

The Role of Emotions in Advertising: A Call to Action

Karolien Poels

Siegfried Dewitte

Correspondence: Karoline.poels@uantwerpen.be

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Abstract

Emotions play a central role in advertising. Starting from the extensive and ever developing literature on the role of emotions in human information processing and behavior, as studied within general psychology; we discuss how advertising literature has tackled this topic throughout the years. This reveals that the potential of direct behavioral effects of discrete integral emotions, meaning specific emotions evoked by an advertising message, has remained underexploited. After specifying this research gap, we outline the theoretical rationale behind this behavioral approach and sketch challenges and opportunities to address the potential of discrete emotions and their advertising relevant behavioral outcomes. We thereby take advantage of the nature of digital media environments and recent methodological advances in this context. We provide guidelines to apply this rationale in advertising research, and discuss its strength in comparison with current practice, its potential to extend to incidental emotions, and consider the ethical implications of our proposal.

IMPORTANCE OF THE TOPIC

What type of reactions do advertising messages evoke and which processes influence the outcomes of an ad, is a key question within advertising research (Chang 2017). Advertising practitioners would argue that emotions play an important role in this process and that effective advertising messages touch the consumer's heart (Kover 1995). Answers to this question have been discussed extensively within advertising literature, leading to numerous models on "how advertising works". In these models affective processes such as emotions take up a central position (Vakratsas and Ambler 1999). The objectives of this paper are threefold: 1) to provide an overview of the highlights of how the concept of emotion has been defined and approached within general psychology and how this has been covered in advertising literature throughout the years, 2) to identify a gap that emerges upon close inspection of how emotions have been approached and studied within advertising, being the under-exploration of relevant behavioral outcomes of emotions triggered by advertising messages, and 3) to formulate challenges and opportunities, as well as actionable directions, for future research in this area, especially in the light of digital media environments.

Until the eighties advertising literature was dominated by cognition-oriented models (Lavidge and Steiner 1969; Strong 1925). In these models conscious deliberation about the ad preceded the emotions or desires evoked by the ad. In 1980 the American Psychologist published Zajonc's pioneering article *Feeling and Thinking: Preferences need no inferences* in which he argued that emotions have primacy over and are independent of cognition. This work instigated a new stream of research and discussion among psychologists focusing on emotions, an important issue being the interconnectedness versus independency between emotions and cognition, in which researchers following the cognitive approach stressed the role of appraisal (Lazarus 1982). For advertising research it implied that emotions gained more attention and were being accepted as either an automatic catalyzer of behavior

(Janizewski 1993, following Zajonc) or as a mediator of cognitive and behavioral consumer responses to advertising (Edell and Burke 1987; Holbrook and Batra 1987, following the cognitive approach to emotions). In the nineties, considerable progress was made in the study of emotions by neuroscientists like Damasio (1994) and LeDoux (1996). Their influential works led to the general conception that emotions are not a useless by-product but, on the contrary, are essential for rational thinking and behavior. Taking this insight further, studies from the field of evolutionary psychology, in the years 2000, added ultimate explanations to why discrete emotions occur in a particular situation (Fessler, Pillsworth, and Flamson, 2004; Cosmides and Tooby 2000). Different discrete emotions evolved as a response to specific adaptive problems that were relevant in the ancestral environment. Ancestors who showed particular emotions were better off in the evolutionary arms race than those who did not exhibit these emotions. For example, experiencing the emotion fear activates self-protection mechanisms to avoid harm (e.g. herding closer to one's group) which increased chances of survival in an ancestral environment. Building on these neurological (Ambler and Burne 1999) and evolutionary (Griskevicius et al., 2009) insights, advertising scholars have continued to emphasize the crucial role of emotions in advertising.

A relevant distinction when studying emotions in advertising is the difference between integral emotions and incidental emotions (Achar et al. 2016). Integral emotions are emotions evoked by messages embedded in an ad, mostly deliberately and strategically chosen by the advertiser to influence the consumer (for example, appealing to the emotion guilt to persuade people to donate for a good cause). Incidental emotions are emotions that are evoked by sources or circumstances unrelated to a particular decision at hand, but can influence how decisions are made. For example fear induced by a horror movie influences how consumers react to subsequently viewed ads (Griskevicius et al. 2009). Integral and incidental emotions

can interact. In this context Choi et al. (2016) showed that feelings of loneliness, evoked by (random) cold images, influence how people respond to negative emotional charity appeals.

Another crucial issue is to critically evaluate differences between emotions triggered in actual, real-life situations and emotions evoked by advertising stimuli. The latter are mediated and do most often not impose direct harm or benefit to an individual. However, emotion scholar Frijda (1988) states in his ‘law of apparent reality’ that what is taken to be real, elicits emotions and argues that this also applies to things that are not actually real but are perceived as being real (i.e. all types of mediated stimuli; films, pictures, stories). Furthermore, we know that images can evoke strong emotions (Lang et al. 1993) and that vivid advertising images in particular increase mental imagery and promote mental stimulation approximating real life stimulation (Fennis et al. 2011). Based on Frijda’s law of apparent reality (1988) and insights on the importance of vividness in advertising (Fennis, Das & Franssen 2012) we argue that, as long as the content is sufficiently vivid, emotions elicited by advertising stimuli can be very relevant and real, albeit probably less intense than emotions elicited by similar real life events.

Importantly, the media environment in which consumers are confronted with advertising has changed dramatically over the past ten years due to rapidly evolving digital media and communication technologies. This has led to new advertising formats, advertising vehicles, and business models (a discussion of which are beyond the scope of this article). It has also opened opportunities for capturing all types of consumer processes, including the emotional state of the consumer, in real-time. This enables tailoring of advertising messages and immediately measuring their behavioral impact and at the same time (re)examine theories relevant for advertising with new data sources that could not be tested previously on such a scale (Malthouse and Li 2017).

This paper aims to provide some novel insights in the behavioral potential of emotions embedded in advertising messages, integral emotions, particularly in digital media environments. To meet the paper's objectives, we first provide a background section with a working definition of emotion and a discussion of two different types of emotions, and how these have been studied in advertising research. We then argue that discrete integral emotions, meaning different specific emotions evoked by advertising messages, have to offer more to the advertising domain than they currently do because they allow to trigger specific behavioral effects, which could be very relevant advertising outcomes. We end with formulating future directions to advance the study of discrete integral emotions in advertising, taking into account current digital media and information technology environments. In doing so, we aim to inspire and stimulate future advertising research focusing on the role of emotions.

BACKGROUND

Defining an Emotion

Definitions of the emotion concept are myriad. Kleinginna and Kleinginna (1981, p. 371) summarized prevailing definitions in an integrated and all-embracing definition:

*Emotion is a complex set of interactions among **subjective and objective factors**, mediated by **neural/hormonal systems**, which can (a) give rise to affective **feelings** of arousal, pleasure/displeasure; (b) generate **cognitive processes** such as emotionally relevant perceptual effects, appraisals, labeling processes; (c) activate widespread **physiological adjustments** to the arousing conditions; and (d) lead to **behavior** that is often, but not always, expressive, goal-directed, and adaptive.*

Studies on emotions in several applied domains, including advertising, typically focus on one specific component, such as the self-reported feelings, the cognitive appraisals or the physiological reactions. It is important to distinguish emotions from related concepts. The word *emotion* is often interchangeably applied with a wide array of other affective terms such as affect, feelings, moods and sentiments. These phenomena are conceptually different or do only include one part of an emotion as included in the previous definition. Frijda (1994) uses the word *affect* as a general category to indicate *all* affective states, including emotions, moods, sentiments, and emotional traits. In this view – which was also adopted by Bagozzi, Gopinath, and Nyer (1999) in their overview of the role of emotions in marketing – affect is rather an umbrella that clusters a set of affective states. Emotions are considered as one particular form of affect. Emotions and *feelings* are easy to distinguish. As mentioned by Kleinginna and Kleinginna (1981), one of the ways in which an emotion manifests itself is by means of *subjective feelings*. Accordingly, feelings are only one of the components of an emotion, namely the *conscious experience* of it (Frijda 1986). *Moods* and emotions are both affective states that conceptually differ at some points. Moods are generally long lasting (i.e., a couple of hours until a few days) whereas emotions are more instantaneous reactions that last for minutes rather than hours. Moods are also lower in intensity than emotions (Bagozzi, Gopinath and Nyer 1999). Further, emotions are intentional (e.g., I am angry because you insulted me) whereas moods are more global and non-intentional and have combined causes (Frijda, 1994) (e.g., I graduated with good grades, the sun is shining, I have vacation now and, consequently, I find myself in a good mood for several weeks).

Different Types of Emotions and Their Application in Advertising Literature

In general emotion literature, different *types* of emotions are defined (Poels and Dewitte 2006). This is also apparent within advertising literature in which a diversity of

reactions is referred to as an emotion. For example, the *positive arousal* that is evoked in men when showing ads with seductive women (Van den Bergh, Dewitte and Warlop 2008), the strong persuasive effects of highly *pleasurable ads* (Das, Galekh and Vonkeman 2015), or the *hope* one may experience after seeing an ad about revolutionary dieting pills, are all classified as emotional reactions (Poels and Dewitte 2008a). However, these reactions reflect different types of emotions originating from different mental states. This means, the positive arousal and high pleasure in the first examples occur rather automatically, whereas the hope in the third example involves a higher degree of cognitive processing of the message at hand. The first examples fall under the conceptualization of lower-order emotions and the emotion of hope is seen as a higher-order emotion.

Lower-order Emotions.

Emotional reactions can influence behavioral processes without cognitive involvement such as thinking, reasoning and consciousness (LeDoux 1996, Winkielman, Berridge and Willbarger 2005; Zajonc 1980). Shiv and Fedorikhin (1999) refer to these types of emotions as *lower-order emotions*, involving spontaneous and largely uncontrollable emotional reactions. In advertising models, lower-order emotions are included in the so-called *non-cognitive models* (Vakratsas and Ambler 1999). These models were inspired by Zajonc (1980) and his reaction to the cognitive tradition (see *infra*). In the well-cited ‘pen-experiment’, Gorn (1982) showed that hearing liked or disliked music while being exposed to a specific product directly shaped subsequent product choice, without people being aware of this emotional effect. A recent replication of these findings by Vermeulen and Beukeboom (2016) confirmed that affective cues (such as music) influence behavior independent of cognitive ad evaluations. However, empirical studies testing the non-cognitive models showed that these automatic reactions only explain part of the story and that – depending on the context –

conscious factors are important as well. To illustrate, Gorn (1982) already showed that the effect of an ad's music on consumers' product preferences depended on involvement with the situation. A recent review indeed concluded that awareness is most of the time an essential ingredient to explain the influence of emotions on attitudes (Sweldens, Corneillie, and Yserbyt 2014).

In other advertising studies, lower-order emotions have been approached as pleasure and arousal reactions that do not require to be cognitively labeled as an emotion and often more direct, psychophysiological measures have been used to investigate their meaning in the advertising process (Bolls, Lang and Potter 2001). Notice, however, that this does not imply that people are unable to consciously experience lower-order emotions. Ample studies investigated pleasure and arousal reactions to ads, using verbal or visual scales, and found meaningful relations between self-reported pleasure and arousal reactions to advertising stimuli and ad relevant outcomes (Poels & Dewitte 2008b, Yzer et al 2011).

Higher-order Emotions and the Specific Emotion Approach.

Higher-order emotions do require (at least) some degree of cognitive processing as they occur. Shiv, Fedorikhin and Nowlis (2015) argue that higher-order emotions are the result of (a certain degree) of deliberative cognitive processing and reinforce basic motives and action tendencies. This second type of emotions forms the core area of the specific emotion approach. This approach explicitly focuses on the idiosyncratic effects that different emotions exhibit on human behavior. This approach relies on two main emotion theories: the cognitive-appraisal theory and the functional theory of emotions (Lerner and Keltner 2000). Concretely, higher-order emotions are caused by cognitive appraisals of a certain situation and, consequently, lead people to react in a way that is in principle beneficial for their well-being through so-called functional action tendencies (Frijda, Kuipers and ter Schure 1989).

Examples of higher-order emotions are fear, anger, awe, hope, relief, shame, guilt, etc. In this paper, we refer to them as discrete emotions.

The cognitive-appraisal theory contends that, besides valence, a range of other appraisal dimensions differentiates discrete emotions from each other. Smith and Ellsworth (1985) distinguish six dimensions: certainty, pleasantness, attentional activity, control, anticipated effort, and responsibility. For example, hope is an emotion appraised as mildly pleasant, high in uncertainty and attentional activity, and largely controlled by the situation itself (Smith and Ellsworth 1985). The functional theory of emotion extends the cognitive-appraisal theory by stating that particular appraisal patterns lead to certain states of action readiness enabling the individual to deal with problems or opportunities in an adaptive way (Frijda 1986). Most emotions do exhibit clear distinctive action tendencies. For example, the action tendencies characterizing anger, which are stressing one's body size, talking louder, fighting, recruiting cognitive resources to outcompete opposing agent, all revolve around removing the barrier that is blocking one's access to the goal (Frijda 1986). The basic emotion fear has action tendencies that can be quite divergent, however, such as freezing, fleeing, or fighting. The cognitive appraisal of the situation triggering the emotion in the first place will help the individual sort out which action tendency is the most functional in this situation. The availability of flight routes, the strength of the threat, and one's mobility could for instance determine whether fear will lead to freezing, fleeing or fighting (Cosmides and Tooby 2000).

In the broader field of emotion research, the specific emotion approach has already been very insightful for studies investigating the differential influence of discrete emotions of the same valence on a diverse range of cognitive and behavioral outcomes. For instance, sadness and anger have been differentiated in terms of their effects on probability perception (DeSteno et al. 2000), with individuals judging the likelihood of emotionally relevant events to occur higher when these events were congruent with their discrete emotion. Further, Lerner

and Keltner (2000) applied the specific emotion approach to illustrate the differential effects of the basic emotions anger and fear in terms of risk perception. They found that fear increased pessimism about a negative event whereas anger increased optimism, consistent with differences in the control action tendency for the two emotions.

Discrete Emotions in Advertising.

Quite some advertising research has focused on discrete emotions and subsequent ad related outcomes (Lerner, Small and Loewenstein 2004; Faseur and Geuens 2006; Rucker and Petty 2004). The best-known emotion thus studied is probably fear. A typical fear appeal in advertising draws attention and triggers fear and then offers, to a greater or lesser extent, a way out (Sternthal and Craig 1974, Rossiter and Thornton 2004). Another well-studied discrete emotion is guilt. In this context, Chang (2014) showed that guilt-inducing ads aimed at promoting donation behavior, had a larger effect on donation intentions when the ad context highlighted the egoistic benefits for the giver as compared to the receiver. Studies on emotional ad appeals focus on strategically chosen integral emotions, but some studies also provide insights in undesirable emotions caused by ads. For example, Edwards, Li, and Lee (2002) investigated the effect of irritation on receptiveness for a pop-up ad and found that such ads were perceived as irritating, but less so if they were congruent with the task-at-hand and/or entertaining. A common thread in these studies is however that they do not specifically build on the specific emotion approach or the functional theory of emotion, and therefore did not make predictions for specific behavioral outcomes.

Other research in advertising did build on this theoretical framework. For instance, Rucker and Petty (2004) found that incidental emotions of anger versus sadness modulated the preferences for advertised products in a way that angry people reacted more positively when the product was promoted as active than sad people. Choi, Rangan, and Singh (2016)

revisited the established positive effect of negative emotion appeals on donations to charity and found that incidental feelings of loneliness suppressed this effect of negative appeal on donation intentions. Griskevicius et al. (2009) found that the incidental emotions of romantic desire and fear modulated the effectiveness of ads using social proof and scarcity appeals, in line with functional emotion theory and evolutionary psychology. Scarcity appeals positively influences brand attitudes and purchase intentions in contexts inducing feelings of romantic desire but suppressed it in contexts evoking fear as compare to a neutral condition. The opposite held for social proof appeals.

Besides the finding that much of the research on discrete emotions in advertising either did not build on the specific emotion approach and hence underestimated the crucial role of appraisals and action tendencies, or focused on incidental emotions only, the reviewed research seems to underexplore behavior as a separate relevant outcome construct. There are some promising exceptions, however. Berger and Milkman (2012) showed that the arousal level of discrete emotions influences online virality of news articles, regardless of valence. More concretely, news articles with sad content lead to low activation and less sharing behavior compared to news content with the highly arousing positive emotion awe or the negative emotions anger and anxiety. This study relied on a big data set of news article sharing behavior complemented with experimental studies pinpointing the causal direction from discrete emotions to sharing. However, it remains to be seen whether these findings can be extended to an advertising context and which other appraisal dimensions, apart from arousal, influence sharing behavior. Poels and Dewitte (2008a) found that the emotion of hope, under some conditions, facilitated search behavior and product trial. However, they needed to rely on regulatory focus theory (Higgins 1997) to detect the behavioral effect because the effect was only found when the ad framed the emotion hope in a prevention focus (hoping to avoid the undesirable), which is not strictly defined within the specific emotion

approach. These studies testify that the behavioral approach to discrete integral emotions in advertising may be fruitful but that in order to optimize the use of the specific emotion approach more guidelines are needed. In the next part, we will elaborate on this research gap and set forth some propositions and concrete guidelines for future research.

RESEARCH GAPS AND ISSUES

The background section suggests that psychology literature on emotions offers a myriad of insights into the concept of emotions and the role of emotions in information processing and behavior. This is also reflected in how emotions have been studied within advertising literature, as discussed in different models and empirical studies of lower-order and higher-order emotions. Yet advertising literature also reveals an important gap: we do not know much about the effect of discrete integral emotions on actual advertising related behavior. This is surprising, since general theories of emotions derive a substantial part of their relevance precisely from the effect that emotions exert on behavior. Frijda's theory puts action tendencies and related action in a central role and 'behavior' forms the crucial last part in the above-cited definition of Kleinginna and Kleinginna (1981). As such, behavioral effects of emotions are practically their *raison d'être*. We further want to argue that in an advertising context, the direct link between discrete integral emotions and behavior could be an important one. Particularly in a digital advertising context, which gained the largest share in advertising expenditures over the past years, behavioral metrics (clicks, shares, user-generated comments, likes, conversions) have become important and measurable advertising outcomes. The central role of behavior in both emotion theory and its importance for the advertising domain calls for more attention to behavioral research in the field of advertising, certainly in the light of digital media and corresponding methodological developments that allow a more direct measurement of both emotions and behavior (Malthouse and Li 2017).

We acknowledge that there is very valuable research showing the relation of emotions with ad and brand memory, attitudes and purchase or other behavioral *intentions*, which are important ad related outcomes in itself or indirectly relate to behavior (Bakalash and Riemer 2013; Levine and Burgess 1997; Raguathan, Pham and Corfman 2006; Tiedens and Linton 2001). Furthermore, as discussed in the introduction, ad-evoked emotions, when insufficiently vivid, may be less intense than emotions evoked in real life situations, which could cloud their direct behavioral impact. We therefore assume that the relative lack of behavioral studies in emotion and advertising literature follows from two lines of reasoning. First, the lingering influence of the hierarchical model of advertising effects in which emotions act as a mediator (Edell and Burke 1987, Holbrook and Batra 1987) between the message on the one hand and attitudes and behavioral intentions on the other hand underpins the assumption that measuring attitudes and intentions are a sufficiently good proxy for the target behavior or related anticipated advertising outcome such as brand image. Second, effects of advertising on behavior as studied in classical lab-experiments are bound to be small, which probably is also the case for less intense ad-evoked emotions, and hence require inconveniently large samples to be sufficiently powered. Nevertheless, infusing the specific emotion approach into advertising research via the behavioral angle may open up previously untapped behavioral engineering potential. In more general terms, can one ‘engineer’ ads in such a way that they directly trigger the desired behavior based on the integral discrete emotion that the ad evokes, without the strict requirement that consumers first like the ad? This could be particularly interesting for negative emotions that have a rich action tendency potential and are currently underused as commercial ad appeals in favor of seemingly safer to use positive emotions (Fredrickson and Levenson 1998). The challenge for future advertising research is to creatively match cognitive appraisals and corresponding action tendencies to relevant

behavioral advertising outcomes. Based on the specific emotion approach, we discuss three potential propositions for the study of discrete integral emotions in advertising.

Our first proposition relates to study of *fear* appeals in which it is a common finding that ad-induced fear is unsuccessful in changing behavior (Witte and Allen 2000). When adopting the specific emotion approach, this comes as no surprise given that flight (which in this context is instantiated as avoidance, shutting off the cause of fear) is one of fear's dominant action tendencies (Frijda 1986). Witte and Allen's (2000) analysis shows that the desired action can be facilitated if the ad using fear appeals offers a clear action plan, which might resonate with 'goal directed behavior', being an action tendency associated with the emotion hope (Poels and Dewitte 2008). Rossiter and Thornton (2004) accordingly demonstrated the essential role of the fear-relief pattern in response to an anti-speeding ad. They showed that if an anti-speeding fear appeal showed a solution (what they call "drive reduction"), it had an immediate and long-term effect on driving behavior. As this brief overview shows, the bulk of the research on fear in advertising has been conducted in a public service advertising context. However, we suggest that commercial advertisers may also want to take into account the impact of fear. On the one hand, campaigns may unintentionally induce social fear (e.g. the fear of missing out) that may activate 'fleeing' (which could behaviorally translate as disengaging from or ignoring the campaign altogether). On the other hand, fear may also be utilized in a positive way in as far the freezing type of fear triggers vigilance for relevant fear-related information (Frijda 1986). When used smartly, this may increase attention to relevant product or brand information.

The second one is *anger*, an emotion not very commonly used as an integral emotion in advertising. Cognitive appraisal and functional emotion theory have shown that anger facilitates antagonistic behaviors towards the agent that thwarts one's goals (Frijda 1986) Such behaviors can be staring at the agent, stressing one's body size, talking louder, recruiting

cognitive resources to remove the barrier, etc. (Frijda, Kuijpers and ter Schure 1989). An interesting research question could then be whether advertisements evoking anger facilitates behavior that is in line with the action tendencies of anger, and to what extent this behavior could be aligned with the intended effects of the ad. A key challenge is then to sort out if any of these behaviors are deemed strategically relevant in facilitating behaviors that are desirable for the advertiser, such as these consumer behaviors that facilitate one to become stronger or more dominant in threatening situations, such as joining a fitness program, buying a certain type of shoes that offer solid ground, or any product that serves self-affirmation?

A third emotion that we want to propose as an interesting discrete integral emotion is the positive emotion *awe*. Awe is a positive emotion elicited by beauty, perfections and great human performance or achievements (Keltner and Haidt 2003). The action tendencies related to awe are less obvious than those that are typically linked to the negative emotions such as fear and anger. Nevertheless they may be highly relevant in an advertising context. For one, awe seems to stop people and get them out of their down-to-earth occupations. They enter a contemplative state. In a state of awe, people are more open-minded, sensitive to information, and to other perspectives (Keltner and Haidt 2003). They experience less time pressure, which leads them to become less impatient, willing to help others, and to prefer experiences to objects (Rudd, Vohs, and Aaker 2012). This means that viewers of awe evoking ads may be more open to new information or even to counter-attitudinal information. It could even be an interesting proposition whether awe evoking ads reduce ad avoidance, precisely due to less time pressure, more patience and an open mindset. Furthermore, advertisers who want to promote experiences or benefit from consumers acting non-impulsively (e.g. exclusive yet expensive travel destinations) may benefit from inducing awe.

Additional research questions are whether the behavioral outcomes of discrete integral emotions in ads depend on the fit with the incidental emotions with their particular appraisals

and action tendencies (Achar et al 2016) or how individual characteristics, such as affect intensity or introversion/extraversion moderate these effects (Chang 2006).

NEW AND FUTURE RESEARCH DIRECTIONS

We argued that particularly the discrete emotions, which are theoretically and empirically well rooted in the cognitive appraisal theory (Lerner and Keltner 2000) and the functional emotion approach (Frijda, Kuijpers and ter Schure 1989) are most overlooked in current advertising literature, especially when studied as integral emotions (Achar et al 2016). We additionally want to make the point that digital media environments, which have dominated advertising literature in the past ten years due to their disruptive nature and new advertising dynamics, do carry lots of potential for testing predictions of these discrete integral emotions and their behavioral potential.

Below we outline four concrete steps that can be taken if one wants to pursue this line of research.

- ➔ The **first step** is to determine a theoretically but also practically relevant link between one discrete emotion (compared to a neutral state or one or more other discrete emotions), embedded in advertising messages, and their corresponding behavioral outcomes, based on the specific emotions approach. The question as to which discrete emotions (e.g. anger, disgust, contempt, awe...) and behaviors (different types of ad relevant behavior: avoidance or attention, sharing, searching, liking, following, commenting, actual purchase) need attention with priority, and the question as to which type of desired behavior would benefit the most in a given advertising context, depend on the research focus of the researcher. We consider linking these constructs as key challenges that require a creative approach by future researchers.

- The **second step** then is to develop, test and optimize the advertising messages in controlled lab settings. The guidelines provided by Geuens and De Pelsmacker (2017) in terms of designing stimuli for experimental advertising research are very valuable in this regard. It is important to check whether the appraisal dimensions and action tendencies of the emotions under study are sufficiently activated by the materials and whether the discrete emotion(s) itself is/are intense enough. Technological advances are emerging that allow to track real-time emotions online (during viewing the ad and the behavioral reactions) such as real-time face reading (Lewinski et al. 2014) but their validity is not yet strong, and might confuse incidental and integral emotions. However, using more direct emotion measures could be an interesting avenue to triangulate research findings, which is an option in the lab context (Chang 2017). As outlined in the introduction, in order to evoke emotions that are as real, and thus as intense as possible, it will be key to make the advertising message as vivid as possible to ‘obey’ to Frijda’s (1988) law of apparent reality.
- **Third**, to link the advertising messages with their corresponding behavioral outcomes, we suggest establishing partnerships with advertisers or media companies (as is also suggested by Malthouse and Li, 2017 as an opportunity for big data research in advertising). The material tested in step two could then be professionally designed in an adequate and relevant advertising format (e.g. sponsored post, preroll ad, banner) and key performance metrics should be linked to the behavioral metrics that are deemed relevant in step 1. A/B testing allows to randomly distribute different versions of the materials to the intended audience (e.g. comparing ad stimuli integrating different discrete emotions or different versions of one discrete emotion). In some situations it may be possible to

additionally define behavioral proxies of emotions (e.g. reaction times as a proxy for awe, Joye and Dewitte 2016).

→ The **fourth and final step** is then to analyze the behavioral metrics of interest and check for possible interactions with incidental emotions (if measured) and identify and control for relevant confounds (e.g. not only the classic demographic confounds such as gender, age, but also consumer profile, surrounding content or behavioral context such as distraction, click rate, etc.).

These guidelines can extend existing A/B testing of advertising messages using big data samples by the advertising industry in online, digital media environments. Currently these tests are still to a large extent data-driven and theory-blind: what works best stays in, what does not result in predetermined key performance metrics goes out, without well-established theoretical, a priori predictions. The a-theoretical nature of A/B testing may make advertising scholars and practitioners miss out on a lot of opportunities. We therefore propose that scholars utilize A/B-like tests designed as theory-based field experiments that look at relevant behavioral metrics and proxies of the integral discrete emotions for future research on the role of emotions in advertising. Compared to classic lab experiments, our approach offers at least two advantages. The approach not only allows high powered samples to detect practically meaningful but small behavioral effects, but they also offer the opportunity to define behavioral metrics or novel proxies that are better connected to the target intended effect than self-reported ad and brand related attitudes and recall, making it not only particularly feasible, but at the same time extremely relevant. Further, compared to classic advertising effects research that is still deeply rooted in the hierarchy of effects line of thinking, our proposed approach invites researchers to explore the potential of emotions that fall outside the box of classic and safe (mostly positive) emotions that have been studied and

used in past advertising research. The suggested field-experiments would not only advance theory, but it also makes more methodological sense given the power needed to observe behavioral advertising effects. Evidently in terms of the effectiveness of digital advertising, behavioral metrics will remain most relevant for the advertising practice.

One could argue that large-scale field experiments are vulnerable to confounds and distractions. Real-life behavior as measured in field studies is real but is determined by many other factors than the intended one, and many of these factors are interrelated. Such data are noisy and this defies solid causal inferences. A potential way to tackle this is including control variables and valid instruments in the econometric or path models when analyzing the data. This allows researchers to draw more valid conclusions about the specific nature of the independent variables because it allows to rule out the influence of similar constructs and constructs that tend to be correlated in the wild due to third variables (for instance product preference, available budget or time, or consumer life style). Another option is to isolate the main causal chain of the model and test it in the lab with a smaller sample and in more artificial yet highly controlled contexts. This allows the researchers to draw firm causal conclusions. Depending on the research aim, advertising researchers can opt for the first, the second, or both options to consolidate their field studies with real behavioral indices (see Berger and Milkman 2016 for an example). To attest discrete integral emotions in advertising we advise to first test and optimize the emotional impact of the advertising stimuli in controlled lab-setting (see guidelines step 2), while also determining beforehand which potential confounds could matter and can be controlled using the field data gathered (see guidelines step 4).

Our guidelines are primarily construed to inspire future research directions towards discrete integral emotions in advertising. Our guidelines could also inspire research on discrete incidental emotions in advertising, for example by making theoretical predictions

about relevant incidental emotions and corresponding behavior (step 1), experimentally nailing down the conditions in which these occur and how to validly measure them (step 2), to then implement this in a large-scale field setting and observe variations in the nature and intensity of the incidental emotion(s) (step 3) and observe the relevant behavioral metrics (step 4). Since incidental emotions are less controllable since they stem from the environment and not from the message, it will probably be more challenging to go from the lab to the field.

We do want to emphasize that such behavioral engineering also comes with an ethical threat, especially given recent insights showing that emotional stimuli can influence reactions beyond consumers' control (Hütter and Swelders 2018). On the one hand, it may offer new potential to persuade citizens to engage in desirable behaviors in a social marketing context. But on the other hand, consumers' persuasion knowledge that they gradually acquire and which helps them to critically process and evaluate ads (Friestad and Wright 1994) may not be sufficient to navigate through the ad-evoked emotions. This corresponds with stressing and educating affective advertising literacy from an early age, as suggested by Hudders et al. (2017). Further, we should consider when and how ad-evoked emotions could benefit the consumer and which specific emotions are better at place than others. We need special research attention to the valence of the emotions. To what extent is the use of negative emotions ethically problematic in a commercial context (cfr. the examples about evoking fear and anger to advertise commercial products)? We propose that it is the behavioral outcome (intended or not) that is ethically relevant, rather than the emotion itself, but further research is needed to evaluate if advertising ethicists and consumers have the same view on this. We call for advertising scholars to continue to assess implications for consumer protection that could inform regulation and policy, especially when it concerns emotional and uncontrollable processes.

To conclude, we specifically call for studies focusing on the behavioral outcomes of integral emotions in ads and explore a broader set of emotions than the classic, safe, positive emotions. After pretesting the emotional impact of ad copies in controlled lab settings, researchers can further validate the behavioral impact of the ad copies in large-scale field experiments in collaboration with online media and research companies, as is also suggested by Malthouse and Li (2017) in the context of using big data for advertising research. As a more general conclusion, advertising literature shows a long and rich tradition in discussing the role of emotions. It is impossible to cover all in this positioning paper. We hope that focusing on the integral discrete emotions, with a focus on their cognitive appraisal and functional action tendencies, and how these may give insights in the most difficult part to study within the advertising field – behavior – will spark new studies in this fascinating field.

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