johnson (1983) report that consumers perceived advertisements that made them think as more useful than those that made them feel and indicated greater purchase intentions. Thus, the effect of informational appeals should be stronger at "lower" funnel stages of the decision-making process:

H6. The effects of informational appeal advertisements are stronger at "lower funnel" stages of consumers' purchase decision making (attitude change, integration into evoked set, purchase intention) than at "upper funnel" stages (ad examination, information search)

This discussion leads to the integration of informational/emotional appeals and consumers' persuasion processes into a unified framework (see Figure 1). Next, the study quantifies and compares their effects in different persuasion stages.

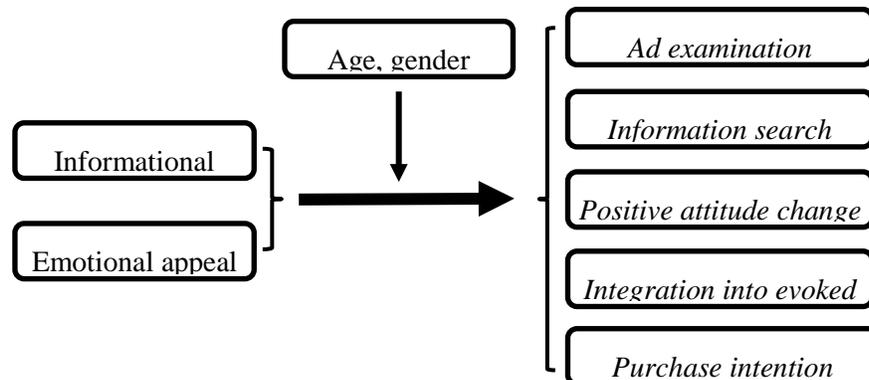


Figure 1. Research framework

3. Data collection and descriptive statistics

3.1 Data Collection

The hypotheses are evaluated through the use of secondary data provided by Ad Impact Monitor, a market research initiative of the major German print media companies. During 2013, Ad Impact Monitor assigned three market research agencies to survey between 4,000 and 8,200 consumers on a monthly basis online. Each questionnaire presented six real print ads to each interviewee from a pool of up to 120 ads placed in magazines during the previous months. Rotation of advertisements across respondents prevented primacy and recency effects. All respondents provided their evaluations on each of the six ads and their resulting actions. The questionnaire took approximately 18 minutes to complete.

Respondents were chosen on the basis of gender, age, degree, and residence to ensure an adequate population representation. In total, 77,627 consumers participated in the research, producing 465,762 evaluations for 1,141 advertisements; every ad was evaluated approximately 408 times. Of the respondents, 52.1% were men and 47.9% women. The average age was 39.6 years, with 29.5% below age 30 and 26.9% above age 50. Approximately one-third of respondents had a university degree or were high school graduates. The underlying sample thus represents a broad spectrum of consumers.

The evaluated advertisements cover products, services, initiatives, and non-profit associations. The analysis considers only advertisements that aim to facilitate a purchase, so initiatives and non-profit associations are excluded from the sample. Also excluded are respondents who already bought the product after exposure to the presented advertisements, to ensure comparability across answers. The research method used is in line with prior research on advertising appeals regarding the use of questionnaires as an appropriate tool to identify intentions (e.g., Geuens et al., 2011; Golden and Johnson, 1983). Overall, to provide high external validity of the study, data collection is based on *real* advertisements covering a broad scope of product categories from a large number of respondents varying broadly in demographics.

3.2 Measurement of informational and emotional appeal

When analyzing appeal effectiveness, it is necessary to measure how consumers perceive a certain appeal (Geuens et al., 2011). An advertisement is expected to work at two levels, i.e. providing information with the help of central message elements contained in copy and affecting

emotions through creative execution (Jourdan, 1999). Although in the past it was believed that cognition and affect work distinctively, lately it has been found that these two persuasion process act more in unison (MacInnis and Jaworski, 1990) and two distinct forms of advertising appeals are coherent and non-exclusive dimensions of an advertisement (Jourdan, 1999). Therefore, an advertisement contains both informational and emotional appeal, although in varying degree but in tandem to serve pre-defined marketing objectives.

Thus, degree of informational and emotional appeal of an advertisement are evaluated by respondents' subjective assessments using a set of 4-point Likert scale items of (dis-)agreement. A principal component analysis through SPSS 21 allocates items to their respective (and a priori expected) construct. All factor loadings of each item on its respective construct are larger than 0.6; no substantial cross-loadings are found (see Table 2). Cronbach's alpha values for both construct are above 0.8, suggesting a good level of reliability. Thus, measures unequivocally indicate a valid and reliable measurement of both informational and emotional appeals.

Table 2. Factor loadings, reliability, and validity of measurement

	Factor loadings	
	<i>Emotional ad appeal</i>	<i>Informational ad appeal</i>
<i>Emotionality of advertisement</i>		
Original, something new/else	.819	.163
Unforgettable	.745	.325
Entertaining	.759	.249
Eye-catching	.744	.298
Unique	.705	.337
Atmospheric	.666	.333
<i>Informational value of advertisement</i>		
Easy to understand	.224	.803
Credible	.326	.760
Functional fit (brand)	.316	.723
Informative	.250	.749
Eigenvalues (rotated)	3.615	2.814
% of variance (rotated)	36.154	28.136
Cronbach's alphas	.882	.825

4. Results

This research first tests the effects of informational and emotional ad appeals and their interaction with age on the different stages of the persuasion process. Following this, differences in the effects of advertising appeals due to age and gender effects are investigated in more detail.

4.1 Overall framework

Because the hierarchy-of-effects model is more a conceptualization than a prescriptive model, action steps of the “upper” funnel do not invariably precede those of the lower funnel (Vakratsas and Ambler, 1999). Therefore, consumer reactions are interpreted as a nominal rather than an ordinal variable. However, from a revenue perspective, near-to-purchase actions and immediate marketing goals are preferable to “upper”-funnel actions (Barry, 2002). These are given priority in the case of multiple answers provided (which is, however, seldom the case as only 3.4% of consumers reported more than one action).

A multinomial logit model is applied to investigate the distinct drivers of the five different possible actions, whereby “no action taken” serves as an overall reference value in the analyses. The model shows an improved model fit in comparison with a baseline model, with an improved Akaike’s information criterion of 62,108.254 and a Schwarz’s Bayesian information criterion of 61,780.038 (see Table 3). This is supported by a significantly lower -2 log-likelihood than in the baseline model. The model exhibits an interpretation power of McFadden’s pseudo-R-square of 10.0%. Therefore, the overall statistical measures confirm the adequacy of the model.

Table 3. Model fit of model 1

	Model-Fitting Criteria			Pseudo-R-Square		
	<i>AIC</i>	<i>BIC</i>	<i>-2 Log Likelihood</i>	<i>Cox and Snell</i>	<i>Nagelkerke</i>	<i>McFadden</i>
Only intercept	226,686.024	226,740.726	226,676.024			
Model 1	164,577.77	164,960.688	164,507.771	13.9 %	17.9 %	10.0 %

AIC = Akaike’s information criterion; BIC = Bayesian information criterion.

Standard scores of the three variables are used. All estimated parameters are reported relative to the shared baseline of *no consumer reaction*. Both informational and emotional appeals as well as age and gender significantly ($p < 0.001$) affect the likelihood of engaging in consumer action (see Table 4). Specifically, informational and emotional appeals have positively effects across the persuasion process, while age has negative effects. For gender, except for the stage of Closer ad examination intention where the effect is found to be non-significant, it was observed that in all the subsequent stages of decision-making, female was found to be more resistant as compared to their male counterpart. Taking the 95% confidence interval of odd ratio into consideration, emotional appeals have substantially stronger effects than informational appeals across four of the five persuasion variables, except for integration into the evoked set. Here, informational

appeals have a particularly high impact on integration into the evoked set ($OR_L = 2.151$, $OR_U = 2.261$), while the effect of emotional appeals is surprisingly low ($OR_L = 1.713$, $OR_U = 1.788$). Age consistently exerts a negative impact on the persuasion effects of advertisements.

Table 4. Model 1: Combinations of ad appeals

	<i>B (SE)</i>	95% CI for Odds Ratio		
		<i>Lower</i>	<i>Odds Ratio</i>	<i>Upper</i>
<i>Closer Ad Examination Intention vs. No Reaction</i>				
Intercept	-3.595 (.012)***			
Informational	.459 (.014)***	1.540	1.583	1.627
Emotional	.621 (.013)***	1.815	1.860	1.906
Gender (Male=1)	<i>n.s.</i>	<i>n.s.</i>	<i>n.s.</i>	<i>n.s.</i>
Age	-.094 (.012)***	.890	.910	.931
Age × Informational	.070 (.014)***	1.045	1.073	1.102
Age × Emotional	-.027 (.012)*	.950	.973	.997
<i>Information Search Intention vs. No Reaction</i>				
Intercept	-2.793 (.008)***			
Informational	.555 (.010)***	1.711	1.743	1.776
Emotional	.606 (.009)***	1.804	1.834	1.865
Gender (Male=1)	.049 (.006)***	1.037	1.050	1.064
Age	-.053 (.008)***	.934	.949	.964
Age × Informational	.075 (.009)***	1.059	1.078	1.098
Age × Emotional	-.055 (.008)***	.931	.946	.962
<i>Positive Attitude Change vs. No Reaction</i>				
Intercept	-4.084 (.015)***			
Informational	.622 (.017)***	1.803	1.863	1.925
Emotional	.796 (.015)***	2.154	2.217	2.282
Gender (Male=1)	.142 (.011)***	1.128	1.152	1.176
Age	-.350 (.015)***	.684	.705	.726
Age × Informational	.135 (.016)***	1.108	1.144	1.181
Age × Emotional	<i>n.s.</i>	<i>n.s.</i>	<i>n.s.</i>	<i>n.s.</i>
<i>Integration into Evoked Set vs. No Reaction</i>				
Intercept	-3.476 (.011)***			
Informational	.791 (.013)***	2.151	2.205	2.261
Emotional	.560 (.011)***	1.713	1.750	1.788
Gender (Male=1)	.062 (.008)***	1.046	1.063	1.081
Age	-.148 (.011)***	.844	.863	.882
Age × Informational	.113 (.012)***	1.092	1.119	1.147
Age × Emotional	-.057 (.011)***	.925	.945	.965
<i>Purchase Intention vs. No Reaction</i>				
Intercept	-4.193 (.016)***			
Informational	.743 (.017)***	2.033	2.101	2.172
Emotional	.855 (.015)***	2.284	2.351	2.420
Gender (Male=1)	.056 (.011)***	1.036	1.058	1.080
Age	-.311 (.016)***	.710	.733	.756
Age × Informational	.183 (.016)***	1.163	1.200	1.239
Age × Emotional	-.073 (.014)***	.904	.930	.956

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; n.s. = not significant.

As Figure 2 depicts, emotional appeals have a stronger impact in DAGMAR's initial (closer ad examination, information search, and positive attitude change) and final (purchase intention) stages of the consumer decision process than in the middle stage (integration into the evoked set), in partial support of H5. The overall effect of informational appeals increases nearly steadily along the hierarchy of effects, in support of H6.

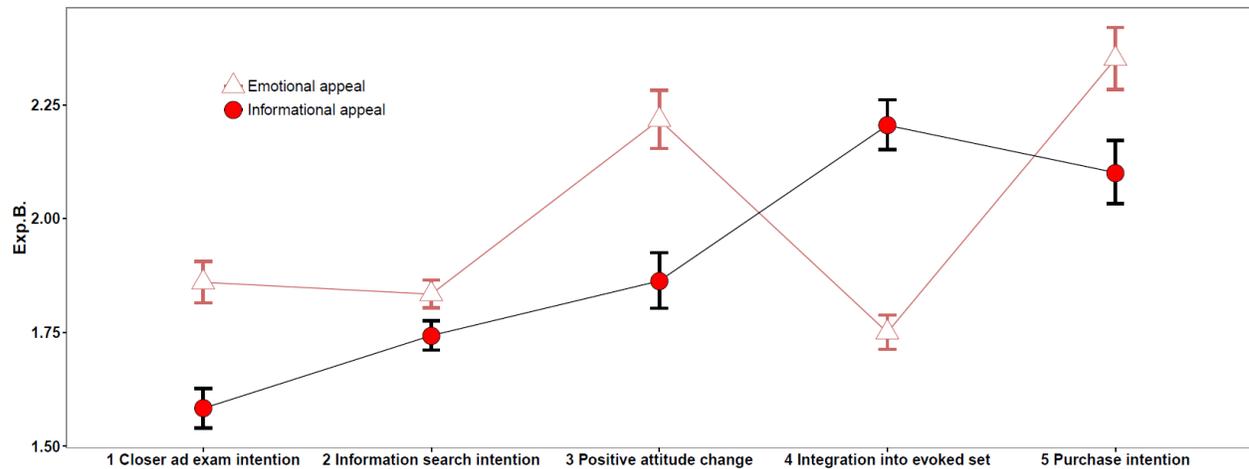


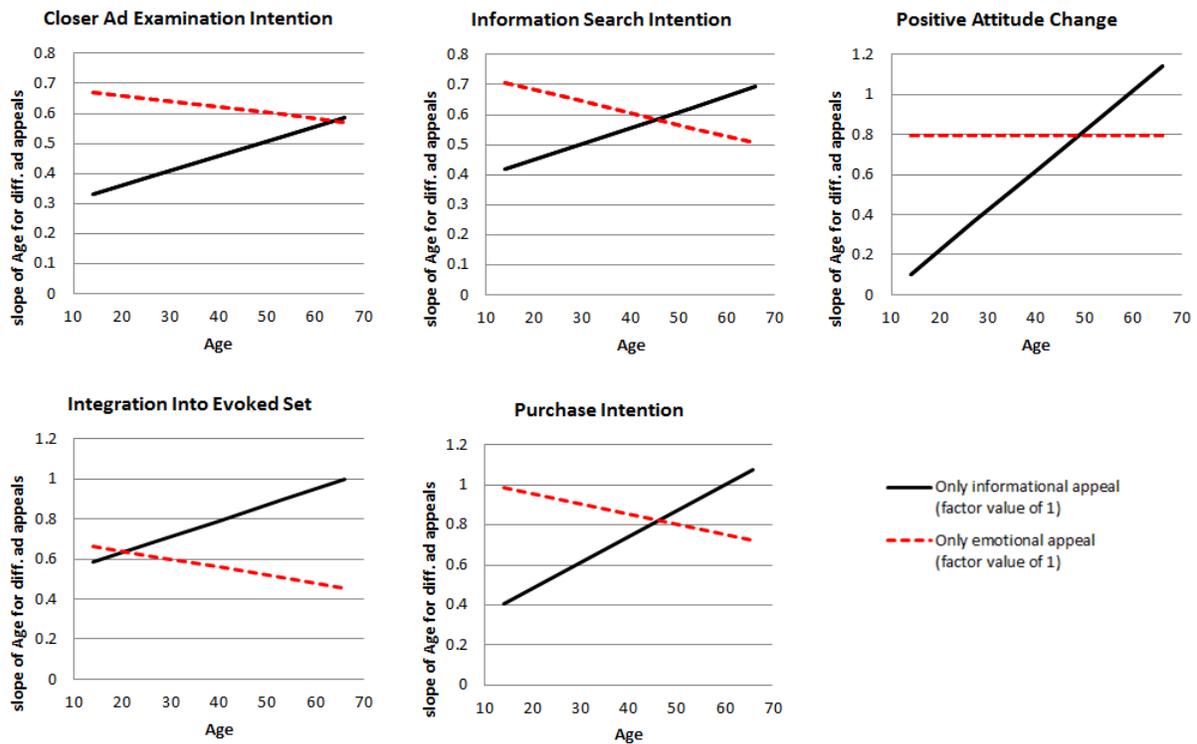
Figure 2. Comparison of the effect of informational and emotional appeals based on odds ratios

4.2 Age differences

The interaction effects of age and advertising appeal are significant (see Table 2). Specifically, the interaction effects of age and informational appeal are significant and positive. Thus, informational appeals have a stronger effect on all types of reactions of older than younger consumers. This finding provides support for H2. In contrast, the interaction effect of age and emotional appeal is significantly negative for four persuasion outcomes. Thus, the effects of emotional appeals on consumer reactions are weaker for older people, as H1 indicates. Only attitude change is not affected by the interaction between age and emotional appeal.

In order to visualize the interaction effect of age and ad appeal, Figure 3 presents the varying effect slopes of age for informational and emotional ad appeals across the five stages of consumer-decision making process. At younger ages, emotional appeals (dotted red line) result in a stronger effect than informational appeals (black line) on all types of consumer responses; this effect disappears when consumers grow older. Cross-points in these graphs reveal the specific consumer ages when the effect of informational appeals begins to dominate emotional appeals. This occurs well above the age of 40 years, with the exception of the outcome variable integration into the evoked set, in which informational appeals dominate over emotional appeals in the 20s age group. Therefore, H1 is supported. Furthermore, the effect of informational appeals on all five consumer reactions grows stronger by age, in support of H2.

Figure 3. Slopes of age for advertisements with different ad appeal



4.3 Gender differences

To investigate the hypothesized moderation effect of gender, the analysis was rerun on the sample containing two groups of men and women. The results appear in the Appendix and are graphically presented in Figure 4. For both sub-groups of men only and women only, emotional appeals are more influential than informational appeals for all persuasion variables, except for integration into the evoked set. Contrary to expectations, emotional appeals have a stronger impact on men than women across the five decision phases. A comparison of the 95% confidence interval of the estimated impacts on the three decision phases of information search intention, integration into the evoked set, and purchase intention provide further support for this result. Informational appeals have a significantly stronger impact on women's purchase intentions than men's. There is no difference in impact on men versus women for the other four decision phases. Therefore, H3 and H4 are not supported; the results are even contrary to H3. This unexpected finding might be due to the dominant positive emotional appeals (vs. negative appeals) in the ads in the study.

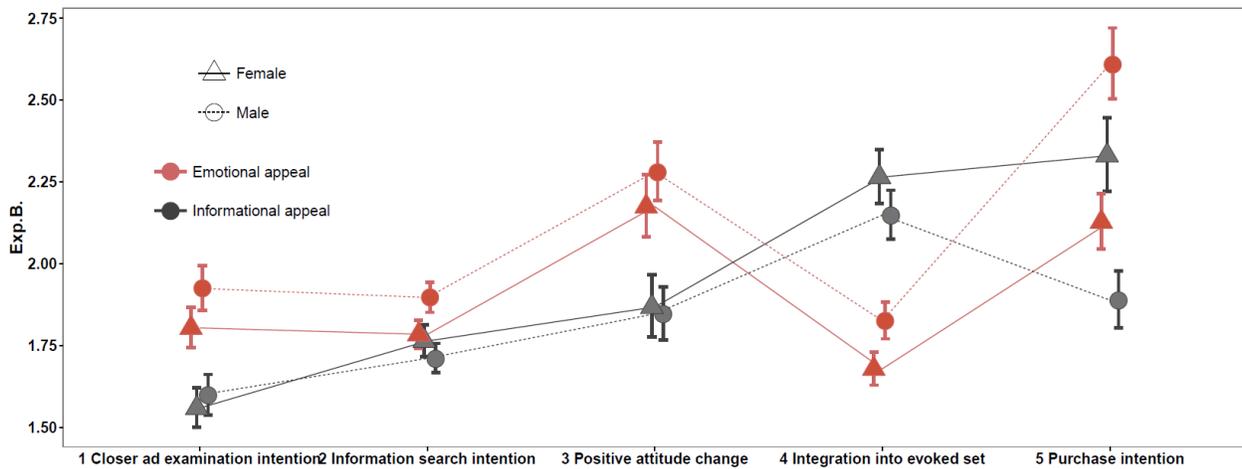


Figure 4. Comparison of the effect for men and women based on odds ratios

Table 5 provides an overview of the results for hypotheses tested by using multinomial logistic regression. The findings show that young consumers are better served with emotional appeal while old consumer should be convinced by using informational appeal. Gender by itself did not depict a significant main effect in determining advertising effects across consumer persuasion processes. Lastly, the results suggest that early stages can be influenced by using emotional appeal while informational appeal was found to be effective in “lower funnel” stages of consumer decision-making.

Table 5. Overall results

	Hypothesis	Result
H1	Emotional appeals have a significant effect on young consumer	Supported
H2	Informational appeals have a significant effect on old consumer	Supported
H3	Emotional appeals have a significant effect on female consumer	Not supported
H4	Informational appeals have a significant effect on male consumer	Not supported
H5	Emotional appeals have a significant effect on “upper funnel” stages of consumer decision-making	Partially supported
H6	Informational appeals have a significant effect on “lower funnel” stages of consumer decision-making	Supported

5. Discussion and practical implications

The results show that emotional appeals have stronger effects on four persuasion objectives than informational appeals, suggesting that emotional appeals are a more effective element of message strategy. However, this claim does not apply when the marketing objective is to persuade

consumers to integrate the advertised brand into an evoked set. This implies that when the objective of a marketer is to differentiate the brand from other competing brands by highlighting its unique selling proposition, an informational appeal will work better than an emotional appeal. In other words, when consumers compare the advertised brand with the brands in their inventory list, they become increasingly rational oriented. This finding is in line both with Stafford and Day's (1995) findings as well as with early empirical evidence from Ray (1973) that rational learning according to the hierarchy-of-effects model works best when consumers are highly involved with the campaign and when product differentiation is relatively high.

Multinomial regression analysis assessed the effect of gender on the five persuasion variables, across both informational and emotional appeals. In contrast with the work of Hsu et al. (2013), this study found that emotional appeals are more influential than informational appeals for persuasion factors in the "upper funnel" of the hierarchy of effects for both men and women. Emotional appeals lead to increased awareness and liking among the target audience, regardless of gender. The same holds true for young consumers. As such, and in line with prior findings (McKay-Nesbit et al., 2011), marketers should emphasize emotional appeals if they want to influence younger generations in the upper funnel of decision making. Doing so should result in improved advertising effectiveness, compared with using informational appeals.

Overall, the findings show that age has a negative impact on advertising effectiveness for all five possible marketing objectives, and this effect is particularly strong for positive attitude change and purchase intention. Furthermore, age equally affects both men and women for all major persuasion variables except positive attitude change. In this case, the negative impact of age on positive attitude change is stronger for women.

The revealed interaction between age and message strategy affects all persuasion objectives with the exception of attitude change. Apart from that, consistent interaction patterns emerged. The interaction between age and information appeal always has a positive impact on persuasion, while the interaction between age and emotional appeal is constantly negative. In other words, although emotional appeals have a stronger effect than informational appeals on most marketing objectives, the advantage of emotional appeals diminishes with increased age, while the effect of informational appeals moves in the opposite direction. As marketers begin dealing with more mature target audiences, informational appeals should be emphasized over emotional appeals.

This holds true especially if marketers' objectives are to induce information search intention, move the brand into the evoked set, or influence consumer purchase intention.

This recommendation is in contrast with prior studies that suggest that older consumers have greater liking and recall of emotional appeals (Williams and Drolet, 2005). The current findings are however in agreement with socio-emotional selectivity theory, which suggests that older age is associated with enhanced emotion regulation (Charles et al., 2003) and higher levels of skepticism about advertisement claims (Boush et al., 1994). Thus, future studies should examine the interaction effects of age and message strategy on consumer decision making.

This study has several limitations. First, the study purposefully did not discriminate different product categories and their possible effects on emotional and informational appeals. Second, the sample was restricted to printing advertisements and German consumers. Thus, researchers should be cautious when generalizing the results to different advertisement media and population needs. Finally, the study also did not discriminate the effects of positive and negative emotional advertisements, even though a random review of investigated advertisements indicated that negative emotional ads rarely occurred in the sample.

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