Implicit and Explicit Measures: What Their Dissociations Reveal about the Workings of Advertising

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1 Introduction

Consider a scenario in which you participate in a study on advertising effects. You are instructed to attend to an advertisement, after which you are asked about your memory for the advertisement and advertised brand, your attitude towards the ad and brand, and your intention to purchase the advertised brand. Sometimes, you will also be asked to reflect about the proposed process that is considered to underlie advertising effects, with questions along the lines of 'do you think that this advertisement has affected your attitude about the brand?' or 'do you think the music in the advertisement affected how positive you feel about the brand?'.

The default in marketing and advertising research is to use explicit measures, like the self-report measures from the scenario above, to examine the impact of advertising on consumer cognitions, attitudes, and behavior. However, such explicit measures have three potentially disadvantageous consequences when examining consumer responses to advertisements, namely that 1) asking the questions reminds participants about their prior exposure to the advertisements, 2) answering the questions requires their conscious recollection and elaboration of this exposure, and 3) answering the questions might even require insight into the potential (psychological) effects of this exposure. As a result, the responses to these measurements are driven by peoples' conscious, controlled, deliberative, and reflective thoughts on how advertisements affect them.

We argue that this way of measuring advertising effects is suitable when researchers are interested in *explicit* advertising effects (e.g., in situations where people are expected to deliberatively encode, retrieve and evaluate advertisements) as well as *perceived* advertising effects (e.g., how people think advertisements affect them). However, explicit effects do not necessarily generalize to real-life situations, because people often do not think back to or elaborate about advertisements in daily life, but rather process them in a shallow way (e.g., Heath, 2001). Also, the measurement of perceived effects is highly susceptible to biases and strategies, for example because they give people insight into the experimenters' hypothesis, because people provide socially desirable answers, or because they post-rationalize what happened during exposure. To get better insights into *actual* advertising effects, it is important to adopt

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measures that tap into the processes at work in real-life situations in which people are not questioned about their experiences. This would allow the more subconscious, automatic, associative, and impulsive processes that drive behavior to manifest.

Implicit measures are designed to tap into exactly these processes because 1) they do *not* require recollection or elaboration of prior experience (e.g., exposure to an advertisement) and 2) the impact of the experience is *inferred* from performance on a seemingly unrelated task (cf. Schacter, 1987). First, because implicit measures do not require recollection of exposure to the advertisement, they are less likely to induce people to think back to the exposure and elaborate about it, or to evoke thoughts about the processes that may have been triggered by the exposure. Second, because the effect of the advertisement is inferred from ostensibly unrelated task performance, it is less likely that the responses are driven by the described biases and strategies, including socially desirable responses and post-rationalization. We therefore argue that it is necessary to add implicit measures to advertising research when the aim is to examine what actually and spontaneously affected people, not what they *believe* affected them or only affected them because they were prompted by the research (Nisbett & Wilson, 1977; Schwarz, 1999; Wilson & Brekke, 1994).

Although implicit measures are less susceptible to the problems described above, they are not immune to them. That is, it is possible that explicit (conscious, controlled, or deliberative) processes "contaminate" implicit measures (Bowers & Schacter, 1990; Gawronski, LeBel, & Peters, 2007; Gawronski & LeBel, 2008; Gawronski, 2009). Therefore, when aiming to distinguish associative (implicit) from deliberative (explicit) processes or when aiming to eliminate the possibility that deliberative strategies are responsible for the results of a study, it is wise to adopt both implicit and explicit measures (Jacoby, 1991; Merikle & Reingold, 1991). Though the outcomes of both measures may be similar, they may also diverge. Any such dissociation (divergence) between the outcomes of the two types of measures then reveals unique information about which processes are responsible for advertising effects. For example, finding implicit but not explicit effects indicates that associative (implicit) processes must have played a part in people's response to an advertisement, whereas the opposite dissociation pattern suggests that deliberative (explicit) processes drive people's ad responses.

For this reason, this chapter will discuss advertising studies that have added implicit measures to oft-used explicit measures. The presented literature will be organized along the lines of two domains, namely implicit measures of memory (developed in cognitive psychology) and implicit measures of attitudes (developed in social psychology). For each line of research, we first introduce the implicit measures that were used in the advertising studies, after which we

compare their findings with those of the explicit measures. Finally, we interpret the diverging findings of the two types of measures and discuss what they reveal about how advertising does and does not work.

2 Memory

2.1 Discussed Implicit Measures

Well-known types of implicit memory measures are the so called word fragment completion tasks or picture identification tasks (Tulving, Schacter, & Stark, 1982; Warrington & Weiskrantz, 1968). Participants are first exposed to the information of interest (e.g., an advertisement), and then presented with fragmented words or pictures. They are instructed to complete or identify the words and pictures, without any reference that these words and pictures were related to the prior learning episode. Research on patients suffering from amnesia has shown that these measures effectively reflect implicit rather than explicit retrieval from memory (Warrington & Weiskrantz, 1968).

2.2 Applications in Advertising Research

Several studies in advertising have used word fragment completion or picture identification tasks in combination with explicit measures, such as recall and recognition. The explicit measures ask people about their memory for the advertisement they saw earlier, whereas the implicit measures derive people´s memory from their performance on the completion and identification tasks. Research on the placements of products and brands in movies and games, for instance, examines brand memory in response to those placements. Here, results have shown that both explicit and implicit brand memory are positively affected by exposure to brand placements (versus no placements). However, subtle brand placements resulted in lower explicit memory than prominent placements, whereas implicit memory for these subtly placed brands remains intact (van Reijmersdal, Rozendaal, & Buijzen, 2012; Yang, Roskos-Ewoldsen, Dinu, & Arpan, 2006; Yang & Roskos-Ewoldsen, 2007). This shows that explicit advertising effects require prominent brand placements, but implicit effects occur regardless of whether brand placements were subtle or prominent.

Work on the impact of cross-media advertising has also adopted both types of measures (Vandeberg, Murre, Voorveld, & Smit, forthcoming). Findings from this study show that presenting two advertisements for one brand in different medium types (versus in a single medium type) improves explicit but not implicit brand memory. In other words, whereas advertising in a single medium impairs explicit retrieval of brand information compared to advertising across media, implicit retrieval remains stable.

Similarly, studies on memory for banner advertisements on web pages have used both implicit and explicit tests. They demonstrate that lower levels of attention for banner advertisements produce relatively poor explicit memory, but that implicit memory is robust (Yoo, 2007; Yoo, 2008). Thus, implicit ad memory is not negatively affected under low (versus high) attention to banner advertisements, but explicit ad memory suffers from low levels of attention.

2.3 What Memory Dissociations Reveal

In all, combining the findings from explicit and implicit memory measures in advertising research suggests that implicit brand memory remains unaffected in cases when presentation of brands is subtle (versus prominent), occurs within a single medium (versus across media), or occurs under low (versus high) levels of attention to banner advertisements. Under these circumstances, explicit brand memory is deteriorated. This evidence from advertising research perfectly matches early findings in cognitive memory research demonstrating that the different measures of memory for prior events reflect different types of memory retrieval processes (Graf & Mandler, 1984; Graf, Squire, & Mandler, 1984; Graf & Schacter, 1985; Jacoby & Dallas, 1981; Schacter, 1987; Tulving et al., 1982; Warrington & Weiskrantz, 1970). The combined findings from both fields make a strong case for the notion that implicit memory remains intact in conditions where explicit memory suffers. Given that consumers often make their decisions under circumstances in which they do not draw upon explicit memory retrieval, implicit memory measures may better match consumers' real-life situations than explicit memory measures (Duke & Carlson, 1993). As a result, implicit measures are assumed to be better predictors for consumer judgments and behavior because "implicit memory is closer to the behavioral predispositions of a consumer and is a form of memory used in everyday situations" (Shapiro & Krishnan, 2001).

Circumstances that have a negative impact on memory (such as processing brands in the background of a TV show, in a single medium, or under low attention) might not be so negative for advertising after all. Given that implicit memory a) does not seem to be affected by these circumstances and b) is more closely related to the real-life situations of consumers, the discussed dissociations may provide good news for advertisers. However, further research is needed to gain wider support for this conclusion.

3 Attitudes

3.1 Discussed Implicit Measures

Two well-known and oft-used attitude measures that will be discussed are the Implicit Association Test (IAT, Greenwald, McGhee, & Schwartz, 1998) and affective priming tasks. For both tasks, participants are instructed to categorize pictures or words that are presented on a computer screen, by pushing designated keys on the keyboard as fast and accurately as possible. The IAT was originally designed to measure which (evaluative) associations are linked to a certain concept in memory. In this task, participants categorize two target categories (e.g., pictures of the two brands Coca Cola and Pepsi) and two attribute categories (e.g., positive or negative words) into two blocks using overarching combinations (using the one key for Coca Cola and positive words and the other key for Pepsi and negative words, or vice versa). The rationale behind this test is that a faster categorization for one combination block (Coca Cola with positive words and Pepsi with negative words) over the other (Pepsi with positive words and Coca Cola with negative words) reveals stronger associations between the concepts and attributes of that category over the other (more positive associations with Coca Cola than Pepsi). Research has shown that IATs provide a valid test of consumer preferences (Brunel, Tietje, & Greenwald, 2004; Maison, Greenwald, & Bruin, 2004).

Affective (Hermans, De Houwer, & Eelen, 1994) or evaluative (Fazio, Jackson, Dunton, & Williams, 1995) priming tasks are based on the affective priming principle, which holds that a stimulus can evoke positive or negative affective reactions without virtually any deeper cognitive processing (Fazio, 2001; Zajonc, 1980). In affective priming tasks, people are generally presented with a prime that requires no response (such as a brand name or logo), after which they are presented with a target that does require a response (e.g., words and pictures which need to be evaluated as either positive or negative). The rationale is that if the prime facilitates the response to the target (e.g., if responses to a positive target are faster after a Coca Cola prime than a Pepsi prime), this indicates that the affective associations between these two concepts are congruent (meaning that Coca Cola activated positive associations to a greater extent than Pepsi, which facilitated responses to positive targets).

3.2 Applications in Advertising Research

The studies that will be discussed in this section have adopted explicit measures that ask people about their attitudes towards the advertisements and brands they saw earlier, and implicit measures in which people´s attitudes are derived from their performance on the IAT or affective priming tasks. Both

implicit measurement methods have demonstrated to be able to tap into associative, automatic brand attitudes. For example, Gibson (2008) has used the IAT to examine whether evaluative conditioning is able to affect people's attitudes towards mature brands such as Coca Cola or Pepsi. In the evaluative conditioning procedure, participants with no strong initial preference for either brand were presented with the brands that were either paired with positive or negative stimuli. The results show that the valence of the presented stimuli spills over to peoples' implicit, but not explicit, attitudes towards the presented brands. This demonstrates that people's implicit associations with the brands were affected by the context in which they were presented, whereas their explicit associations had not changed.

Similarly, studies examining whether subtle brand placements in TV shows affect peoples' brand attitudes have used implicit (IAT) and explicit (bipolar scales) attitude measures (Redker, Gibson, & Zimmerman, 2013; Wennekers, Vandeberg, Zoon, & van Reijmersdal, 2015 in this issue). They demonstrate that implicit, but not explicit, brand attitudes improve as a result of mere exposure (Wennekers et al., 2015) or liking of the genre (Redker et al., 2013) after watching content that contained subtle brand placements.

Furthermore, a study on the effect of celebrity voice-overs in TV commercials also found a dissociation between explicit and implicit attitudes (Forehand & Perkins, 2005). The results showed that, the more positive peoples' implicit brand attitudes towards the celebrities of the voice-over, the more positive their implicit brand attitudes were. The relation between explicitly measured celebrity and brand attitudes was also positive, but only when participants were unable to identify the celebrity. When the celebrities were identified, the effect of explicit celebrity attitudes on explicit brand attitudes was negative (which likely resulted from deliberative negative thoughts about persuasion, by the authors referred to as a "resetting" of the perceived influence from irrelevant cues). Thus, the effect of celebrity voice-overs on explicit brand attitudes was moderated by celebrity identification, whereas the effect on implicit brand attitudes was positive regardless of celebrity identification.

Other dissociations between implicit and explicit attitude measures have been found in studies using (tasks based on) an affective priming task. For example, one study used an affective priming task in combination with explicit attitude measures to examine the effect of skinny or full-figured models on product liking (Häfner & Trampe, 2009). Here, findings show a positive effect of skinny (versus full-figured) models on implicit product evaluations, but a negative effect on explicit product evaluations. The results also showed that the explicit effect was fully mediated by viewers' liking of the advertisement, such that full-figured models induced more ad liking than skinny models. Thus, the effect of models on explicit (deliberative) product evaluations is fully mediated

by the likeability of the advertisements, whereas implicit (spontaneous) product evaluations depended directly on the models and not on ad liking.

Furthermore, studies in political communication research have used related priming tasks to examine how political campaigns affect voter's implicit and explicit attitudes towards the candidates. For example, Carraro, Gawronski, and Castelli (2010) found that negative (versus positive) campaigning by one of the candidates leads to less favorable implicit attitudes towards both political candidates, whereas explicit attitudes only become less favorable for the candidate who negatively campaigned about his opponent. In other words, explicit attitudes toward the candidate who produced the negative information, but not the candidate being talked about negatively, became less favorable. Implicit attitudes, however, were less favorable for both candidates. This suggests that negative associations instigated by the (candidate presenting the) negative campaign associatively transferred to the candidate who was portrayed negatively.

3.3 What Attitude Dissociations Reveal

In all, combining the two types of attitude measures suggests that advertising may have different effects on implicit brand attitudes than explicit brand attitudes. Such dissociations between explicit and implicit attitude measures have been attributed to different types of evaluative processes that affect people's (changes in) attitude (Gawronski & Bodenhausen, 2006; Strack & Deutsch, 2004). Whereas implicit attitude measures are assumed to tap into more associative (impulsive, automatic) evaluative processes, explicit attitude measures are assumed to tap into more propositional (deliberative, controlled) evaluations.

Mapping this notion onto the findings from the advertising literature leads to interesting implications. Although the discussed dissociations in attitude research are less straightforward than those in the discussed memory research (in section 2.2), they do reveal how advertising may differently affect associative and propositional processes. The studies that found advertising to have an impact on implicit but not explicit attitudes (Gibson, 2008; Redker et al., 2013; Wennekers et al., 2015) manipulated relatively subtle contextual cues in either an evaluative conditioning procedure or by subtly placing a brand in a TV show. Such subtle contextual cues would indeed be expected to be too weak to elicit elaborative propositional evaluation processes, but would be very well capable of affecting associative processes that require no elaboration of the presented stimuli.

The studies that found advertising to have a different impact on implicit than explicit attitudes (Carraro et al., 2010; Forehand & Perkins, 2005; Häfner & Trampe, 2009) can also be explained in terms of the different evaluative

processes. In these studies, there were rather obvious cues that the intention of the advertisement was to persuade people (think about the celebrity voice-overs, the skinny models, and the negative campaigns of political candidates). This could have resulted in negative propositional thoughts about the subject of the advertisement to resist the perceived persuasion attempt, which would explain the negative explicit attitudes. Implicit attitudes, on the other hand, are shaped by the mere activation of associations and are therefore less affected by negative propositional thoughts. This explains why the implicit attitudes toward celebrity voice-overs and thin models were not negatively affected. Furthermore, associations are triggered by a spread of activation, which does not specifically target the subject of the campaign but spreads to any associated concepts. This would explain the findings that not only the political candidate who promoted the negative campaign, but also the candidate that was attacked evoked implicitly negative attitudes. Although these preliminary conclusions should be tested extensively, this interpretation nicely suggests how advertising may target implicit and explicit processes in different ways.

How do these different processes shape actual advertising effects? Research from different domains has shown that implicit attitude measures can be more predictive of people's overt behavior than explicit attitude measures (Dovidio, Kawakami, & Gaertner, 2002; Galdi, Arcuri, & Gawronski, 2008). It has for example been shown that changes in implicit attitudes (under stable and neutral explicit attitudes) affect brand choices that are made under cognitive load (Gibson, 2008). This provides support for the idea that consumer choices may be driven by associative rather than deliberative processes. Other studies have also found evidence for associative effects on consumer behavior. For example, Fitzsimons et al showed that exposure to a brand can affect peoples' behavior in a way that is in line with the brand's characteristics, without people being aware of this influence (Fitzsimons, Chartrand, & Fitzsimons, 2008). Such findings have strengthened the view that consumer behavior is largely driven by implicit evaluative processes (e.g., Chartrand, 2005; Chartrand & Fitzsimons, 2011; Dijksterhuis, Smith, Van Baaren, & Wigboldus, 2005). Given that implicit attitudes a) are affected differently by advertising than explicit attitudes and b) are likely of greater influence on spontaneous consumer behavior than explicit attitudes, the need for adding such measures to the broad field of advertising research is urgent.

4 Conclusion

This literature review suggests that implicit measures tap into advertising effects that are often overlooked by explicit measures. As the combined findings from advertising and psychological research suggest, the processes that are detected by implicit measures are highly relevant for advertising effects, which

is supported by research demonstrating that implicit measures are able to predict important real-life behaviors that are difficult to predict with self-report measures. Given that the main aim of marketing and advertising strategies always is to affect consumer behavior, we argue that adding implicit measures is essential for the field to move forward. Only in this way will we be able to disentangle the mechanisms responsible for the impact of advertising on real-life consumer behavior.

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