

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

**Dan Petrovici**  
University of Kent

**Linda Golden**  
University of Texas at Austin

**Dariya Orazbek**  
University of Kent

*With increased brand competition, companies use brand comparisons via comparative advertising. Using Regulatory Focus Theory predictions, this research examines 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. Results show that the type of brand comparison (direct vs indirect), comparison framing (prevention vs promotion) and the consumer's gender have significant impacts on responses to messages, individually and jointly. Managerially, the results underscore the strategic importance of varying message strategy by audience and comparative advertising tactic used, among other implications for the UK sample.*

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

### **INTRODUCTION**

The majority of Comparative Advertising (CA) 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

This research draws on Regulatory Focus Theory (RFT) (Higgins, 1997) that focuses on persuasion and goals, positing two orientations for individuals: the “promotion focus” and the “prevention focus.” According to Higgins, et al., 2001, 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 corresponding 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 behaviors 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 if an individual’s self-regulation is promotion or prevention oriented (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. With respect to regulatory foci, people who are promotion-focused tend to approach goals as associated with ideal-self, whereas those in prevention-focus tend to approach goals as associated with their ought-self (Brockner & Higgins, 2001). Ideal-self persons reflect their hopes and aspirations whereas ought-self oriented persons generally reflect obligations and responsibilities.
- *Psychological state and situations.* These represent considerations of significance or importance. 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, thus, they experience satisfaction or pleasure from a non-loss or pain if they experience loss.

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

A 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 socialization 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, Liu and Cheng, 2018). Message framing may interact with other variables such as individual characteristics (Jain, Lindsey, Agrawal & Maheswaran, 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 (Cesario, Grant, & Higgins, 2004, Cornelis, Adams, & Cauberghe, 2012; Florack & Scarabis, 2006; Lee, Liu, & Cheng, 2018; Mourali & 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, Ineichen, & Bieri, 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 (Minardi, 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 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 message effects.*

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 favorable 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, Ross, & Shimp, 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 ad claims were made against the entire product category.

### **Research Instrument and Analyses**

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” (Minardi 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, Petty & Briñol, 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).

**TABLE 1**  
**ANOVA RESULTS**

Source	Aspects	Type III Sum of Squares	df	Mean Square	F	Sig.
CA Type	Claim Believe	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 Believe	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 Believe	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 Believe	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 Believe	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 Believe	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 Believe	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

Source	Aspects	Type III Sum of Squares	df	Mean Square	F	Sig.
Error	Claim Believe	1120.99	145	7.73		
	Brand Beliefs	1033.97	145	7.13		
	Attit Certainty	192.05	145	1.32		
	Attit Clarity	227.80	145	1.57		
	Attit Correctness	288.00	145	1.99		
	Ad Fairness	20.69	145	0.14		

Ad type (explicit or implicit comparison) was statistically significant for claim believability, brand beliefs and ad fairness (see 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 fairer. Hence, H2 is supported.

**TABLE 2**  
**MEAN RESULTS AND SIGNIFICANCE**

Dep Variable/ Fixed Effect (n)	Claim Believe (1-21) $R^2=0.54$	Brand Beliefs (1-21) $R^2=0.57$	Attit Certainty (1-7) $R^2=0.11$	Attit Clarity (1-7) $R^2=0.11$	Attit Correct (1-7) $R^2=0.25$	Ad Fairness (0-1) $R^2=0.16$
DCA (74)	12.97 <sup>a</sup>	13.90 <sup>b</sup>	5.43	5.42	4.62	0.68 <sup>c</sup>
ICA (79)	11.26	11.42	5.39	5.51	4.46	0.91
Promo (76)	14.53 <sup>d</sup>	14.97 <sup>e</sup>	5.55	5.58	4.66	0.87 <sup>f</sup>
Prevent (77)	9.69	10.30	5.27	5.35	4.42	0.73
M (72)	11.92	12.49	5.68 <sup>g</sup>	5.81 <sup>h</sup>	5.07 <sup>i</sup>	0.83
F (81)	12.25	12.74	5.17	5.16	4.06	0.77

<sup>a</sup>p≤01, ms=129.71,  $F_{(1,152)}=16.80$ , Partial  $\eta^2=0.10$ , Obs Pwr=0.98.

<sup>b</sup>p≤01,ms= 261.44,  $F_{(1,152)}=36.66$ , Partial  $\eta^2=0.20$ , Obs Pwr=1.00

<sup>c</sup>p≤01,ms=1.98 , $F_{(1,152)}=13.86$ , Partial  $\eta^2=0.88$ , Obs Pwr=0.96

<sup>d</sup>p≤01,ms=943.59,  $F_{(1,152)}=122.06$ , Partial  $\eta^2=0.46$ , Obs Pwr=1.00

<sup>e</sup>p≤01,ms=870.03,  $F_{(1,152)}=122.01$ , Partial  $\eta^2=0.46$ , Obs Pwr=1.00

<sup>f</sup>p≤05,ms=0.96,  $F_{(1,152)}=6.71$ , Partial  $\eta^2=0.04$ , Obs Pwr=0.73

<sup>g</sup>p≤01,ms=10.12,  $F_{(1,152)}=7.64$ , Partial  $\eta^2=0.05$ , Obs Pwr=0.78

<sup>h</sup>p≤01,ms=15.37,  $F_{(1,152)}=9.78$ , Partial  $\eta^2=0.06$ , Obs Pwr=0.87

<sup>i</sup>p≤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 also showed some interesting interrelationships (Table 3).

**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 <sup>a</sup>	5.05 <sup>b</sup>	0.81 <sup>c</sup>
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 <sup>d</sup>	14.87 <sup>e</sup>	5.65	5.81	4.94 <sup>f</sup>	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 <sup>g</sup>	15.92 <sup>h</sup>	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 <sup>i</sup>	6.07 <sup>j</sup>	5.80 <sup>k</sup>	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

<sup>a</sup>p≤.01, ms=17.24, F<sub>(3,152)</sub>=8.68, Partial η<sup>2</sup>=.06, Obs Power=.83

<sup>b</sup>p≤.05, ms=0.68, F<sub>(3,152)</sub>=4.80, Partial η<sup>2</sup>=.032, Obs Power=.59

<sup>c</sup>p≤.01, ms=150.54, F<sub>(2,152)</sub>=19.47, Partial η<sup>2</sup>=.12, Obs Power=.99

<sup>d</sup>p≤.01, ms=114.48, F<sub>(2,152)</sub>=16.05, Partial η<sup>2</sup>=.10, Obs Power=.98

<sup>e</sup>p≤.05, ms=7.89, F<sub>(2,152)</sub>=3.97, Partial η<sup>2</sup>=.03, Obs Power=.51

<sup>f</sup>p≤.01, ms=155.51, F<sub>(2,152)</sub>=20.12, Partial η<sup>2</sup>=.12, Obs Power=.99

<sup>g</sup>p≤.01, ms=164.66, F<sub>(2,152)</sub>=23.09, Partial η<sup>2</sup>=.14, Obs Power=.99

<sup>h</sup>p≤.05, ms=5.44, F<sub>(7,152)</sub>=4.11, Partial η<sup>2</sup>=.03, Obs Power=.52

<sup>i</sup>p≤.05, ms=7.72, F<sub>(7,152)</sub>=4.92, Partial η<sup>2</sup>=.03, Obs Power=.60

<sup>j</sup>p≤.01, ms=25.50, F<sub>(7,152)</sub>= 12.84, Partial η<sup>2</sup>=.08, Obs Power=.94

For attitude clarity, 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 ( $F=20.12$ ). 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 ( $F=4.11$ ,  $p<.05$ ), clarity ( $F=4.92$ ,  $p<.05$ ) and correctness ( $F=12.84$ ,  $p<.01$ ). 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, Bao & Gray, 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 CA 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 found between comparative advertising type and message framing. This holds 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, Petty and Brinol (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 CA 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 CA. 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 both genders 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.

## REFERENCES

- Aaker, J.L., & Lee, A.Y. (2001). 'I' seek pleasures and 'we' avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research*, 28(1), 33–49.
- Angel, V., & Hermans, J. (2018). Regulatory focus theory and the entrepreneurial process. *Journal of Business Venturing*, 19(2), 203-220.
- ASA. (2019). A quick guide to comparative advertising. CAP News. Retrieved April 28, 2019, from <https://www.asa.org.uk/news/a-quick-guide-to-comparative-advertising.html>.
- Beard, F. K. (2016). Comparative television advertising in the U.S.: A thirty-year update. *Journal of Current Issues & Research in Advertising*, 37(2), 183–195.
- Beard, F. (2018). *Comparative advertising: History, theory, and practice*. Lanham, MD: Lexington Books.
- Bowlby, J. (1969). *Attachment. Attachment and loss: Vol. 1. Loss*. New York: Basic Books.
- Brockner, J., & Higgins, T. E. (2001). Regulatory focus theory: Implications for the study of emotions at work. *Organizational Behavior and Human Decision Processes*, 86(1), 35-66.
- Campbell, M.C. (1995). When attention-getting advertising tactics elicit consumer inferences of manipulative intent: the importance of balancing benefits and investments. *Journal of Consumer Psychology*, 4(3), 225–54.
- Campbell, M.C., & Kirmani, A. (2000). Consumers' use of persuasion knowledge: The effects of accessibility and cognitive capacity on perceptions of an influence agent. *Journal of Consumer Research*, 27(1), 69-83.
- Cesario, J., Grant, H., & Higgins, E.T. (2004). Regulatory fit and persuasion: Transfer from "feeling right". *Journal of Personality and Social Psychology*, 86(3), 388-404.
- Chang, C. (2007). The relative effectiveness of comparative and noncomparative advertising. *Journal of Advertising*, 36(1), 21-35.
- Cornelis, E., Adams, L., & Cauberghe, V. (2012). The effectiveness of regulatory (in)congruent ads: the moderating role of an ad's rational versus emotional tone. *International Journal of Advertising*, 31(2), 397-420.
- Cramphorn, M.F. (2011). Gender Effects in Advertising. *International Journal of Market Research*, 53(2), 147-170.
- Crowe, E., & Higgins, T. E. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision-making. *Organizational Behavior and Human Decision Processes*, 69(2), 117-132.
- Derntl, B., Finkelmeyer, A., Eickhoff, S., Kellermann, T., Falkenberg, D.I., Schneider, F., & Habel, U. (2010). Multidimensional assessment of empathic abilities: Neural correlates and gender differences. *Psychoneuroendocrinology*, 35(1), 67-82.
- Euromonitor International. (2019). Analgesics in the United Kingdom, Country Report.
- Florack A, Ineichen, S., & Bieri, R. (2009). The impact of regulatory focus on the effects of two-sided advertising. *Social Cognition*, 27(1), 37-56.
- Florack A., & Scarabis M. (2006). How advertising claims affect brand preferences and category-brand associations: The role of regulatory fit. *Psychology & Marketing*, 23(9), 741–755.
- Frohard-Dourlent, H., Dobson, S., Clark, B. A., Doull, M., & Saewyc, E. M. 2017. I would have preferred more options: Accounting for non-binary youth in health research. *Nursing Inquiry*, 24. doi:10.1111/nin.12150
- Gallagher J., & Updegraff, K. (2012). Health message framing effects on attitudes, intentions, and behavior: a meta-analytic review. *Annals of Behavioral Medicine*, 43(1), 101-116.
- Golden, L.L. (1979). Consumer reactions to explicit brand comparisons in advertisements. *Journal of Marketing Research*, 16, 517-532.
- Grewal, D., Kavanoor, S., Fern, E.F., Costley, C., & Barnes, J. (1997). Comparative versus noncomparative advertising: A meta-analysis. *Journal of Marketing*, 61(4), 1-15.

- Haddock, G., Rothman, A., Reber, R., & Schwarz, N. (1999). Forming judgments of attitude certainty, intensity, and importance: The role of subjective experiences. *Personality and Social Psychology Bulletin*, 25(7), 771-782.
- Higgins, E.T. (1997). Beyond pleasure and pain. *American Psychologist*, 52, 1280-1300.
- Higgins, T. E. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94(3), 319-340.
- Higgins, T. E. (2002). How self-regulation creates distinct values: The case of promotion and prevention decision making. *Journal of Consumer Psychology*, 12, 177-191.
- Higgins, T. E., Friedman, R. S., Harlow, R. E., Idson, L. C., Ayduk, O. N., & Taylor, A. (2001). Achievement orientations from subjective histories of success: promotion pride versus prevention pride. *European Journal of Social Psychology*, 31, 3-23.
- Jain, S.P., Lindsey, N.D., Agrawal, N., & Maheswaran, D. (2007). When more may be less: The Effects of Regulatory Focus on Responses to Different Comparative Frames. *Journal of Consumer Research*, 33(1), 91-98.
- Jeon, J.O., & Beatty, S.E. (2002). Comparative advertising effectiveness in different national cultures. *Journal of Business Research*, 55(11), 907-913.
- Jones, L. W., Sinclair, R. C., & Courneya, K. S. (2003). The effects of source credibility and message framing on exercise intentions, behaviors, and attitudes: An integration of the elaboration likelihood model and prospect theory, *Journal of Applied Social Psychology*, 33(1), 179-196.
- Kao, D.T. (2012). Exploring the effect of regulatory focus on ad attitudes: the moderating roles of message sidedness and argument quality. *International Journal of Psychology*, 47(2), 142-53.
- Kim, S., & Kim, Y.K. (2016). The Impact of Regulatory Focus and Temporal Distance on Evaluation of Online Consumer Reviews. *International Textile and Apparel Association (ITAA) Annual Conference Proceedings*, 151.
- Kim, K., & Park, J. (2019). Cultural influences on brand extension judgments: Opposing effects of thinking style and regulatory focus. *International Journal of Research in Marketing*, 36(1), 137-150.
- Kurman, J., & Hui, C. (2011). Promotion, prevention or both: Regulatory focus and culture revisited. *Online Readings in Psychology and Culture*, 5(3).
- Lee, A. Y., & Aaker, J. L. (2004). Bringing the frame into focus: The influence of regulatory fit on processing fluency and persuasion. *Journal of Personality and Social Psychology*, 86(2), 205-218.
- Lee, H.C., Liu, S.F., & Cheng, Y.C. (2018). Positive or negative? The influence of message framing, regulatory focus, and product type. *International Journal of Communication*, 12, 788-805.
- Luttrell, A., Petty, R. E., & Briñol, P. (2016). Ambivalence and certainty can interact to predict attitude stability over time. *Journal of Experimental Social Psychology*, 63, 56-68.
- Malaviya, P., & Brendl, C.M. (2014). Do hedonic motives moderate regulatory focus motives? Evidence from the framing of persuasive messages. *Journal of Personality and Social Psychology*, 106(1), 1-19.
- Manzur, E., Uribe, R., Hidalgo, P., Olavarrieta, S., & Fariás, P. (2012). Comparative advertising effectiveness in Latin America: evidence from Chile. *International Marketing Review*, 29(3), 277-298.
- Maslow, A. R. (1955). The effect of prefrontal lobotomy upon abstract behavior. *Journal of Clinical Psychology*, 11(4), 407-409.
- Meyers-Levy, J. (1989). Gender Differences in Information Processing: A Selectivity Interpretation. In P. Cafferata and Alice Tybout (Ed.), *Cognitive and Affective Responses to Advertising*. MA: Lexington Books, 219-260.
- Meyers-Levy, J., & Sternthal, B. (1991). Gender differences in the use of message cues and judgments. *Journal of Marketing Research*, 28, 1, 84-96.

- Miniard P.W., Barone, M.J., Rose, R.L., & Manning, K.C. (2006). A further assessment of indirect comparative advertising claims of superiority over all competitors. *Journal of Advertising*, 35(4), 53-64.
- Mourali, M., & Pons, F. (2009). Regulatory fit from attribute-based versus alternative-based processing in decision making. *Journal of Consumer Psychology*, 19(4), 643-651.
- Nye, C., Roth, M., & Shimp, T. (2008). Comparative advertising in markets where brands and comparative advertising are novel. *Journal of International Business Studies*, 39(5), 851-863.
- Panteli, D., & Edwards, S. (2018). *Ensuring access to medicines: How to stimulate innovation to meet patients' needs?* European Observatory on Health Systems and Policies, World Health Organization.
- Pechmann, C., & Ratneshwar, S., (1991). The use of comparative advertising for brand positioning: Association versus differentiation. *Journal of Consumer Research*, 18(2), 145-60.
- Petrocelli, J.V., Tormala Z.L., & Rucker D.D. (2007). Unpacking attitude certainty: attitude clarity and attitude correctness. *Journal of Personality and Social Psychology*, 92(1), 30-41.
- Petrovici, D., Dianoux C., Ford J., Herrmann J.L., & Whitelock J. (2016). A cross-cultural analysis of direct vs. indirect comparative advertising: The role of consumer motivation and perceived manipulative intent. In: Petruzzellis L., Winer R. (eds) *Rediscovering the Essentiality of Marketing. Developments in Marketing Science: Proceedings of the Academy of Marketing Science*. Springer, Cham.
- Porubcansky, M. (2018). *The opioid epidemic is a global problem. And it's getting worse.* Retrieved April 22, 2018, from <https://www.minnpost.com/foreign-concept/2018/05/opioid-epidemic-global-problem-and-its-getting-worse/>
- Reynolds, D. (2017, June). *Overdoses now leading cause of death of Americans under 50.* CBS News. Retrieved June 23, 2017, from <https://www.cbsnews.com/news/overdoses-are-leading-cause-of-death-americans-under-50/>
- Rucker, D., Petty, R. E., & Briñol, P. (2008). What's in a frame anyway? A meta-cognitive analysis of the impact of one versus two sided message framing on attitude certainty. *Journal of Consumer Psychology*, 18(2), 137-149.
- Schaeffer, H. R., & Emerson, P. E. (1964). The development of social attachments in infancy. *Monographs of the Society for Research in Child Development*, 29(3), 1-77.
- Shao, A.T., Bao, Y., & Gray, E. (2004). Comparative advertising effectiveness: A cross-cultural study. *Journal of Current Issues & Research in Advertising*, 26(2), 67-80.
- Wang, J., & Lee, A.Y. (2006). The role of regulatory focus in preference construction. *Journal of Marketing Research*, 43(1), 28-38.
- Williams, K. C., & Page, Jr., R. A. (2013). Comparative advertising as a competitive tool. *Journal of Marketing Development and Competitiveness*, 7(4), 47-62.
- Yagci, M.I., Biswas, A., & Dutta, S. (2009). Effects of comparative advertising format on consumer responses: The moderating effects of brand image and attribute relevance. *Journal of Business Research*, 62(8), 768-774.
- Zhao, Q., Chen, C.D., Wang, J.L., & Chen, P.C. (2017). Determinants of backers' funding intention in crowdfunding: Social exchange theory and regulatory focus. *Telematics and Informatics*, 34, 370–84.