



Editorial

Beyond explicit measures in marketing research: Methods, theoretical models, and applications



ARTICLE INFO

Keywords

Implicit cognition paradigm
Consumer psychology
Implicit attitude
Retailing
Marketing research

ABSTRACT

Whereas traditional self-report procedures and methods mainly tap into consumers explicit attitudes, the implicit cognition paradigm provide researchers and marketing practitioners with a unique tool to uncover consumer implicit attitudes, choices, decisions, and action tendencies. By means of the sheer extent and validated models and empirical studies in cognitive psychology, the application of implicit measures and techniques in marketing and consumer studies is in its infancy; thus, this special issue focuses on theories, tools and approaches for examining consumers unconscious attitude and sustainable consumption patterns. The objective of this special issue is to illustrate theoretical and methodological application of implicit consumer cognition paradigm in marketing and consumer studies. This special issue of *Journal of Retailing and Consumer Services* highlights the implicit cognition approach as a greater alternative in measuring consumer attitude and tendencies where scientist and marketers are impotent to capture.

1. Special issue background information

Since the influential work in measuring human attitudes (Thurstone, 1928), assuming that attitudes are triggered inside of conscious awareness, the current management, information systems, marketing and retailing studies are mainly grounded on self-report measures. However, “attitudes are activated outside of conscious attention” (Greenwald and Banaji, 1995, p. 5), and it is not conceivable to sufficiently measure a person’s unconscious or automatic tendencies by directly asking questions. Using various reaction time paradigms, recent neuroscience researches show that cognitive bias process which exists outside of conscious awareness is a complex structured, stable, enduring, and resistant to change because the implicit biases are reflected in past events and experiences and can be independent of explicit cognition (Gawronski and LeBel, 2008; Greenwald and Banaji, 1995; Greenwald et al., 1998; Holbrook and Hirschman, 1982). Based on dual-process models and Prospect Theory (Kahneman and Tversky, 2013), to scrutinize indirect, unconscious, paradoxical, impulsive, and automatic processes, the new procedures are termed indirect or implicit measures where individual participants are not explicitly asked to disclose their attitudes (Gibson, 2008; Horcajo et al., 2010; Stacy and Wiers, 2010; Teichert et al., 2019).

Traditional self-report measures such as questionnaire techniques might be insufficient (Gibson, 2008) due to individuals “self-presentation strategies, demand characteristics, distortions based on social desirability and they tend to address many different social situations without focusing on the processing” (Heuer et al., 2007, p. 2991). Taken from neuroscience and cognitive psychology researches, the implicit measures are unrestricted of such methodological inadequacies (Dimofte, 2010; Gibson, 2008; Klein et al., 2017), consequently, various

reaction time paradigms would reveal the hidden insights from consumer’s decision-making process which traditional self-report measures are unable to trace (Teichert et al., 2019).

By means of validated and established models and empirical studies in cognitive psychology (Becker et al., 2015; Kahneman and Tversky, 2013; Klein et al., 2017; Teachman, 2007), the implicit techniques applicable to marketing and consumer studies in its infancy (Gibson, 2008); thus, this special issue focuses on theories, tools and approaches for identifying consumers “can not tell” sustainable consumption patterns. Whereas traditional self-report procedures evaluate mainly explicit attitudes, the implicit cognition measures provide marketing practitioners and researchers with a unique vehicle to uncover consumer attitudes, choices, and decisions (Maison et al., 2004). Theories of implicit cognition propose that individual choices are highly influenced by “memory associations,” which are impulsively activated, and conscious memory processes, which are characterized by at least some planning elements (Horcajo et al., 2010). Taylor and Amir (2012) show that conscious reflections on automatic approach tendencies can enhance engagement in social approach behavior, thus, interactions between fast automatic processes and slow reflective processing might trigger self-regulation (Gladwin et al., 2017). Thus, the objective of this special issue is to shed the light on the theoretical and methodological understanding of implicit consumer cognition approach and illustrates several empirical assessments of the conceptual and empirical methods for implicit measures in marketing and consumer studies.

In the first article in this special issue, Wörfel (2019) provided a bibliometric review and found that implicit measures are isolated from the wider research stream. Social network analysis performed by Wörfel (2019) confirm that implicit attitude research exhibitions a high quantity of knowledge exchange with the other research streams. Wörfel

<https://doi.org/10.1016/j.jretconser.2021.102545>

(2019) provided an overview and structure of the discourse, condense knowledge by means of 446 research articles with 16,684 unique references. In this article, social network analysis discovered intellectual connections both within and between research streams. According to Wörfel (2019), “the temporal development of research streams shows that the main focus shifted from implicit memory to implicit attitude research after the emergence of the Implicit Association Test (IAT)”. Finally, using factor analysis, Wörfel (2019) identified implicit attitude, implicit memory, implicit goal pursuit, implicit theories, impulsive consumption, evaluative conditioning, and unconscious decision-making as the seven research streams.

In the second article, Richetin et al. (2019) provided novel insight into the biasing effect of evocative attributes from both implicit and explicit perspectives. In four experimental research settings, authors manipulated the label of two brands regarding their production process and they measured implicit and explicit perceptions of healthiness and tastiness. In the first and second experiments, the conventional label was evaluated either separately or in relation to the industrial label, while in third experiment and experiment 4 each label was viewed in accordance with the option of no label. Consumers' cognitive processes are widely related to subconscious and automatic processes (Brunel et al., 2004; Decker and Gay, 2011; Dimofte, 2010). Studies show that unconscious attitudes and thinking evoke consumers' decision-making processes even more than conscious thoughts do (Bos et al., 2012). Authors found that the result from implicit level are more profound because consumers are usually unaware of the halo or horn effect and such effects operate at the implicit level. Based on moderating effect of pro-environmental concern on tradition, authors suggest that “a focused nudging strategy for the increase of consumer environmental awareness could lead consumers to orient their choices towards traditional products” (p. 10). Finally, authors suggest that traditional labeled food should be launched in conventional supermarkets instead of new specialized stores.

In the third article, Pleyers (2019) examined the impact of congruence on consumers' automatic responses using affective priming task. In this article, the lexical decision task combined with a semantic priming procedure and author examined the congruency vs. incongruency between the shape of the product container and the shape of label. Furthermore, author examine the possible positive affective related to individual reactions and trust-related perceptions. Results obtained from affective priming measure demonstrate that “products whose bottle shape and label shape were either both angular or rounded (compared to shape-incongruent designs) aroused a more positive affective response”. Author highlights the issue that arise with self-reporting and explicit measures and empirically show that explicit measures only exhibited “a significant congruence effect with regard to participants' feelings of sensory intensity for the perfume product category but they did with regard to sensory complexity”. From a management point of view, the article offered a new perspective and proposed that, opposed to a strong angular congruence, a perfect congruence of form between the bottle and the mark promotes the smooth absorption of the stimulus, resulting in a stronger affective response. Finally, built upon processing fluency framework, Pleyers (2019) provides empirical indication that shape-congruent of product designs (vs. shape-incongruent) is linked with a more positive emotional response and improved stimulation of trust-related beliefs.

In the fourth article, Cuny et al. (2020) provided two studies to examine the implicit texture associations in predicting and understanding consumers' new product preferences with the implication of new food product development emphasizing on the affective reactions. On the bases of new product development process, despite the benefits of explicit methods, implicit measures have not been implemented in consumer research. Authors explain the viability and precision of an implicit sensory evaluation including the gustatory modality and the gustative priming procedure with a lexical decision-making process; reveals that various substances are correlated with different tastes in customer memories. Further analysis by authors indicates that market

expectations for goods that meet the strongest associations demonstrate that tacit protocols will inform the introduction of new products. Cuny et al. (2020) argue that implicit measures are more predictive than explicit measures during new product development and their results confirm the usefulness and effectiveness of the implicit sensory test protocol for the taste modality. Finally, authors argue that, in order to improve customer desires for new foods, businesses should consider exploring implicit texture-flavor correlations and understand the value of presenting new flavor knowledge.

In the fifth article, Capelli and Thomas (2020) explored the impact of the representations of ingredients on implicit tasty-healthy associations for packaged goods and shed lights on the impact of extrinsic packaging cues on food product perceptions. Previous research in the realm of food choices has used implicit cognition measures such as the implicit association test (Raghunathan et al., 2006; Seibt et al., 2007; Werle et al., 2013), the dot-probe task (Calitri et al., 2010), the emotional Stroop task (Calitri et al., 2010; Mahamedi and Heatherton, 1993), the Extrinsic Affective Simon Task (Seibt et al., 2007), and a modified AAT (Piqueras-Fiszman et al., 2014). Authors introduced two product depictions on the front of packages versions for the same product in a healthy/unhealthy category. Taking into account the beneficial benefits of translucent packages that enable customers to display the product or to add visual content to the box, authors observed that implicit intuitions had an influence on explicit perceptions. Capelli and Thomas (2020) found that implicit intuitions influence explicit preferences, thus, packages depicting few images of ingredients are favored over those depicting multiple images of ingredients for healthier products, but there are no noticeable effects on harmful products. Among different product categories, the reaction to appetitive stimuli (e.g., chocolate, fast-food) are especially characterized by several unconscious mechanisms, including impulsive processes (Garza et al., 2016). Practically, the authors suggest that management should understand designing their own product packaging in order to benefit from customer favorable intuitions about healthier goods; and, in particular, they should provide few photographs of ingredients on healthy products to express the perception that flavor is consistent with wellbeing. Finally, the authors described that explicit expectations of taste are greater for labeling with more photos of ingredients, but, did not see the same positive impact for subtle connections with health or observable decisions.

In the sixth article, Belboula and Ackermann (2019) provided insightful evidence on service brand meaning and brand's physical elements using implicit measures. Researchers have not comprehensively focused on the characteristics and building blocks of brand experience and brand equity despite the fact that comprehending how consumers experience brands is crucial for implementing marketing strategies. Belboula and Ackermann (2019) explored “the extent to which a greater ability to decode meaning conveyed by design features results in differences in implicit understanding of service brand meaning” using Semantic Priming Task. Drawn upon implicit and explicit measure, authors empirically show that the results from both approaches are corresponding as the findings reveal a clear understanding of service brand meaning that conveyed by physical elements at different points of an individual reflective process. Belboula and Ackermann (2019) assessed associative strength between brand meaning and a service brand's physical elements. By emphasizing on the critical role of physical elements of branded services and brand meaning, as such, their empirical analysis contributes to service literature. Belboula and Ackermann (2019) further develop that brand sense is created by managerial choices by demonstrating that stylistic choices in terms of holistic design styles favor the automatic generation of brand experiences by triggering memory-stored associations. Therefore, this article sets out the rationality of the “semantic priming task” in marketing studies by explaining its importance in the sense of service brand identity and defining design perspectives and engagement.

In the last article, by investigating corporate associations valence, Lécuyer et al. (2019) examined how corporate governance contributes

to brand equity using implicit measure of memory association approach. The article demonstrates a novel insight of complex relationship between corporate social responsibility and corporate abilities, considering corporate governance. In addition, [Lécuyer et al. \(2019\)](#) measured the implicit consumers attitudes to evaluate the moderating role of banks governance. The IAT results indicate that corporate social responsibility is positive for member-owned businesses while corporate abilities is positive for investor-owned businesses. Authors indicate that consumer associations induced by different governance influence the balance of corporate social responsibility and corporate abilities contributions to the brand equity. By following IAT protocol, their study prevents the social desirability biases that frequently occur in survey methods. From a theoretical view, this article modified the valence of the brand associations that identifies a process of explaining the effect of corporate governance on brand equity. Author further illustrate that corporate abilities dimension of corporate associations aids more from investor-owned than member-owned governance procedures. For managers, this study postulates that corporate governance contributes to the brand equity, consumers retention and the service performance ([Lécuyer et al., 2019](#)). Finally, built empirical results, [Lécuyer et al. \(2019\)](#) suggest that communications about a firm governance should reflect in positioning strategy.

Built upon the empirical findings in this special issue and previous studies, research on implicit cognition and indirect measures reveals why people engage in maladaptive behaviors ([R. W. Wiers, Rinck, Dicus, & van den Wildenberg, 2009](#); [Reinout W Wiers et al., 2010](#)) that might be sensitive to changes in spontaneous cognitive developments. This special issue of *Journal of Retailing and Consumer Services* highlights the implicit cognition approach as a greater alternative in measuring consumer attitude and action tendencies where scientist and marketers are unable to capture the unconcise information from target markets.

Theoretically, according to empirical findings in this special issue, cognitive psychology researches and based on dual-process models, self-reports and indirect tasks may measure different processes ([Klein et al., 2017](#); [Maison et al., 2004](#); [Stacy and Wiers, 2010](#)). Therefore, reaction time (i.e., response latency) paradigms can be considered to uncover profound marketing methods, performance measures, and theoretical models. Memory association (Implicit Association Test), Approach-Avoidance Task and Attentional biases including Emotional Stroop, Dot-Probe, and Emotional Spatial Cuing are approaches that are useful in expring consumer attitude and behavioural intention. The implicit measures are needed to retrieve automatic action tendencies. Even if consumers are slightly aware of their automatic action tendencies, direct measures might produce socially acceptable responses, as consumers might hesitate to share their inner views with unacquainted sources when responses might be embarrassing ([Brunel et al., 2004](#); [Dimofte, 2010](#)). The suitability and applicability of implicit cognition techniques persist limited in the current theoretical and methodological literature. As such, to explore maladaptive, response biases and other issues associated with the self-report measure, individual consumption, and information processing are determined by nonconsciousness elements, the indirect, and automatic evaluative reactions that are three main aspects of implicit attitude measures/approaches ([Gibson, 2008](#); [Horcajo et al., 2010](#); [Nevid, 2010](#)). Thus, this special issue of *Journal of Retailing and Consumer Services* invites future research to demonstrate applications of the implicit measures for enabling or supporting changes in critical consumption behavior and consumer relationships.

Acknowledgements

As guest editor of this special issue, I would like to thank the editor of *Journal of Retailing and Consumer Services* and the journal editorial team for their support through the process of making this special issue to occur. I express my warmest gratitude and appreciation to the academics who contributed their article to this special issue and to the knowledgeable community of reviewers who enthusiastically assisted the

creation of this special issue on user implicit cognition.

References

- Becker, D., Jostmann, N.B., Wiers, R.W., Holland, R.W., 2015. Approach avoidance training in the eating domain: testing the effectiveness across three single session studies. *Appetite* 85, 58–65.
- Belboula, I., Ackermann, C.-L., 2019. Consumer response to service brand physical elements: using a semantic priming task to explore implicit understanding of service brand meaning. *J. Retailing Consum. Serv.*, 102019
- Bos, M.W., Dijksterhuis, A., van Baaren, R., 2012. Food for thought? Trust your unconscious when energy is low. *J. Neurosci. Psychol. Economics* 5, 124.
- Brunel, F.F., Tietje, B.C., Greenwald, A.G., 2004. Is the implicit association test a valid and valuable measure of implicit consumer social cognition? *J. Consum. Psychol.* 14, 385–404.
- Calitri, R., Pothos, E.M., Tapper, K., Brunstrom, J.M., Rogers, P.J., 2010. Cognitive biases to healthy and unhealthy food words predict change in BMI. *Obesity* 18, 2282–2287.
- Capelli, S., Thomas, F., 2020. To look tasty, let's show the ingredients! Effects of ingredient images on implicit tasty–healthy associations for packaged products. *J. Retailing Consum. Serv.*, 102061
- Cuny, C., Petit, C., Allain, G., 2020. Capturing implicit texture–flavour associations to predict consumers' new product preferences. *J. Retailing Consum. Serv.*, 102047
- Decker, S.A., Gay, J.N., 2011. Cognitive-bias toward gaming-related words and disinhibition in World of Warcraft gamers. *Comput. Hum. Behav.* 27, 798–810.
- Dimofte, C.V., 2010. Implicit measures of consumer cognition: a review. *Psychol. Market.* 27, 921–937.
- Garza, K.B., Ding, M., Owensby, J.K., Zizza, C.A., 2016. Impulsivity and fast-food consumption: a cross-sectional study among working adults. *J. Acad. Nutr. Diet.* 116, 61–68.
- Gawronski, B., LeBel, E.P., 2008. Understanding patterns of attitude change: when implicit measures show change, but explicit measures do not. *J. Exp. Soc. Psychol.* 44, 1355–1361.
- Gibson, B., 2008. Can evaluative conditioning change attitudes toward mature brands? New evidence from the implicit association test. *J. Consum. Res.* 35, 178–188.
- Gladwin, T.E., Wiers, C.E., Wiers, R.W., 2017. Interventions aimed at automatic processes in addiction: considering necessary conditions for efficacy. *Curr. Opin. Behav. Sci.* 13, 19–24.
- Greenwald, A.G., Banaji, M.R., 1995. Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychol. Rev.* 102, 4.
- Greenwald, A.G., McGhee, D.E., Schwartz, J.L., 1998. Measuring individual differences in implicit cognition: the implicit association test. *J. Pers. Soc. Psychol.* 74, 1464.
- Heuer, K., Rinck, M., Becker, E.S., 2007. Avoidance of emotional facial expressions in social anxiety: the Approach-Avoidance Task. *Behav. Res. Ther.* 45, 2990–3001.
- Holbrook, M.B., Hirschman, E.C., 1982. The experiential aspects of consumption: consumer fantasies, feelings, and fun. *J. Consum. Res.* 9, 132–140.
- Horcajo, J., Briñol, P., Petty, R.E., 2010. Consumer persuasion: indirect change and implicit balance. *Psychol. Market.* 27, 938–963.
- Kahneman, D., Tversky, A., 2013. Prospect theory: an analysis of decision under risk. In: *Handbook of the Fundamentals of Financial Decision Making: Part I. World Scientific*, pp. 99–127.
- Klein, A.M., van Nierkerk, R., Ten Brink, G., Rapee, R.M., Hudson, J.L., Bogels, S.M., Becker, E.S., Rinck, M., 2017. Biases in attention, interpretation, memory, and associations in children with varying levels of spider fear: inter-relations and prediction of behavior. *J. Behav. Ther. Exp. Psychiatr.* 54, 285–291.
- Lécuyer, C., Capelli, S., Sabadie, W., 2019. Consumers' implicit attitudes toward corporate social responsibility and corporate abilities: examining the influence of bank governance using the implicit association test. *J. Retailing Consum. Serv.*, 101989
- Mahamed, F., Heatherton, T.F., 1993. Effects of high calorie preloads on selective processing of food and body shape stimuli among dieters and nondieters. *Int. J. Eat. Disord.* 13, 305–314.
- Maison, D., Greenwald, A.G., Bruin, R.H., 2004. Predictive validity of the implicit association test in studies of brands, consumer attitudes, and behavior. *J. Consum. Psychol.* 14, 405–415.
- Nevid, J.S., 2010. Introduction to the special issue: implicit measures of consumer response—the search for the holy grail of marketing research. *Psychol. Market.* 27, 913–920.
- Piqueras-Fiszman, B., Kraus, A.A., Spence, C., 2014. “Yummy” versus “Yucky”! Explicit and implicit approach–avoidance motivations towards appealing and disgusting foods. *Appetite* 78, 193–202.
- Pleyers, G., 2019. Shape congruence in product design: impacts on automatically activated attitudes. *J. Retailing Consum. Serv.*, 101935
- Ragunathan, R., Naylor, R.W., Hoyer, W.D., 2006. The unhealthy= tasty intuition and its effects on taste inferences, enjoyment, and choice of food products. *J. Market.* 70, 170–184.
- Richetin, J., Demartini, E., Gaviglio, A., Ricci, E.C., Stranieri, S., Banterle, A., Perugini, M., 2019. The biasing effect of evocative attributes at the implicit and explicit level: the tradition halo and the industrial horn in food products evaluations. *J. Retailing Consum. Serv.*, 101890 <https://doi.org/10.1016/j.jretconser.2019.101890>.
- Seibt, B., Häfner, M., Deutsch, R., 2007. Prepared to eat: how immediate affective and motivational responses to food cues are influenced by food deprivation. *Eur. J. Soc. Psychol.* 37, 359–379.
- Stacy, A.W., Wiers, R.W., 2010. Implicit cognition and addiction: a tool for explaining paradoxical behavior. *Annu. Rev. Clin. Psychol.* 6, 551–575.

- Taylor, C.T., Amir, N., 2012. Modifying automatic approach action tendencies in individuals with elevated social anxiety symptoms. *Behav. Res. Ther.* 50, 529–536.
- Teachman, B.A., 2007. Evaluating implicit spider fear associations using the Go/No-go Association Task. *J Behav Ther Exp Psychiatr.* 38, 156–167.
- Teichert, T., Graf, A., Rezaei, S., Wörfel, P., Duh, H., 2019. Measures of implicit cognition for marketing research. *Marketing, Zeitschrift für Forschung und Praxis* 41, 48–76.
- Thurstone, L.L., 1928. Attitudes can be measured. *Am. J. Sociol.* 33, 529–554.
- Werle, C.O., Trendel, O., Ardito, G., 2013. Unhealthy food is not tastier for everybody: the “healthy= tasty” French intuition. *Food Qual. Prefer.* 28, 116–121.
- Wiers, R.W., Rinck, M., Dictus, M., van den Wildenberg, E., 2009. Relatively strong automatic appetitive action-tendencies in male carriers of the OPRM1 G-allele. *Gene Brain Behav.* 8, 101–106.
- Wiers, R.W., Rinck, M., Kordts, R., Houben, K., Strack, F., 2010. Retraining automatic action-tendencies to approach alcohol in hazardous drinkers. *Addiction* 105, 279–287.
- Wörfel, P., 2019. Unravelling the intellectual discourse of implicit consumer cognition: a bibliometric review. *J. Retailing Consum. Serv.*

Sajad Rezaei*

Worcester Business School, University of Worcester, Worcester, UK
Faculty of Business, Economics and Social Sciences, University of Hamburg,
Hamburg, Germany

* Worcester Business School, University of Worcester, MH G001, Castle
Street, Worcester WR1 3AS, Worcester, UK.
E-mail addresses: mmg.sajad@gmail.com, s.rezaei@worc.ac.uk.