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Methodological Issues in Advertising Research: Current Status, Shifts, and Trends

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This article presents some self-reflective considerations on the methodology applied in advertising scholarly publications, based on a review of articles in four leading journals: *Journal of Advertising*, *Journal of Advertising Research*, *International Journal of Advertising*, and *Journal of Current Issues and Research in Advertising*. This article first identifies two approaches in the positivist paradigm that exert strong impacts on the development of advertising research: the message effects research tradition in the communication field and the consumer psychology research tradition in marketing. With this background, the article next introduces several research questions to explore which methods have dominated advertising research, the role of theory building in affecting the adopted methods and the number of reported studies, differences across the journals, and the degree to which researchers integrate different methods or approaches (quantitative and qualitative) in their research. A content analysis of articles published in these four advertising journals from 2001 to 2015 helps address these research questions and reveals the current status, shifts, and trends in advertising research since the turn of this century.

Advertising research systematically advances knowledge about advertising and thus is relevant to both academics and practitioners. In an advertising planning process, advertising professionals often conduct research to ensure the success of their campaigns, including consumer research for segment targeting, media research for monetary allocation decisions, and copy research to predict message perceptions (Haskins and Kendrick 1993). Rather than addressing such professional research pursuits, this study focuses on academic research pursuits as are published in academic advertising journals. Investigating journal articles represents a form of self-reflection on scholarly activities, which can enhance understanding of the

development of the discipline, as well as assess the advancement and maturity of the field (Kim et al. 2014).

In particular, theory building is a primary mission of advertising research (Laczniak 2015). As Reid (2014), a former editor of *Journal of Advertising*, points out, the core value of that journal has remained “the discovery and development of theoretically founded knowledge that is verified (i.e., either through empirical methods or critical thinking and reason) within the communication context and considered in relation to its consequences for advertising theory and practice” (p. 411). This statement highlights the important role of research methodology for advancing advertising theories. Similarly, Greenwald (2012, p. 99) asserts that “there is nothing so theoretical as a good method,” emphasizing the interdependence of theoretical advancement and methodological innovation. On one hand, theory building relies on solid methods; on the other hand, advancing research methods facilitates the development of groundbreaking theories.

A positivism paradigm frequently serves as the primary approach to address advertising issues in advertising research. According to this paradigm, research starts with theory building, which helps specify the relationship among the variables and formulate some predictions. The research process also involves concept explication and method selection. The current article briefly introduces the utilities of these major quantitative methods, then proposes several research questions to address the current utilization, shifts, and integration of different methods. A content analysis designed to address these research questions covers articles published in four leading advertising journals between 2001 and 2015: *Journal of Advertising* (JA), *Journal of Advertising Research* (JAR), *International Journal of Advertising* (IJA), and *Journal of Current Issues and Research in Advertising* (JCIRA).

DOMINANT APPROACHES AND PARADIGMS IN ADVERTISING RESEARCH

Two Common Approaches in the Positivist Paradigm

The positivist paradigms and two research approaches (e.g., message effects, consumer psychology) have dominated

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advertising research. According to Lang (2013, p. 14), an exploration of “what types of content, in what type of medium, affect which people, in what situations” is a prominent perspective in mass communication research. For this message effect perspective, the primary objective is to demonstrate the process and effects of mass communication (Lang 2013). Under its influence, advertising researchers naturally focus on how advertising works and the effects it generates.

Consumer behavior research instead tends to be situated within a psychological framework, such that the major consumer behavior models have emerged from this perspective (Helgeson, Mager, and Kluge 1985; Zielinski and Robertson 1982). With this influence, the dominant approach has been to understand consumers from a psychological perspective, through “the utilization of distinctively psychological concepts and methods to understand (explain and predict) the dynamics underlying, influencing, and determining consumer behavior” (Jacoby 1976, p. 332). Adopting this consumer psychology approach, advertising researchers tend to focus on consumers’ perceptions and information processing, as well as the psychological processes (cognitive and affective) triggered by advertising messages.

Research Topics and Methodology in These Approaches

Prior research, whether it is a citation analysis, peer evaluation survey, or content analysis, demonstrates empirically that these two research traditions have tremendous influences on advertising research. First, citation analyses of advertising research indicate that the dominant emphases have been advertising effects and consumer psychology as they relate to information processing and psychological responses to advertising. Pasadeos, Phelps, and Kim’s (1998) citation analysis of advertising articles shows that the most cited research during 1982 through 1985 explored cognitive processes and responses and advertising effects; the most cited research in 1992 through 1995 involved affective responses and the elaboration likelihood model (ELM). Then Pasadeos, Phelps, and Edison’s (2008) subsequent citation analysis of advertising research published in 2002 through 2005 reveals a focus on attitudes and persuasion, how advertising works, and information processing.

Advertising researchers also identify articles that explore message effects or consumer psychology as the most influential publications in surveys. For example, Beard (2002) asked advertising researchers to rate a list of articles and books in terms of their influence on how they view advertising research, theory, or advertising practice. The findings suggest that the themes underlying the most influential articles or books pertained mainly to advertising effects and consumer behavior, including topics such as ELM, how advertising works, cognitive responses, affective responses, and attitudes toward the ad.

Content analyses of advertising research provide additional evidence that the two traditions affect which issues attract

advertising researchers’ attention and what theories they use to support their predictions. For example, Muncy’s (1991) analysis of articles published in the first 20 volumes of *JA* reveals that the two most commonly explored topics are consumer behavior and advertising messages/appeals, which entail the use and effects of different message strategies. Muncy and Eastman’s (1998) analysis of volumes 21 through 25 of *JA* indicate that consumer behavior and advertising messages remained the most common topics. Content analyses of theories applied in advertising research also show the influence of theory from psychology domains, with the most popular being persuasion theory (e.g., ELM) (Kim et al. 2014; Pitt et al. 2005).

As these analyses show, the development of discipline knowledge in advertising is strongly shaped by the dominant research traditions in two related fields. The well-developed knowledge bases in these fields thus provide rich nourishment, enabling the further and rapid growth of advertising knowledge along similar paths. Yet the downside is that the focus can be somewhat narrow. Muncy and Eastman (1998) reason that the dominant positivist paradigm determines not only which topics researchers explore but also the methodology they adopt; methods used frequently to explore topics within the dominant paradigm also are more likely to be adopted, because they are well developed and better known to advertising researchers. This tendency explains Kim et al.’s (2014) findings that 74.1% of advertising research employs quantitative methods. Using this understanding of the development of advertising knowledge, the next section examines the importance of theory building and the most commonly adopted methods.

THEORY BUILDING IN THE POSITIVIST PARADIGM

According to Keyton (2006), “The best research is driven by theory, validates a theory, further explains a theory, challenges an existing theory, or aids in the creation of theory.” As one of its important missions, advertising research seeks to develop theoretically grounded knowledge about how advertising works. As a discipline, advertising also is evaluated mainly in terms of its theoretical foundations (e.g., Lacznia 2015; Muncy 1991; Reid 2014). Kim et al.’s (2014) analysis indicated that 46.5% of articles in advertising journals are theory driven. According to Reid (2014), 63% of articles published in *JA* are theory driven, and this percentage has been increasing over time.

Kerlinger (1986) defines a theory as “a set of interrelated constructs (concepts), definitions, and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena” (p. 9). In a communication context, a theory is “one or more propositions about people’s communication behavior that enables a communicator to figure how to communicate with particular individuals or in a given

situation” (Keyton 2006, p. 7). In parallel, for advertising, a theory is one or more propositions about consumers’ responses to advertising or marketing communications that helps the advertiser understand how to communicate with particular targeted segments or in a given consumption situation. Communication theories have been described as scholars’ attempts to represent communication processes (Croucher and Cronn-Mills 2015); advertising theories similarly should be described as scholars’ attempts to capture the ad message reception process.

In advertising research, theories can be highly practical, because they represent proposed solutions to problems and means to make sense of unsettling situations (Frey et al. 1991; Kaplan 1964). Theories also help outline the situations in which the proposed process occurs (Croucher and Cronn-Mills 2015). Theory-building processes can be theory driven (deductive) or phenomena driven (inductive), and both are based on clear logical reasoning (Keyton 2006). Regardless of the formation process, good theories serve important functions. The end result is to help organize knowledge and enhance understanding; but during the research process, theories also can lead the inquiry (Frey et al. 1991).

UTILITIES OF DIFFERENT METHODS

Solid methods can facilitate theory building; the research methodology in turn plays an important role in advancing advertising theories. Accordingly, this section briefly reviews the utilities of major quantitative methods for advertising research.

Experiments

A controlled experiment offers “a procedure for testing cause-and-effect relationships within a setting that permits maximum control over extraneous variation and allows the experimenter to observe the effect of one variable on another in such a way as to demonstrate that no other variable could have produced the same effect (or to test for the joint effect of two variables on a third)” (Westley 1989, pp. 200–201). It is called a controlled experiment because researchers exercise control by manipulating independent variables, creating equivalent groups, and attempting to reduce the influence of extraneous variables so that the set of independent variables accounts for variance in the dependent variable, and no other causal agents can have accounted for the variance. There are many reasons for the popularity of experiments among advertising researchers. First, advertising research remains under the influence of the media effects and consumer psychology approaches, both of which conduct experiments frequently to demonstrate the causal effects of exposure to media messages or promotion messages. Second, effective experimental designs help establish the causal effects of different appeals and messages, so such findings are based on solid evidence,

with good implicative values for advertising practitioners in terms of deciding which appeals to use or what types of messages to deliver.

Survey

Surveys help describe the characteristics of a population and their effects, by gathering information from certain groups of people that are representative of the population of interest (Berger 2014; Boyle and Schmierbach 2015). There are two main types of survey research: descriptive and explanatory. *Descriptive survey research* describes the characteristics of a population, according to the representative sample drawn from that same population. *Explanatory survey research* makes associative claims about the relationship between two or more variables, such that changes in one variable are accompanied by changes in the other variable or variables (Merrigan and Huston 2004). Most academic advertising research falls into the latter category, and the explored relationships often stem from a theoretical framework (Croucher and Cronn-Mills 2015). When variables are measured with appropriate instruments and the drawn sample is representative, survey research can examine phenomena (demographics, psychographics, and behaviors) as they occur in real settings and produce findings that can be generalized to the wider population.

Content Analysis

Content analysis has long been used to investigate advertising (Croucher and Cronn-Mills 2015). Neuendorf (2002, p. 10) defines content analysis as a “summarizing, quantitative analysis.” In advertising research, content analyses often provide quantitative summaries of different messages, including verbal and visual elements of advertising messages, word of mouth on the Internet, and product placement in different media contexts, such as televised programs, movies, or games. Content analyses can be descriptive, detailing the characteristics of communication messages or interactions between messages and contexts (e.g., which ad narratives are popular in different media), or they can be explanatory and seek to explicate why messages are constructed in the ways they are in different cultures (e.g., why different cultures use different ad narratives) (Merrigan and Huston 2004). Content analyses are unobtrusive research techniques that can consider the context where the messages appear and describe changes in messages across time (Krippendorff 2012; Weerakkody 2008). They can cover the manifest content of communication, which is literal and can be defined objectively; they also can address the latent content of the communication, with its hidden, implied, connotative meaning (Boyle and Schmierbach 2015; Keyton 2006; Weerakkody 2008). Because content analyses enable “interpretations about the content that imply something about the nature of the communicators or effects on communicators” (Keyton 2006, p. 233), when they are conducted appropriately,

they enable researchers to make inferences about communication messages or the behaviors, attitudes, and values of the people who create the content (Keyton 2006; Stempel 1989).

DIFFERENT METHODS FOR THEORY BUILDING

The preceding, brief introduction of the three primary methods under the positivist paradigm touches on their advantages and utility for advertising researchers. Advertising knowledge comes under the strong influence of media effect and consumer psychology research, both of which focus on cause-and-effect processes involving ad exposures. Experiments with their controlled environments offer more effective evidence to support such causal effects. A weakness of survey research is that the findings of cross-sectional surveys enable researchers to make only associative claims. Even when an explanatory survey has been developed within a specific theoretical framework, the relationship between two variables still could be due to other variables that cause some spurious relationship between them. When these variables are not clearly identified or considered, researchers may easily make inaccurate conclusions based on the available information. Finally, content analyses offer quantitative summaries of messages, which enable researchers to make inferences about communication messages or communicators but not cause-and-effect conclusions. Accordingly, long-standing traditions and standards in several disciplines (e.g., social psychology) suggest that theory building requires controlled experimentation (Fine and Elsbach 2000). Therefore, experiments likely dominate when researchers attempt to develop advertising theories.

RQ1: Is the percentage of research that employs experiments greater than that employing surveys and content analyses?

As a knowledge domain develops, it shifts from describing concrete phenomena to summarizing general and abstract principles underlying the phenomena, as well as developing theories. Therefore, as the academic discipline of advertising has matured, theory building has become more important (Kim et al. 2014). Kim et al.'s (2014) analysis of advertising articles from 1980 to 2010 shows that advertising research grew more theory driven over these 30 years. Within the positivist paradigm, experiments have greater utility for theory building, so an increase in the importance of theory building should enhance the use of experiments.

RQ2: Does the percentage of research that employs experiments increase over the years?

Theory Building Through Multiple Studies

Theories seek to explain how and why a phenomenon happens, specify the relationship among concepts as positive or negative, or identify a relationship as mediation or moderation or causal or not. Because the theory-building process involves

documenting the main effects, investigating the underlying mechanisms, and identifying moderators and mediators in the process, it likely requires conducting and reporting multiple studies. Moreover, multiple studies are necessary when researchers seek to confirm the robustness of their findings by testing the same theoretical framework in different contexts or by using different methods (Faber 2015). Multiple studies can help rule out potential confounds and alternative explanations, an important process for theory building. As theory building becomes more important for advertising research, the percentage of research that reports multiple studies should increase. Reid (2014) recognizes that reporting multiple experiments is a norm in *JA* articles. The current study specifically tests this shift.

RQ3: Does the percentage of research that reports multiple studies increase over the years?

Methods for Presenting “Things as They Are”

Unlike experiments, survey research mainly seeks to examine things as they stand, so it is valued for its external validity (Anderson 1987; Boyle and Schmierbach 2015). As Simon (1969) explains, “The important distinction between the survey and the experiment is that the survey takes the world as it comes without trying to alter it, whereas the experiment systematically alters some aspect of the world in order to see what changes follow” (p. 229). As previously noted, content analyses should consider the context of the messages. Among the four journals, *JAR* is more oriented toward enhancing knowledge for professionals, such that “the mission of the *Journal of Advertising Research (JAR)* is to act as the research and development vehicle for professionals in all areas of marketing including media, research, advertising and communications.” Therefore, research published in *JAR* may be more likely to present things as they are and employ more surveys than that in the other three journals.

RQ4: Does *Journal of Advertising Research* employ more surveys than other journals?

Triangulation Through Multiple Methods

Communication research also prioritizes triangulation, because “different research techniques producing consistent results provide a more effective base for describing, explaining, understanding, interpreting, predicting, controlling, and critiquing a communication process or event than a single research technique producing a single result” (Frey et al. 1991, p. 14). Multiple methods can better depict the communication process, from the information production stage to its effects on audiences. Furthermore, in communication research, it is important to detail how the actual content appears in the media (e.g., violence), then explore its possible effects (Boyle and Schmierbach 2015). Similarly, if a researcher wants to explore the possible impact of a special advertising appeal or

commercial technique, the first step should be to demonstrate that it is commonly adopted in advertising practice and only then examine its effect. Alternatively, researchers can conduct content analyses to understand the most common forms and compare their effects with experiments. As the development of advertising knowledge moves into a mature stage, triangulation should become more prevalent.

RQ5: Does the percentage of research that uses multiple methods increase over the years?

Integration of Qualitative and Quantitative Research

Some debate exists regarding whether to mix quantitative and qualitative approaches, and Rossman and Wilson (1985) identify three schools of thought: purists, situationalists, and pragmatists. Using a continuum, Onwuegbuzie and Leech (2005) argue that purists represent one end, insisting that the methods should not be mixed. Pragmatists represent the other end, in that they advocate using both methods in one study. Situationalists fall between the two extremes and regard the two approaches as complementary. Thus, some communication researchers argue for the complementary uses of quantitative and qualitative methods, integrating them in studies to benefit the research field (DeCoster and Lichtenstein 2007). It is not clear how advertising researchers embrace the idea of integration.

RQ6: Does the percentage of research that integrates qualitative and quantitative research increase over the years?

CONTENT ANALYSIS

The purpose of this article is to document the currently dominant methodologies and recent changes, not trace shifts in methodology across decades, so the content analyses cover research published since 2001 in four leading advertising research outlets that are positioned primarily to advance advertising knowledge: *JA*, *JAR*, *IJA*, and *JCIRA*. Recent journal studies also have covered these four journals (e.g., Kim et al. 2014; Yoo et al. 2015). Consumer psychology journals sometimes feature advertising research, but they are not positioned exclusively to advance advertising knowledge. Moreover, this study offers a comparison of the journals, which makes more sense if the missions of the journals are similar in their focus.

Coding Units

Some published articles report more than one study, so the coding unit for basic information (where articles are published and in which year) is the article, but the coding unit for the method is the study. To reduce confusion, the remainder of the discussion in the current manuscript uses the term *articles* to refer to papers published in these journals and *studies* to indicate the studies reported within those articles.

Coding Categories

Coders first recorded basic information (authors, titles, year published) about each article. Then they categorized each article according to whether it was a commentary/editorial or not. If it was, it was excluded from further analysis. In total, 2,158 articles were not commentary/editorials. The coders next identified the different studies reported in each article and coded the method of each study. The first categorization indicated whether each study was quantitative, qualitative, or an essay. *Quantitative research* provides a systematic, empirical investigation of advertising phenomena, using numeric indicators and statistical techniques to test hypotheses. It aims to establish theoretical explanations of particular phenomena (Gunter 2012). *Qualitative research* involves researchers' interpretations and descriptions of advertising phenomena, using interviews, observations, and analyses of related materials or texts, in an effort to discover underlying meanings or obtain profound understanding of the phenomena and their reasons (Jensen 2012). Finally, *essays* refer to in-depth discussions about an academic issue, such as directions for advertising research.

Quantitative research. The quantitative research was coded further according to a classification of five methods: content analysis, experiments, surveys, studies of scholarly literature, and secondary market data (e.g., sales data, media rating data). The studies contained in each method category required further specific information gathering and coding.

For studies adopting *experiments*, for example, the coders determined if they fell into one of three categories: behavioral, biological, or field experiments. Those in the biological experiments class were further coded as functional magnetic resonance imaging (fMRI), electroencephalograph (EEG), magnetoencephalograph (MEG), eye tracking, or skin conductance. The coding also noted if the experimental studies took place offline (e.g., in labs) or online (e.g., recruited through Amazon's MTurk or Qualtrics) and whether the participants were students or representatives of the general public.

For studies conducting *surveys*, the further coding indicated if they were researcher or self-administered. *Researcher-administered* surveys could be conducted in person or via telephone; those conducted in person also can be categorized according to where the survey took place, whether in class, in shopping malls, or in other non-classroom settings (e.g., respondents' offices or homes). *Self-administered* surveys might be conducted online, via mail, or via fax. Respondents then were categorized as the general public, students, researchers, advertising professionals, or other experts (e.g., physicians).

If studies used *content analyses*, the coding indicates what content was being analyzed, including advertising, product placement, and Internet content. Furthermore, the ads were categorized as magazine, televised, newspaper, banner, or billboard ads, or advergames. Internet content was further categorized to indicate corporate websites, weblogs, or digital

footprints (i.e., big data). For product placement, the coding reflected where it appeared: in programs, movies, or games.

Finally, in the studies of scholarly literature category, six categories applied, in line with Pasadeos, Phelps, and Kim's (1998) and West's (2007) typology: comprehensive reviews, specific journal investigations, studies of publishing productivity, methodological investigations, meta-analyses, and citation analyses. Studies of scholarly literature often report descriptive numeric information and therefore are categorized as quantitative studies, but it is important to note that they also rely heavily on researchers' interpretations. *Comprehensive reviews* scrutinize many studies about a particular topic (e.g., creativity), depict dominant paradigms or major approaches, and draw conclusions on the basis of their approaches and findings (e.g., Arndt 1986; Pasadeos, Phelps, and Kim 1998; West 2007). *Specific journal investigations* offer in-depth reviews of one or more publications (e.g., Malhotra 1996; Pasadeos, Phelps, and Kim 1998; West 2007). *Publishing productivity* studies assess the contributions of scholars or institutions to the literature (Barry 1990; Pasadeos, Phelps, and Kim 1998; West 2007). *Methodological investigations* evaluate the research methods adopted by studies that focus on the same topic or in the same discipline (e.g., Kolbe and Burnett 1991; Pasadeos, Phelps, and Kim 1998; West 2007). *Meta-analyses* rely on statistical approaches to analyze the results from a collection of studies, integrate their findings, and draw data-based conclusions (DerSimonian and Laird 1986). *Citation analyses* analyze the citations listed in the references in scholarly works to infer the contribution of disciplines, journals, articles, or scholars to a discipline (e.g., Cote, Leong, and Cote 1991; Pasadeos, Phelps, and Kim 1998; West 2007).

Qualitative research. For studies categorized as qualitative research, the further coding reflects the methods that the authors adopted: interviews, text analysis, case studies, or observations.

Coding Procedures

One doctoral student in advertising (Coder A), one doctoral student in marketing (Coder B), and one research assistant (Coder C) with a master's degree in marketing coded the articles published in *JA*, *IJA*, and *JCIRA* between 2001 and 2015. These three coders first coded three randomly selected years of articles (2001, 2004, and 2007) independently. Then the intercoder reliabilities between each pair of coders were determined. The intercoder reliability between Coders A and B was acceptable, with Scott's π and Cohen's kappa values ranging from .88 to 1. The intercoder reliability between Coders A and C was satisfactory too; Scott's π and Cohen's kappa ranged from .91 to 1. Finally, the intercoder reliability between Coders B and C was acceptable, such that the Scott's π and Cohen's kappa values ranged from .91 to 1. Therefore, the coders next split up, and each coded four years of published

articles in the three journals. Then Coder A and Coder C each coded 50% of the articles published in *JAR*.

In total, they analyzed 2,163 articles (1,722 research articles and 441 commentaries or editorials), including 543 (469 research, 74 commentary/editorial) in *JA*, 742 (652 research, 90 commentary/editorial) in *JAR*, 651 (406 research, 245 commentary/editorial) in *IJA*, and 227 (195 research, 32 commentary/editorial) in *JCIRA*. However, some research articles reported more than one study, and each study was coded individually in terms of its methods, so 2,158 studies were reported in the 1,722 articles. On average, 1.25 ($SD = .61$) studies appeared in each article.

ANALYSES AND RESULTS

Of the 2,158 studies reported in the 1,722 articles, 1,795 (83.18%) were quantitative research, 169 (7.83%) were qualitative studies, and 194 (8.99%) were essays (see Table 1a). Of the 1,795 quantitative studies, 885 experiments were reported (49.30%), followed by surveys (483, 26.91%), content analyses (152, 8.47%), secondary market data analyses (142, 7.91%), and journal studies (133, 7.41%) (Table 1b). There are seven special issues in the sample, five for *JA* and two for *IJA*. The distribution of methods differs for regular versus special issues, $\chi^2 (9, N = 1,520) = 32.62, p < .01$. In particular, compared with regular issues, articles in special issues were more likely to feature experiments (70.24%) and less likely to feature all the other methods. Considering only quantitative methods, the difference was also significant, $\chi^2 (4, N = 1,520) = 26.54, p < .01$, such that articles in special issues were more likely to feature experiments (77.63%) but less likely to report surveys (13.2%), content analyses (2.63%), journal studies (5.26%), or market data analyses (1.32%).

Uses of Experiments

Among quantitative studies, experiments are the most common methods across the years, accounting for 39.28% of the quantitative studies in 2001 through 2005, 46.02% in 2006 through 2010, and 58.82% in the 2011 through 2015 period (see Table 1b). As Table 2 indicates, among these experimental studies, the majority were behavioral (810, 90.60%), followed by field experiments (54, 6.04%) and biological experiments (30, 3.36%). Biological experiments were more common after 2010 than before. Among the 30 biological experiments in this 15-year period, eye tracking was used most (12, 40.00% of biological experiments), followed by skin conductance (11, 36.67%), EEG (6, 20.00%), and fMRI (1, 3.33%). Biological experiments may help reduce demand characteristics, which impose threats to the external validity of experiments.

Table 2 also indicates that most of the behavioral experiments took place offline, in labs or classrooms (824, 91.76%),

TABLE 1a
Major Methods in Advertising Research (All Studies, $N = 2,158$)

Method	2001–2005												2006–2010												2011–2015												TOTAL			
	JAR				IJA				JCIRA				Total				JA				JAR				IJA				JCIRA				Total							
	N		%		N		%		N		%		N		%		N		%		N		%		N		%		N		%		N		%		N		%	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
Quantitative																																								
Experiments	102	58.62	30	13.57	15	13.64	38	50.00	185	31.84	146	57.48	56	20.74	43	29.66	38	43.68	283	37.43	192	71.11	54	21.43	136	59.65	35	49.30	417	50.79	885	41.01								
Surveys	19	10.92	86	38.91	38	34.55	16	21.05	159	27.37	39	15.35	63	23.33	36	24.83	21	24.14	159	21.03	45	16.67	60	23.81	46	20.18	14	19.72	165	20.10	483	22.38								
Content analysis	12	6.90	10	4.52	8	7.27	12	15.79	42	7.23	16	6.30	17	6.30	13	8.97	13	14.94	59	7.80	13	4.81	17	6.75	13	5.70	8	11.27	51	6.21	152	7.04								
Journal studies	7	4.02	7	3.17	18	16.36	2	2.63	34	5.85	17	6.69	22	8.15	20	13.79	7	8.05	66	8.73	4	1.48	14	5.56	10	4.39	5	7.04	33	4.02	133	6.16								
Market/media data	4	2.30	31	14.03	16	14.55	0	0.00	51	8.78	9	3.54	28	10.37	8	5.52	3	3.45	48	6.35	2	0.74	34	13.49	4	1.75	3	4.23	43	5.24	142	6.58								
Subtotal	144	82.76	164	74.21	95	86.36	68	89.47	471	81.07	227	89.37	186	68.89	120	82.76	82	94.25	615	81.35	256	94.81	179	71.03	209	91.67	65	91.55	709	86.36	1,795	83.18								
Qualitative																																								
Interviews	12	6.90	11	4.98	5	4.55	5	6.58	33	5.68	15	5.91	11	4.07	19	13.1	4	4.60	9	6.48	9	3.33	12	4.76	12	5.26	4	5.63	37	4.51	119	5.51								
Text analysis	5	2.87	0	0.00	0	0.00	1	1.32	6	1.03	5	1.97	8	2.96	0	0.00	1	1.15	14	1.85	2	0.74	1	0.40	2	0.88	0	0.00	5	0.61	25	1.16								
Case study	3	1.72	3	1.36	1	0.91	0	0.00	7	1.20	1	0.39	10	3.70	0	0.00	0	0.00	11	1.46	0	0.00	1	0.40	1	0.44	1	1.41	3	0.37	21	0.97								
Observation	0	0.00	2	0.90	0	0.00	0	0.00	2	0.34	1	0.39	0	0.00	1	0.69	0	0.00	2	0.26	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	0.19								
Subtotal	20	11.49	16	7.24	6	5.45	6	7.89	48	8.26	22	8.66	29	10.74	20	13.79	5	5.75	76	10.05	11	4.07	14	5.56	15	6.58	5	7.04	45	5.48	169	7.83								
Essay	10	5.75	41	18.55	9	8.18	2	2.63	62	10.67	5	1.97	55	20.37	5	3.45	0	0.00	65	8.60	3	1.11	59	23.41	4	1.75	1	1.41	67	8.16	194	8.99								
Total	174	100.00	221	100.00	110	100.00	76	100.00	581	100.00	254	100.00	270	100.00	145	100.00	87	100.00	756	100.00	270	100.00	252	100.00	228	100.00	71	100.00	821	100.00	2,158	100.00								

rather than online (e.g., recruiting participants through MTurk or Qualtrics; delivering stimuli via the Internet) (74, 8.24%). Recruiting participants online has become more popular lately, though, accounting for about 10% in the most recent five years, likely due at least partly to the launch of MTurk in 2005. Among the 74 studies conducted online, 14 (18.92%) involved participants recruited through MTurk.

In terms of participants, experiments mostly used students (610, 67.93%). Yet, as Reid (2014) anticipated, the use of students as participants has been declining, from 76.32% in the 2001 through 2005 period to 70.73% in 2006 through 2010 and 62.23% in 2011 through 2015. The decline is partly due to the launch of MTurk, which helps researchers recruit nonstudent participants more easily and at a relatively low cost. It is important to note that *JAR* used the fewest student samples.

Surveys

As Table 1b indicates, among quantitative studies, the number that report survey findings is decreasing, from 33.76% in the 2001 through 2005 period to 25.85% in 2005 through 2010 and then down to 23.27% in the 2011 through 2015 period. Among survey studies, more were self-administered (284, 56.46%) than administered by researchers (219, 43.54%). Those self-administered surveys mostly took place through the Internet (194, 38.57%), followed by mail (85, 16.90%) and fax (5, 0.99%). The researcher-administered survey studies mainly were done face-to-face, in nonclassroom settings (98, 19.48%) or in classrooms (47, 9.34%), as well as by telephone (46, 9.15%), with relatively fewer mall intercepts (28, 5.57%) (see Table 3).

Some common threats to the generalizability of survey research include the difficulty and cost associated with obtaining representative samples. As the current findings show, students account for a significant proportion of participants (21.83%), likely due to their ready availability to researchers. When reporting surveys in advertising research, the sample often is not fully representative of the population of interest for the specific advertising issue or the population about which the authors intend to infer findings. For example, asking college students about their responses to advertising campaigns for automobiles or advocating health behaviors that concern mainly the elderly would be inappropriate. A related problem is that even when the issue might concern college students, researchers recruit students from a single, affiliated institution, who do not constitute a representative sample of all college students in the nation, much less globally.

Uses of Content Analyses

As Table 1b indicated, it is less common for quantitative studies to feature content analyses; the percentage ranges from 8.92% in the 2001 through 2005 period to 9.59% in the 2005 through 2010 period to 7.19% in the 2011 through 2015

period. The 152 content studies analyzed 156 different kinds of content, though mostly ads (101, 65.16%), including magazine (41, 26.45%), televised (41, 26.45%), newspaper (6, 3.87%), banner (6, 3.87%), billboard (4, 2.58%), and advergames (3, 1.94%) (see Table 4). Twenty-two (14.19%) studies analyzed content on the Internet, such as corporate websites (15, 9.68%), digital footprints (5, 3.23%), and weblogs (2, 1.29%). Four studies (2.58%) analyzed product placements. A common problem for content analysis is that material availability limits what researchers can analyze. As our content analysis has revealed, diversity in terms of what is being analyzed is poor. Even though advertising messages are everywhere, most extant studies focus on magazine or televised ads, likely because of their availability. It is important to note that five articles in *JAR* adopt data-mining techniques to analyze activity data from the web. Big data in communication contexts generally refer to large-scale aggregate data for imprints of online or social media activities (Tufekci 2014). Mining such big data can be very informative but has not been widely adopted.

Prevalence of Journal Studies

The number of journal studies was 34 in the 2001 through 2005 period, 66 in the 2006 through 2010 period, and 62 in the most recent five-year period. As Table 5 shows, other than comprehensive review studies, other types of journal studies remained less prevalent in each five-year segment. In particular, meta-analyses—a scientific method that helps draw data-based conclusions—are not widely adopted among advertising researchers.

Most Used Methods (Research Question 1)

More studies adopt quantitative than qualitative approaches, and the gap is widening over time. Considering only quantitative studies (Table 1b), experiments are the most frequently adopted method in this century, and the numbers and percentages of experimental studies continue to increase. It is important to examine both sheer numbers and percentage usage to understand the most used methods; for example, the increase in experiments indicated a decrease in other methods in percentage terms, but not sheer numbers, in that the number of survey studies remained similar over all three time periods (159 in 2001 through 2005 and 2006 through 2010, 165 in 2011 through 2015).

Shifts in Experiments and Other Methods Over Time (Research Question 2)

Considering the three major quantitative methods, experiments accounted for 47.93%, 56.49%, and 65.88% in the 2001 through 2005, 2006 through 2010, and 2011 through 2015 periods, respectively; surveys accounted for 41.19%,

31.74%, and 26.07%; and content analyses represented 10.88%, 11.78%, and 8.06%, respectively. The change in the composition across the three periods was significant, $\chi^2(4, N = 1,520) = 35.19, p < .01$.

In general, the adoption of new methodologies in experimental research is slow. Despite the rapid development of neuroscience since 1990, studies using brain imaging techniques (e.g., fMRI) are still scarce in these four journals. Only one study reported data using fMRI (Bakalash and Riemer 2013). Yet multiple essays and reviews promote the adoption of neuroscience to advance understanding of how people respond to advertising (e.g., Plassmann et al. 2007)—more than there are studies actually collecting brain-imaging data. Regarding the application of neuroscience to communication research, Weber et al. (2015) offer two reasons that attempts to bridge neuroscience and media research remain rare: (1) skepticism about the potential of neuroscience to explain and predict media psychology and (2) a lack of training in neuroscientific methodology. These reasons might explain why attempts to apply neuroscience to investigate advertising phenomena are scarce too.

Research Reporting Multiple Studies (Research Question 3)

The percentage of articles reporting two studies increased from 7.80% in 2001 through 2005 to 12.76% in 2006 through 2010 and to 17.63% in the most recent five years (see Table 6), and the percentage of articles reporting more than two studies increased from 2.33% in 2001 through 2005 to 4.36% in 2006 through 2010 and to 9.32% in the most recent five years. In a common approach, experimental articles report multiple studies. The change of the composition across the three periods was significant, $\chi^2(4, N = 1,520) = 38.41, p < .01$.

An analysis of variance showed that the four journals differed in the number of the reported studies per article, $F(3, 1718) = 35.06, p < .01$. According to contrast analyses, the number of studies featured in *JA* articles ($M = 1.49, SD = .81$) was significantly higher than in *JCIRA* ($M = 1.20, SD = .47, F(1, 663) = 33.18, p < .01$), *IJA* ($M = 1.19, SD = .48, F(1, 874) = 55.86, p < .01$), or *JAR* ($M = 1.14, SD = .50, F(1, 1121) = 94.72, p < .01$) articles.

Differences among Journals (Research Question 4)

Comparing the rates of experiments, surveys, and content analyses exhibited by *JA*, *JAR*, *IJA*, and *JCIRA*, experiments accounted for 75.34%, 35.62%, 55.75%, and 56.92%, respectively; surveys accounted for 17.64%, 53.18%, 34.48%, and 26.15%, respectively; and content analyses made up 7.02%, 11.20%, 9.77%, and 16.92%, respectively. The method distribution for the four journals thus differed significantly, $\chi^2(6, N = 1,520) = 175.55, p < .01$. It also is important to note that *JA* featured the most experimental studies and *JAR* featured the most

survey studies. Some other differences appear notable too. For example, *JAR* articles were less likely to recruit students as participants in the reported experiments. Among the different types of experiments, *JAR* articles were more likely to report field experiments than were those in other journals.

Shifts in Research Using Multiple Methods (Research Question 5)

Table 7 reveals the number of articles adopting different methods. Approximately 5% of articles adopted multiple methods; it also has become more common for researchers to employ multiple methods in the past 10 years. The percentage of articles reporting two or more methods increased from 1.95% in 2001 through 2005 to 6.62% in 2006 through 2010 and to 5.93% in the most recent five years (see Table 7). The change of the composition across the three periods was significant, $\chi^2(2, N = 1,520) = 14.58, p < .01$. More than 5% of reported studies have employed multiple methods since 2010, and the percentage was highest for *JA*.

Shifts in Research Integrating Quantitative and Qualitative Methods (Research Question 6)

It is not common for articles to use both quantitative and qualitative approaches. In the 2006 through 2010 and 2010 through 2015 periods, 15 (2.71%) and 13 (2.49%) articles adopted this approach, compared with 2 (0.44%) in the first period (see Table 8). Thus the number is still low. The percentages of articles employing only quantitative methods accounted for 89.80%, 87.91%, and 92.16% in these three periods (see Table 8), and the percentages of articles employing only qualitative methods accounted for 9.76%, 9.39%, and 5.35% in these three periods. The change in the distribution across the three periods was significant, $\chi^2(2, N = 1,520) = 15.65, p < .01$.

DISCUSSION

Two aphorisms summarize the entwined relationship among theory, practice, and research methods: “There is nothing so practical as a good theory” (Lewin 1951, p. 169) and “There is nothing so theoretical as a good method” (Greenwald 2012, p. 99). That is, a good method facilitates the development of good theories, which inform practice. For advertising research that needs to develop theories that inform practices, methods thus play an important role. A content analysis provided quantitative summaries of the uses of different methods and demonstrated the intertwined relationship between the development of advertising research and the utilization of different methods. A theory-building perspective facilitates understanding of the experiment-dominant phenomenon, as well as the increased use of multiple studies. The orientation of the different journals also has a notable effect, according to

TABLE 3
Survey Studies

		2001–2005						2006–2010						2011–2015																			
	JA	JAR		IJA		JCIRA		Total	JA		JAR		IJA		JCIRA		Total	JA		JAR		IJA		JCIRA		Total	TOTAL						
		N	%	N	%	N	%		N	%	N	%	N	%	N	%		N	%	N	%	N	%	N	%		N	%	N	%			
How surveys were conducted																																	
Researcher administered	In person (non-classroom settings)	6	27.27	22	25.00	12	29.27	5	29.41	45	26.95	11	26.19	8	12.70	8	21.05	3	13.04	30	18.07	10	21.74	3	5.00	8	16.00	2	14.29	23	13.53	98	19.48
		2	9.09	4	4.55	6	14.63	3	17.65	15	8.98	1	2.38	2	3.17	8	21.05	3	13.04	14	8.43	4	8.70	3	5.00	8	16.00	3	21.43	18	10.59	47	9.34
		1	4.55	8	9.09	0	0.00	0	0.00	11	6.59	3	7.14	5	7.94	3	7.89	3	13.04	12	7.23	0	0.00	4	6.67	9	18.00	2	14.29	5	2.94	28	5.57
		0	0.00	11	12.50	3	7.32	0	0.00	12	7.19	4	9.52	11	17.46	2	5.26	1	4.35	20	12.05	0	0.00	3	5.00	1	2.00	0	0.00	14	8.24	46	9.15
		9	40.91	45	52.27	21	51.22	8	47.06	83	49.70	19	45.24	26	41.27	21	55.26	10	43.48	76	45.78	14	30.43	13	21.67	26	52.00	7	50.00	60	35.29	219	43.54
Self-administered	Online/e-mail	3	13.64	24	27.27	4	9.76	3	17.65	34	20.36	14	33.33	25	39.68	13	34.21	8	34.78	60	36.14	30	65.22	41	68.33	23	46.00	6	42.86	100	58.82	194	38.57
		8	36.36	18	20.45	13	31.71	6	35.29	45	26.95	9	21.43	12	19.05	4	10.53	5	21.74	30	18.07	2	4.35	6	10.00	1	2.00	1	7.14	10	5.88	85	16.90
		2	9.09	0	0.00	3	7.32	0	0.00	5	2.99	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	0.99		
		13	59.09	42	47.73	20	48.78	9	52.94	84	50.30	23	54.76	37	58.73	17	44.74	13	56.52	90	54.22	32	69.57	47	78.33	24	48.00	7	50.00	110	64.71	284	56.46
		22	100.00	87	100.00	41	100.00	17	100.00	167	100.00	42	100.00	63	100.00	38	100.00	23	100.00	166	100.00	46	100.00	60	100.00	50	100.00	14	100.00	170	100.00	503	100.00
Sources of participants																																	
Offline	Students	6	30.00	16	17.58	7	16.67	7	43.75	36	21.30	6	13.95	4	6.15	12	31.58	8	36.36	30	17.86	13	28.26	8	13.33	16	32.00	7	50.00	44	26.35	110	21.83
		7	35.00	46	50.55	21	50.00	3	18.75	77	45.56	24	55.81	40	61.54	21	55.26	11	50.00	96	57.14	17	36.96	15	25.00	21	42.00	6	42.86	59	35.33	232	46.03
		5	25.00	10	10.99	6	14.29	6	37.50	27	15.98	5	11.63	3	4.62	2	5.26	2	9.09	12	7.14	5	10.87	2	3.33	4	8.00	1	7.14	12	7.19	51	10.12
		1	5.00	1	1.10	0	0.00	0	0.00	2	1.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.40		
		0	0.00	9	9.89	3	7.14	0	0.00	12	7.10	2	4.65	5	7.69	1	2.63	1	4.55	9	5.36	0	0.00	2	3.33	2	4.00	0	0.00	4	2.40	25	4.96
Online	General public	1	5.00	9	9.89	5	11.90	0	0.00	15	8.88	6	13.95	13	20.00	2	5.26	0	0.00	21	12.50	11	23.91	33	55.00	4	8.00	0	0.00	48	28.74	84	16.67
		20	100.00	91	100.00	42	100.00	16	100.00	169	100.00	43	100.00	65	100.00	38	100.00	22	100.00	168	100.00	46	100.00	60	100.00	47	84.00	14	100.00	167	100.00	504	100.00

TABLE 5
Journal Studies

Categories	2001–2005												2006–2010												2011–2015																	
	JAR			IJA			JCIRA			Total			JA			JAR			IJA			JCIRA			Total			JA			JAR			IJA			JCIRA			Total		
	N		%	N		%	N		%	N		%	N		%	N		%	N		%	N		%	N		%	N		%	N		%	N		%						
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%						
Comprehensive reviews	5	71.43	6	85.71	17	94.44	2	100.00	30	88.24	12	70.59	17	77.27	16	80.00	5	71.43	50	75.76	2	50.00	7	50.00	9	90.00	5	100.00	23	69.70	103	77.44										
Specific journal investigations	2	28.57	0	0.00	1	5.56	0	0.00	3	8.82	0	0.00	0	0.00	2	10.00	1	14.29	3	4.55	0	0.00	5	35.71	0	0.00	0	0.00	5	15.15	11	8.27										
Publishing productivity	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	17.65	0	0.00	1	5.00	0	0.00	4	6.06	1	25.00	1	7.14	0	0.00	0	0.00	2	6.06	6	4.51										
Methodological investigations	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	9.09	1	5.00	1	14.29	4	6.06	0	0.00	0	0.00	1	10.00	0	0.00	1	3.03	5	3.76										
Meta-analyses	0	0.00	1	14.29	0	0.00	0	0.00	1	2.94	1	5.88	3	13.64	0	0.00	0	0.00	4	6.06	1	25.00	0	0.00	0	0.00	0	0.00	1	3.03	6	4.51										
Citation analyses	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	5.88	0	0.00	0	0.00	0	0.00	1	1.52	0	0.00	1	7.14	0	0.00	0	0.00	1	3.03	2	1.50										
Total	7	100.00	7	100.00	18	100.00	2	100.00	34	100.00	17	100.00	22	100.00	20	100.00	7	100.00	66	100.00	4	100.00	14	100.00	10	100.00	5	100.00	33	100.00	133	100.00										

the prevalence of different methods in their featured articles; *JAR*, which emphasizes practical values, reports the most survey studies, for example. Finally, triangulation appears to be a by-product of maturity in the knowledge domain. Regarding the hotly debated issue about whether to integrate qualitative and quantitative methods, advertising research falls on the purist side; the number of articles reporting studies with both approaches has remained low. The findings of this content analysis thus provide informative insights for self-reflection on scholarly developments in the field.

Common Problems and Challenges

Content analyses of scholarly publications offer quantitative evidence, presenting things as they stand. Our experiences as reviewers or members of the editorial review boards for these journals, as well as our observations of advertising research, suggest some common problems and challenges that may not manifest themselves in these quantitative findings.

Theory building. The common problems that arise when researchers attempt to build theories may represent serious limitations that keep studies from being published in major advertising journals. For example, some studies fail to specify the clear process they propose according to certain theoretical frameworks; without clear conceptual models, authors might confuse moderation with mediation in their predictions, so the resulting, fragmented hypotheses cannot cover the complete process or address the specific contexts. Even if researchers specify the process, a reported study might not adopt appropriate methods to demonstrate the proposed causal effect, or else the authors simply assume such an effect, without providing evidence. It is also common for researchers to fail to identify potential confounding variables or alternative explanations for the proposed effects, or else they do not design their experiments well enough to reduce the influence of confounding variables or rule out alternative explanations.

Conducting experiments. When manipulating variables and creating stimuli for experiments, some common problems tend to emerge. For example, a manipulation often fails to reflect the conceptualization, creating a gap between what is being defined and what is being manipulated. Authors sometimes fail to provide appropriate manipulation checks, leaving it unclear whether participants perceived the independent variables as they were intended to be perceived. It is also a common practice to test theories with single messages that represent the condition, which may have idiosyncratic characteristics and limit the generalizability of the findings (Jackson 1992). The created messages and stimuli sometimes lack professional quality, which reduces perceived realism.

Other problematic procedures reduce the generalizability of the findings. For example, participants rarely view ads in a realistic context, surrounded by editorial content or competitive advertising messages (Muncy and Eastman 1998). Researchers may fail to achieve psychological realism, such as

when they ask participants to browse an e-store and imagine that they are shopping there, without providing any transaction function on the hypothetical website. Moreover, most experimental studies test the effects of one exposure, which lacks ecological validity. When discussing problems with communication research, Lang (2013) points out that researchers often fail to account for the frequency with which people encounter a message, though that assessment is especially important for advertising research. Finally, some researchers do not plan or apply effective procedures to reduce sensitivity. For example, with a pretest–posttest design, it is crucial to design a procedure with enough time in between to reduce memory effects, or else embed pretest questions in another instrument, presumed to be unrelated (Stempel 1989; Westley 1989).

Conducting surveys. Sampling processes confront three common challenges: difficulty identifying an appropriate sampling frame (Frey et al. 1991), difficulty drawing a representative sample, and limited resources to draw sufficiently large samples that will enable certain statistical analyses. In questionnaire development and data collection processes, other challenges arise. For example, some advertising phenomena explored in surveys are new and novel, without valid or reliable measures. The poor measurement validity then prevents researchers from reaching solid conclusions. In addition, survey response rates in general are declining (Curtin, Presser, and Singer 2005), which results in nonrepresentative samples (Weerakkody 2008). Finally, modern consumers are aware of the manipulative intent of advertising (Campbell 1995), so they may generate responses that do not reflect their experiences or real feelings. Therefore, finding ways to structure and word survey questions to reduce socially desirable responses and tap into real opinions remains a common challenge. In the inference-making process, several problems are widespread. Researchers sometimes make causal inferences, even though the findings support only associative claims. Even if an explanatory survey has been developed within a theoretical framework, the proposed relationship between two variables still could be due to other variables that cause some spurious relationship. When these variables are not clearly identified or considered, researchers easily could reach inaccurate conclusions based on the available information.

Conducting content analyses. Material availability affects the sampling for content analyses and reduces sample representativeness. It is more difficult to define sampling frames or collect data for certain advertising (e.g., personalized ads on Facebook), so content analyses of these types are less likely—even though this content is what people generally are exposed to in their daily lives. Information about what is featured in such content thus is less explored. In terms of inference making, it is difficult to present the whole picture without considering message weighting or message contexts. If people experience multiple exposures to the same messages in different media contexts, making inferences about what they are exposed to in the real world or whether certain values

TABLE 6
Articles Reporting Multiple Studies

2001–2005												2006–2010												2011–2015															
JA				JAR				IJA				JCIRA				Total				JA				JAR				IJA				JCIRA				Total			
N		%		N		%		N		%		N		%		N		%		N		%		N		%		N		%		N		%					
Number of Studies																																							
1	109	78.99	189	94.03	110	100.00	53	82.81	461	89.86	133	72.28	198	86.46	119	90.15	63	85.14	513	82.88	69	46.94	200	90.09	116	70.73	46	80.70	431	73.05	1,405	81.59							
2	22	15.94	8	3.98	0	0.00	10	15.63	40	7.80	34	18.48	23	10.04	13	9.85	9	12.16	79	12.76	46	31.29	18	8.11	32	19.51	8	14.04	104	17.63	223	12.95							
3	7	5.07	3	1.49	0	0.00	1	1.56	11	2.14	15	8.15	7	3.06	0	0.00	2	2.70	24	3.88	23	15.65	1	0.45	16	9.76	3	5.26	43	7.29	78	4.53							
4	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	1.09	0	0.00	0	0.00	0	0.00	2	0.32	7	4.76	3	1.35	0	0.00	0	0.00	10	1.69	12	0.70							
5	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.44	0	0.00	0	0.00	1	0.16	1	0.68	0	0.00	0	0.00	0	0.00	1	0.17	2	0.12							
6	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00							
7	0	0.00	1	0.50	0	0.00	0	0.00	1	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.68	0	0.00	0	0.00	0	0.00	1	0.17	2	0.12							
Total	138	100.00	201	100.00	110	100.00	64	100.00	513	100.00	184	100.00	229	100.00	132	100.00	74	100.00	619	100.00	147	100.00	222	100.00	164	100.00	57	100.00	590	100.00	1,722	100.00							

dominate these messages requires taking media weighting into account. Yet such media buying information is not always available. Similarly, messages appear in vehicles or contexts with different levels of circulation, which could affect how frequently consumers are exposed to these messages. Therefore, failing to take the context into account may affect inference making.

Further Method Development Directions

This article has attempted to identify current trends associated with adopting these methods in advertising research. Methods play an important role in advancing advertising knowledge, and continuous efforts to make progress are essential for future development. The conclusions offer some possible directions along these lines.

Diversity in methods and approaches to facilitate research development. Under the influence of the dominant positivist paradigm in consumer behavior and media effects, lab experiments have been a primary method, and their uses have increased in the past few decades. But such homogeneity is not a welcome sign, especially when real-world practices keep evolving to become more complex than present theories can explain or common methods can test. Identifying a lack of variety in advertising research, Faber (2015) suggests the need for advertising researchers to seek more collaboration with people in other disciplines, such as neuropsychology, computer science, or law. For example, neuroscience can better detect the behaviors that arise when messages trigger resistance; neural activity during exposures to antismoking advertising can better predict decreases in smoking behavior than self-reported intentions can (Falk et al. 2011). In this sense, neuroscience could explicate the fundamental psychological responses in the advertising viewing process. By collaborating, advertising researchers can explore important questions that demand alternative methods, beyond those commonly adopted in the field, to be answered.

Innovative methods and approaches to explore new phenomena. Conducting research and publishing articles on topics with true implications for advertising practice has long been a challenge for advertising researchers (Muncy and Eastman 1998). The challenge looms even larger when ad practices are evolving rapidly. Innovation in this sense might mean the development of new methods, approaches, or procedures or the integration of multiple methods in innovative ways. In practice, content strategies have shifted from providing segmented, product-centered information to personalized or user-focused content or entertainment. Communication objectives have shifted from reaching and informing consumers to engaging and building relationships with them. Media strategies have shifted from conventional and paid and owned media to unconventional or earned media. These new phenomena should be addressed with innovative research methods or approaches. For example, to understand how exposure to a

native ad on a social network site leads to a purchase, a researcher might combine analyses of imprint digital data with observations or surveys. Most important, method innovation will require developing a good command of multiple methods or close collaboration among researchers in different fields. Advertising researchers should try to equip themselves with multiple research skills or connect with other researchers to form collaborative research teams.

Innovative methods and approaches to enable theory development. New methods or research approaches can solve controversial issues and facilitate the development of new theories (Greenwald 2012). Greenwald (2012) shows how new research approaches have prompted important theories in psychology: Methods used to generate thought experiments led to the development of prospect theory (Kahneman and Tversky 1979), and Meyer and Schvaneveldt's (1971) priming method prompted the development of a spreading-activation theoretical model. Advertising researchers should take advantage of innovative approaches from other fields to explore advertising phenomena or innovatively advance advertising research approaches. For example, implicit measures of attitudes developed in psychology can reduce the demand characteristics that commonly affect self-reported measures and tap the persuasive effects of messages that arouse defensive responses.

Research forums and workshops to nourish researchers. The development of innovative methods and approaches should be central to the discipline. More methodology workshops and forums with researchers from other fields or ad practitioners can help facilitate the evolution of research methods or approaches. Without new insights or brainstorming opportunities, advertising researchers tend to get stuck with what they know or have been trained to do. It limits the scope of their exploration, as well as the development of advertising research. A special issue on methodology—just like this one—represents one example of these important and necessary collective efforts.

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