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Direct and Indirect Brand Comparisons, Message Framing and Gender Effects in Advertising

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With increased competition between brands, companies use brand comparisons. The purpose of this research was to survey UK consumers to examine the effects of direct and indirect comparative advertising, message framing, and gender for their individual and joint impact on consumer response to advertising for analgesic painkillers. Research shows that the type of brand comparison, how comparisons are framed (prevention vs promotion) and the gender of the target market has significant effects on consumer response to messages. The interactions also generate significant differences in how consumers respond to ads. Managerial implications in terms of advertising competitive strategies are highlighted.

Keywords: Direct Comparative Advertising, Indirect Comparative Advertising, Regulatory Focus Theory

INTRODUCTION

The majority of comparative advertising research has focused on Direct Comparative Advertising [explicit mention of competing brand(s) on a specific attribute(s)] and a comparison Noncomparative Advertising. Indirect Comparative Advertising, which is a subtle comparison without naming specific brands but which may use a Brand X or “other brands” comparison, is much less researched (Williams & Page, 2013). Most comparative advertising research has been conducted in the USA with more limited cross national comparisons, as comparative advertising was not allowed in most of Europe and many parts of the globe until the late 1990s (Beard, 2018).

With the exception of Chang (2007), little is known about gender differences in consumer perceptions of comparative advertising and even less attention has been devoted to how message framing and regulatory focus interacts with ad appeals (Kao, 2012). While research on Regulatory Focus Theory has been applied in various fields such as financial decisions (Zhao, et al., 2017), psychology (Malaviya & Brendl, 2014), and entrepreneurship (Angel & Hermans, 2018), there are fewer applications in marketing, particularly advertising.

This study contributes to the literature by examining the role of ad format (direct vs indirect comparative advertising), gender, and message framing for consumer ad response in the UK. The empirical research goals are as follows: to examine (1) the role of direct and indirect comparative advertising, message framing/regulatory focus, and gender for their individual and joint impact on claim believability, and (2) brand beliefs and attitude certainty and perceived ad fairness of the audience using a market leader and fictitious brands of analgesic painkiller.

The pharmaceutical industry has been one of the industries that uses various forms of comparative advertising and analgesics are a frequently purchased consumer product. This industry is one of the largest markets in the world in terms of trade and employment (Panteli & Edwards, 2018) with highly advanced technological innovations, enormous investments and high risk. Comparative advertising is legal in the UK and

officially recognized as a useful strategy to make the company stand out in the market place (Advertising Standards Authority- ASA, 2019), as long as there is sufficient verifiable information to allow consumers to fully understand the claim.

THEORETICAL FRAMEWORK AND HYPOTHESES

This research draws on Regulatory Focus Theory (Higgins, 1997) that focuses on persuasion and goals, positing two orientations for individuals: the “promotion focus” and the “prevention focus.” Aspirations and achievements are important for individuals with a promotion focus (the presence or absence of positive outcomes or gains while prevention-focused individuals are concerned about the presence and absence of negative outcomes or losses (Higgins, et al., 2001) which correspond to responsibilities and safety).

A promotion focus is motivated by accomplishment, advancement, desire and growth. The emphasis is on positive outcomes such as aspirations and achievements to attain the “ideal” self. This “ideal” self is pursued through goals of hopes and aspirations. This involves a sense of eagerness to attain advancement and gains. In contrast, a prevention focus is motivated by security, responsibility, and safety. The emphasis is on the avoidance of negative outcomes such as failures and threats in the attainment of the “ought” self. This “ought” self is pursued through goals of duties, obligations, and necessities. This involves a state of vigilance and caution to assure non-losses and safety as a goal-pursuit strategy (Crowe & Higgins, 1997; Higgins, 1997).

Self-regulation is generally referred to as a process, in which individuals pursue the alignment of their behaviours and actions with their personal underlying goals and standards (Higgins, 2002). The difference between promotion and prevention foci can be outlined using three fundamental factors (Higgins, 2002):

- *Needs, which people aim to satisfy.* Several psychologists (e.g., Maslow, 1955; Schaeffer & Emerson, 1964; Bowlby, 1969) suggested that people have a number of fundamental needs, including safety, protection, security, growth and development. The regulatory focus concept, on the other hand, argues that this hedonic principle operates differently, depending on the needs and wants people aim to satisfy. This depends on whether an individual’s self-regulatory is promotion or prevention. Thereby, are of a higher importance for those in prevention orientation, whereas promotion-oriented subjects tend to prioritize growth and accomplishment (Jain, et al., 2006).
- *The nature of an individual’s goal.* Higgins (1987) states that the standards that are established by individuals can be classified into two general groups: ideal-self and ought-self. Those individuals whose standards are represented in their beliefs of their ideal-selves reflect their hopes and aspirations. On the other hand, those people with standards are represented as their ought-selves generally reflect their obligations and responsibilities. With respect to the regulatory foci, people who are in promotion-focus tend to approach their goals associated with ideal-self, whereas those in prevention-focus tend to attain their goals associated with their ought-self (Brockner & Higgins, 2001).
- *Psychological state and situations,* which are considered significant or important by individuals. When people are engaged in promotion focus, the situations in which there exists either the presence or absence of positive outcomes play an important role for them (Brockner & Higgins, 2001). Therefore, they experience satisfaction in scenarios where there is a presence of positive outcomes, whereas if there is absence of positive gains, people experience distress caused by non-gains. By contrast, people engaged in prevention-focus are affected by the presence or absence of negative outcomes. Thereby, those people experience the satisfaction or pleasure of a non-loss or a pain if they experience a loss.

To summarise, promotion regulatory focus is concerned with the presence of favourable outcomes or gains, as well as the absence of those gains. On the other hand, prevention regulatory focus is concerned with the absence of unfavourable outcomes, which are commonly referred to as non-losses, and the distressing presence of unfavourable outcomes or losses (Higgins, et al., 2001).

Regulatory focus is commonly considered a comparatively stable individual trait (Higgins, 2002). The tendency of a person to consistently give preference to either promotion or prevention focus is commonly referred to as chronic regulatory focus. Typically, it originates from an individual’s early childhood and is heavily influenced by their primary caregiver, as well as all stages of socialisation and interpersonal

relationships (Crowe & Higgins, 1997). Additionally, chronic regulatory focus can depend on cultural characteristics of an individual. According to recently conducted research, collectivist cultures (such as Asian countries) have a higher likelihood of engaging in prevention focus, whereas individualist cultures (such as Western cultures) tend to engage in promotion focus (Kim & Park, 2019).

Previous studies found that gain and achievement message frames work more effectively when an ad promotion focus and the risk perceived by participants or customers is low. On the contrary, when an ad uses prevention focus, it was found to be more persuasive when the communication contained a loss message and had a higher perceived risk (Lee & Aaker, 2004). Regulatory focus was also viewed as a guide in the allocation of scarce cognitive resources (Wang & Lee, 2006). People dedicated increased attention to and based their product evaluation on product information that is relevant to their regulatory concerns, but only when they were not motivated to process information and they process information selectively. This selective information influenced their product assessment. The regulatory fit effect is not the result of systematic processing extending the work of Aaker and Lee (2001).

Persuasive effects research on message framing showed inconclusive results (Lee, et al., 2018). Message framing may interact with other variables such as individual characteristics (Jain, et al., 2007), product characteristics (Chang, 2007), timing of message exposure relative to purchase decision (Kim & Kim, 2016) or message-related factors (e.g. sidedness, Kao, 2012).

Very few studies have drawn on regulatory focus theory in marketing (e.g., Jain et al., 2007), with more studies in the fields of psychology, communications and advertising journals (Cornelis, et al., 2012; Floorack & Scarabis, 2006; Lee, et al., 2018; Murali & Pons, 2009). None have incorporated the theory in the context of framing for comparative advertising, although one- versus two-sided message impacts have been considered (Florack, et al., 2009).

This research also builds on the literature on comparative advertising formats (Grewal, et al., 1997). There are different views as to whether direct or indirect comparative advertising is more effective. Indirect Comparative Advertising (ICA) was found more effective than Direct Comparative Advertising (DCA) in positioning a brand against the entire market (Miniard, et al. 2006). Direct comparative ads may be more effective than indirect in positioning the brand against a specific competitor or the comparison brand (Pechmann & Ratneshwar, 1991). Manzur, et al. (2012) reported a greater message believability for ICA relative to DCA in Chile, while Jeon and Beatty (2002) found a systematic positive consumer response to DCA over ICA in Korea and no difference in response for the USA. There is research supporting the relative effectiveness of DCA over ICA in the USA and the UK (Beard, 2018; Petrovici, et al., 2016).

A direct attack against a named, well-known and widely purchased brand can attract greater suspicion and inferences that the marketer is deceptive, leading to greater resistance to persuasion (Campbell & Kirmani, 2000; Golden, 1979). Thus, positive responses toward a direct comparative ad that could be perceived as being manipulative would be reduced with an indirect (no named competitors) comparison ad (Campbell, 1995; Chang, 2007). However, since the direct comparative ad sponsor tested here is not a leading brand, it is expected that the additional information provided in a direct comparative ad relative to competitors will result in superior effectiveness over an indirect comparative advertisement.

While consistent with results in existing prior literature, only a few studies have focused on direct versus indirect comparative advertising. The direct comparative ad format is more explicit in nature than indirect ads. In line with Shao, et al., (2004) reasoning, consumers from individualistic cultures such as the UK are more likely to view them as informative.

Finally, we would expect attacks against a specific market leader to generate a greater ease of generation of attitude towards a given object (Haddock, et al., 1999) on the grounds of ease of comparison relative to more vague attacks against the entire category. This accessibility of attitudes is expected to be associated with greater attitude certainty. More uncertainty is associated with deliberation and less accessible attitudes. Attacking a well-known market leader is likely to trigger perceptions of unfairness, as a market leader is associated with strong credentials in the foundations of the marketing funnel (e.g. awareness, consideration set). Hence

certainty of attitudes for DCA is expected to exceed ICA and DCA may be viewed as a more unfair tactic.

H1: Claim believability, Brand beliefs and Attitude certainty will be higher for DCA than for ICA.

H1a: DCA will be perceived as more unfair than ICA.

Prior research states that Asians and Westerners differ in regulatory focus (Aaker & Lee, 2001; Lee, et al., 2000; Ouschan, et al., 2007). Asians are relatively prevention focused (i.e., tend to minimize the negative consequences of their decisions), whereas Westerners are more promotion focused (i.e., focus on the positive consequences of decisions without thinking about negative aspects). Collectivist cultures (mostly East-Asian cultures) are considered prevention oriented whereas individualistic cultures, such as the UK, are considered promotion oriented (Kim and Park, 2019; Kurman & Hui, 2011). This would result in regulatory fit, leading to higher effectiveness levels of an ad. Various studies (e.g. Jones, et al., 2003) in other fields of behavioral change (i.e. encouraging healthier lifestyles) support the view that positively framed messages focused on gains may be more effective than the ones focused on losses. Gain framed messages were found more effective in encouraging prevention behavior (Gallagher & Updegraff, 2012). Hence, the following hypothesis is postulated in this UK study:

H2: Advertisements using a promotion focus will be more effective than those using prevention focus regardless of the comparison type (direct or indirect).

To elaborate on attitude certainty, a prevention focus involves an individual's sensitivity to negative outcomes and is concerned with security, protection, safety and avoiding undesirable outcomes (Crowe & Higgins, 1997). The vigilance associated with prevention messages is expected to be associated with lower attitudinal certainty.

H3a: Promotion framed messages will be more effective for Direct Comparative Advertisements.

H3b: Prevention framed messages will be more effective for Indirect Comparative Advertising. These results are expected to be consistent across all dependent variables.

Prior marketing literature has suggested that men tend to engage in more selective processing and rely on heuristic cues (Meyers-Levy, 1989; Meyers-Levy & Sternthal, 1991), while women engage more in comprehensive processing. Thus, cues in DCA ads may be used to a greater extent by men in forming attitudes and beliefs. Men had more favorable ad and brand evaluations in comparative ads in some situations than did females (Chang, 2007).

H4. Women will have a less favourable reaction to DCA than will men.

In general it is expected that there will be significant main effects for ad type, framing and gender with emphasis on the significant effects hypothesized above. Other significant interaction effects and a statistically significant three-way interaction are also anticipated, although not formally hypothesized here.

METHOD

Sample

The current research featured an online survey designed to understand consumer responses to comparative ads and ways to frame messages. A sample of 153 subjects were recruited from among a UK population of 18 to 25 year olds. A convenience sample pre-test investigated the clarity of questions among individuals with various demographic characteristics.

The study uses a 2 x 2 x 2 factorial between subjects design experiment, with ad format [direct comparative (DCA) or indirect comparative (ICA); promotion vs prevention framed messages; male vs female respondents]. To eliminate the confounding effects of prior experience with a particular brand on attitude formation, a fictitious brand, "PROMINOL," was the advertised brand. This procedure is in line with good practice in comparative advertising (Jeon & Beatty, 2002; Nye, et al., 2008).

A series of four digital ads was generated for the online survey. The regulatory focuses related to message framing are manipulated in this study. Matching the framing of the message with the product and the expected regulatory focus of the audience "induced" by the message framing (pleasure v. pain) is particularly relevant for an analgesic pain killer advertisement. The manipulated claims were "twice faster and longer lasting pain relief" with packaging showing images representing targeted areas of the body. In the prevention

framed treatment, the message was “when you feel rough,” (ill, in pain) implying avoiding negative outcomes (e.g., continued pain), while the promotion framed message stated, “immediate solution to get you back on track” focusing on gains of feeling better.

The direct comparative ad claims were made against the market leader Nurofen, as data from Euromonitor International (2019) points out their leadership and the pilot test confirmed that the majority of subjects were aware of this (90%). In the indirect comparative advertisements claims were made against the entire product category. A pilot study revealed sign difference in the two regulatory focus theory treatments along the appropriate theoretical dimensions.

Research Instrument

Claim believability (Cronbach $\alpha=0.91$) was measured using a seven-point Likert scale for each of three questions and scaled. These three items were: “The claims in the ad are true”; “I believe the claims in the ad”; “I think the ad is honest” (Miniard, et al., 2006; Yagci, et al., 2008).

Brand beliefs were measured using three items ($\alpha=0.89$) on a seven-point Likert scale: “high quality”; “effective product”; “superior than competitors” (adapted from Jeon & Beatty, 2002). Attitude certainty is a metacognitive component, meaning the construct deals with higher-order thinking skills and aims to capture dimensions of attitude certainty such as clarity and correctness (Petrocelli, et al., 2007; Luttrell, et al., 2016). The questions asked: “How certain are you that the attitude you expressed really reflects your true thoughts and feelings?”; “To what extent is your true attitude toward the painkiller above clear in your mind?”; “How certain are you that your attitude toward the given painkiller is the correct attitude to have?” (1=“uncertain at all” to 7=“very certain”). Perceived ad fairness of tactics was measured with one proposed item as a dummy (“fair”; “unfair”).

RESULTS

The data were submitted to MANOVA for each dependent variable with two- and three-way interactions. The overall model was statistically significant with differences across the five dependent variables for the main effects (Table 1, Appendix 1).

Ad type was statistically significant for claim believability, brand beliefs and ad fairness (Table 2). Direct Comparative Advertising was more effective than Indirect Comparative Advertising. H1 is supported for claim believability and brand beliefs but not for attitude certainty (Table 2). H1a is also supported as Direct Comparative Advertising perceptions of unfairness are greater than for Indirect Comparative Advertising.

Framing had a significant main effect for claim believability [$F(1, 152)=122.06$; $p<.01$], brand beliefs [$F(1, 152)=122.01$; $p<.01$] and fairness [$F(1, 152)=6.71$; $p<.01$]. Promotion was more effective than prevention demonstrating that, for this type of product, promotional is stronger. Promotion messages were also perceived as more fair. Hence H2 is supported.

TABLE 2
MEAN RESULTS AND SIGNIFICANCE

Dep Variable/ Fixed Effect (n)	Claim Believe (1-21) R²=0.54	Brand Beliefs (1-21) R²=0.57	Attitude Certainty (1-7) R²=0.11	Attitude Clarity (1-7) R²=0.11	Attitude Correct (1-7) R²=0.25	Ad Fairness (0-1) R²=0.16
DCA (74)	12.97 ^a	13.90 ^b	5.43	5.42	4.62	0.68 ^c
ICA (79)	11.26	11.42	5.39	5.51	4.46	0.91
Promo (76)	14.53 ^d	14.97 ^e	5.55	5.58	4.66	0.87 ^f
Prevent (77)	9.69	10.30	5.27	5.35	4.42	0.73
M (72)	11.92	12.49	5.68 ^g	5.81 ^h	5.07 ⁱ	0.83
F (81)	12.25	12.74	5.17	5.16	4.06	0.77

Note. ^ap<01, ms=129.71, F(1,152)=16.80, Partial $\eta^2=0.10$, Obs Pwr=0s.98.

^bp<01,ms= 261.44, F(1,152)=36.66, Partial $\eta^2=0.20$, Obs Pwr=1.00

^cp<01,ms=1.98 ,F(1,152)=13.86, Partial $\eta^2=0.88$, Obs Pwr=0.96

^dp<01,ms=943.59, F(1,152)=122.06, Partial $\eta^2=0.46$, Obs Pwr=1.00

^ep<01,ms=870.03, F(1,152)=122.01, Partial $\eta^2=0.46$, Obs Pwr=1.00

^fp<05,ms=0.96, F(1,152)=6.71, Partial $\eta^2=0.04$, Obs Pwr=0.73

^gp<01,ms=10.12, F(1,152)=7.64, Partial $\eta^2=0.05$, Obs Pwr=0.78

^hp<01,ms=15.37, F(1,152)=9.78, Partial $\eta^2=0.06$, Obs Pwr=0.87

ⁱp<01,ms=39.81, F(1,152)=20.04, Partial $\eta^2=0.12$, Obs Pwr=0.99

No hypotheses were advanced for main effects of gender, given the scarce research on the role of gender in comparative advertising. No differences were expected for gender as a main effect and there were none for claim believability and brand beliefs. However, for dimensions of attitude certainty males have higher scores than females. Interaction effects were interesting (Table 3, Appendix 2).

For attitude correctness and perceived ad fairness, the interaction between ad type and framing was significant. The strongest attitude correctness occurs for DCA framed in promotion terms (mean=5.05), with the very least certainty for DCA framed in prevention terms (mean=4.19).

Hypothesis 3 postulated that promotion framed messages will be more effective for Direct Comparative Advertisements and prevention framed messages will be more effective for Indirect Comparative Advertising. This prediction was supported.

For claim believability, brand beliefs and attitude correctness, there were significant interactions ($p<01$): ad type by gender. Males preferred Direct Comparative Advertisements (mean=14.00 claim believability; 14.87 brand beliefs) more than females (mean=12.23 claim; 13.21 beliefs). An opposite pattern was noticeable for Indirect Comparative Advertisements (females=12.26 claim, females=12.21 belief) while males (10.34 claim and 10.68 beliefs). Hypothesis 4 is supported for DCA (males preferring DCA strongly over ICA with little differences for females).

For claim believability and brand beliefs there were significant interactions ($p<01$): framing and gender [F(2, 152)=20.12]. Likewise, men strongly preferred promotion framing over prevention (15.39 v. 8.44). Females also preferred promotion with a significant but lesser amount (13.75 v. 10.78). While it was known that women may detect more manipulative intent than men (Chang, 2007), these results have novelty in the comparative advertising literature.

Statistically significant three-way interaction occurred for attitude certainty [F(7, 152)=4.11, $p<.05$], clarity [F(7, 152)=4.92, $p<.05$] and correctness [F(7, 152)=12.84, $p<.01$]. The most attitude certainty was for DCA, promotion framing and males (mean=6.07) and the lowest was for ICA, prevention framing and females (mean=4.75).

DISCUSSION

As expected in a country with above average scores on Hofstede's dimension of individualism (Shao, et al., 2004), Direct Comparative Advertising generated a more positive response than Indirect Comparative Advertising in the UK. Namely, more positive claim believability and brand beliefs, notwithstanding that direct attacks are regarded as more unfair. The differences between Direct and Indirect Comparative Advertising in terms of fairness of tactics represent new knowledge in the comparative advertising literature. Hence, marketers in the UK may successfully position themselves against the market leader with substantiated claims but must remain aware of the sensitivity of consumers to the issue of fairness. Carefully framing the attacks is needed to avoid activation of unfairness.

Findings show that promotion- oriented promotional images result in more favorable responses. This is in line with Kim and Park's (2019) discussion of individualistic cultures being more promotion oriented.

There were statistically significant interactions between comparative advertising type and message framing were found. These hold for all three meta-cognitive variables. DCA prevention focused message have the lowest response in terms of clarity and correctness. DCA promotion tends to generate one of the highest attitude clarity and the highest attitude correctness. ICA promotion generates the highest attitude clarity but one of the lowest scores for attitude correctness.

Thus, clarity and correctness may not have the same patterns of cognitive results and need to be given specific attention by advertisers. The interaction between ad type and framing suggests outcomes vary according to different dimensions of attitude certainty. Hence investigating the impact on each dimension may be more fruitful than amalgamating the dimensions in an index as proposed by Rucker, et al., (2008).

Marketers in the UK need to pay attention not only to selecting comparison type but also to simultaneously deciding how to frame the message. ICA promotion may generate clear attitudes but DCA promotion may empower consumers to believe they formed correct attitudes. Hence both formats may be tested before a launch.

Fascinating interactions between ad type and gender were found. The literature of comparative advertising overlooked this area of demographic effects and gender effects in particular (Beard, 2018). In the absence of studies, knowledge based on Chang (2007) suggested that women are more likely to detect manipulative intent and practitioners highlighted a potential greater empathy towards the attacked brand among females. Yet, the results of our study indicate mixed patterns. The greater claim believability and brand beliefs of DCA relative to ICA are compatible with Chang (2007) study. The stronger preference of males for direct comparative advertising is compatible with the notion of higher perceived manipulative intent among females (Chang, 2017) and greater empathy toward the attacked brand. Females report greater scores for attitude correctness for DCA relative to (rather than) ICA. Females have stronger neural activation across all empathy tasks in emotion-related areas, higher social sensitivity and recruit more emotion and self-related regions (Derntl, et al., 2010).

No major difference occurred for the believability of comparative advertising formats resulted. The higher score for attitude correctness (for both formats) observed among men found in this research avenues for effects of different formats of comparative advertising on meta-cognition.

Previous studies interpreted positive attitude valence as an indicator of effectiveness. While positivity in attitudes is desirable, similar scores of attitudes may conceal differences in attitude clarity, correctness and certainty. Weaker certainty in attitudes may render them more susceptible to attacks, counter-argumentation or competitive new brand narratives. Thus, the study opens interesting and exciting avenues for research on meta-cognition in comparative advertising and stability and resilience of consumer attitudes as companies need to consider short-term and long -term impact of comparisons, their timing and caveats.

However, the comparative advertising format used influences the effectiveness of the attitude expressed towards the sponsoring brand and the ad. Direct comparative formats were found to be less effective with a prevention focus in comparison to indirect comparative format with promotion focus. Hence advertisers need to match the type of attack with how they frame the message to maximize impact.

Again, this research reveals new findings on the interaction between gender and regulatory focus framing in the context of comparative advertising. A preference of males for promotions message and the stronger

preferences among females for prevention messages was found. Marketers need to consider matching frame benefits to gender segments. Thus, advertisers using a direct comparison should strongly consider a promotion framing strategy when the target audience is heavily male.

Cramphorn (2011) noted that few ads specifically target genders and called for tailoring advertising to specific gender groups to enhance their effectiveness. The issue of gender segmentation may need to be further elaborated in the light of expansion of social consciousness and acceptability of diverse gender roles (transgender, non-binary) and expressions of gender identities. While this may be straightforward for brands targeting a single gender, trade-offs may appear when distinct gender identities are targeted.

CONCLUSIONS

Based on the results of this research, it is clear that the strength of comparison (direct or indirect), the framing/regulatory focus of the message (promotion or prevention), and gender have a significant impact on consumer reactions to a message. Previously, these interactions have not been investigated together in the comparative advertising literature.

There are a few limitations to this research. The Internet delivered study is based on a convenience sample of population aged 18-25 years and results cannot be generalized. Results are also confined to one product category. The potential for differing the role of new gender identities (e.g. transgender, non-binary) is overlooked in advertising. Nonetheless, in other fields such as health research there is growing awareness of the need to tailor approaches according to new gender roles and identities (Frohard-Dourlent, et al., 2011). Future studies can investigate the role of these new roles by recruiting respondents from specific gender groups. This research is very ripe for further investigation.

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APPENDIX 1

TABLE 1
ANOVA RESULTS

Source	Aspects	Type III Sum of Squares	df	Mean Square	F	Sig.
CA Type	Claim Believ	129.71	1	129.71	16.78	0.00
	Brand Beliefs	261.44	1	261.44	36.66	0.00
	Attit Certainty	0.29	1	0.29	0.22	0.64
	Attit Clarity	0.04	1	0.04	1.03	0.87
	Attit Correctness	2.05	1	2.05	13.86	0.31
	Ad Fairness	1.98	1	1.98	1.03	0.00
Frame	Claim Believ	943.59	1	104.84	122.06	0.00
	Brand Beliefs	870.04	1	96.67	122.01	0.00
	Attit Certainty	4.10	1	4.10	3.09	0.08
	Attit Clarity	2.49	1	2.49	1.58	0.21
	Attit Correctness	3.71	1	3.71	1.87	0.17
	Ad Fairness	0.96	1	0.96	6.71	0.01
Gender	Claim Believ	0.28	1	0.03	0.04	0.85
	Brand Beliefs	0.09	1	0.01	0.01	0.91
	Attit Certainty	10.12	1	10.12	7.64	0.01
	Attit Clarity	15.37	1	15.37	9.78	0.00
	Attit Correctness	39.80	1	39.80	20.04	0.00
	Ad Fairness	0.09	1	0.09	0.63	0.43
CA Type x Frame	Claim Believ	0.05	1	0.05	0.01	0.93
	Brand Beliefs	0.09	1	0.09	0.93	0.33
	Attit Certainty	3.66	1	3.66	2.77	0.01
	Attit Clarity	0.56	1	0.56	9.78	0.00
	Attit Correctness	17.24	1	17.24	20.04	0.00
	Ad Fairness	0.69	1	0.69	0.63	0.43
CA Type x Gender	Claim Believ	150.54	1	16.73	19.74	0.00
	Brand Beliefs	114.49	1	12.72	16.06	0.00
	Attit Certainty	0.66	1	0.66	0.50	0.48
	Attit Clarity	0.05	1	0.05	0.03	0.86
	Attit Correctness	7.89	1	7.89	3.97	0.05
	Ad Fairness	0.13	1	0.13	0.91	0.76
Frame x Gender	Claim Believ	155.51	1	150.54	20.12	0.00
	Brand Beliefs	164.67	1	164.67	23.09	0.00
	Attit Certainty	1.24	1	1.24	0.94	0.34
	Attit Clarity	2.25	1	2.25	1.43	0.23
	Attit Correctness	0.73	1	0.73	0.37	0.54
	Ad Fairness	0.05	1	0.05	0.31	0.58
CA Type x Frame x Gender	Claim Believ	0.03	1	0.00	0.01	0.95
	Brand Beliefs	0.97	1	0.11	0.14	0.71
	Attit Certainty	5.44	1	5.44	4.11	0.04
	Attit Clarity	7.73	1	7.73	4.92	0.03
	Attit Correctness	25.50	1	25.50	12.84	0.00
	Ad Fairness	0.41	1	0.41	2.87	0.09

APPENDIX 2

TABLE 3
MEAN RESULTS AND SIGNIFICANCE

DepVar/Cell	Claim Believe	Brand Beliefs	Attitude Certainty	Attitude Clarity	Attitude Correct	Ad Fairness
Ad Type × Framing						
DCA × Prom	15.27	15.92	5.70	5.54	5.05 ^a	0.81 ^b
DCA × Prevent	10.67	11.89	5.16	5.30	4.19	0.54
ICA × Prom	13.82	14.08	5.41	5.62	4.28	0.92
ICA × Prevent	8.77	8.82	5.37	5.40	4.63	0.90
Ad type × Gender						
DCA × Male	14.00 ^c	14.87 ^d	5.65	5.81	4.94 ^e	0.71
DCA × Female	12.23	13.21	5.28	5.14	4.40	0.65
ICA × Male	10.34	10.68	5.71	5.80	5.17	0.93
ICA × Female	12.26	12.21	5.05	5.18	3.68	0.89
Framing × Gender						
Prom × Male	15.39 ^f	15.92 ^g	5.89	5.78	5.06	0.92
Prevent × Female	10.78	11.39	5.10	4.93	3.83	0.71
Prom × Female	13.75	14.12	5.25	5.40	4.30	0.83
Prevent × Male	8.44	9.05	5.47	5.83	5.08	0.71
Ad Type × Framing × Gender						
DCA x Prom x Male	17.60	18.13	6.07 ^h	6.07 ⁱ	5.80 ^j	0.93
DCA x Prom x Female	13.68	14.41	5.18	5.18	4.55	0.73
ICA x Prom x Male	13.81	14.33	5.57	5.57	4.52	0.90
ICA x Prom x Female	13.83	13.78	5.67	5.67	4.00	0.94
DCA x Prevent x Male	10.62	11.81	5.56	5.56	4.13	0.50
DCA x Prevent x Female	10.71	11.95	5.10	5.10	4.24	0.57
ICA x Prevent x Male	6.70	6.85	6.05	6.05	5.85	0.95
ICA x Prevent x Female	10.85	10.80	4.75	4.75	3.40	0.85

Note. ^ap≤.01, ms=17.24, F(3,152)=8.68, Partial η^2 =.06, Obs Power=.83

^bp≤.05, ms=0.68, F(3,152)=4.80, Partial η^2 =.032, Obs Power=.59

^cp≤.01, ms=150.54, F(3,152)=19.47, Partial η^2 =.12, Obs Power=.99

^dp≤.01, ms=114.48, F(3,152)=16.05, Partial η^2 =.10, Obs Power=.98

^ep≤.05, ms=7.89, F(3,152)=3.97, Partial η^2 =.03, Obs Power=.51

^fp≤.01, ms=155.51, F(3,152)=20.12, Partial η^2 =.12, Obs Power=.99

^gp≤.01, ms=164.66, F(3,152)=23.09, Partial η^2 =.14, Obs Power=.99

^hp≤.05, ms=5.44, F(3,152)=4.11, Partial η^2 =.03, Obs Power=.52

ⁱp≤.05, ms=7.72, F(7,152)=4.92, Partial η^2 =.03, Obs Power=.60

^jp≤.01, ms=25.50, F(7,152)= 12.84, Partial η^2 =.08, Obs Power=.94