

SOCIAL COGNITIVE FRAMEWORK FOR ADVERTISING

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## ABSTRACT

Drawing from Bandura's social cognitive theory, a social cognitive framework for advertising, integrating the major tenets of the advertising discipline, is articulated. Unlike the widely-used, and outmoded, behavioral models that frequently appear in advertising scholarship, the social cognitive perspective emphasizes the role of personal agency with regard to thought, affect, and behavior. Social cognitive framework for advertising contends that advertisements influence individuals as determinants that operate within triadic reciprocal structures composed of other personal, environmental, and behavioral factors.

Subsequent to formulating the framework, it was used to structure and test the interaction between extraversion and arousal potential of the ad on attitude toward the ad, purchase intention, and memory of the ad. The investigation failed to find any statistically significant results. Despite a lack of findings, implications of shifting to a social cognitive perspective to study advertising effects are discussed and directions for future scholarship are presented.

## DEDICATION

For my grandparents, Barbara and Ewell Combs, who understood the value of a formal education despite never receiving one.

## LIST OF ABBREVIATIONS AND SYMBOLS

AP <sub>AD</sub>	Arousal potential of the ad
A <sub>AD</sub>	Attitude toward the ad
I-E	Introversion-extraversion
PI	Purchase intention
M <sub>AD</sub>	Memory of the ad
SCT	Social cognitive theory
SCF-A	Social cognitive framework for advertising

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*“There is nothing so practical as a good theory.”*  
Kurt Lewin

## PART ONE: SOCIAL COGNITIVE FRAMEWORK FOR ADVERTISING

## CHAPTER 1

### INTRODUCTION

In an attempt to capture consumer attention, admiration, and spending, U.S. companies spent an estimated \$187 billion on media space alone in 2015 (Lunden, 2015). Advertisers are willing to invest in campaigns because they know that ads can influence the relationships consumers have with their brands; practitioners and scholars alike acknowledge that reality and have dedicated innumerable resources searching for the most effective ways to produce ads that compel consumer behavior. Though the utility of those efforts is readily apparent, a devotion to the practicality of finding ways to make better ads is somewhat myopic and at least part of the reason that theory building by advertising academicians remains limited. San José-Cabezudo and Camarero-Izquierdo (2012) lamented the lack of consensus among scholars for even the most basic theoretical question: “How does advertising work?” (p.100). Proverbially, one might argue that researchers have predominantly ignored the forest in order to study the trees.

Indeed, much academic research largely ignores the broader milieu in which ads exist, despite the potential value that incorporating such contexts might create. Consequently, existing theory-based advertising scholarship relies heavily on a handful of models, hypotheses, and frameworks that have been borrowed piecemeal from other disciplines. Faber, Duff, and Nan (2012) echoed this sentiment, positing that a preoccupation with the persuasion process has left “several other potentially important elements of advertising either under-appreciated or ignored in theory building” (p. 19). Though these lenses have helped produce a substantial body of

valuable findings over time, the need and opportunity to develop relevant, practical, and discipline-centric theory remains.

Accordingly, this dissertation synthesizes the advertising literature with Bandura's social cognitive theory (SCT) framework in order to present a social cognitive framework for advertising (SCF-A). The author acknowledges in advance that the present work borrows heavily from the earlier work of Bandura and other social cognitive researchers, but contends that an advertising-specific formulation of social cognitive theory (SCT) enhances the utility of SCT to advertising researchers and increases the likelihood that it will be used as a foundation for future advertising scholarship. Moreover, adapting SCT to various fields is consistent with the convention of Bandura and other scholars whose work has resulted in numerous SCT permutations such as social cognitive theory of gender development and differentiation (Bussey & Bandura, 1999), social cognitive theory of mass communication (Bandura, 2001a), and social cognitive theory of the self and personality (Andersen & Chen, 2002), among others.

Before reviewing and synthesizing previous literature, it is a good idea to acknowledge the foundation of SCT: human agency. Bandura (2005, p. 9) conceptualized agency as the capacity to “influence intentionally one's functioning and life circumstances.” Though much of the discussion in this dissertation will focus on the ways that advertising can—and often does— influence people, readers must remain mindful that SCT eschews the stimulus-response paradigm of behaviorism for an *agentic* perspective. That is, humans are “self-organizing, proactive, self-reflecting, and self-regulating, (and) not just reactive organisms shaped and shepherded by environmental events or inner forces” (Bandura 2001a, p. 266). SCF-A, then, espouses the view that advertising—in concert with other environmental, personal, and behavioral determinants—can, and does, influence human cognition, affect, and behavior;

however people should not be regarded as automatons at the mercy of marketers.

This dissertation entails two parts. The first articulates the aforementioned SCF-A. The second employs the framework to hypothesize and investigate the interaction of a personality factor—extraversion—and an advertisement attribute—arousal potential—on cognition, attitudes, and behavioral intentions.

## CHAPTER 2

### REVIEW OF LITERATURE

#### **Social Cognitive Theory**

Before deriving an advertising-specific framework from SCT, it is essential to review the evolution of the theory and its major tenets. Albert Bandura expanded his earlier work on social learning theory and articulated social cognitive theory in 1986. Over time, it has become one of the most-cited theoretical frameworks in mass communication scholarship (Bryant & Miron, 2004) and has been employed by academicians from myriad disciplines, making it, arguably, one of the best-developed and most influential of all social scientific theoretical frameworks.

Bandura (2001a) described SCT as “an agentic conceptual framework within which to analyze the determinants and psychosocial mechanisms through which symbolic communication influences human thought, affect, and action” (p. 265). As subsequent discussion will illustrate, agency, which is made possible by humankind’s unique capability to create, perceive, transmit, and evaluate complex symbolic mental representations is the most fundamental component of SCT.

Enumerating and describing the entire breadth of literature related to SCT would be prohibitive, even within the relatively broader confines of a dissertation. However, a survey of academic scholarship that has employed SCT to predict and explain various effects related to *mediated communication* will serve as a summary of prior findings that are most-relevant to the present research and will help frame the assertions made throughout subsequent discussion.

One of the most prolific streams of media effects research that has been informed by SCT

is concerned with the prevalence and consequences of depictions of violence in the mass media. For example, Huesmann and Taylor (2006) reported that aggressive behavior has been linked with exposure to violent content in videos, and found that the effect can be more pronounced in the absence of negative consequences for violent characters in such videos. In a meta-analysis of research related to effects of playing violent video games, Anderson and Bushman (2001) concluded that violent video games were capable of increasing physiological arousal, aggression-related thoughts, and aggressive behavior in both children and young adults. Yet another analysis conducted by Blackford, Gentry, Harrison, and Carlson (2011) found that Super Bowl advertisements contained increasing numbers of violent acts in humorous contexts and that viewers rated ads containing such acts as more likable than commercials without them

There is no shortage of scholarship investigating violence in the media, and much of it is informed—at least in part—by SCT. The prevalence of media violence research, much of it informed by SCT, led Greenberg, Simmons, Hogan, and Atkin to conclude that “[n]o other communication research issue has been studied so often, nor by so diverse a collection of social scientists, therapists, physicians, and lay groups” (1980, p. 99). More precisely, Wartella, Olivarez and Jennings (1998), noted that more than 3,500 reports have been authored on the subject.

Other research that has employed SCT includes a study of athlete role models that was conducted by Bush, Martin, and Bush (2004); these authors found that adolescents were more likely to favor, purchase, and recommend brands endorsed by their favorite athletes. Another study from the marketing communication literature concluded that socialization patterns had a significant effect on attitudes and behaviors related to product placement in films (deGregorio & Sung, 2010).

In addition to the aforementioned scholarship, Table 2.1 illustrates a small fraction of the multitude of media- and media effects-related studies that have drawn from SCT in recent years (2005-present).<sup>1</sup>

Table 2.1 Recent Media- and Media Effects-related Research Using Social Cognitive Theory

Author(s)	Topic
Bushman and Huesmann, 2006	Media violence
Eyal and Kunkel, 2008	Sexual attitudes and moral judgments
Fu, Chan, and Yip, 2009	Suicide ideation
Kawamura and Kohler, 2013	Health promotion
Kistler, Rodgers, Power, Austin, and Hill, 2010	Music and self-concept
Knobloch-Westerwick and Hoplamazian, 2012	Selective exposure
Lee, Kim, and Kim, 2012	Electronic word of mouth
Lee and Ma, 2012	Social media
Lin, 2010	Virtual community loyalty
Matusitz and Breen, 2011	Celebrity influence
Oosterhof, Heuvelman, and Peters, 2009	Disaster relief donations
Ortiz and Harwood, 2007	Inter-group relations
Tamborini, Weber, Eden, Bowman, and Grizzard, 2010	Moral judgments
Wan, Compeau, and Haggerty, 2012	E-learning

Much of the literature reviewed to this point has relied primarily on a single component of SCT: behavioral modeling. Though modeling is one of SCT's major elements, and is appropriate for examining media effects, it is *agency* that is the central premise of the theory. By uncoupling modeling from the rest of the SCT framework, scholars have diminished, to some degree, the potency and utility of SCT. With this in mind, the present study seeks to incorporate a more comprehensive range of the theory's tenets into the social cognitive framework for advertising that is being proposed.

As subsequent discussion details, SCT offers a robust agentic framework for predicting, explaining, and organizing research that concerns the cognitive, affective, and behavioral effects

that mass media have on individuals both directly and through social diffusion. By understanding human agency, one is able to better understand not just *how* the media can influence people, but also *why* people are influenced—through personal, environmental, and behavioral mechanisms—to varying degrees.

### **Human Agency**

Human beings are agentic in the sense that they intentionally act to bring about outcomes that they desire (Bandura, 2001b). Agency, then, endows individuals with the capacity to “play a part in their own self-development, adaptation, and self-renewal with changing times” (Bandura, 2001b, p. 2). By exercising agency, humans exert influence in purposeful ways that guide their pursuits. Thus, they are not simply products of the innate personal factors or environmental pressures that influence them. Because they are agentic, people are able to think and behave in particular ways of their choosing, and to choose personal patterns of thought and courses of action with the intent of producing anticipated results.

There are four core features of human agency—intentionality, forethought, self-reactiveness, and self-reflectiveness—that “address the issue of what it means to be human” (Bandura, 2001b, p. 6). These features are unique to humans as a result of their evolved capacity for symbolic mental representation. Because these concepts are central to agency, and to SCT, it is appropriate to explore each of them in greater detail.

*Intentionality* involves mentally representing future behaviors that might be undertaken (Bandura, 2001b) “to bring about a certain future state of affairs” (Bandura, 1986, 467). The majority of human behavior is intentional. That is, it is first represented in the mind before it occurs. Both the likelihood of behavior and the time that elapses between an intention and its enactment may vary greatly as a function of various internal and external influences including

motivation, self efficacy, access to resources, and the like.

*Forethought* allows mental representations of future outcomes to influence present cognition, affective states, and behaviors. According to Bandura (2001a), “[m]ost human behavior is directed by forethought toward events and outcomes projected into the future” (p. 268). Such anticipated futures may range any length of time—from seconds to years—from an individual's present.

Forethought is an essential component of an individual's ability to work toward goals. And though the achievement of long-term aspirations is often challenging and fraught with difficulties along the way, people are capable of finding direction, coherence, and meaning in life when they are able to commit themselves to pursuing them (Bandura, 2006).

*Self-reactiveness* is the bridge between thoughts and actions. To be an agent, one must be self-reactive in order to “shape appropriate courses of action and to motivate and regulate their execution” (Bandura, 2001b, p. 8) in addition to forming behavioral intentions and using foresight to envision their outcomes. In this regard, “[p]eople are proactive, aspiring organisms” (Bandura 2001a, p. 268) that achieve desired ends through the self-reactive processes of self-regulation and self-motivation.

*Self-reflectiveness* concerns humans' ability to assess the soundness of their thoughts and actions (Bandura, 2001b). Among the standards that people use to evaluate such thoughts and actions are the outcomes of their own—and others'—actions, what others believe, and inferences from established knowledge (Bandura, 2001b). Bandura (2001a) reiterated the often social nature of self-reflectiveness, noting that “[w]hen experiential verification is difficult or unfeasible, social verification is used, with people evaluating the soundness of their views by checking them against what others believe” (p. 269).

Before progressing deeper into social cognitive theory, it is important to acknowledge the nature of SCT's conception of goals. Goals include any courses of action that are mentally represented and then undertaken in order to achieve desired outcomes. Though much of the work of Bandura and other psychologists is concerned with promoting physical and mental well-being through the use of well-reasoned goal setting, it should not be inferred that the goals which people formulate are exclusively constructive. Often, humans' desired outcomes can have detrimental effects on themselves and others. Indeed, Bandura noted that, "it is not uncommon for individuals to contribute to their own misery through intentional transgressive acts spawned by gross miscalculation of consequences" (Bandura, 2001b, p. 6).

### **Self-efficacy's Role in Self-reflectiveness**

Self-efficacy—the belief that one is able to influence his or her own functioning and circumstances—is a self-reflective construct that is central to human agency and that can significantly affect the courses of action that people choose to pursue as well as the outcomes that they expect to result from such actions, among other things. (Bandura, 2001a). Self-efficacy's instrumental role in human agency—and likely the ease with which it can be measured with survey instruments—have helped make it a widely-utilized social and health science construct.

Pajares (1997) summarized four sources of self-efficacy beliefs: *mastery experiences* that arise from evaluations of one's own performances; *vicarious experiences* learned from the behavior of others; *verbal persuasions* that result from the verbal judgment of others; and *physiological states* which provide individuals with biological "cues about the success or failure of an anticipated outcome" (para. 10-13). As the literature demonstrates, vicarious experiences are of particular interest to mass media scholars because technological advances have made

possible the dissemination of behavioral models throughout nearly all developed societies.

What emerges from a review of findings related to self-efficacy is an understanding of the importance that it plays in the cognitive processes—and subsequent behavioral successes and failures—that people undertake and experience. Finding ways to increase self-efficacy, then, has become an important task for psychologists, health science professionals, educators, and scores of other professionals who work with individuals who lack agency because of low self-efficacy (Bandura, 2006).

### **Vicarious Learning**

As noted, SCT is particularly concerned with the phenomenon of vicarious learning. Bandura (1986) observed the evolutionary advantage of this type of learning, positing that “humans have evolved an advanced capacity for observational learning that is better suited for expeditious acquisition of competencies and survival than is learning solely from the consequences of trial and error” (p. xii). In other words, the ability to learn from observations and the experiences of others, in addition to trial and error, confers substantial evolutionary advantages to humankind.

Bandura (2001a) noted symbolic modeling’s importance to “understanding the effects of mass communication” (p. 272), enumerating four subfunctions of observational learning (see Figure 2.1). Drawing from this work, Nabi and Clark (2008) summarized the processes that Bandura had established—attention, retention, production, and motivation:

*[A]ttention* to certain models and their behavior is affected by source and contextual features such as attractiveness, relevance, functional need, and affective valence. Second, *retention* processes focus on the ability to symbolically represent the behavior observed and its consequences, along with any rehearsal of that sequence. Third, *production* focuses on translating the symbolic representations into action, reproducing the behavior in seemingly appropriate contexts and correcting for any errors based on feedback received. Finally, *motivational* processes influence whether symbolically represented behaviors are

enacted based on the nature or valence (positive or negative) of the reinforcement. Such reinforcement may come from the feedback generated by one's own behavior, the observed feedback given to others, or internal incentives (e.g., self-standards). (p. 409)

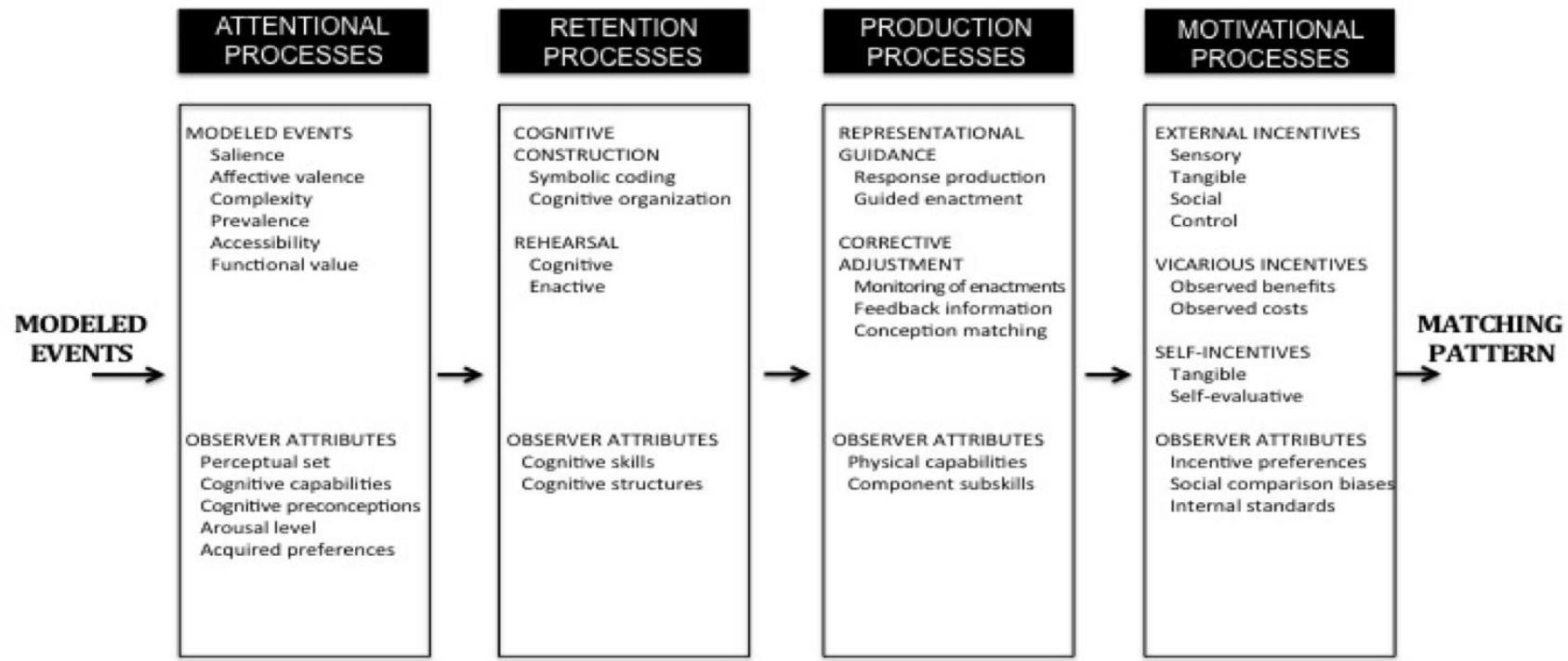
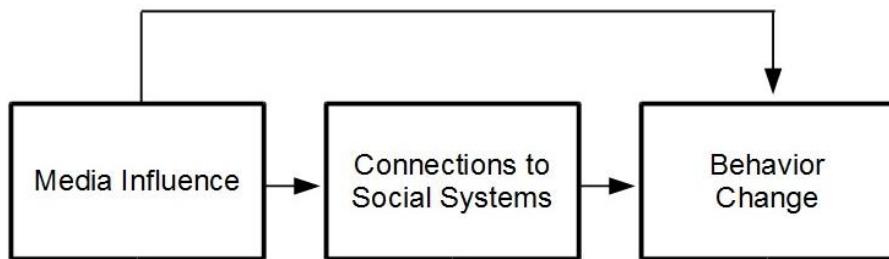


Figure 2.1. “The Four Major Subfunctions Governing Observational Learning and the Influential Factors Operating within Each Subfunction” (Bandura, 2001a, p. 273)

Vicarious learning may occur intentionally or unintentionally from models that are encountered in both physical and mediated environments (Bandura, 2001a). Unintentional, passive learning—as a result of consistently-recurring media narratives—have made the media one of the greatest agents of socialization in modern culture. Bandura (2001a, p. 271) supported such a sentiment, noting that as the use of communication technologies has proliferated, the role of the mediated symbolic environment has increasingly shaped the social construction of reality and social consciousness through the process of electronic acculturation.

Consistent with earlier media effects models, SCT of mass media acknowledged that mediated symbolic communication can influence people both directly and by connecting them to social systems, as illustrated in Figure 2.2 (Bandura, 2001a). Thus, SCT is able to account for direct effects like those observed in one-step flow of communication models (e.g., Gerbner, 1970; McCombs & Shaw, 1972; Bennett & Manheim, 2006; etc.) as well as indirect effects observed in two-step models (e.g., Katz & Lazarsfeld, 1955; Malamuth & Briere, 1986; Paek & Gunther, 2007; etc.).

Figure 2.2. Dual Paths of Communication Influence (Bandura, 2001a, p. 285)



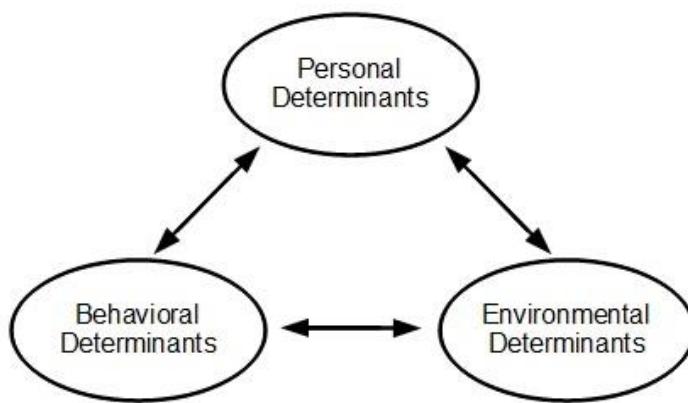
### Triadic Reciprocal Causation

Recall that through exercising agency, humans act upon their thinking and behavior in the pursuit of desired outcomes. Thus, SCT regards people as more than the by-products of internal

and environmental pressures. Though these pressures do not dictate an individual's cognition, emotion, or behavior, they can exert significant influence on them. Accordingly, SCT's model of triadic reciprocal causation accounts for these forces and their effects on thought, affect, and action.

Bandura (1986) articulated triadic reciprocity as an alternative to models of unidirectional determinism (e.g., behavior is controlled by an environment) and one-sided interactionism (i.e., behavior is a product of the interaction between personal and environmental factors) that dominated earlier psychological theories. In this view, personal, behavioral, and environmental factors act upon and determine one another bi-directionally (see Figure 2.3). Bandura (1986) noted that particular determinants are “associated with effects probabilistically rather than inevitably” as a result of “many factors...[being] needed to create a given effect” (p. 24). Thus, SCT acknowledges the complex nature of variables that have been shown to mediate, moderate, and otherwise influence media effects.

Figure 2.3. Bandura’s Triadic Reciprocal Causation Model



It is important to note two other characteristics of the triadic reciprocal causation model developed by Bandura (1986) in order to clarify some potential misconceptions. First, it is not

assumed that each of the three determinants act with equal influence on one another. The degree to which any one determinant may act on another is governed by myriad conditions such that each determinant may assert insignificant to substantial influence on the others. For example, under some conditions, one determinant may override others, whereas under different conditions, all three may influence one another proportionately.

Second, time may elapse variably between the influence that personal, environmental, and behavioral determinants exert on one another. That is, influence from one determinant may not immediately elicit sequential reciprocation from another. This is advantageous for researchers, as Bandura noted:

Because the triadic factors do not operate simultaneously as a wholistic entity, it is possible to gain some understanding of how different segments of two-way causation operate without having to mount a Herculean effort to study every possible interactant at the same time. (p.25)

### **Summary of Social Cognitive Theory**

In sum, social cognitive theory is concerned with the ways that human beings exercise personal agency over their cognition, attitudes, and behaviors to bring about desired outcomes. Cognition, attitudes, and behavior are influenced, to varying degrees, by the personal, behavioral, and environmental determinants that make up an individual's sphere. Finally, mediated symbolic communication is an environmental determinant of particular interest to media scholars because of humankind's advanced capacity for vicarious learning from modeled behaviors.

Now that the underlying elements and tenets of social cognitive theory have been presented, it is possible to begin synthesizing them with the viewpoints, peculiarities, and nuances that are of special concern to scholars in the advertising discipline. In doing so, the author will: (a) justify the necessity of an advertising-specific formulation of SCT;

(b) demonstrate the ability to organize much existing ad-related scholarship within the triadic reciprocal model; and (c) formally articulate a social cognitive framework for advertising (SCF-A).

## CHAPTER 3

### SOCIAL COGNITIVE FRAMEWORK FOR ADVERTISING

#### **The Need for Discipline-specific Theory**

At this point, a clearer understanding of the potential value of SCT to advertising research has begun to emerge. But before moving ahead, it seems appropriate to first contemplate whether or not the kind of discipline-specific variant of SCT being proposed is even warranted. After all, Bandura (1986, p. 20)'s first iteration of social cognitive theory acknowledged the influence of advances in communication technologies on humankind, and then addressed advertising specifically in his subsequent *social cognitive theory of mass communication*, stating:

The fashion and taste industries rely heavily on the social prompting power of modeling. Because the potency of vicarious influences can be enhanced by showing modeled acts bringing rewards, vicarious outcomes figure prominently in advertising campaigns. Thus, drinking a certain brand of wine or using a particular shampoo wins the loving admiration of beautiful people, enhances job performance, masculinizes self-conception, actualizes individualism and authenticity, tranquilizes irritable nerves, invites social recognition and amicable reactions from total strangers, and arouses affectionate overtures from spouses.

The types of vicarious outcomes, model characteristics, and modeling formats that are selected vary depending on what happens to be in vogue at the time. Model characteristics are varied to boost the persuasiveness of commercial messages. Prestigious models are often enlisted to capitalize on the high regard in which they are held. The best social sellers depend on what happens to be popular at the moment. Drawing on evidence that similarity to the model enhances modeling, some advertisements portray common folk achieving wonders with the wares advertised. Because vicarious influence increases with multiplicity of modeling (Perry & Bussey, 1979), the beers, soft drinks, and snacks are being consumed with gusto in the advertised world by groups of wholesome, handsome, fun-loving models. Eroticism is another stimulant that never goes out of style. Therefore, erotic modeling does heavy duty in efforts to command attention and to make advertised products more attractive to potential buyers (Kanungo & Pang, 1973; Peterson & Kerin, 1979). (Bandura, 2001a, pp. 282-283)

The issue with this observation is that it exclusively addresses *vicarious modeling* in advertisements. More specifically, it is primarily concerned with the types of models and the various message strategies that are used in ads, both of which are characteristics that concern only creative aspects of message production. Consequently, social cognitive theory of mass communication treats advertising as it does other forms of mediated communication including news and entertainment programming. In that regard, both SCT and social cognitive theory of mass communication fail to acknowledge the unique combination of properties that characterize advertising as well as the myriad factors throughout the four subfunctions of observational learning that ultimately influence matching patterns of purchasing or other actions.

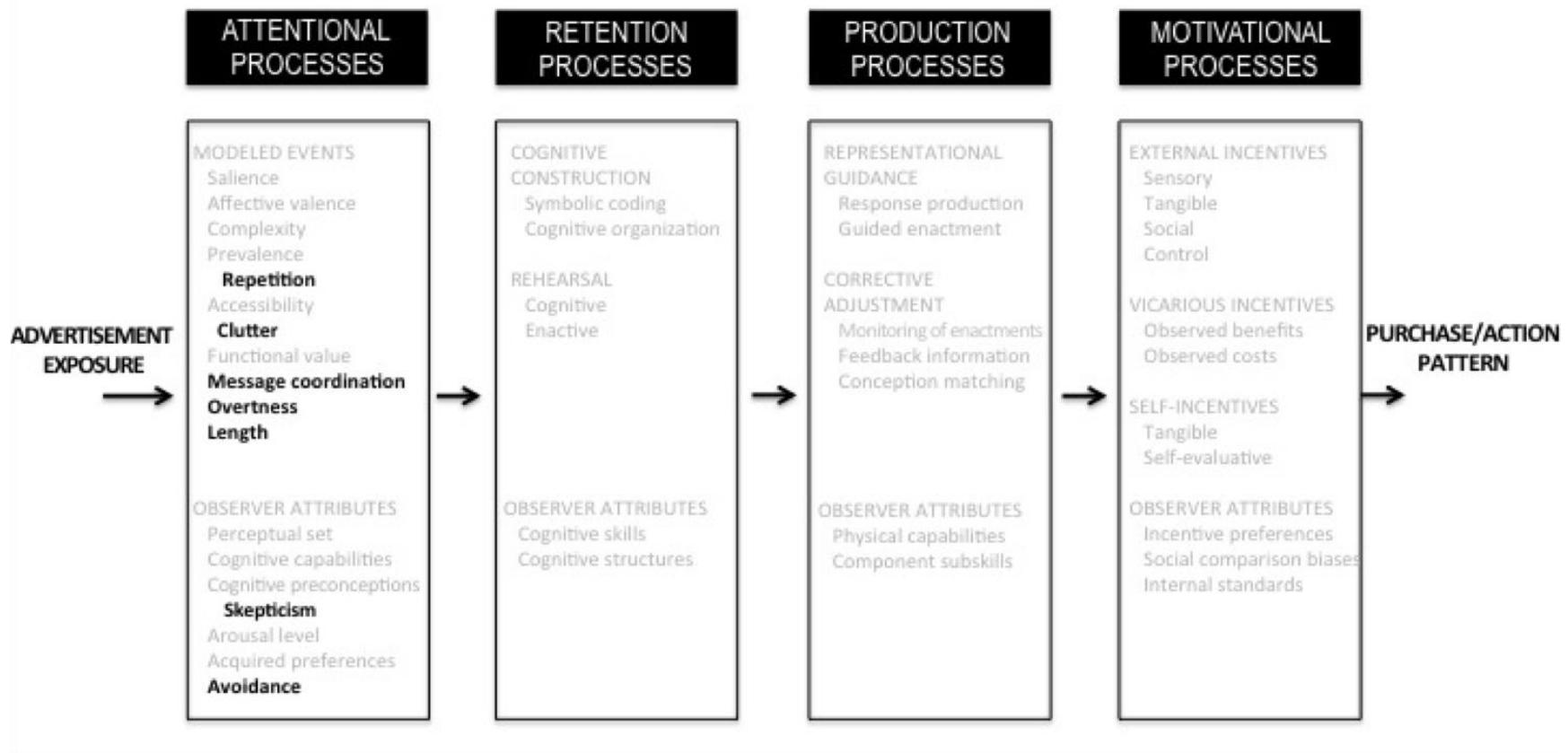
Pasadeos, Phelps, and Edison (2008) summarized four characteristics of advertising—originally posited by Nan and Faber (2004)—that differentiate it from other forms of mass communication: clutter, repetition, skepticism, and message coordination. *Clutter* concerns the amount of competing stimuli that are present in an advertisement's environment (Brown & Rothschild, 1993). Academicians and practitioners are particularly concerned with the ways that clutter can affect ad effectiveness, consumer attention, and the like, and generally regard it as detrimental to advertiser concerns. *Repetition* is the frequency with which advertisements are viewed. Advertising media planners strive to place advertisements at optimal levels that result in the least amount of waste, or repetition levels above and below the threshold needed to create a memory of the message in the mind of a consumer. *Skepticism* is consumer doubt that is associated with advertisers' motives and claims. Some researchers have speculated that skepticism may affect the way that advertising messages are cognitively processed (Nan & Faber, 2004). Finally, *message coordination* concerns the approaches that many marketers employ to disseminate consistent advertising messages for single brands through multiple forms

of mass media (Nan & Faber, 2004).

Three additional characteristics to consider are *avoidance* and *length*—which are most-associated with broadcast media—and *overtness*. Viewers and listeners are known to use a variety of avoidance strategies to bypass advertisements in broadcast programming, including engaging in alternative activities, channel surfing, and using recording technologies that allow television commercials to be skipped (Speck & Elliott, 1997). The relatively brief time format of the majority of broadcast ads is also unique to advertising. Unlike entertainment programs, which have relatively longer periods of time to articulate plots and develop characters, ads must accomplish their communication objective—the conveyance of brand messages—at a much faster pace—usually within the confines of 15- to 60-seconds, a single page of print, or a small portion of a web page. Finally, the vast majority of advertising messages are inherently overtly persuasive in that they are apparent attempts to sell products or services, or to associate some characteristic with the brand name of an identified sponsor. Conversely, scholars from other disciplines are primarily concerned with unintended vicarious learning effects that result from media models who engage in activities such as violence and aggression—behaviors that producers of entertainment and news content, presumably, are not attempting to proactively persuade people to engage in.

These characteristics have been added to Bandura (2001)'s subfunctions of observational learning in Figure 3.1. As the resulting figure illustrates, consistent with SCT of mass media, five of these seven characteristics are related to the *modeling events* factor category in the *attentional processes* subfunction. However, the other two characteristics are categorized within the *observer attributes* factor category in the *attentional processes* subfunction. Additionally, there are myriad other factors related to the study of advertising—including involvement, trial,

brand attitude, attitude toward the ad, purchase intention, and personality, among others—that fall outside the purview of both the *modeled events* factor category and the *attentional processes* subfunction, which further reaffirms the need for an iteration of SCT that is specific to the concerns of the advertising discipline. SCF-A, then, builds on Bandura (2001a)'s work in order to illustrate the way that factors might be identified and classified when studying advertising processes as well as explaining how advertising works.



Firure 3.1. Proposed Characteristics of Advertising plus Nan and Faber's Characteristics of Advertising Added to Bandura's Figure of the Four Major Subfunctions Governing Learning and the Influential Factors Operating Within Each Subfunction

With the exception of a minuscule number of studies related to mediated health/wellness communication, SCT is largely nonexistent from ad-related research. In a longitudinal analysis of advertising research, Kim, Hayes, Avant, and Reid (2014) did not find a single study that utilized SCT. This absence further bolsters the author's assertion that a discipline-specific synthesis of the theory is warranted because even though SCT has existed for nearly 30 years, there are few examples of scholarly investigations in the advertising literature that employ SCT as a theoretical framework, despite its apparent value. Further, by the time that social cognitive theory of mass communication was articulated in 2001, the advertising discipline had become more firmly established within academe, in part by adopting a number of useful research frameworks with which scholars were familiar and productive. Consequently, new theoretical lenses may have seemed unnecessarily risky for academicians who are often under pressure to publish a high percentage of the articles that they author.

One notable exception is Young, Lipowski, and Cline (2005)'s study of direct-to-consumer pharmaceutical drug advertising, which appeared in an academic pharmacy journal instead of an advertising journal. These researchers predicted and found significant positive relationships between outcome expectancy and behavioral intentions (e.g., requesting information or a prescription from a doctor) as well as self-efficacy and behavioral intentions. Though Bandura (2004) was primarily concerned with the way SCT can be used in health communication campaigns to improve self-management of habits, Young, Lipowski, and Cline (2005) extended his thinking about demand-side interventions to pharmaceutical advertising, demonstrating that when properly designed, such ads can positively influence outcome expectancy and, ultimately, behavior intentions. In this instance, SCT was a useful framework to organize advertising within a triadic reciprocal model as an environmental determinant that

influenced attitudes and behavior intentions. This single study suggests the utility of using a social cognitive lens to frame studies of advertising effects, but has not been applied to other kinds of consumer advertising despite being published for over a decade. The lack of attention from advertising researchers serves as evidence of the need to develop an extension of the theory that specifically addresses the discipline.

The reasons that advertising scholars have ignored SCT and social cognitive theory of mass media are not entirely clear. However, it seems plausible that the sheer heft of Bandura (1986)'s original 500+ page theoretical narrative—coupled with its broad but nuanced scope—may have made the framework seem unapproachable to many. Further, much of the advertising literature has largely focused on testing the way that manipulating attributes of advertisements affect their effectiveness. Here the focus has been primarily related to the ad, not the person processing and responding to it. Because psychological theories such as SCT are primarily person-related, they may not seem like logical frameworks to extend to advertising research. Consequently, a condensed version that applies the agentic view directly to advertising concerns may increase the likelihood that scholars might employ and begin assessing the suitability of the social cognitive theoretical perspective for the discipline.

Finally, the framework of SCT is especially amenable to the study of advertising because a substantial portion of ad-related research is concerned with the effects of marketing communication stimuli on the memory, attitudes, and purchasing behaviors of individuals. In fact, 25 of the 30 studies published in the four most-recently archived issues of *Journal of Advertising*—the discipline's most influential publication—use one or more of the constructs as dependent variables or report that one or more of them emerged during qualitative data analysis (See Table 3.1). Consequently, it becomes evident that the proposed SCF-A has the potential to

inform and benefit future advertising research.

Taken together, the author asserts that the preceding factors—advertising's unique characteristics, the absence of advertising research drawing from prior formulations of SCT, and the discipline's predilection for measuring thought, affect, and behavior—make a strong argument in justifying the need for the subsequently-proposed SCF-A.

Table 3.1. Studies of Cognition, Affect, and Behavior Published in Recent J Advertising Issues

Author(s)	Issue	Dependent variable(s)
Chang	43(3)	Guilt, attitude toward ad, behavior intention
Kumar et al.	43(3)	Ad claim recall
Zhao et al.	43(3)	Attitude toward ad, purchase intention
Eisend et al.	43(3)	Attitude toward ad, attitude toward brand,
Matthes et al.	43(2)	Skepticism toward ad
Green et al.	43(2)	Purchase intention, attitude toward ad
Walraven et al.	43(2)	Sponsorship awareness
Hung	43(2)	Attitude toward brand
Fernando et al.	43(2)	Attitude toward ad
Jin et al.	43(2)	Purchase intention
Bušljeta Banks et al.	43(2)	Attitude toward brand, purchase intention
LaTour et al.	43(1)	Ad claim recall
Kareklas, et al.	43(1)	Attitude toward ad, purchase intention
Atknison et al.	43(1)	Attitude toward product, purchase intention
Noguti et al.	43(1)	Purchase intention
An et al.	43(1)	Skepticism toward ad, attitude toward brand, purchase intention
Muehling et al.	43(1)	Attitude toward ad
Yoo	43(1)	Brand recognition, attitude toward brand
Cho	43(1)	Attitude toward ad, attitude toward brand
Bakalash, et al.	42(4)	Attitude toward ad, memory of ad
Lawrence et al.	42(4)	Attitude toward ad
Swansi et al.	42(4)	Attitude toward ad
Folse et al.	42(4)	Attitude toward brand, willingness to pay price premium
Jin et al.	42(4)	Attitude toward advertising
Aguirre-Rodriguez	42(4)	Behavior intent

## **SCF-A Theoretical Assumptions**

Recall that SCT eschews the paradigm of behaviorism in favor of an agentic framework.

Though cognitive psychologists have largely embraced a shift from behaviorism, the stimulus-response model of advertising exposure resulting in purchase behavior remains pervasive in the thinking of many scholars and practitioners according to Weilbacher (2003), who cited four reasons that the behaviorist purview has persisted:

- First, because it was a plausible explanation of how humans react to advertisements that had, at least at one time, received authoritative support from theoretical and applied psychologists—that is, the behaviorists.
- Second, because it was simple and easy to understand, it made it easy to tell advertisers and potential advertisers why and how their advertising would work.
- Third, because it provided a rationale for the measurement of advertising's overall effects (the awareness–interest–desire–action hierarchy-of-effects concept) and a basis for predicting the likelihood that specific individual advertisements would be successful in the marketplace (copy testing).
- Fourth, because it reinforced the idea that all brand decisions are conscious and rational, and that advertising could influence such conscious and rational decisions. (p. 231)

The agentic view holds that human cognition, emotion, and behavior are more than just functions of the environmental forces that act on them. Instead, people are capable of forethought, goal-setting, acting on their environments, and pursuing courses of action that are designed to bring about desired outcomes. As a result, Bandura (1986) posited that “most human behavior is purposive” (p. 19). Further, it is assumed that the particular actions that individuals undertake are those that they envision as having the greatest likelihood to result in desirable ends. Applying this rationale to the concerns of the advertising discipline, then, yields the first assumption of SCF-A.

*A1: Individuals purchase advertised goods and services with the intention of bringing about desired ends.*

In other words, people do not thoughtlessly respond to advertising that tells them to shop

at certain stores or to buy specific brands simply because they have viewed sponsors' ad messages. Rather, they choose to do so in order to achieve desirable ends that they have mentally constructed. This does not imply that the ends which individuals pursue are always beneficial or rational by others' standards. As previously noted, people often make decisions they believe to be in their own best interests—including the purchase of goods and services—which subsequently result in unintended detrimental outcomes.

Similarly, people decide which advertisements they will or will not attend to. Advertising professionals constantly work to conceive creative ideas that are capable of capturing consumers' attention because they realize that the mere presence of an ad does not ensure that it will be regarded. Reasons that people attend to ads may be as simple as the want to satisfy curiosity or because no better alternative exists. Other ads may be actively attended to because consumers wish to gather information for purchases they are planning to make in the future. Whatever the reason, SCF-A contends that such behavior is largely intentional. Thus, SCF-A assumes that:

*A2: Individuals attend to ads with the intention of bringing about desired ends.*

Because they are capable of learning vicariously, humans are not wholly-subordinate to a riskier trial-and-error model of learning. Consequently, people are able to bring knowledge that they acquire from the actions and observations of others to bear on their own patterns of thought, affect, and action. In many regards, the objective of nearly all advertising is to facilitate the process of vicarious learning. That is, marketers create and disseminate ads through mass media with the intention of creating memories that link marketing messages to brand names in the minds of consumers.

Vicariously learning from advertising has the potential to confer both advantages and disadvantages to individuals who incorporate learned information into the decisions that they

make. For example, an individual who learns about a sale price from an advertisement gains some degree of survival advantage over a person who purchases a similar product or service for a higher price because the sale price has enabled the consumer to better-manage her or his finite resources compared to the shopper who paid more. Thus, s/he has relatively more financial resources remaining for other needs and wants.

Conversely, a person who chooses to forego healthy eating habits in an effort to attain a level of thinness that has been modeled in advertisements by individuals who are judged as attractive has placed him/herself at a survival disadvantage in terms of his or her health and well-being. These rather basic illustrations are not to be interpreted as exposure-effect phenomena. Rather, the associations learned from advertisements are but few of the myriad determinants—such as self-esteem, social feedback, and personality characteristics—that contribute to an individual's cognition, affect, and behavior choices.

As previously noted, learning may occur both intentionally and incidentally. This helps to account, to some degree, for learning that occurs from passive information processing as well as the connotative meanings—such as gender roles, race hierarchies, and beauty ideals—that are inherently coded into advertisements.

With regard to vicarious learning, and based on social cognitive theory, SCF-A assumes the following:

*A3: Individuals create mental associations based on information conveyed in advertisements through the process of vicarious learning.*

*A4: Associations learned from advertising can influence subsequent decision making that results in both positive and negative outcomes.*

In the agentic view, cognition, affect, and behavior are influenced by personal,

environmental, and behavioral determinants that act on one another bi-directionally. Recall that much ad-related research concerns advertising's influence on cognition, affect, and behavior. Cognition is often evaluated by testing recall and recognition (e.g. Singh, Rothschild, & Churchill, Jr., 1988; De Pelsmacker, Geuens, & Anckaert, 2002; Drèze & Husherr, 2003; Till & Baack, 2005; Aribarg, Pieters, & Wedel, 2010; etc.); and *affect* is frequently gauged by measuring brand- and/or ad-liking (e.g., Moore & Hutchinson, 1983; Biehal, Stephens, & Curlo, 1992; LaTour & Henthorne, 1993; Till & Busler, 2000; etc.). Another construct, *behavioral intentions*, are commonly assessed by measuring purchase intent (e.g., Kamins & Marks, 1987; Chang & Wildt, 1994; Li, Daugherty, and Biocca, 2002; Belleau, Summers, Xu, & Pinel, 2007; etc.).

Though it may seem obvious, it is important to note that behavioral intentions are fundamentally different from actual behaviors. Intentions are a type of mentally-constructed contingency that exist in the mind of an individual. Accordingly, they are best classified as a type of personal determinant, along with cognition and affect, within the triadic reciprocal model. Conversely, actual purchasing, information-seeking, or other relevant behaviors are directly observable and best classified as a type of behavioral determinant within the model.

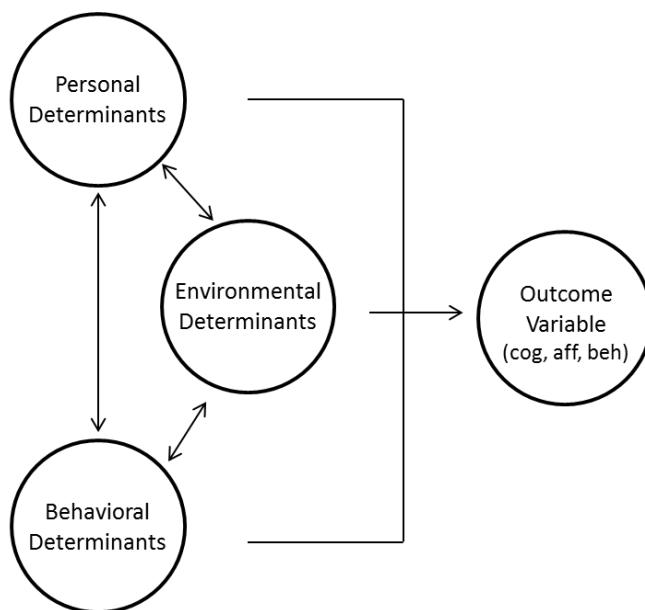
Because the effect of exposure to advertisements is central to advertising research, it is appropriate to formally address their place within the triadic reciprocal causation model. Specifically, SCF-A assumes that:

*A5: Advertisements are environmental determinants that have the potential to act on and influence personal, behavioral, and other environmental determinants.*

As Figure 3.2 details, triadic models can be configured to illustrate the relationships between determinants on variables that researchers are interested in measuring. Because bi-

directional relationships are acknowledged within the model, it is possible to hypothesize variable relationships such as sequential paths and interactions, among others. Further, the cognition, affect, or behavior that is hypothesized to result from the interaction of personal, environmental, and behavioral determinants can be subsequently added to subsequent models as a personal or behavioral determinants and used to predict other hypothesized relationships.

Figure 3.2. Outcomes from Hypothesized Triadic Model Relationships



Similar to other SCT-based frameworks, self-efficacy figures prominently into SCF-A. Recall that self-efficacy is (a) the belief that one is able to influence his or her own functioning and circumstances, (b) central to human agency, and can (c) significantly affect the courses of action that people choose to pursue as well as the outcomes that they expect to result from such actions (Bandura, 2001a).

A great deal of advertising appeals to the self-efficacy beliefs target audiences. Any number of examples might illustrate this strategy. For example, grooming products are frequently shown to help lonely users attract romantic partners, and for-profit colleges spend

hundreds of millions of dollars to convince people that their short-term programs will allow students to take control of their futures upon graduating.

Echoing Bandura (2001a)'s dual paths of media influence, Pajares (1997) noted that sources of self-efficacy beliefs can be both vicarious experience and verbal persuasions. In this view, the modeling that exists in advertisements provides vicarious experiences for individuals and any information based on ad messaging relayed from one person to another provides verbal persuasions. Pajares (1997) also noted that social comparisons are a significant part of one's vicarious experiences, which may help explain, in part, the detrimental effects that advertising has on people who compare themselves with idealized others presented in ads.

Accordingly, based on the influential role of self-efficacy in determining thought, affect, and action, SCF-A proposes the following:

*P6: In terms of subsequently affecting cognition, affect, and behavior, self-efficacy is one of the most important personal determinants that advertising can influence.*

Table 3.2 summarizes the set of assumptions derived from social cognitive theory that inform SCF-A. Now that the axioms underlying the synthesis of SCT and advertising communication have been articulated, an explanation of how advertising works from the SCF-A's perspective may be presented.

Table 3.2. Assumptions of Social Cognitive Framework for Advertising

Assumptions of SCF-A
1. Individuals purchase advertised goods and services with the intention of bringing about desired ends.
2. Individuals attend to ads with the intention of bringing about desired ends.
3. Individuals create mental associations based on information conveyed in advertisements through the process of vicarious learning.
4. Associations learned from advertising may influence subsequent decision making positively or negatively.
5. Advertisements are environmental determinants that have the potential to act on and influence personal, behavioral, and other environmental determinants.
6. In terms of subsequently affecting cognition, affect, behavioral intentions, and behavior, self-efficacy is one of the most important personal determinants that advertising can influence.

### **How Advertising Works: The SCF-A Perspective**

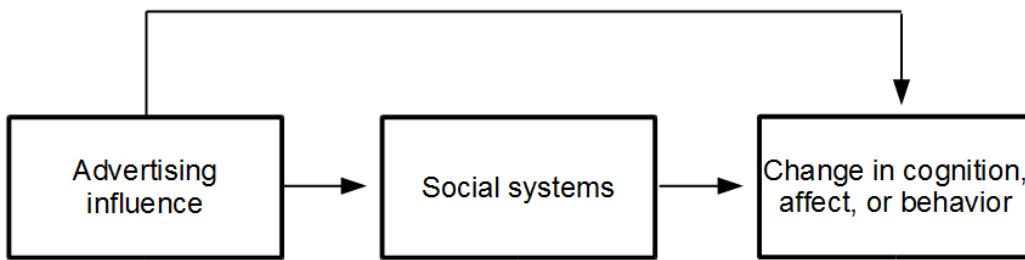
The objective of the current discussion is not to hypothesize the relationships of every determinant and contingency that may interact with, modulate, or otherwise impinge upon advertising's influence within causal structures. Rather, it is more productive to characterize SCF-A's conception the general nature and paths of advertising effects and to then illustrate how the theory may be used to investigate any number of determinants that may influence the myriad outcomes that may be of interest to researchers.

Like other types of media messages, advertisements may influence thought, affect, and action directly or through social mediation. Bandura (2001a) described these dual pathways, positing that, "In the direct pathway, communications media promote changes by informing, enabling, motivating, and guiding participants. In the socially mediated pathway, media influences are used to link participants to social networks and community settings" (p. 285).

When influencing individuals directly, ads may create, modify, or reinforce perceptions—positive or negative—of particular brands by modeling or otherwise conveying information about marketers' goods and services. In the mediated pathway, ad-influenced behavior that is modeled by others may be adopted or rejected depending upon—among other things—the

attractiveness of the models. Likewise, advertising messages that are recounted by influential others may become determinants in causal structures that exert influence on brand attitudes, purchase intentions, and purchase decisions. Figure 3.3 substitutes *advertising* for *mass media* in Bandura (2001a)'s dual paths model to summarize these effects.

Figure 3.3. Dual Paths of Advertising Influence



The amount of influence exerted through either path varies and is not necessarily expressed equally; that is, influence may be exerted proportionally. Bandura (2001a) stated that:

Most behavior is the product of multiple determinants operating in concert. Hence the relative contribution of any given factor in a pattern of influences can change depending on the nature and strength of coexisting determinants. Even the same determinant acting within the same causal structure of factors can change in its causal contribution with further experience...Depending on their quality and coexistence of other determinants, media influences may be subordinate to, equal to, or outweigh nonmedia influences. (p. 284)

Advertisements operate within the often vast and complex web of personal, environmental, and behavioral determinants that influence people. Ads, then, are but one component in the constellation of factors that make up the countless causal networks which guide thought, affect, and emotion. It is through agency that people are able to mentally symbolically organize and prioritize determinants in order to plan courses of action that direct pursuits of desired outcomes.

Readers should not assume that SCF-A's conceptualization of advertising operating

within a broad milieu of determinants intimates that ads are universally incapable of exerting substantial, significant influence on people. Indeed, consistent with Bandura's assertion that the same determinant may exert varying degrees of influence, SCF-A allows the prediction of strong, weak, and even non-existent effects that are dependent on the strength of other determinants operating with causal structures at a given time. Any number of examples could be used to illustrate this phenomenon. For instance, a highway advertisement for a restaurant may greatly influence a hungry driver to visit for a meal. After eating, the influence of the same advertisement for another of the restaurant's locations will likely be extinguished in the short-term because the driver is no longer hungry and may be lessened for some time into the future if the driver desires variety. Additionally, the influence of future ad impressions may be further affected by the quality of the dining experience.

From many marketers' standpoints, weaker advertising effects may still be considered valuable. As Mela, Gupta, & Lehmann (1997) noted, a cumulative effect arising from repeated exposure to consistent brand messages may, at opportune moments, come to bear on thought, affect, or action beneficial to a brand. Nor are all effects immediately measurable. Recall that determinants may become salient at different times and exert influence at varying. In the context of advertising, then, effects on brand attitudes or purchase decisions may lag far behind exposure to an ad.

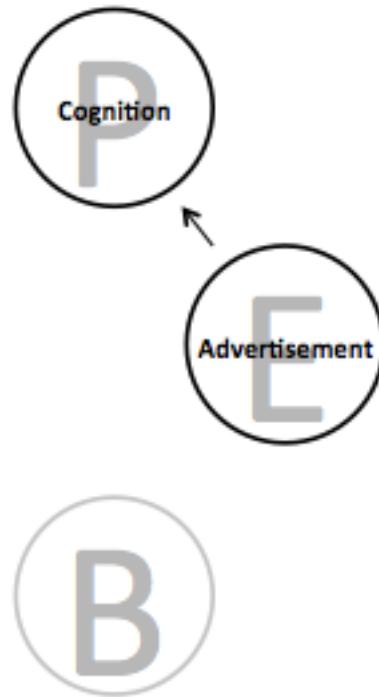
By acknowledging the influence of advertising on human cognition, affect, and behavior, the author has intended to reaffirm SCF-A's congruency with the numerous streams of existing advertising research that inform the advertising discipline. Further, the ease with which prior findings can be integrated into new triadic structures encourages the continued extension of existing practical and theoretical knowledge within the broader, more comprehensive theoretical

framework established by SCF-A.

Recall that SCF-A designates advertising as an environmental determinant within the triadic reciprocal model. Within a laboratory setting, SCF-A may be used to isolate variables of interest and predict effects that result from exposure to advertisements under particular conditions. However, it is vitally important that researchers acknowledge that ads are but one of a multitude of determinants that may influence cognition, affect, and action. Further, SCF-A also recognizes that under alternative conditions, ads may contribute negligible or minute proportions of the influence that determine attention, brand attitudes, purchase decisions, and the like in non-laboratory settings.

One of the most-basic hypotheses of advertising's effects that one could derive from SCF-A would predict that an advertisement results in cognition. (See Figure 3.4) It is essential to remember that SCF-A recognizes an individual's agentic role in choosing to attend to the ad and then process it, even in this theoretically-possible scenario in which no other determinants are acknowledged.

Figure 3.4. A Simple Hypothesized Relationship Derived from the Triadic Reciprocal Model



Consequential advertising effects, of course, are infinitely more complicated and may involve any number of contributing determinants. Indeed, cognitive psychologists have hypothesized that attitudes and behavior decisions are the result of immensely-complex webs of mental processes (Weilbacher, 2003) and at least one advanced neuromarketing research project has supported that logic, asserting that the mental processes that factor into thought, affect and action are a function of the creation, storage, and retrieval of memories in complex neuronal networks within certain regions of the brain (Lindstrom, 2010). These intricate processes, of course, are only part of the personal, behavioral, and environmental influencers present in triadic causation structures.

Stated another way, prior findings and SCF-A do not support a stimulus-response interpretation of advertising effects. Rather, researchers should acknowledge that advertising

messages—under certain conditions—can become a part of a network of determinants that may influence an individual.

Recognizing some of the characteristics that are unique to advertising communication becomes especially relevant at this point because they are hypothesized to govern a substantial proportion of the influence that ads may or may not exert on individuals. In particular, scholars generally agree that many ads—perhaps the majority—that are encountered in an individual's environment fail to initiate even basic cognition/processing because clutter and avoidance drastically reduce the number of ads that people attend to. Examined another way, one may argue that the collectively ubiquitous and invasive nature of advertisements influences individuals' decisions to avoid them. For message sponsors, the net effect is identical: many ads fail to register with the people who encounter them.

Further, in many cases, skepticism diminishes—or annuls—the influence of those ads which are given attention. One could reasonably assert that consumer skepticism is much of the reason that modern marketers have readily-embraced more covert communication strategies such as product/brand placement, social media endorsements, and masked marketing (e.g., Petty, 2008) to reinforce—through message coordination—the brand messages espoused in their advertisements.

Many of the variables that moderate and mediate advertising's influence on cognition, attitudes, and behavior are well-established in the literature. These factors include product/brand involvement, ad creativity, prior purchasing behavior, information processing, product type, and media weight, among others. The subsequent discussion illustrates how these and other constructs can be used in conjunction with SCF-A and how SCF-A can be used to organize many disparate streams of advertising scholarship.

## **Organizing Major Research Frameworks and Constructs within SCF-A**

Adopting SCF-A as a foundation of future scholarship does not necessarily obviate existing research streams or require investigators to completely “reinvent the wheel” with regard to their research agendas. Indeed, the nature of the social cognitive theoretical framework makes SCF-A compatible with many of the theories, hypotheses, and constructs that are most-frequently cited in the advertising scholarship literature. Further, the triadic reciprocal causation model serves as an excellent heuristic for organizing the disparate research streams that comprise advertising's body of knowledge.

A study of the top advertising academic journals by Pasadeos, Phelps, and Kim (1998) found that investigations about (1) how advertising works and (2) cognitive processes/responses were among the most recurring types of studies between 1982-1985 and that investigations studying affective responses or using the Elaboration Likelihood Model were among the most recurring between 1992-1995. A subsequent content analysis of seven advertising-related academic journals conducted by Pasadeos, Phelps, and Edison (2008) enumerated scholarly articles that were most-cited from 2002-2005. After further analysis, these authors found that a number of models and variables emerged as the dominant frameworks (see Table 3.3) and key constructs (see Table 3.4) that were used to inform scholarship appearing in the sampled journals

Table 3.3. Organization of Most-cited Ad research Frameworks Within the Triadic Reciprocal Model

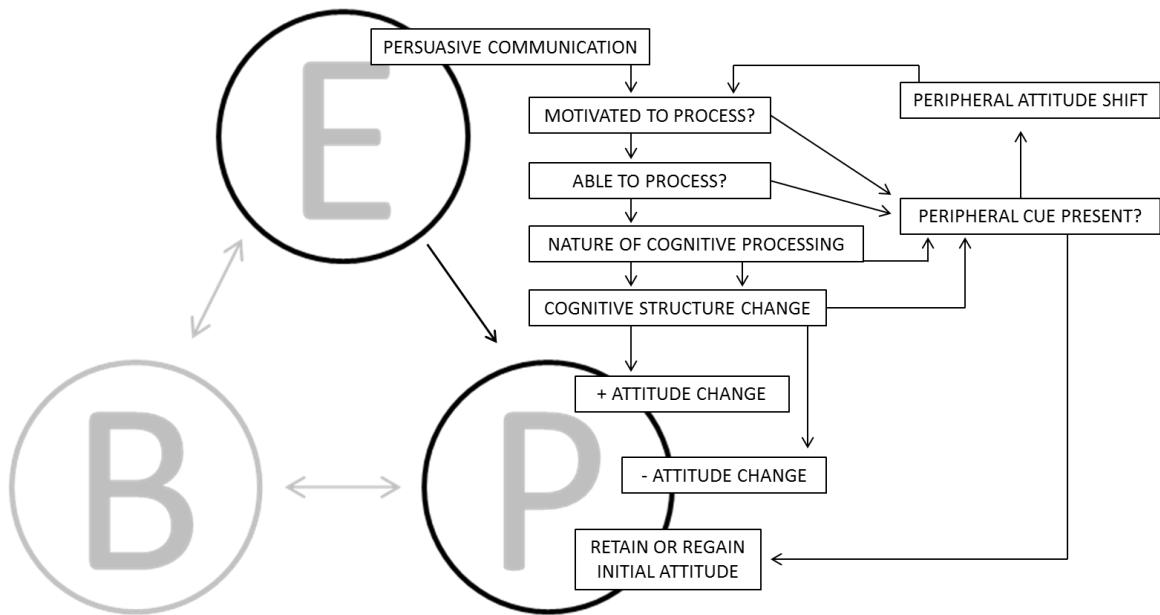
Model/hypothesis	Compatible?
Elaboration Likelihood Model	Yes
Persuasion Knowledge Model	Yes
Match-up Hypothesis	Yes

Table 3.4. Organization of Other Frequently-used Constructs within the Triadic Reciprocal Model

Personal	Environmental	Behavioral
Attitudes	Ad creativity	Information seeking
Emotion	Clutter	Purchasing
Intentions	Congruence	Sampling
Memory	Culture	
Purchase involvement	Media attributes	
	Media weight	
	Product attributes	

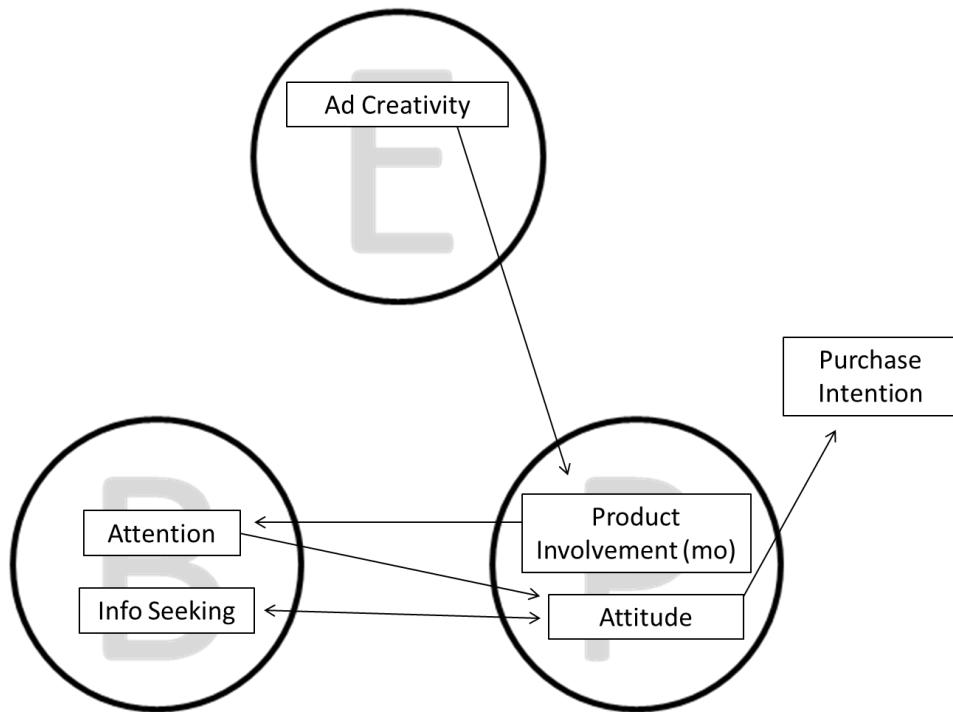
The majority of these models and constructs are amenable to integration with the triadic reciprocal framework. As Figure 3.5 illustrates, the Elaboration Likelihood Model (Petty & Cacioppo, 1986)—the most-cited framework in the literature—proposes a set of contingencies that detail the way that persuasive communication, such as advertising, result in attitude change or retention. In this case, SCF-A predicts that an environmental determinant in the form of an advertisement may influence the personal determinant *attitude*. As shown, ELM may be used to in concert with SCF-A to predict the type of attitude that will emerge and that can then be used by the researcher to predict other determinant relationships.

Figure 3.5 Combined ELM and Triadic Reciprocal Causation Model



Likewise, one may readily-assimilate the most-used key constructs with the triadic reciprocal model to visually organize relationships and make predictions among variables. Figure 3.6 illustrates such a set of relationships: product involvement is predicted to moderate the effect of ad creativity on attention; attention then influences attitude; attitude influences information seeking behavior, which reciprocally influences attitude; this resulting attitude then influences purchase intention—the variable of interest to the researcher. Of course, one may also include any number of other variables of interest that are under examination and may predict valence of relationships, and the like. After testing one set of relationships, the dependent variable may be included as an independent variable in other causal networks. In the case of Figure 6, for example, purchase intentions might be used to predict purchase behavior in a subsequent model.

Figure 3.6. A More-complex Causal Network Hypothesized from the Triadic Reciprocal Model



Now that SCF-A has been formally articulated, it can be utilized to organize a study of advertising effectiveness by hypothesizing a set of relationships between variables of interest and testing them within a triadic reciprocal model. Specifically, Part Two of this dissertation employs SCF-A to examine the relationships between a personality factor (introversion-extraversion), an attribute of advertising (arousal potential), and three outcome variables that are frequently of interest to advertising scholars: memory of the ad, attitude toward the ad, and purchase intention.

PART TWO: USING SCF-A TO FRAME AN INVESTIGATION OF THE INTERACTIVE EFFECT OF INTRAVERSION-EXTRAVERSION AND AD AROUSAL POTENTIAL ON MEMORY OF THE AD, ATTITUDE TOWARD THE AD, AND PURCHASE INTENTION

## CHAPTER 4

### INTRODUCTION

The capability to limit wasteful ad spending is among the competitive advantages that precisely defining, segmenting, and reaching target audiences provides advertisers. In recent years, ad targeting has become increasingly sophisticated because online and mobile technologies have enabled an unprecedented level of data collection and analysis that have allowed marketers to better separate targets from waste when planning and executing digital media buys (Turow, 2012). Indeed, every day, some 2.5 quintillion bytes of data (IBM, 2013)—that is, 2,500,000,000,000,000,000 bytes—are collected by websites, sensors, scanners, payment systems, and a host of other modern digital technologies. The capability to store and analyze this information has ushered in an era of *big data*, which has already begun to profoundly alter the ways that businesses manage their operations, market their products and services, and the like. With regard to the advertising industry, analysts have predicted that the data generated from social media use, purchasing activities, and location-based mobile applications will affect the manner in which advertising placement, creative, and messaging strategies are developed and implemented by advertisers and their agencies (Brand 2013).

Aside from enhancing mobile and online media planning and buying, modern digital media platforms present other opportunities—along with significant new challenges—to marketers. For instance, big data is already enabling marketers to target individuals based on dozens of personal characteristics related to consumer data profiles, including “social backgrounds, locations, activities, and social relationships” (Turow, 2011, p. 89). Further, digital

media vehicles are not constrained by the mass delivery nature of traditional media. Consequently, savvy marketers are now developing multiple creative iterations of ads based on the characteristics of particular consumer segments (Elliott, 2012).

However, the evolving digital media environments that are enabling increasingly-specific targeting are also allowing greater consumer control over selecting which ads are viewed. In order to retain audiences, very few online and mobile publishers require users to actually view an ad in order to access editorial or entertainment content. Instead users can close, skip, or ignore ad messages altogether. And the rare publishers that actually do require users to attend to ads often allow them to choose which companies' messages they prefer to receive. Thus, the old and familiar problem of getting media users to attend to advertisements continues to challenge even the most innovative marketers.

With this in mind, the need to understand the relationships between crucial individual/audience traits and advertising creative execution that influence cognitive, affective, and behavioral outcomes—an area of study already familiar to academicians—is now more pertinent than ever. Advertising scholars should recognize big data as an impetus for conceiving original lines of inquiry and revisiting and updating existing research from relevant areas; however, they must do so with an eye toward the kinds of meaningful theory-building that has been largely absent in previous decades.

Audience targeting based on personality characteristics is one such area of study that may contain a potential wealth of meaningful theoretical and practical research. As the author has already intimated, marketing's march toward building individual-level profiles of consumers from big data, as well as the technological advances that are enabling delivery of highly-personalized messaging, make the study of the relationships between personality traits and

creative execution especially salient. The practical application of such inquiries has also been asserted by academicians, such as Ruiz and Sicilia (2004), who posited that, “As advertisers increasingly seek greater communication effectiveness and new forms of media emerge, psychological differences amongst individuals are becoming essential criteria in the design of advertising appeals” (p. 657). Prior research from a number of other social scientific disciplines has frequently demonstrated the value of personality as a predictor of myriad “consequential outcomes” (Ozer & Benet-Martinez, 2006) and even though targeting has traditionally been most closely associated with media planning, advertising scholarship from at least two decades has consistently suggested the value of tailoring creative execution to consumer personality types.

The study described in subsequent chapters of this dissertation was undertaken to explore the interaction of personality and ad creative by examining the relationship between introversion-extraversion, a personality factor, and arousal potential of the ad in order to extend previous research and demonstrate the organizing and explanatory value of SCF-A. It accomplishes this by integrating existing personality theory, and findings related to advertising creative execution, into a triadic causation model in order to formulate and test a set of predicted cognitive and attitudinal outcomes. The basis, method, and results of this investigation—as well as a litany of scholarly and practical implications of the findings—are discussed throughout the following chapters. Additionally, limitations of the study are acknowledged, and a number of directions for future research are enumerated.

## CHAPTER 5

### REVIEW OF LITERATURE

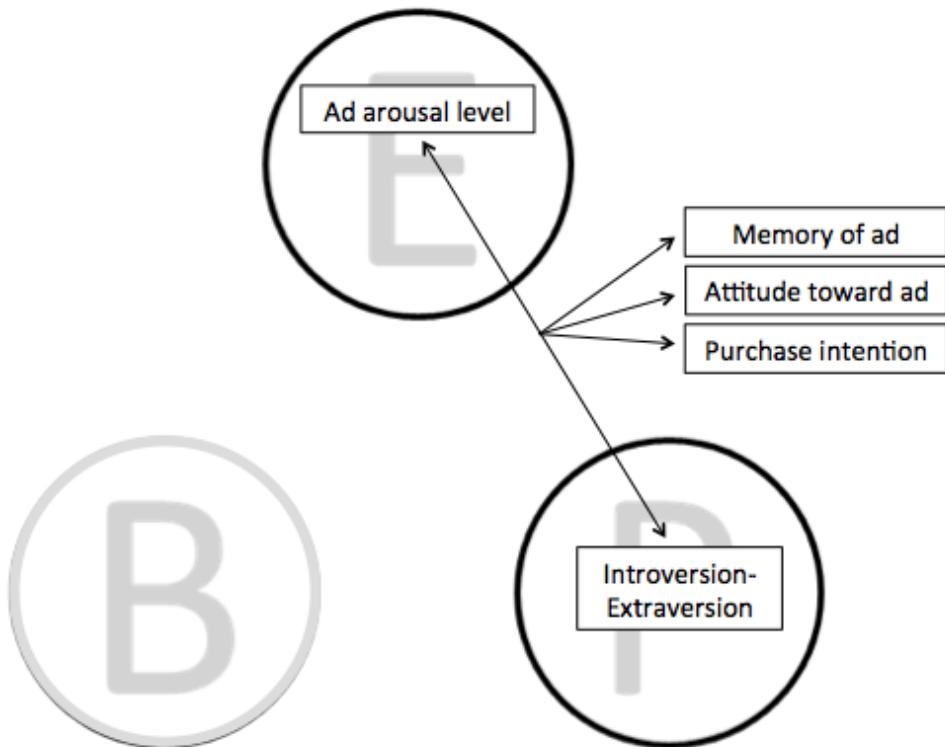
#### **Social Cognitive Framework for Advertising**

Social cognitive framework for advertising (SCF-A) posits that advertisements are a form of environmental determinant that can interact bi-directionally within triadic causation structures of other personal, behavioral, and environmental determinants to influence a person's thoughts, attitudes, and behaviors. Such effects occur probabilistically, are influenced by myriad factors, and are the consequences of an individual's capacity to act agentically; that is, the person is not merely the product of environmental forces (e.g., advertising messages) acting upon him or her.

The present investigation is concerned with the effects on memory, attitudes, and behavior intentions that result from the interaction between an advertisement's arousal potential and an individual's introversion-extraversion orientation. Figure 5.1 arranges these variables within a triadic causation model and demonstrates the utility of employing SCF-A as an underlying theoretical framework to organize further research that can be used to hypothesize relationships between variables of interest. Further, it helps to visualize a class of determinants—i.e., other personal, environmental, and behavioral forces—that may potentially influence response variables and must be controlled for within the study's design.

More specifically, as the subsequent review of extant personality and advertising literature demonstrates, previous findings provide a sound basis to hypothesize that introversion-extraversion moderates the effect of an advertisement's arousal potential on memory of the ad, attitude toward the ad, and purchase intention.

Figure 5.1. Variables of Interest Arranged into a Triadic Causation Model



## Personality

Personality is conceptualized as “the unique psychological qualities of an individual that influence a variety of characteristic behavior patterns (both overt and covert) across different situations and over time” (Gerrig & Zimbardo 2002). Academicians have generated a vast body of personality-related research and a number of reliable instruments, such as the MBTI, NEO PI-R, and EPQ (among many others) to measure personality and profile individuals. Such instruments are used by schools, governmental organizations, employers, and a variety of other institutions, as well as individuals interested in learning more about their own psychological make-up.

John, Naumann, and Soto (2008) posited that researchers frequently rely on the

dimensions that make up the Big Five, or Five-Factor Model—extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience—to organize the psychological qualities that make up personality, and provided conceptual definitions of the Big Five factors:

*Extraversion* “implies an energetic approach toward the social and material world and includes traits such as sociability, activity, assertiveness, and positive emotionality.”

*Agreeableness* “contrasts a prosocial and communal orientation toward others with antagonism and includes traits such as altruism, tender-mindedness, trust, and modesty.”

*Conscientiousness* “describes socially prescribed impulse control that facilitates task- and goal-directed behavior, such as thinking before acting, delaying gratification, following norms and rules, and planning, organizing, and prioritizing tasks.

*Neuroticism* “contrasts emotional stability and even-temperedness with negative emotionality, such as feeling anxious, nervous, sad, and tense.”

*Openness* “describes the breadth, depth, originality, and complexity of an individual's mental and experimental life.” (p.120)

Each of these dimensions also determines—to varying degrees—an individual's preferences related to (a) gathering and processing information, (b) life conditions such as job type and living arrangement, and (c) chosen or conferred experiences. One's personality type can also significantly influence the way that others perceive him or her. Further, Canli, Zhao, Desmond, Kang, Gross, and Gabrieli (2001) reported that “some psychological determinants of individual variability in emotional responsiveness have been identified, such as specific personality traits” (p. 33).

Of the literature dealing with the relationships between personality and the mass media, the best-established lines of inquiry suggest a link between extraversion and media processing

and preferences. Such relationships between the other dimensions and media use have not been linked theoretically or empirically. Further, the prior media-related research concerning extraversion allows the researcher to appropriately hypothesize the relationships between arousal potential, extraversion, and a number of ad-related dependent variables. Accordingly, extraversion's influence on ad processing and preference was investigated in the present study.

Because extraversion—and diametrically-opposite introversion—are aspects of personality that are of particular interest to the present research, it is appropriate to further-explore some of the developments, contributors, and correlates with which they have been associated.

Sipps and Alexander (1987) posited that “[t]he concept 'extraversion-introversion' has been a central factor in most personality theory since the term was coined by Jung in 1923” (p. 543). A person's orientation to extraversion or introversion reveals much about his or her outlook on life, the way that others perceive him or her, and various preferences that influence his or her behavior. When compared to introverts, extraverts are often characterized as assertive, bold, active, outgoing, and gregarious individuals who are more likely to have higher numbers of friends and sex partners, higher status within peer groups, and to be selected for tasks such as jury forepersons (John, Naumann, & Soto, 2008; Zelenski, Santoro, & Whelan, 2012).

Introverts, on the other hand, are described as quiet, passive, and less social (Srivastava, 2013). As an aside, because some cultures tend to idealize the extraverted orientation, many researchers—including this one—make concerted efforts to emphasize that one orientation is not necessarily better than the other; rather, each is characterized by a unique set of traits that an individual may exhibit in varying degrees.

Kagan (1994) extensively studied temperaments—the biological disposition to be either

inhibited or uninhibited—and found them to be predictors of, and closely related to, introversion and extraversion. Further, Kagan reported that inhibited individuals—those most likely to identify as introverts—were more prone to being averse to novelty and stimuli. Summarizing Kagan's work, Cain (2012) noted that

[t]emperament refers to inborn, biologically based behavioral and emotional patterns that are observable in infancy and early childhood; personality is the complex brew that emerges after cultural influence and personal experience are thrown into the mix. Some say that temperament is the foundation, and personality is the building. (pp. 100-101)

Consequently, with regard to the environments and experiences that individuals prefer, extraverts are more likely to welcome, and actively seek out, higher levels of novelty and stimulation than are introverts who are more likely to select “quiet, minimally stimulating environments” (Cain, 2012) when possible. This is consistent with Eysenck (1967) who suggested that “extraverts are chronically underaroused (or less reactive to stimulation) relative to introverts” (as cited in Zelenski, Santoro, & Whelan, 2011, p. 290).

The relationship between introversion-extraversion and optimal arousal levels has been studied in many contexts. For instance, Dobbs, Furnham, and McClelland (2011) found that introverts performed cognitive tasks less well than extraverts in the presence of music and background noise. Cassidy and MacDonald (2007) reported that highly arousing music and noise were detrimental to introverts' performance on five cognitive tasks: immediate recall, free recall, numerical and delayed recall, and the Stroop test. Another experiment undertaken by Furnham and Allass (1999) predicted and detected an interaction between musical complexity and cognitive-task performance. Specifically, these authors found that complexity decreased introverts' performance of cognitive tasks (i.e., reading comprehension, observation, and

memory tests) and increased extraverts' performance of the same tasks. Finally, Belojevic, Slepcevic, and Jakovljevic (2001) reported that introverted participants reported significantly higher concentration problems and fatigue in noisy versus quiet conditions, and that extraverts completed an arithmetic task significantly faster in noisy conditions than in quiet ones. Taken together, a pattern emerges that suggests introverts are more likely to thrive in—and prefer—lower-arousal environments. Conversely, extraverts are more likely to prefer, and find amenable, higher-arousal environments.

To reiterate: Within a triadic causation model, introversion-extraversion is a personal determinant that may interact with other personal, environmental, and behavioral determinants to influence thought, affect, and action. An environmental determinant of interest—advertising—is now examined with regard to its creative execution.

### *Advertising creative*

Few aspects of marketing communication are as closely scrutinized, or considered more important to the success of campaigns, than the creative execution of the advertisements that target audiences encounter. Advertisers invest substantial resources to develop original and relevant ideas, and agencies often win or lose accounts based on the strength of the creative work that they produce.

Scholars have also committed significant time and effort to undertake studies related to creative execution in an effort to unravel and explain the cognitive, affective, and behavioral effects of relationships between creative executional elements and other variables of interest. Such investigations make up a substantial proportion of the academic literature and have been vital to its development.

A substantial amount of historical and contemporary advertising research has been

concerned with attention and affective valence as they relate to creative execution. Bandura (2001a) noted that from a social cognitive standpoint, the attentional process associated with observational learning is influenced by both the *arousal level* of an observer and the *affective valence* of a modeled event. Thus, these factors are among the key influencers that determine what is “selectively observed in the profusion of modeling influences and what information is extracted from ongoing modeled events” (Bandura, 2001a, p. 272).

Advertising creative practitioners know that for an ad to have any chance of being remembered and then subsequently influencing brand attitudes, purchase intentions, or purchase behaviors, it must first get the attention of an audience. Thus, one of the main functions of creative strategy is to effectively gain and maintain consumer attention so that messaging may transmit information about a branded product or service that then becomes a part of the memories which are associated with the brand in the mind of the consumer (Ang & Low, 2000; du Plessis, 2008). The cluttered media environments in which advertisements are placed, as well as the tendency of many consumers to regularly avoid ads, complicate this task. Thus, understanding how to increase the likelihood that individuals in a target audience will attend to ads continues to be of paramount importance to both advertising scholars and practitioners.

An advertisement’s creative execution also determines—to a large extent—the degree to which it is liked or disliked. Ad liking, or *attitude toward the ad* ( $A_{ad}$ ), concerns the “predisposition to respond in a favorable or unfavorable manner to a particular advertising stimulus during a particular exposure situation” (MacKenzie, Lutz, & Belch, 1986, p. 130). Liking has been studied extensively and researchers have consistently found a positive relationship between  $A_{AD}$  and memory of the ad ( $M_{AD}$ ), attitude toward the brand, purchase intention (PI), and actual purchase behavior (Walker & Dubitsky, 1994). Walker and Dubitsky

(1994) also noted that an advertisement's elements—including its “activity level,” among other factors—may drive liking.

Attention and affect, then, are used by researchers to determine the effectiveness of particular creative executions. Attention can be evaluated by measuring subjects' memory of the ad. Moorman, Willemsen, Neijens, and Smit (2012) noted that  $M_{AD}$  is frequently measured because it is widely-assumed that if an individual has formed a memory related to an ad, s/he has paid attention to it. Affect, as the author has noted, can be assessed by measuring attitude toward the ad. Again, prior research has linked  $A_{AD}$  to other measures of advertising effectiveness including purchase intent, credibility, attitude toward the brand, and persuasiveness (Gelb & Pickett, 1983).

### **Prior Personality-related Advertising Research**

This is not the first study to consider the influence of personality traits on advertising effects. In fact, Ruiz and Sicilia (2004) asserted that, “There exists a long tradition in advertising research of exploring the relationship between personality and response to advertising messages” (p. 657). Conversely, not all ad scholars have embraced the assumption that personality-related studies are beneficial to the discipline. For example, Plummer (2000) quipped that “no approach has been more enigmatic or has been held with such high expectations as that of personality research borrowed from the field of psychology” (p. 79) before dismissing the study of consumer personality as inconsequential. Despite such criticism, a number of investigations reported in scholarly journals have established a consistently-insightful string of findings which provide a sound prologue for the present work.

Several studies have focused on the impact of individual—stimulus congruency on ad effectiveness and brand preference. In an effort to explore how individuals' differences can

affect responses to ad appeals, Ruiz and Sicilia (2004) predicted an interaction between personality-related cognitive processing style and advertising appeal type on measures of advertising effectiveness. Specifically, these researchers found that “when individuals were exposed to ads congruent with their processing styles, in terms of affect and cognition...higher advertising effectiveness [was] obtained” (p. 662). Another study of congruency conducted by Chang (2002), found that individuals preferred products whose “brand personalities” resembled their own personality traits. Similarly, Hong and Zinkhan (1995) reported that advertisements that were congruent with participants' introversion-extraversion orientations were evaluated more favorably than incongruent ads.

Though homepages/websites are not advertisements in the strictest sense, they are a closely-related form of marketing communication. A study of Chinese students conducted by Huang and Yang (2011) explored the way that personality influenced the acquisition and processing of information from differently-designed homepages. As expected, these authors found that participants with personality traits characterized as “intuitive and feeling” evaluated less-densely designed homepages more favorably. Further, these authors reported that an individual's cognitive style influenced evaluations of variably-dense homepages and concluded that personality is “useful in understanding and predicting how users may evaluate websites” (p. 388).

In a study of direct sales advertising, Lewis (1997) predicted and found that individuals with dissimilar perception and judgment personality traits preferred different levels of information depending on the type of appeal used in advertisements. Among the findings that Lewis (1997) reported was that individuals classified as “sensing” types preferred ads that contained higher levels of information while “intuitive” types preferred ads with lower levels of

information.

Finally, Cetola & Prinkey (1986) examined the interaction of participants' introversion-extraversion and the auditory intensity with which advertisements were presented. These researchers manipulated the volume of ad messages and measured participants' attitudes toward (a) the sponsors' products and (b) the advertisements' creativity, observing a significant interaction effect between extraversion and loudness. Specifically, extraverts rated brands featured in loud commercials as more likable and rated louder advertisements as more creative.

### **Summary and Hypotheses**

From the social cognitive perspective, environmental, personal, and behavioral factors interact bidirectionally within triadic reciprocal causation structures to influence cognition, affect, and behavior. Building from earlier work, SCF-A construes advertisements as a category of environmental determinant that serve as symbolic models that can ultimately influence behavior patterns through an observational learning process. Within that process, factors related to both observer attributes and modeled events can influence which ads are attended to, and subsequently remembered prior to influencing brand attitudes, behavior intentions, or actual behaviors. Contrary to behaviorist approaches, SCF-A acknowledges the role that human agency plays in the evaluation of media models and the adoption of modeled attitudes and behaviors.

This study is primarily concerned with examining the way that the arousal potential of an ad and introversion-extraversion interact to influence cognitive and affective outcomes. By arranging these determinants—I-E, a personal determinant and AP<sub>AD</sub>, an environmental determinant—within a triadic reciprocal model, such effects can be predicted.

As discussed in the review of literature, prior findings from the personality and advertising literature generally suggest that:

- (1) An individual's relative preference for arousal can be predicted by her/his introversion-extraversion orientation and is related to mental performance, including memory.
- (2) Attitude toward the ad can be increased by matching an ad's creative execution to the audience's personality characteristics.
- (3) Likable ads increase purchase intention.

By organizing these disparate streams of research into the proposed triadic causation model, an interactive effect between I-E and AP<sub>AD</sub> on cognition, affect, and behavior intention is anticipated. Specifically, this study predicts that the relationship between an individual's extraversion level and an advertisement's effects on memory, liking, and purchase intention is moderated by the ad's level of arousal potential such that as arousal potential increases, extraversion and memory, liking, and purchase intention become more positively related .

To test these predictions, the following hypotheses were tested:

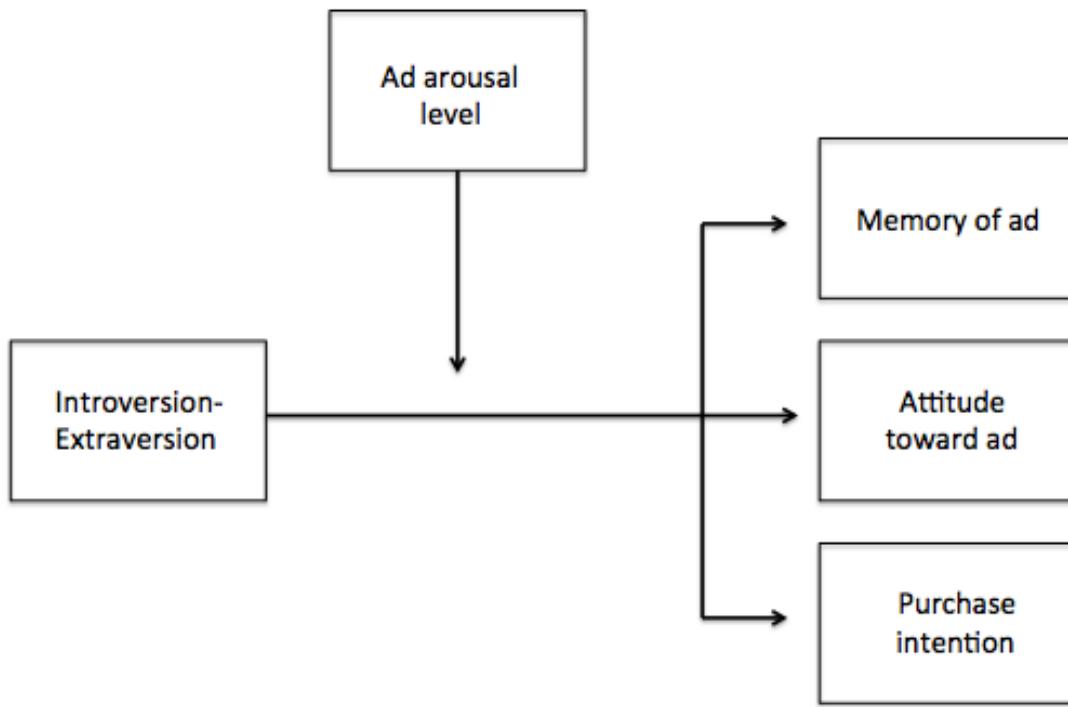
- H1: As arousal potential of the ad and extraversion increase, memory for the ad will increase.
- H2: As arousal potential of the ad and extraversion increase, attitude toward the ad will increase.
- H3: As arousal potential of the ad and extraversion increase, purchase intention will increase.

## CHAPTER 6

### METHODOLOGY

The purpose of this study was to investigate the relationships between introversion-extraversion, advertisement arousal potential, and a number of dependent measures including attitude of the ad, memory of the ad, and purchase intention. Generally speaking, it hypothesized that  $AP_{AD}$  moderates the relationship between I-E and the dependent variables. These relationships are summarized in Figure 6.1.

Figure 6.1. Hypothesized Moderating Effect of Ad Arousal Potential on I-E and Three Dependent Variables



This study employed a quasi-experimental design to test the relationships between these variables of interest. Campbell and Stanley are credited with developing the field of quasi-experimental designs (Lewis-Beck, Bryman, & Liao, 2004), which are invaluable for measuring effects when aspects of true experiments—such as control groups, random population sampling, or random assignment—are impractical or impossible. As subsequent discussion details, probability sampling was neither practical nor necessary to conduct this study. Further, many of aspects of a true experimental design—such as its requisite control group, pre-test only group, post, test only group, and the like—simply are not commonplace in social scientific research and seem unlikely to contribute significantly to any potential findings in a study of short-term media exposure effects.

In order to test the interaction effect of the IVs on M<sub>AD</sub> participants were exposed to two television commercials of varying arousal potential, and then performed tests of recall and recognition. To test the relationships between (1) the IVs and A<sub>AD</sub>, and (2) the IVs and PI, participants viewed two version of a video ad and two versions of a print ad before completing measures of A<sub>AD</sub> and PI. Drawing on Campbell and Stanley's nomenclature, this design may be described as a one shot case study and represented as:

X O

## **Procedure**

The experiment was administered though an online survey instrument hosted by SurveyMonkey.com. Aside from the obvious benefits related to researcher convenience, there are two primary reasons that online administration was particularly appropriate for this research: First, most of the aforementioned big data technology that enables advanced audience segmentation is being rapidly developed for and deployed on the Internet for and by marketers

that purchase online ad space. Second, the sample demographic is the largest user of online media among all age groups. Thus, online administration was both practical and increased the ecological validity of the study.

Upon accessing the survey instrument, participants were provided with a statement of informed consent and asked to electronically verify their consent before proceeding. Though no participants declined the invitation to complete the survey, if an individual chose not to consent, his/her web browser would have been redirected to a page that thanked him/her for his/her time. Those providing consent were directed to the first page of the instrument, which instructed them to view a video clip. After viewing the clip, which contained an advertising break between two news segments, they proceeded to the next page of the instrument and responded to an item that asked them to recall any of the product categories and/or brand names from the ads they had viewed. Participants were not allowed to move to the previous section of the questionnaire in order to prevent reviewing the video.

After responding to the recall items, participants proceeded to the next page of the instrument where they responded to a series of items related to recognition of the brands that appeared in the ads. Again, participants were not able to access the previous pages of the instrument.

Subsequent to the recognition items, participants proceeded to the next page of the questionnaire, where they viewed two sets of ads—two video ads and two print ads—and responded to scales measuring attitude toward the ad and purchase intention. At this point, the true subject of the survey (i.e., advertising) was revealed to participants.

Participants then advanced to a page where they responded to product involvement scales for a number of items. Finally, participants proceeded to a subsequent page where they

responded to an extraversion scale and a number of demographic-related questions. After completing these items, participants accessed the final page of the instrument where they were thanked for their time.

## **Instrument**

The design of the instrument was guided with regard to du Plessis's (1994) assertion that subjects act differently (i.e., try to "help" the researcher) when they know the full scope of research being conducted. The portion of the instrument that measures  $M_{AD}$  had to be most-sensitive to this phenomenon because if participants realized their memory would be tested, they may have been more likely to attend to the stimulus, potentially creating a ceiling effect for measures of memory. Thus, the title of the study that appeared in recruitment materials and the statement of informed consent was "Contemporary media analysis." Subsequent to encountering items that tested their memory of the first set of, participants were informed that the study was specifically related to advertising.

Both versions of the video ads and print ads, as well as all of the measures related to  $A_{AD}$  and PI were located on the same screen/page of the online survey instrument. Designing this section in a manner that allowed both versions to be viewed simultaneously before responding to the dependent measures was vital in that subjects could better compare the ads and make judgments based on the versions relative to one another. The ads will be placed adjacent to one another and participants will be instructed to view both before evaluating them.

Demographic items were included at the end of the instrument. Numerous scholars have recommended placing such items at the end of questionnaires because they are easier to answer and not as prone to testing fatigue issues that can sometimes arise when subjects encounter mentally-strenuous items after they have spent time working through a questionnaire.

The instrument was piloted with a small convenience sample (n=10) of undergraduates to ensure clarity of all instructions and items as well as to ensure that the instrument was free of ambiguity or other issues that might have resulted in problems for participants completing the experiment. Pilot test participants recorded a small number of minor issues that were addressed before data collection began.

## **Participants**

A judgment sample of participants was recruited from a small Midwestern university and a medium-sized Midwestern university. A power analysis conducted using G\*Power 3.1.2 software determined that the study required a sample size of 106 to detect medium effect sizes (.15) with .95 statistical power.

A total of 110 individuals—some of whom received course credit for completing the study—participated. Female participants accounted for 58% of the sample and males accounted for 42%. A majority of the sample (59%) was between the ages of 18-22 and white (82.9%). Table 6.1 further details the age and ethnic composition of the group.

Table 6.1. Age and Ethnicity of Sample

Age		Ethnicity	
18	1.9%	Asian	1.0%
19	10.5	Black or African American	6.7
20	15.2	Hispanic or Latino/a	2.9
21	11.4	White	82.9
22	20.0	Other	3.8
23	1.9		
24	3.8		
25+	35.2		

Employing a non-probability judgment sample for this study did not fundamentally diminish its potential value for a number of reasons. First, “(t)heory-driven research focuses less

on estimating the size of an effect than it does on determining whether a prediction the theory makes about what should happen in a research study actually does happen” (Hayes, 2005, p. 41). Further, marketers highly covet the millennial demographic (Searcey, 2014), which mitigates the criticism that some researchers have levied with regard to relying on student samples for social scientific research (e.g., Grohol, 2010). Finally, recruiting undergraduates helped to avoid having a mix of younger and older participants in the sample, which may prevent introducing a potential confound associated with the kind of age-related information processing differences described by Cerella (1986) and Phillips and Sternthal (1977) into the study.

### **Stimulus: M<sub>AD</sub>**

Video ads were employed to test memory of the ad. Two target ads and three filler ads were embedded as a single commercial break into video footage from a news broadcast. The broadcast featured non-violent, non-humorous stories: the first detailed an airport’s healthier dining options and the other discussed popular child’s toys). Non-violent, non-humorous stories were selected because prior studies have found that M<sub>AD</sub> can be affected by the valence of the content in which ads appear (Shapiro, MacInnis, & Park, 2002) and by content-ad congruency (DePelsmacker, Geuens, & Anckaert, 2002; Gunter, Furnham, & Pappa, 2005). Thus, neutrally-valenced filler content was used to minimize the effects of such contextual factors so that measured effect was the interaction of interest.

Commercials from business categories that the sample demographic generally does not utilize were selected in order to mitigate influence related to product/brand involvement. Involvement is “A person’s perceived relevance of the advertisement based on inherent needs, values, and interests” (Zaichkowsky, 1985) and has been shown to be one of the more important influencers of how ads are processed and judged. Zaichkowsky (1985) noted that under low

involvement conditions, consumers demonstrate “A relative lack of active information seeking about brands, little comparison among product attributes, perception of similarity among different brands, (and) no special preference for a particular brand” (p. 346). Specifically, ads from (a) a mortgage company and (b) a termite/pest extermination business were used as target ads.

Further, both ads featured businesses from regional companies outside the participants’ home area in order to minimize influence from prior brand attitudes or experiences and previous advertising exposures.

Although the use of actual ads in this portion of the experiment made determining arousal potentials less precise, it increased the study’s ecological validity by obviating the need to place highly similar, but variously arousing, ads into a commercial pod, which would have likely alerted participants to the true nature of this aspect of the study.

All participants viewed the same commercials, but the order of the spots was randomly varied in order to mitigate the influence of the types of order effects described by Kardes and Herr (1990), and others. A five-commercial pod composed of two target ads and three filler ads was used. Target ads appeared in the second and fourth positions in order to minimize primacy and recency effects like those described by Terry (2005) and all commercials were the same length (i.e., 30 seconds), and did not feature brands from the same competitive category, in an attempt to avoid competitive interference effects like those found by Pieters and Bijmolt (1997).

### **Stimulus: A<sub>AD</sub>, PI**

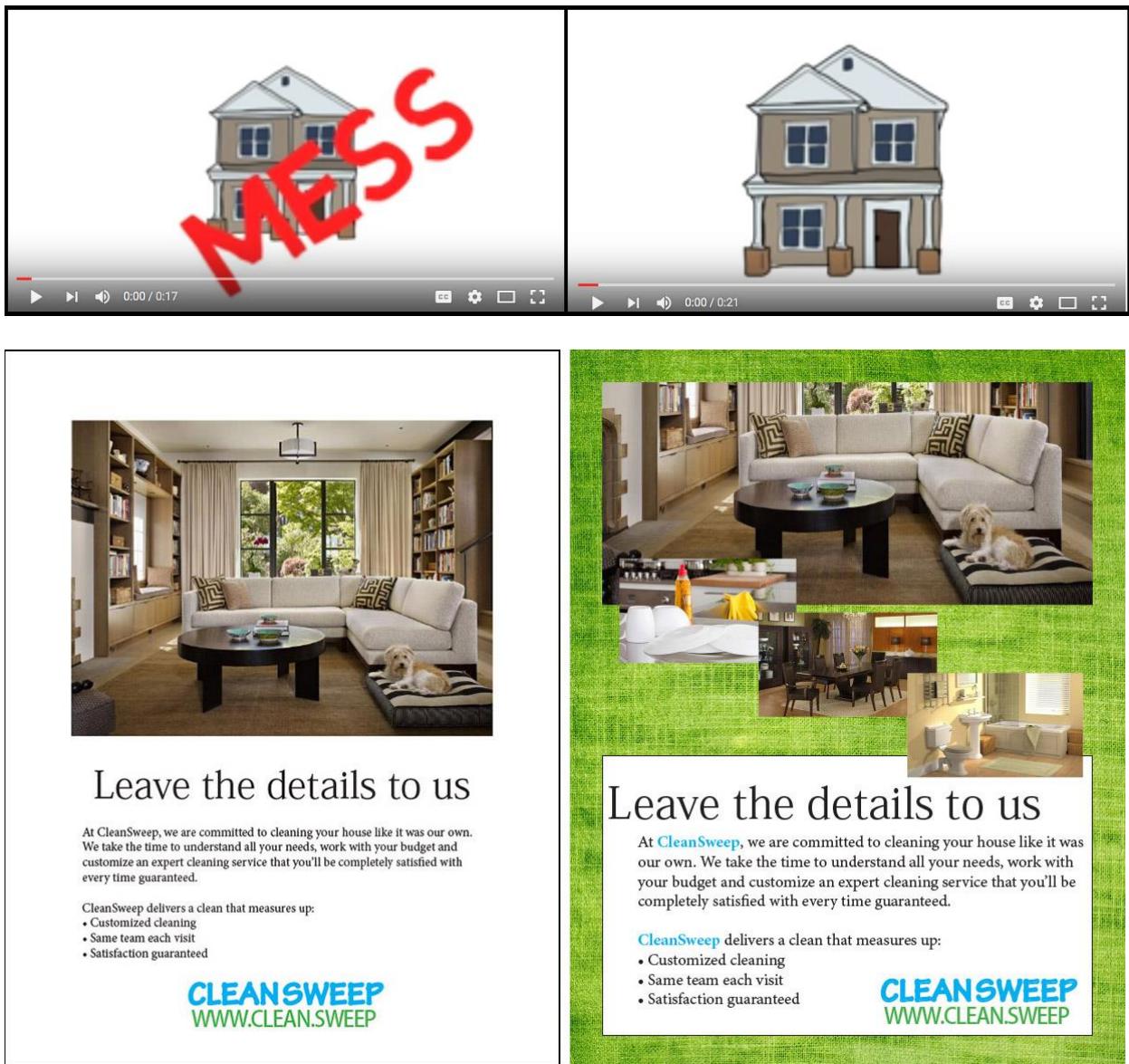
In order to test the interaction of I-E and AP<sub>AD</sub> on A<sub>AD</sub> and PI, two video advertisements and two print advertisements for a fictional home cleaning service were created. The arousal potential of the ads was manipulated relative to one another to create “low arousal” and “high

arousal” conditions.

To create the video ads, an online digital whiteboard program was used to animate images and combine a voiceover and background music. Instrumental non-popular music was used in order to mitigate effects related to music preference and neutrally-valenced images (e.g., clocks, houses, etc.) were selected. Relative to the lower arousal version of the commercial, the higher arousal version featured 67% more cuts (15 vs. 9) and its background music and voiceover audio were 100% louder and paced 20% more rapidly. Overall length of the spots varied slightly, as the high arousal spot was three seconds shorter. Figure 10 illustrates one of the ways that additional cuts were added to the higher arousal condition.

Ads for the print condition were created using Adobe InDesign. A logo, home-related images, and a block of copy similar to a print ad for a national cleaning service was incorporated into both ads. AP<sub>AD</sub> was manipulated by varying the visual complexity of the executions. Pieters, Wedel, and Batra (2010) noted that visual complexity is dependent on the quantity of objects, irregularity or objects, dissimilarity of objects, detail of objects, asymmetry of object arrangement, and irregularity of object arrangement. Researchers including Tuch (2007) have reported that visually complex designs are more arousing. As Figure 6.2 demonstrates, the high arousal condition print ad used in this study was made more visually complex by manipulating the quantity of objects, detail of objects, and asymmetry of object arrangement relative to the low arousal condition.

Figure 6.2. Low and High Arousal Stimulus Video and Print Ad Executions



Though creating ads for a fictional company diminished the ecological validity of this portion of the experiment, it afforded the researcher a greater degree of control over the myriad production factors that may influence  $A_{AD}$  and PI evaluations. For example, prior studies have reported that arousal can be affected by the number of video edits in a scene (Lang, Zhou, Schwartz, Bolls, & Potter, 2000), presence of risky products (Lang, Chung, Lee, & Zhao, 2005), violent or aggressive content (Bushman & Huesman, 2006), auditory complexity (Potter & Choi,

2006), music tempo and genre (Carpentier & Potter, 2007), and color (Farley & Grant, 1976), among other factors.

In order to better-control for influence from prior brand attitudes and experiences, the ads featured a fictional brand from a home cleaning service—a type of company that is not among the business categories the sample demographic reports frequently using (e.g., Sumpter, 2014). Further, in an effort to control for prior behaviors and attitudes, instructions will ask participants to evaluate the company objectively on the merits of the ad by acting as if they have no prior knowledge of or experience with a home cleaning services company.

Involvement presented somewhat of a quandary for this portion of the experiment. On one hand, using a low involvement category helped decrease the likelihood that the sample had prior experience researching or purchasing from companies operating in the home cleaning services market. But on the other hand, the experimenter needs the sample to attend to and evaluate the versions of the advertisement used in the experiment. Accordingly, instructions that accompanied this section of the experiment asked participants to pretend as if they were actively seeking a company to provide home cleaning services. This step was taken with the intention of temporarily—and more uniformly—inducing higher involvement without having to use a high involvement product.

### **Manipulation check**

In order to verify the relative arousal potential of the video ads used in each segment of the experiment (two target ads inserted in the news program to test memory and two ads created to test  $A_{AD}$  and PI), an expert panel of five judges independently evaluated  $AP_{AD}$  for both groups. All judges were trained quantitative researchers with terminal (i.e., Ph.D.) degrees in social scientific fields (i.e., communication studies or psychology).

The judges unanimously confirmed the relative arousal potential of the target ads that were used in both portions of the experiment measuring. Specifically, the ad for Dependable Exterminators was evaluated as more arousing than the ad for Fairport Savings Bank; and the researcher-created ad featuring a faster soundtrack, more visual cuts and elements, and louder audio was evaluated as more arousing than its counterpart.

Additionally, a panel of undergraduate students (n=15) evaluated each of the ads, using a 7-point Likert scale (1=Not at all stimulating; 7=Very stimulating) to respond to the single item “Please rate how stimulating you find the following ad.” Table 6.2 summarizes those ratings, which were consistent with the expert panel’s rankings.

Table 6.2. Arousal Rating of Stimulus Ads

	Video ads used to test MAD ( $M$ )	Video ads used to test AAD and PI ( $M$ )
High arousal condition	3.47	4.60
Low arousal condition	2.47	3.67

### Measures: Extraversion

Extraversion was measured using the International Personality Item Pool (IPIP)’s 10-item extraversion scale. These items included five positively-scored statements such as “I make friends easily,” and five reverse-scored items such as “I have little to say.” A full list of these items may be reviewed in Appendix.

Participants responded to these items with a 7-point Likert scale (1=Strongly disagree; 7=Strongly agree). IPIP scales are widely used in academic social scientific research (Goldberg, Johnson, Eber, Hogan, Ashton, Cloninger, & Gough, 2006) and measure constructs similar to those measured by the NEO-PI-R, which is used to measure the personality traits that make up the Big Five. Prior research has found support for the validity of IPIP scales (e.g., Lim &

Ployhart, 2006). Cronbach's alpha for this scale was .91.

### **Measures: MAD**

Memory of the ad was measured with a test of recall and a test of recognition.

Considerable debate surrounding the relative advantages of each type of memory test, as well as whether or not recall and recognition measure a single dimension or multiple dimensions of memory, has taken place in academic and practitioner publications (Palacio & Santana, 1998). For example, tests of recall are more difficult for participants and often result in a floor effect whereas tests of recognition, if poorly designed, can result in a ceiling effect. Consequently, memory of the ad is most often measured by employing tests of both recall and recognition.

However, using both measures on the same group of participants is not without criticism. Though Singh and Rothschild (1983) reported that “in most cases recall does not affect recognition” (p. 271), these researchers did find that performing a test of recall can significantly influence subsequent recognition scores under certain conditions. Still, the norm—if not expectation—in contemporary advertising scholarship is to employ both tests.

Recall was measured with a single item that prompted participants to record any brands and/or product categories that they remembered being advertised during the commercial break embedded in the news broadcast clip.

Recognition was measured by presenting a series of items that each contained four logos and prompted participants to select the logo of the company that advertised during the commercial break. A fifth option, “I don’t remember any of these companies being advertised,” could also be selected.

Prior research has shown that during the questionnaire design phase, selection of both target and filler logos must be carefully considered in order to prevent floor or ceiling effects for

tests of recognition. Specifically, Peltier and Schibrowsky (1992) reported that

when distractors are very dissimilar with respect to target stimuli, the recognition task is too easy and that ceiling effects may occur. When this is true, the criticism that recognition tests are insensitive for detecting memory differences may be valid. In contrast, when distractors are too similar to targets, the task becomes very difficult and memory differences that otherwise may have existed may also be eliminated.

These researchers found that “(m)oderate levels of distractor similarity worked best for detecting recognition differences.” Consequently, the filler logos that appeared alongside the target logos were similar in size and taken from companies in the same business category, but all were readily distinguishable from one another.

### **Measures: A<sub>AD</sub>**

Attitude toward the ad was measured with the 10-item, 7-point Likert scale utilized by De Pelsmacker, Geuens, and Anckaert (2002) (1=Strongly agree; 7=Strongly disagree). Items included statements such as “While viewing this ad, I learned something new” and “While viewing this ad, I got a positive impression.” A complete list of the items composing this scale can be reviewed in Appendix. Cronbach’s alpha for each condition using this scale is summarized in Table 6.3.

Table 6.3. Cronbach’s Alpha Levels for A<sub>AD</sub> Scale

	$\alpha$
Video ads	
High arousal	.89
Low arousal	.87
Print ads	
High arousal	.91
Low arousal	.93

## **Measures: PI**

Purchase intention was measured using the scale developed by Burton, Garretson, and Velliquette (1999), which is composed of three 7-point Likert (1=Very unlikely; 7=Very likely) items. The items that composed this scale included “The likelihood I would actually hire Clean Sweep is \_\_\_\_\_,” “The probability that I would consider hiring Clean Sweep is \_\_\_\_\_,” and “My willingness to purchase <product type/name> is \_\_\_\_\_.” Cronbach’s alpha for each condition using this scale is summarized in Table 6.4.

Table 6.4. Cronbach’s Alpha Levels for PI Scale

	<b><math>\alpha</math></b>
Video ads	
High arousal	.98
Low arousal	.98
Print ads	
High arousal	.98
Low arousal	.99

## **Measures: Involvement**

Involvement was assessed with Zaichkowsky’s (1994) revised Personal Involvement Inventory, which has been used by numerous other researchers (e.g., Celsi & Olson, 1988; Brisoux & Cheron, 1990; Chow, Celsi, & Abel, 1990; & Te’eni-Hari, Lehman-Wilzig, & Lampert, 2009). This inventory includes ten semantic pairs that are scored on a 7-point Likert scale (1=Strongly agree; 7=Strongly disagree). Six of the items are positively scored and four are reverse scored. Items included statements such as “To me, selecting a new mobile phone is important” and “ To me, selecting a new mobile phone is boring.”

Participants rated a total of seven categories. In addition to the categories being used for the stimulus ads (i.e., home cleaning service, mortgage, pest control), a number of the categories

that the demographic reports using (i.e., fashion, electronics, restaurants) as well as a category measured by prior research (i.e., automobiles) was assessed. Mean involvement scores and Cronbach's alpha for each of these scales is summarized in Table 6.5.

Table 6.5. Mean Involvement Scores and Cronbach's Alpha Levels for Each Involvement Scale

Category	Involvement ( <i>M</i> )	$\alpha$
Automobile	50.4	.89
Smart phone	49.6	.88
Restaurant	45.9	.87
Jeans	41.4	.87
Mortgage	40.3	.82
Exterminator	36.4	.85
Cleaning service	32.7	.89

## Data Analysis

Data was collected through [www.surveymonkey.com](http://www.surveymonkey.com). Once downloaded, all data was stored on a password-protected computer that was kept in a locked office. Online responses were then deleted. Students completing the questionnaire for credit recorded their names and course numbers on the final page of the questionnaire. Data was downloaded daily during the collection phase of the study and those responses were stripped from the dataset and reported to instructors.

After collection ended, all data was compiled into a single spreadsheet using Microsoft Excel before being exported to SPSS 23 for analysis. Where appropriate, data normality was examined by visually inspecting P-P plots and checking measures of skewness and kurtosis. Finally, missing data was replaced with mean values when appropriate or discarded from the dataset on a case-wide basis.

## CHAPTER 7

### RESULTS

Hypothesis 1 predicted that as arousal potential of the ad and extraversion increased, memory for the ad would increase. A discriminant analysis was performed to examine this hypothesis. Table 7.1 summarizes mean extraversion scores and significance levels for each of the tested conditions. For tests of recall, extraversion was not found to be a significant predictor of memory of the ad in the high arousal condition (Wilks'  $\lambda = .99$ , Chi-square = .091, df = 1, Canonical correlation = .03, p = .763) or the low arousal condition (Wilks'  $\lambda = .997$ , Chi-square = ,290 df = 1, Canonical correlation = .053, p = .590). For tests of recognition, extraversion was not found to be a significant predictor of memory of the ad in the high arousal condition (Wilks'  $\lambda = 1.0$ , Chi-square = .026, df = 1, Canonical correlation = .016, p = .871), but was found to be a significant predictor of memory in the low arousal condition (Wilks'  $\lambda = .951$ , Chi-square = 5.13, df = 1, Canonical correlation = .222, p = .023). For the low arousal recognition condition, reclassification of cases based on the calculated canonical variables was marginally successful: 60.6% of the cases were reclassified into their original categories.

Table 7.1. Mean Extroversion Scores for Memory of the Ad Tests

Condition	<i>M</i> extroversion: Ad not remembered	<i>M</i> extroversion: Ad remembered	p
Recall			
High arousal	48.5	49.2	.763
Low arousal	49.0	47.6	.590
Recognition			
High arousal	48.5	48.9	.871
Low arousal	51.3	46.1	.023

Based on these findings, only limited support—in the low arousal recognition condition—was found for H1.

Hypothesis 2 predicted that as arousal potential of the ad and extraversion increased, attitude toward the ad would increase. Multivariate regression analyses using two dependent variables (i.e.  $A_{AD(HighArousal)}$  and  $A_{AD(LowArousal)}$ ), one predictor variable (i.e., extraversion), and one covariate (i.e., involvement) for each condition (i.e., video ads, print ads) were performed to test this hypothesis. Table 7.2 summarizes mean  $A_{AD}$  values, significance levels for the overall regression models, and predictor variable beta weights and significance levels for each of the individual regression equations contained in the models.

Analyses revealed that extraversion was not a significant predictor of attitude toward the ad in the overall model for the video ad condition (Wilks'  $\lambda = .98$ ,  $F = .96$ ,  $p = .39$ ). Further, extraversion was not a significant predictor of attitude toward the ad in the high arousal video ad condition ( $t = .79$ ,  $p = .43$ ) or the low arousal video ad condition ( $t = -1.27$ ,  $p = .21$ ).

Similarly, extraversion was not a significant predictor of attitude toward the ad in the overall model for the print ad condition (Wilks'  $\lambda = .97$ ,  $F = 1.81$ ,  $p = .17$ ). Again, extraversion was not a significant predictor of attitude toward the ad in the high arousal print condition ( $t = -1.5$ ,  $p = .14$ ) or low arousal print condition ( $t = 1.30$ ,  $p = .20$ ).

Based on these findings, H2 was not supported.

Table 7.2. Multivariate Regression Summary: A<sub>AD</sub>

Condition	Overall model p	M A <sub>AD</sub>	B <sub>extrersion</sub>	p <sub>extrersion</sub>
Video ads	.386			
High arousal		41.5	-.08	.43
Low arousal		49.0	-.10	.21
Print ads	.169			
High arousal		48.9	.10	.20
Low arousal		48.0	-.13	.14

Hypothesis 3 predicted that as arousal potential of the ad and extraversion increased, purchase intention would increase. Multivariate regression analyses using two dependent variables (i.e. PI<sub>(HighAroual)</sub>) and PI<sub>(LowArousal)</sub>), one predictor variable (i.e., extraversion), and one covariate (i.e., involvement) for each condition (i.e., video ads, print ads) were performed to test this hypothesis. Table 13 summarizes mean PI values, significance levels for the overall regression models, and predictor variable beta weights and significance levels for each of the individual regression equations contained in the models.

Analyses revealed that extraversion was a significant predictor of purchase intention in the overall model for the video ad condition (Wilks'  $\lambda = .516$ ,  $F = 3.09$ ,  $p = .05$ ). Extraversion was not a significant predictor of purchase intention in the high arousal video ad condition ( $t = -.09$ ,  $p = .93$ ); however it was a significant predictor of PI in the low arousal video ad condition ( $t = -.91$ ,  $p = .02$ ). Although extraversion was a significant predictor of purchase intention in the overall model and low arousal condition, drawing any meaningful conclusion relative to the high arousal condition, in which extraversion was not a significant predictor or PI, is not possible.

Extraversion was not a significant predictor of purchase intention in the overall model for the print ad condition (Wilks'  $\lambda = .98$ ,  $F = .99$ ,  $p = .38$ ). Extraversion was not a significant

predictor of PI in the high arousal print condition ( $t = -1.17$ ,  $p = .25$ ) or low arousal print condition ( $t = .87$ ,  $p = .39$ ).

Based on these findings, H3 was not supported.

## CHAPTER 8

### ANALYSIS AND CONCLUSION

The aim of this dissertation was twofold. Its primary purpose was to demonstrate that social cognitive theory can meaningfully inform the advertising discipline both as a model for explaining the way that advertisements influence individuals and as a heuristic for organizing scholarship. To that end, a review of existing ad-related scholarship was synthesized with the social cognitive theoretical perspective and a discipline-specific framework—SCF-A—for predicting, testing, and explaining advertising effects was articulated.

The second objective of this research was to apply that resulting framework as a theoretical basis for a prototypical advertising study and to employ SCF-A as a means to organize and test a set of hypothesized relationships. To that end, prior findings related to advertising, social cognitive theory, and personality theory were organized within a triadic causal structure and an experiment to test their relationships was carried out. Specifically, that investigation examined the interaction between arousal potential of the ad and extraversion on cognitive- (memory), affective- (attitude toward the ad), and behavior-related (purchase intention) outcomes. Independent of the study's results, this dissertation's second object was also accomplished. With that said, however, a more robust interpretation of the experiment's findings is warranted.

#### **Discussion: Experimental Results**

The results obtained from the arousal-extraversion experiment were—at best—limited. Of the three hypothesized relationships examined in the study, only one received any support,

which itself was partial. Although no single study—regardless of whether it does or does not report meaningful, statistically-significant results—should be the basis for any far-reaching or generalized conclusions, the lack of support for the hypothesized interactions may prove to be either a cautionary tale in experimental design or a gateway to intriguing future advertising scholarship.

With regard to H1, extraversion was found to be a significant predictor of advertising recall in the predicted direction. That is, participants more oriented to extraversion tended to better remember the target ad with higher arousal potential. Conversely, participants more oriented to introversion tended to better remember the target ad with lower arousal potential. The relationships observed in the test of recognition did not hold in the test of recall—a scenario common to much advertising research. Though this discrepancy may be the outcome of some unknown extraneous influence, it is more likely the result of using ads from companies that participants have not previously encountered. Generally speaking, advertisements do not create the kind of strong memories that are retrievable under free recall conditions without some level of repetition, which is why advertising media planners build frequency into media plans. Further, repetition is especially important for unfamiliar brands trying to create recallable memories (Kent & Allen, 1994; Donthu, Cherian, & Bhargava, 1993).

H2 and H3 were concerned with the interactive effect that extraversion-arousal potential has on attitude toward the ad and purchase intention. Though a substantial body of evidence has established a connection between extraversion and preference for higher levels of arousal, the present investigation found no such link. That is, variations in extraversion and arousal potential produced no significant effects on attitude or behavior intention. This finding cannot be conclusively interpreted, but a number of reasons the effect failed to appear are possible.

The most likely explanation that the study found no meaningful results concerns the stimulus ads that were created for the experiment. In any experiment, control is of central concern to the researcher (Cunningham & Wallraven, 2012), but that control often results in creating overly-artificial conditions for participants. The present research attempted to control for a number of variables—including involvement, music genre preference, length, and image valence—that are known to influence evaluations of advertisements. Though pre-test evaluations of the video stimulus ads indicated a difference in arousal potential levels of those ads, and established design conventions were followed to ensure varying levels of arousal potential in the print stimulus ads, it is possible, if not likely, that in exerting experimental control, the resulting stimulus ads were too unrealistic or too neutral to elicit the hypothesized responses.

An alternative explanation for the lack of support for H2 and H3 concerns Nan and Faber (2004)'s and SCF-A's assertions that advertising represents a unique kind of media content whose peculiarities may result in effects that are inconsistent with other kinds of media content. It seems feasible to assert that even extremely arousing 30-second commercials might not produce the same types of effects that arousing films—or even pop songs—do. It may be that the combination of factors such as skepticism toward ads and production limitations prevent arousal potential from having much of an effect on attitudes or behavior intentions.

Perhaps most intriguing would be a scenario in which extraversion and arousal do interact to influence cognition but fail to influence attitudes or behavior intention. Based on existing research, such a mechanism seems highly unlikely and contradictory. Regardless of how personally fulfilling it might be to deliberate such a finding, without substantial scholarship that further investigates such relationships and reveals similar patterns, no such conclusions can be

asserted with any sincerity.

Despite this study's lack of evidence supporting extraversion's mediating role between arousal potential and ad memory, liking, and purchase intention, extraversion should not be abandoned as a potentially meaningful variable in future investigations. Existing literature has consistently demonstrated that extraversion is a reliable predictor of media preference and processing. Further, the market segmentation technologies discussed throughout this study justify continued work to discover how personality-related segmentation can be applied by practitioners.

Further, the lack of statistically significant findings should not be construed as evidence that triadic reciprocal causation—SCF-A's foundation for explaining the way that advertisements work—is not an appropriate framework for examining advertising effects. Social cognitive theory is anchored by the assumption that effects from interactions between personal, behavioral, and environmental determinants occur probabilistically, not deterministically. Advertising scholars and practitioner intuitively realize this because they know that an individual's response to an advertisement is conditional depending on any number of factors. The effect of any hypothesized relationship, then, is probabilistic in nature according to SCF-A's conceptualization of triadic causation. Despite the absence of evidence for the hypothesized relationships between the variables of interest, SCF-A may still be used to examine the results without violating the theory's central premises.

## **Discussion: Theoretical Framework**

The author believes that the more consequential aspect of the present research is the application of social cognitive theory and triadic reciprocal causation to the study of advertising. As this study's review of literature detailed, the practical and somewhat narrow-minded nature of

much advertising scholarship has impeded theory building within the discipline. By articulating a social cognitive framework for advertising, this study hopes to have taken a small step toward formulating the discipline's "theory of our own" to which Pasadeos, Phelps, and Edison (2008) alluded.

That SCF-A construes the nature of advertising effects as transactional (i.e., bidirectional, variably influential, and variably timed) instead of hierarchical, as many models of advertising effects do, is also a step in the right direction for discipline-centric theory. Further, the social cognitive paradigm disregards the behaviorist view (i.e., stimulus-response) of media effects that other fields have largely abandoned. Until the advertising field can move beyond such models, ad-specific theory development will continue to lag. Again, other social scientific fields, namely psychology and communication studies, have advanced theory by eschewing such outdated static models for more dynamic ones. SCF-A relies heavily on existing theory from psychology. The author makes no grand claim of conceiving and constructing an entirely original theoretical lens. However, SCF-A does represent a significant shift from existing ad theory and the opportunity to draw from the extensive work of Bandura and others to explain and predict how advertising works may represent a significant step forward for advertising theory building. At the very least, grounding investigations of ad effects in respected theory should give researchers a better vernacular to explore and discuss findings and may even help the discipline attain some higher measure of respect among other more established fields.

The utility of the SCF-A model for studying the traditional outcome measures of memory,  $A_{AD}$ , and PI are apparent, but the flexibility to incorporate the other kinds of measures called for by researchers such as Bergvist (2010) may prove to be even more valuable for future scholarship. Indeed, any outcome variable measured at the level of the individual can be

arranged within a triadic reciprocal causation model.

And the need to measure and interpret effects at the individual level will likely proliferate and become increasingly important as big data management expands and advertisers shift higher proportions of their media budgets to online and mobile vendors. As technology increasingly enables individual-level media targeting, pressure to deliver tailored messaging is likely to intensify. It is conceivable, then, that scholars studying the effects of independent variables on outcomes at the individual level might meaningfully contribute to the practice of advertising, proving Kurt Lewin's assertion that "(t)here is nothing so practical as a good theory."

### **Limitations: Experimental Study**

To some extent, the present study is reminiscent of Thomas Edison's declaration that "I have not failed 10,000 times... I have succeeded in proving that those 10,000 ways will not work" (Furr, 2011).

With regard to the findings of this research, it seems safe to conclude that the author has succeeded in finding a way to not find predicted relationships between extraversion, arousal, and the dependent measures attitude toward the ad and purchase intention. Conversely, the present study did find partial support for the predicted relationship between extraversion, arousal, and the dependent measure memory. This disparity highlights the first limitation of this experiment: marketer-created advertisements and experimenter-created advertisements. Though some experimenter control was relinquished by using marketer-created ads, it is worth noting that the portion of the experiment utilizing actual advertisements produced significant results. There are limitations for both sets of ads: for the marketer-created ads, factors other than arousal potential may have influenced memory, for the experimenter-created ads, a lack of realism may have led to results that are an artifact of the study resulting from a poorly-designed stimulus.

The use of companies from low-involvement categories is another limitation of the study. Though the experiment tried to induce involvement—by having participants pretend they were actively seeking a cleaning company—it is possible that the results of the study are the consequence of exclusively testing companies from low involvement categories.

Similarly, the target ads that were used to test memory were inserted into neutral, non-arousing buffer content. It is possible that placing ads into content with higher arousal potential might change the observed relationships between the variables that were tested.

Finally, the use of only two advertisements in each condition limited, and likely detracted from, the study. Employing more ads across a wider spectrum of arousal potentials would have more thoroughly tested the proposed relationships and would have allowed the researcher greater opportunities to explore them during the data analysis stage.

### **Directions for Future Scholarship**

A myriad of future advertising scholarship related to principles of social cognitive theory, SCF-A, and personality variables can be derived from this dissertation.

First, the experiment to test the interaction of extraversion and arousal potential should be carried out using products from a variety of involvement levels. Further, more than two arousal conditions should be included. Finally, ads of varying arousal potential used to test recall and recognition should be inserted into content of varying arousal potential to examine the effect of that content on recall and recognition scores. Other personality dimensions might also be used as predictors within these or similar advertising effects models.

Replicating the present study using higher-involvement product categories may represent the best opportunity to further test the hypothesized relationships between arousal potential of the ad and dependent measures. It seems reasonable to assert that the present study's failure to

find statistically significant evidence for the hypothesized relationships may be related to the use of a product category that does not interest or concern the sample. Even with the attempt to induce involvement, it seems possible that using more highly involved brands or products might yield different outcomes. One possibility from an interaction between arousal potential of the ad, extraversion, and involvement may be that in involvement moderates or mediates an effect between the latter.

To better assess whether or not the study's findings were artifacts resulting from its design or evidence that advertising is processed differently from other types of media, future studies need to systematically vary the stimulus so that well-informed conclusions may be reached. Table 8.1 details the attributes of the present study's stimuli as well as possible attribute combinations that may be tested in the future.

Table 8.1. Stimuli Attribute Combinations to Test in Future Research

*Video ads ( $M_{AD}$ )*

	Present study	Future studies
Product/brand	Actual	Fictional
Involvement	Low	Medium, High
Arousal levels	Two	Three or more
Buffer content arousal potential	Neutral	High

*Video ads ( $A_{AD}$ )*

	Present study	Future studies
Product/brand	Fictional	Actual
Involvement	Low	Medium, High
Arousal levels	Two	Three or more

*Print ads ( $A_{AD}$ )*

	Present study	Future studies
Product/brand	Fictional	Actual
Involvement	Low	Medium, High
Arousal levels	Two	Three or more

Developing a way to measure and index the arousal level of video advertisements is another undertaking that could be incredibly useful for the discipline. Some obvious criteria are the number of visual cuts, tempo of any background music, and pacing of voiceovers; however, many other factors such as music genre, color use, clutter level within a frame, and attractiveness level of actors appearing in ads can also affect arousal potential. Creating a typology with corresponding weights that could be used to score the arousal potential of any ad would be most helpful for study that want to use arousal potential as a predictor variable or control. After developing such a system, it might be tested by rating several commercials and then using

phychophysiological measurements (e.g., skin conductance, heart rate) to test the relationship between actual arousal responses to those ads and arousal potential scores assigned to them using such a rating scale.

Self-efficacy is one of the major tenets of social cognitive theory and has been studied extensively in many disparate fields. No study of consumer advertising's ability to influence self-efficacy has been reported in the literature. The author believes that including this important concept within the study of advertising has the potential to yield some of the most informative findings related to SCF-A. Specifically, investigating the connection between advertising appeals and self-efficacy and self-efficacy and advertising effectiveness may represent a particularly fruitful area of future research. Further, self-efficacy also represents the kind of "new" dependent variable that Bergvist (2010) and others have called for. A researcher wishing to situate self-efficacy relative to other variables of interest within a triadic reciprocal model could do so easily enough—as Bandura and other researchers have noted, self-efficacy, the belief that one can affect his or her life circumstances in some desirable way, should be categorized as a personal determinant that interacts bi-directionally with other determinants.

The relationship between arousal potential of the ad, extraversion, and credibility is another potentially meaningful direction for future investigation. Though the study of credibility is not as prolific as outcomes such as attitude toward the ad or purchase intention, prior research (e.g. Hung, Yiyan Li, & Tse, 2011) has shown that perceptions of credibility can significantly influence brand perceptions and the like. Coupled with prior studies of extraversion, an examination of the interactions between these variables may yield noteworthy findings.

Taken together, the introduction of SCF-A to the advertising literature provides a

theoretical lens that gives context to the discipline's existing body of knowledge and a potentially invaluable foundation for creating future scholarship.

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#### Footnote

[1] These articles were among the 4,552 results generated by a search of the keywords “media effects and ‘social cognitive theory’” conducted on The University of Alabama Libraries’ Scout search engine.

## APPENDIX

### Questionnaire Scales

#### **International Personality Item Pool** 10-item extraversion scale

For the following items, describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please indicate the accuracy of each of the following statements in relation to you.

1=strongly disagree 7=strongly agree

1. I feel comfortable around people.
2. I make friends easily.
3. I am skilled in handling social situations.
4. I am the life of the party.
5. I know how to captivate people.
6. I have little to say. (-)
7. I keep in the background. (-)
8. I would describe my experiences as somewhat dull. (-)
9. I don't like to draw attention to myself. (-)
10. I don't talk a lot. (-)

#### **Purchase Intention** 3-item scale

1=very low 7=very high

1. The likelihood I would actually purchase <product type/name> is \_\_\_\_.
2. The probability that I would consider purchasing <product type/name> is \_\_\_\_.
3. My willingness to purchase <product type/name> is \_\_\_\_.

*Based on Burton, Garretson, and Velliquette (1999)*

**Involvement**  
9-item scale

1=strongly disagree 7=strongly agree

To me selecting a(n) <product type> is:

1. Important
2. Boring (-)
3. Relevant
4. Exciting
5. Means nothing (-)
6. Appealing
7. Fascinating
8. Worthless (-)
9. Involving
10. Not needed (-)

*Based on Zaichkowsky (1994)*

**Attitude Toward the Ad**  
10-item scale

1=strongly disagree 7=strongly agree

While watching/viewing this ad:

1. I got a positive impression.
2. I found it really something for me.
3. I found it interesting.
4. I found it credible.
5. I found it exaggerated. (-)
6. I found it attractive.
7. I learned something.
8. I received new information.
9. I understood the message very well.
10. I found the ad very clear.

*Based on De Pelsmacker, Geuens, and Anckaert (2002)*



**To:** Justin Combs  
HUMANITIES & SOCIAL SCIENCE

**From:** [REDACTED]

Human Subjects Office  
Office of Research Compliance – Indiana University

**Date:** February 03, 2016

**RE:** **NOTICE OF EXEMPTION - NEW PROTOCOL**

Protocol Title: Contemporary Media Analysis

Study #: 1601519529

Funding Agency/Sponsor: None

Status: Exemption Granted | Exempt

**Study Approval Date:** February 03, 2016

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The Indiana University Institutional Review Board (IRB) EXE000001 | Exempt recently reviewed the above-referenced protocol. In compliance with (as applicable) 45 CFR 46.109 (d) and IU Standard Operating Procedures (SOPs) for Research Involving Human Subjects, this letter serves as written notification of the IRB's determination.

**Under 45 CFR 46.101(b) and the SOPs, as applicable, the study is accepted as Exempt , with the following determinations:**

Acceptance of this study is based on your agreement to abide by the policies and procedures of the Indiana University Human Research Protection Program and does not replace any other approvals that may be required. Relevant policies and procedures governing Human Subjects Research can be found at: [http://researchcompliance.iu.edu/hso/hs\\_guidance.html](http://researchcompliance.iu.edu/hso/hs_guidance.html).

The Exempt determination is valid indefinitely. Substantive changes to approved exempt research must be requested and approved prior to their initiation. Investigators may request proposed changes by submitting an amendment through the KC IRB system. The changes are reviewed to ensure that they do not affect the exempt status of the research. Please check with the Human Subjects Office to determine if any additional review may be needed.

You should retain a copy of this letter and all associated approved study documents for your records. Please refer to the assigned study number and exact study title in future correspondence with our office. Additional information is available on our website at <http://researchcompliance.iu.edu/hso/index.html>.

**If your source of funding changes, you must submit an amendment to update your study documents immediately.**

If you have any questions or require further information, please contact the Human Subjects Office via email at [irb@iu.edu](mailto:irb@iu.edu) or by phone at 317-274-8289 (Indianapolis) or 812-856-4242 (Bloomington).

You are invited, as part of ORA's ongoing program of quality improvement, to **participate in a short survey** to assess your experience and satisfaction with the IRB related to this approval. We estimate it will take you approximately **5 minutes to complete the survey**. The survey is housed on a Microsoft SharePoint secure site that requires CAS authentication. This survey is being administered by REEP; please contact us at [reep@iu.edu](mailto:reep@iu.edu) if you have any questions or require additional information. Simply click on the link below, or copy and paste the entire URL into your browser to access the survey: [https://www.sharepoint.iu.edu/sites/iu-ora/survey/Lists/Compliance/IRB\\_Survey/NewForm.aspx](https://www.sharepoint.iu.edu/sites/iu-ora/survey/Lists/Compliance/IRB_Survey/NewForm.aspx).

/enclosures