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Coddling Our Kids: Can Parenting Style Affect Attitudes Toward Advergaming?

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This study examined parents' understanding of and experience with child-targeted advergaming through exploratory interviews and quantitative pretests of an advergaming definition. Exploratory findings revealed that parents tended to overgeneralize when identifying advergaming. Through the use of an online survey, this study also examined how parental socialization styles affect parents' attitudes toward advergaming. As predicted, results indicate that authoritarian and authoritative parents hold more negative perceptions toward advergaming compared to indulgent parents, while all parenting styles exhibited negative leanings toward advergaming as a practice. These findings indicate the efficacy of parental socialization theory in explaining parents' perceptions and attitudes toward this new form of advertising—advergaming. We discuss important implications for regulators, practitioners, and parents.

Gaming is by far the number one activity of children ages 6 to 11 who went online in the past 30 days (Mediamark Research and Intelligence [MRI] 2007). Overall, gaming among 2- to 17-year-olds grew from 82% in 2009 to 91% in 2011. This growth is attributable in part to their smartphone and mobile device use (eMarketer.com 2011). Parents report that their children

spend even more time online during summer vacation, including playing online video games, using social networking sites, and watching videos (National Cyber Security Alliance 2010). Furthermore, 40% of children ages 6 to 11—approximately 10.7 million—visited a website they heard about or saw following exposure to a commercial or advertisement (MRI 2008). The Internet's interactivity sustains long periods of attention and involvement that can engage children in a way that a 30-second television commercial cannot (Moore and Rideout 2007). Taken collectively, these statistics underscore that elementary age children represent a growing online market for advertisers.

Online forms of product placement and in-game advertising are distinctly different from traditional television advertising. These forms are characterized by integrating branded products or logos into preexisting online video game platforms (Lewis and Porter 2010; van Reijmersdal et al. 2010). Advergaming represent an extension of this concept as “custom-made games specifically designed around a product or service” (Interactive Advertising Bureau 2007, p. 6). These branded games, which feature logos, trade characters, and advertising messages (Moore 2006), produce strong emotional connections (Dahl, Eagle, and Baez 2009) with a product or brand (Arnold 2004). Unlike the brief brand exposure and passive viewing of TV commercials, gaming invites interactivity and immersion with nearly unlimited advertising potential (Grimes and Shade 2005). Advergaming especially provide a fertile ground for encouraging long-term, concentrated exposure to a brand in a rewarding environment.

The absence of external advertising breaks such as separators or jingles found in television advertising (Levin, Petro, and Petrella 1982) and the integration of brands can hide the persuasive and commercial nature of the message and the advertiser (van Reijmersdal et al. 2010). Children have less-developed cognitive abilities (John 1999), persuasion knowledge, and

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resistance (Friestad and Wright 1994). As a result, children especially have difficulty recognizing commercial motives in subtle forms of product placement and in-game advertising (An and Stern 2011). Moreover, adults' recognition and defense against the persuasive intent in these immersive forms of advertising may also be hindered by the integrated and hidden nature therein (Nairn and Fine 2008; van Reijmersdal et al. 2010).

By further blurring this line between entertainment and commercial content, advergames have garnered increasing regulatory attention from the Federal Trade Commission, the Department of Health and Human Services (2005), and self-regulatory attention from the Children's Advertising Review Unit (CARU). For example, CARU's (2006) guideline revisions, which added a section specifically addressing the "Blurring of Advertising and Editorial/Program Content," reiterate the issues involved with immersive branded environments and state that "the advertiser should make clear, in a manner that will be easily understood by the intended audience, that it is an advertisement" (p.7).

Regulators are not the only group to voice concern regarding advertising's effects on children. Parents have voiced their own objections stemming from the belief that advertising can undermine attempts to instill values or behaviors in their children (Grossbart and Crosby 1984). Research suggests that parents more closely supervise their children's Internet time compared to television (Eagle 2007) but overestimate their control over children's online activities (Livingstone and Bober 2006) and underestimate their child's time spent online (Nowak 2010). Moreover, children's exposure to inappropriate content (Eagle 2007; Eagle, Bulmer, and de Bruin 2003; Livingstone and Bober 2006), violence (Eagle, Bulmer, and de Bruin 2003), and cyberbullying (Eagle 2007) are frequently cited as more concerning to parents than are interactive games with merchandising content (Eagle, Bulmer, and de Bruin 2003). The lack in parents' awareness of their children's activities on commercial websites (Moore and Rideout 2007) and the immersive nature of advergames position research investigating "parental awareness of advergames targeting children" (Bakir and Vitell 2010, p. 307) as both timely and relevant.

The prevalence of children's advergames (Lee et al. 2009; Moore and Rideout 2007; Quilliam et al. 2011; Story and French 2004) in combination with the limited research focusing on parents' awareness, understanding, and attitudes toward them represent a gap in the literature.

Consequently, the purpose of this study is twofold. First, we present exploratory research that ascertains parents' understanding of and experience with advergaming directed at their children ages 7 to 11. Second, by building on these exploratory insights, we report the results of an online survey of 214 parents to assess the degree to which parental attitudes and perceptions of advergames might differ across parenting styles (Baumrind 1971).

THE SPECIAL CASE OF ADVERGAMES: THE BLURRING OF ADVERTISING AND ENTERTAINMENT

Pairing entertainment content with commercial content is neither new nor unique to the Internet. Host selling, which is defined as the placing of commercials containing program characters in or adjacent to content with those characters (Adler 1980; Hoy, Young, and Mowen 1986; Kunkel 1988), received significant regulatory attention from the Federal Communications Commission (FCC) in 1974. The FCC (1974) recommended that "a clear separation be maintained between the program content and the commercial message so as to aid the child in developing an ability to distinguish between the two" (p. 39401). Though the children's advertising regulation debate has quelled somewhat since then, marketers' use of various electronic advertising media in the late 1990s reawakened the need to protect children from violent games (Grier 2001), "unscrupulous marketers," and inappropriate online content (Baig 1999, p. 117). In light of this reawakening, Kunkel (2005) notes that the "Internet blurs the boundaries between commercial and non-commercial content *more than any previous medium*" (p. 403; emphasis added). Because the Internet offers such a flexible platform it is not surprising that "the integration of products into games is commonplace" (Story and French 2004, p. 9). Concern regarding this common practice centers on children's lack of ability to recognize the persuasive intent within such advertising (Eagle, Bulmer, and de Bruin 2003). Although CARU advised against host selling when they revised their 1997 guidelines, similar counsel was not offered and did not apply to websites (CARU 2000). In fact, it was not until then FTC chairman Deborah Majoras (2005) identified advergaming as an emerging advertising tactic that warranted attention did CARU specifically address the "Blurring of Advertising and Editorial/Program Content" in its 2006 guideline revisions (CARU 2006, p. 7).

THEORETICAL BACKGROUND

Parental Socialization

Prior work has suggested that parental socialization may play a role in parental perceptions of how the marketplace interacts with children (see, for example, Carlson and Grossbart 1988). We begin with a brief overview of parental socialization as a framework for understanding attitudes toward advergames and how those attitudes may differ based on parenting style.

Parental socialization is an adult-initiated process in which children are guided to develop habits and values that are parallel with their culture (Baumrind 1980). Past research indicates parental socialization is tied to social learning theory (Bandura and Walters 1963) in that it requires an agent to model as well as an actor who provides feedback. Parents influence the development of their children by serving as role models. Parental socialization is based on the parent's receptivity to the child's views and needs as well as the degree of communication experienced

between the parent and child (Carlson, Lacznia, and Muehling 1994). This study extends past research and asks whether parents' socialization tendencies, as manifested in what are known as parental styles, influence their attitudes toward children's advertising.

Parental Styles

Baumrind (1971, 1991) suggested four main types of parental behavioral patterns or styles with respect to how parents interact with children: authoritarian, authoritative, neglecting, and indulgent.

Authoritarian. "The authoritarian parent attempts to shape, control, and evaluate the behavior and attitudes of the child in accordance with a set standard of conduct, usually an absolute standard, theologically motivated and formulated by a higher authority" (Baumrind 1968, p. 890). They maintain high levels of control over their children and attempt to keep verbal exchanges to a minimum. Children of authoritarian parents are expected to obey without questioning their authority (Crosby and Grossbart 1984; Walsh, Lacznia, and Carlson 1998).

Authoritative. Authoritative parents attempt to direct the child's activities but in a rational, issue-oriented manner. They encourage verbal give-and-take and share with the child the reasoning behind their policies (Baumrind 1971). In comparison with authoritarian parents, authoritative parents typically work to balance their child's rights and responsibilities. They are warmer than authoritarians, encourage self-expression, but also expect children to act in a mature manner while adhering to family rules (Baumrind 1968; Gardner 1982; Walsh, Lacznia, and Carlson 1998).

Neglecting. Neglecting parents are more detached from their children. They do not supervise or promote children's self-directed development (Walsh, Lacznia, and Carlson 1998). Parents who are classified as neglecting have been shown to have little influence in the socialization process, which may lead their children to be influenced by outside consumer socialization agents such as peer groups, teachers, and media, including various forms of advertising (Walsh, Lacznia, and Carlson 1998).

Indulgent. Indulgent parents tend to be more permissive than restrictive and warm rather than cold when interacting with their children (Walsh, Lacznia, and Carlson 1998). Indulgent parents try to remove outside constraints without endangering the welfare of the child. Furthermore, indulgent parents provide their child with adult rights but not adult responsibilities (Baumrind 1978).

Parents' Attitudes Toward Advertising

Prior research on parental attitudes of children's advertising has revealed links between one's parenting style and parental perceptions of the advertising in question (Bakir and Vitell 2010; Carlson, Lacznia, and Muehling 1994; Crosby and Grossbart 1984; Grossbart and Crosby 1984). Authoritarian and authoritative parents typically hold more negative attitudes toward

children's toy-based programming and food-based advertising compared to both indulgent and neglecting parents (Carlson, Lacznia, and Muehling 1994; Crosby and Grossbart 1984; Grossbart and Crosby 1984). This same pattern of attitudinal differences among parenting styles remains for topics like regulation of children's television programming as well (Walsh, Lacznia, and Carlson 1998). Authoritative parents also express more concern about children's advertising than authoritarian, indulgent, and neglecting mothers (Carlson and Grossbart 1988). In addition, authoritative parents have more negative attitudes toward advertising in general than authoritarian and neglecting mothers (Carlson and Grossbart 1988).

Consumer Responses to Advergimes

The majority of consumer research on advergimes involves adults and adolescents (e.g., Hernandez et al. 2004; Nelson, Keum, and Yaros 2004; van Reijmersdal et al. 2010; Wise et al. 2008). From the limited research involving children, one learns that providing advertising breaks or notices does not enhance children's understanding of an advergime's commercial nature (An and Stern 2011). While prior brand use can moderate the influence of interactive brand placements (van Reijmersdal et al. 2010), playing an advergime enhances children's preference for the brand (Mallinckrodt and Mizerski 2007), and the extent to which children find advergimes entertaining is positively correlated with their attitude toward advergimes (Hernandez 2008). Furthermore, a child's ability to customize his or her avatar (the child's in-game persona) increases the child's integration into the message and, potentially, game play (Bailey, Wise, and Bolls 2009).

Parents and Advergimes

Though numerous accounts of research involving adults and advergimes exist, an extensive search resulted in only one study that specifically addressed parents' attitudes toward and perceptions of advergimes. Bakir and Vitell (2010) presented parents of children in kindergarten through eighth grade with three scenarios representing food marketing tactics to children and asked parents about their ethical judgments of these depictions. One scenario used advergimes in which children were provided product-related information and asked to contact their friends. Most parents found this tactic unethical and disagreed with its practice. However, Bakir and Vitell (2010) also found those parents' attitudes toward food advertising and use of nutritional information were not related to their ethical evaluation of advertising. The authors speculate that "it might be that parents did not really think the advergimes and the use of well-known characters to distribute food company products at schools and child care facilities presented any potential unethical practices. Particularly, advergimes are new promotional tools used on the Web to attract adults and children within a branded context" (Bakir and Vitell 2010, p. 307).

Research indicates parents are willing to play the role of protector and educator with respect to their children and media

(Eagle, Bulmer, and de Bruin 2003). Initiatives have already been set in place to help children understand that advergames are advertising (see CARU 2006). However, if parents wish to educate, protect, and instill within their children critical consumer skills they too must have sufficient online media literacy skills (Eagle 2007; Eagle, Bulmer, and de Bruin 2003). These skills are contingent upon parents' awareness of child-targeted advergames as a practice, as well as an understanding that while they may appear to be merely games they are also, in fact, advertising (Eagle, Bulmer, and de Bruin 2003).

EXPLORATORY RESEARCH: PARENTS' KNOWLEDGE OF ADVERGAMES

For parents to serve as moderators of this form of advertising influence on children, parents must be knowledgeable about advergames. Yet the noted lack of research on parents and advergames suggests that parents' capacity to operate as effective moderators with respect to advergames is unknown. To address this gap in understanding, we first conducted an exploratory investigation that identifies the extent of parents' awareness and knowledge of advergames. Qualitative interviews and a quantitative pretest were conducted to ascertain what parents' awareness and knowledge of advergames might be. The advergame definition and conceptualization that we used in this part of our study are contained in the appendix.

Interview Insights

Six informal interviews with parents (four men and two women) were used to gain insight into parents' understanding of advergaming as well as their awareness of their children's exposure to advergaming. The interview guide asked parents questions about their child's online activities including game play, parents' awareness of advergaming, and their child's possible advergame play. Interviews ranged from 10 minutes to 57 minutes in length, while the ages of children represented ranged from 5 to 12 years.

All six parents indicated they were unaware of the term *advergaming* and its meaning. When asked what they thought advergaming was, two parents' responses were quite literal. One parent stated, "It sounds like advertising and games combined.. .. You play a game, but also there's something that you're advertising." Another parent said, "I would assume it would be something sort of like that, where there is a lot embedded in the content. So they're playing; they're also getting a lot of information on things they might be interested in."

Each parent was then presented with an example of an advergame (e.g., Oreo Double Stuff Racing League advergame). While no parents said their child played the specific Oreo advergame, all parents indicated that their child played online games similar to the example. In response to the Oreo advergame one parent said, "I could see it as a game a child would play. .. especially if you are trying to get those icons and you're trying to level-up or you got a specific goal to the game." Another parent stated, "For me, I see the whole *Kung-Fu Panda* thing or

Batman [the] Brave [and the Bold] games; I definitely see that as a product. Not a finite product like Oreo. But it's keeping kids interested in a brand."

The interviews revealed that all six parents were aware of their children's activities on websites that featured characters most commonly found in cartoons and shows on Cartoon Network, such as *Kung-Fu Panda*, *Teen Titans*, and *iCarly*. Parents indicated that these shows all had websites that their children were directed to following exposure to the show itself. One parent stated that she actively restricted her child's time on such websites. Within these websites parents reported their children played a variety of online games that had several themes, the most common being accrual of points and progression through multiple levels.

Next, each parent was given a definition of advergaming based on descriptions from Moore (2006) and Dahl, Eagle, and Baez (2009) (see appendix). After exposure to the advergaming example and definition, parents were asked what they thought about advergaming and children. One parent said, "You do get that emotional bond between the brand. .. In a way that is very similar to what you are showing me here. She does have that emotional bond, especially since she is playing as her character."

Parents were then asked if they felt the given definition of advergaming was sufficient. All parents indicated to the interviewer that the definition was satisfactory and would not change anything. Thus, when given a definition and example, parents appeared to recognize what advergames were and understand their purpose.

Quantitative Pretest

These initial results suggested additional follow-up was warranted regarding the degree to which parents understood advergames. Thus, the next step in assessing parents' awareness and knowledge of advergaming involved pretesting the definition with a convenience sample of 20 parents with children ages 7 to 11. A PowerPoint slideshow was created using six website captures of child-themed URLs arranged randomly in order to prevent response bias. These website captures included McDonald's Nutrition, Scholastic, SpongeBob SquarePants, Oreo Double Stuff Racing League.com, Hasbro, and Walt Disney World (see appendix for URLs). Two of the six website captures were advergames (e.g., Oreo Double Stuff Racing League; SpongeBob SquarePants). The remaining four website captures did not qualify as advergames. The presentation order of the two advergame website captures were determined by a roll of a die to create a unique version of the slideshow for each of the 20 participants (40 possible advergame identifications). Parents completed a short survey that presented the definition of an advergame developed from the individual interviews as well as directions for the pretest. Each respondent watched the PowerPoint presentation of the six website captures and indicated whether he or she thought each qualified as an advergame.

In all, 19 of the 20 participants correctly identified both advergames in their slideshow. One participant identified one

out of two correct advergames in the slideshow. In total, there were 39 correct identifications of advergames out of a possible 40 (97.5%). This percentage agreement supports the operational definition of advergaming but further inspection of the responses indicates there was confusion on what qualified as an advergame. For example, out of the 20 participants, only three correctly marked those that qualified as advergames with a yes response and marked no on the remaining four slides that did not qualify as advergames. The most common false positive was for the Hasbro website, where 16 of the 20 participants incorrectly identified it as an advergame. In addition, four incorrectly identified the Scholastic website capture as an advergame and three incorrectly identified the Walt Disney World website capture as an advergame.

According to these pretests, parents' responses in identifying advergames reflect a tendency to overgeneralize nonqualifying advergames as advergames. We term parents' tendency to overgeneralize advergames as *hypervigilance*. When parents are hypervigilant it appears they use cues such as child-themed material or the presence of a brand (i.e., Hasbro, Walt Disney) to inform their decision as to what websites may qualify as advergames.

Interviews with parents indicated an absence of a working knowledge of advergames as a concept and a practice. Quantitative pretesting revealed that when educated as to advergames' commercial purpose, through the use of two examples and a definition, parents did understand. As evidenced by 75% of parents identifying a game and toy manufacturer website (e.g., Hasbro) as an advergame, parents were hypervigilant to recognize potential commercial messages targeting their children. Therefore, while parents tended to identify Hasbro's webpage as an advergame when in fact it was not, we were nonetheless satisfied that the presentation of the advergaming definition and the two examples would at least ensure parents' comprehension of advergames as branded entertainment when completing the survey in the next research phase.

HYPOTHESES

Parental Styles and Attitudes Toward Advergames

Research indicates that variations in parents' perceptions of and attitudes toward children's advertising content, programming, and regulation can be explained by differences among parenting styles (Carlson, Laczniak, and Muehling 1994; Crosby and Grossbart 1984; Grossbart and Crosby 1984; Walsh, Laczniak, and Carlson 1998). Specifically, authoritative parents display more negative attitudes toward child-directed advertising compared to their indulgent and neglecting counterparts. It is possible that these trends may be manifested as well in newer advertising formats, though the veracity of this speculation is unknown at present. Thus, based on these prior results regarding attitudinal differences among parenting styles across children's advertising content, the following hypotheses test the generaliz-

ability of these style differences by extending previous parental socialization findings to a new child-targeted advertising form: advergames.

H1a: Authoritative parents are likely to hold more negative attitudes toward advergames directed at children than indulgent parents.

H1b: Authoritative parents are likely to hold more negative attitudes toward advergames directed at children than neglecting parents.

Prior research indicates no differences between authoritative and authoritarian parents' concern of food-based, toy-based, and 900-number-based children's advertising (Carlson, Laczniak, and Muehling 1994; Crosby and Grossbart 1984; Laczniak, Muehling, and Carlson 1995), although, as noted, there were differences between these parental styles on concern about children's advertising and negative attitudes toward advertising in general (see Carlson and Grossbart 1988). Given these mixed results, we rely on theory, which indicates that authoritarians and authoritative parents are similar on restrictiveness (Baumrind 1971). Hence, authoritarians *may* also hold more negative attitudes toward advergames directed at children than neglecting or indulgent parents. The following hypotheses are generated to test for these differences:

H2a: Authoritarian parents are likely to hold more negative attitudes toward advergames directed at children than indulgent parents.

H2b: Authoritarian parents are likely to hold more negative attitudes toward advergames directed at children than neglecting parents.

METHOD

To address these hypotheses, Research Now (<http://www.researchnow.com>; formerly e-Rewards [<http://www.e-rewards.com>]) was hired to identify a geographically diverse sample of parents of children ages 7 to 11 and implement a self-administered online survey. Parents were asked to complete the survey with respect to their youngest child in the age range and to indicate this child's age. This procedure was used because families may be composed of more than one child and, to avoid multiple responses from parents of more than one child, we asked that parents focus their answers only on their youngest child ages 7 to 11 (see Carlson and Grossbart 1988). Participants were given monetary compensation for their time. The resulting sample of 214 completed surveys is comparable to previous work on parental attitudes of children's advertising (see, e.g., Carlson and Tanner 2006; Walsh, Laczniak, and Carlson 1998). The sample resulted in a relatively even distribution of 103 fathers (48.1%) and 111 mothers (51.9%). All male participants reported at least some college education or higher, while 86.4% of females had some form of college education or higher. Demographic characteristics for children revealed that there were 114 males (53.3%) and 100 females (46.7%). Children were distributed as follows in terms of their ages: 16.4% were seven years old, 19.2% were eight years old, 26.2% were nine

years old, 22.9% were 10 years old, and 15.4% were 11 years old.

Independent Variable: Parenting Styles

Dimensions and indicators. The first section of the survey (Attitudes of Parenting) consisted of 29 previous items that measured parenting styles. These items were developed and utilized by Baumrind (1971); Carlson and Grossbart (1988); Carlson, Laczniak, and Muehling (1994); Carlson and Tanner (2006); Schaefer and Bell (1958); and Walsh, Laczniak, and Carlson (1998) (see appendix). The four parenting styles are represented by a two-dimensional model developed and documented in previous research (Carlson and Tanner 2006; Walsh, Laczniak, and Carlson 1998) (see Figure 1). The two parenting dimensions used to define the four parenting styles are warmth versus hostility and permissiveness versus restrictiveness. The former dimension is defined by the extent to which parents share feelings, express affection, and encourage children to raise issues that trouble them. The latter dimension is defined by the degree to which parents value children conforming to the policies and expectations of others, are firm in enforcing rules, support the nonequal status of children, and are strict with their children (Carlson and Tanner 2006). Previous work by Walsh, Laczniak, and Carlson (1998) and Carlson and Tanner (2006) demonstrated the warmth versus hostility dimension to be captured by three indicators: nurturance (parents' willingness to listen and share feelings and experiences with children), avoiding communication (parents' tendencies to discourage children from discussing child trouble with parents), and encouragement of verbalization (parents' encouragement to have their children talk to them about problems and issues). The permissiveness versus restrictiveness dimension is captured by four indicators: values conformity (the degree to which parents hold their children to values and rule conformity), authoritarian (parents' recognition of the nonequal status of children), strictness (parents' endorsement of children obeying rules set outside the home), and firm enforcement (parents' perception that their attempts at disci-

pline are very unyielding) (Carlson, Laczniak, and Muehling 1994; Carlson and Tanner 2006; Walsh, Laczniak, and Carlson 1998).

Categorization. Categorizations of parental styles are determined by calculating median scores for the warmth versus hostility and permissiveness versus restrictiveness dimensions. Parents who score above the median on both dimensions are categorized as authoritative, while parents who score below the median on both dimensions are categorized as neglecting. Parents who score below the median on the warmth versus hostility dimension and above on the permissiveness versus restrictiveness dimension are categorized as indulgent. Parents who score above the median on the warmth versus hostility dimension but below on the permissiveness versus restrictiveness dimension are categorized as authoritarian (e.g., Carlson and Tanner 2006; Walsh, Laczniak, and Carlson 1998).

Assessment. The two parenting dimensions were established through factor analyzing the 214 responses to the 29 items forming the seven parenting orientation indicators (i.e., nurturance, avoiding communication, encouragement of verbalization, values conformity, authoritarian, strictness, and firm enforcement). Principle components factor analysis with varimax rotation was conducted to establish the formation of the indicators and their representativeness of each dimension. The rotated component solution for the restrictiveness versus permissiveness and warmth versus hostility dimensions were each formed and reflected by two indicators. Strictness and authoritarian accounted for more than 81% of the total variance explained within the restrictiveness versus permissiveness dimension while nurturance and encouraging verbalization accounted for over 84% of the total variance explained within the warmth versus hostility dimension. In addition, each of the four indicators maintained levels of internal consistency exceeding the .70 benchmark established by Nunnally (1978). Indicators of values conformity, firm enforcement, and avoiding communication were determined to be unreliable due to low internal consistency and multidimensional loading.

Because the responses to the parenting orientation items were self-reported, we correlated a shortened version of Crowne and Marlow's (1964) social desirability (SD) scale with the two parenting style dimensions. SD was not significantly correlated with either the permissiveness versus restrictiveness ($SD = -.027, p = .72$) or warmth versus hostility ($SD = .122, p = .102$) dimensions. Consequently, it did not appear that parents' perceptions of their parenting style was being influenced by a desire to respond in a socially desirable way.

Categorizing parenting orientation style depends on scores falling above or below the median of either dimension. Parents who had orientation scores falling exactly on the median of either dimension were excluded from the analysis. Out of the original 214 participants 33 had scores that fell exactly on the median for at least one of the dimensions. This resulted in 181 classifiable parents. Out of the original 29 items measuring parenting orientation only 14 were needed to adequately represent

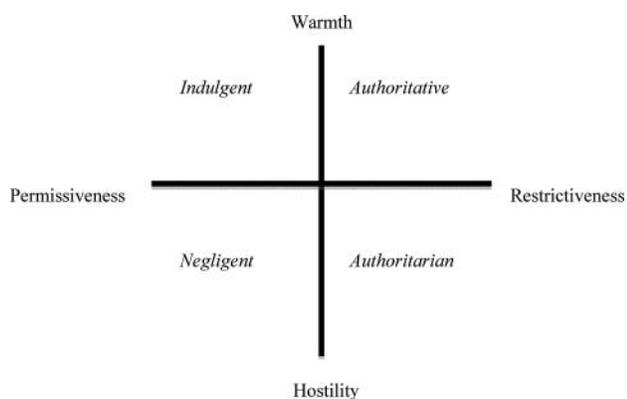


FIG. 1. Parental style matrix. Source: Les Carlson and John Tanner (2006), "Understanding Parental Beliefs and Attitudes about Children's Sexual Behavior: Insights from Parental Style," *Journal of Consumer Affairs*, 40 (1), 144–62.

its dimensionality. According to this assessment the current study yielded 54 authoritatives, 41 authoritarians, 52 neglecting, and 34 indulgents. The 14 orientation items, the resultant indicators, and their associated dimensions are representative of 181 mothers and fathers. These measures can be seen in Table 1.

Dependent Variable: Parental Attitudes Toward Advergaming

Prior to answering advergaming-related questions, parents were presented with an operationalized advergaming definition (see appendix) and the two examples used in the survey development. As no scale currently exists that specifically addresses parental attitudes toward advergaming, we drew on previous studies that used indices reflecting parental attitudes toward advertising. For example, 15 items were adapted from sources that measured parental attitudes of food advertising directed at children (Crosby and Grossbart 1984), attitudes toward web advertising's ability to promote materialism and corrupt values (Wolin, Korgaonkar, and Lund 2002), family communication patterns and parents' reactions to children's ads (Rose, Bush, and Kahle 1998), and mothers' attitudes toward government regulation of children's television advertising (Walsh, Laczniak, and Carlson 1998) (see appendix). As noted, the advergence attitude items were selected because they were theoretically congruent with past research that investigated attitudes toward children's programming and advertising and then adapted for an attitudes toward advergaming context. Thus, rather than merely developing a completely new attitudes toward advergaming scale, we systematically sampled from existing measures of parental attitudes and revised them for attitudes toward advergaming.

Principle components analysis with varimax rotation was conducted to examine the dimensionality of all 15 items. The rotated component solution revealed three components with 55.84% total variance explained. Respective loadings on each of the three components indicated the presence of three separate dependent constructs: (1) negative perceptions of advergaming, (2) positive associations with advergaming, and (3) what parents think of advergaming in general. The item "My child understands that advergaming is a type of advertising" was removed from analysis due to multidimensional loading on all three de-

pendent constructs. The three dependent constructs and their corresponding measures can be seen in Table 2.

RESULTS

Prior to conducting hypothesis tests potential parental gender differences were explored. Previous research linking parental styles and attitudes toward advertising have traditionally focused on mothers and their corresponding attitudes (e.g., Carlson, Laczniak, and Muehling 1994; Crosby and Grossbart 1984; Grossbart and Crosby 1984; Laczniak, Muehling, and Carlson 1995; Walsh, Laczniak, and Carlson 1998) due to their centrality as socialization agents, their impact on child choices, and their knowledge of the marketplace (Abrams 1984; Aldous 1974; Alsop 1988). Independent sample *t*-tests revealed no significant differences between mothers' and fathers' negative perceptions of advergaming, positive associations with advergaming, or what parents think of advergaming in general across parenting styles. Thus, the data were aggregated to test the hypotheses.

Analysis of Variance (ANOVA)

Three separate one-way ANOVAs tested for differences in negative perceptions of advergaming, positive associations with advergaming, and what parents think of advergaming in general across the four parenting styles. Of the three dependent constructs, only negative perceptions of advergaming differed significantly across the four parenting styles, $F(3, 177) = 3.79$, $p = .011$ (see Table 3).

Hypothesis Tests 1a and 1b

Our hypotheses posited that authoritative parents were likely to have more negative attitudes toward children's advergaming than indulgent parents (hypothesis 1a) and negligent parents (hypothesis 1b). In support of hypothesis 1a, LSD post hoc comparisons indicate that authoritative parents ($M = 19.33$, 95% CI [17.83, 20.83]) perceive advergaming more negatively than indulgent parents ($M = 16.79$, 95% CI [15.05, 18.53]), $p = .013$ (see Table 3). However, the LSD post hoc comparisons indicate that authoritative parents ($M = 19.33$, 95% CI [17.83, 20.83]) did not significantly differ in negative perceptions of advergaming compared to neglecting parents ($M = 18.33$, 95% CI [17.39, 19.26]), $p = .262$.

TABLE 1

Independent Variables: Indicators of Parental Style Dimensions

Parental style dimensions	Indicators	No. of items	Scale ^a	Alpha
Restrictiveness versus permissiveness	Authoritarian	3	sa/sd	.790
	Strictness	3	sa/sd	.840
Warmth versus hostility	Nurturance	5	sa/sd	.826
	Encouraging verbalization	3	sa/sd	.798

^aScale = All scales are Likert 5-point anchored at *Strongly agree/Strongly disagree*.

TABLE 2

Descriptive Statistics of Dependent Variables

	Items	<i>M</i>	<i>SD</i>	Scale midpoint	Alpha
Negative perceptions of advergaming	6	19.01	4.69	18	.857
Positive associations with advergaming	4	10.79	2.97	12	.751
What parents think of advergaming in general	4	15.71	3.20	12	.655

TABLE 3
ANOVA: Comparison of Dependent Measures Across Parenting Style

	Authoritarian (<i>n</i> = 41)	Authoritative (<i>n</i> = 54)	Indulgent (<i>n</i> = 34)	Neglecting (<i>n</i> = 52)	<i>F</i> -ratio	<i>F</i> -prob.
Negative perception of advergames	20.17 ^{a,c}	19.33 ^b	16.79 ^{a,b}	18.33 ^c	3.790	.011
Positive associations with advergames	10.95	10.33 ^c	10.94	11.29 ^c	.956	.415
What parents think of advergames in general	15.22	15.59	16.29	16.08	.893	.446

^aSignificant parental style differences at the .01 level; ^bsignificant differences at the .05 level; ^csignificant differences at the .10 level. (For example, the mean value for superscript ^a differs at the .01 level from the corresponding mean value with the same superscript ^a notation.)

Hypothesis Tests 2a and 2b

We hypothesized that authoritarian parents were likely to have more negative attitudes toward children's advergames compared to indulgent parents (hypothesis 2a) and neglecting parents (hypothesis 2b). In support of hypothesis 2a, LSD post hoc comparisons indicate that authoritarian parents ($M = 20.17$, 95% CI [18.79, 21.54]) perceive advergames more negatively than their indulgent counterparts ($M = 16.79$, 95% CI [15.05, 18.53]), $p = .002$. LSD post hoc follow-ups for hypothesis 2b indicate that while not significant at the .05 level authoritarian parents also perceive advergames more negatively than neglecting parents ($M = 18.32$, 95% CI [17.93, 19.25]), $p = .056$ (see Table 3).

DISCUSSION

The purpose of this study was to explore parents' awareness and understanding of advergames directed at children ages 7 through 11 and to examine whether attitudes toward advergames varied across parenting styles. The results indicate support for hypotheses 1a and 2a: authoritarian and authoritative parents reported more negative attitudes toward advergames compared to their indulgent counterparts. Support for hypothesis 2b was also indicated (though at the level of $p = .056$), which suggests that authoritarian parents also have more negative attitudes toward advergames compared to neglecting parents. Even though our initial hypotheses did not anticipate multiple levels of the dependent variable, the findings indicate that parental style has a significant effect on parental attitudes concerning children's advergames. Indeed, the mean of negative perceptions of advergames is above the midpoint of that construct and the mean of positive associations with advergames is below the midpoint of that construct. These indicants suggest an overall negative attitude toward advergames among all parents in our sample. Furthermore, considering that the central tenant of the hypotheses was to determine which parenting style maintained more negative attitudes toward children's advergaming, it is theoretically sound that significant differences were found on the only dependent construct concerned with the negative aspects of children's advergames (i.e., negative perceptions of advergames).

Exploratory findings indicated that parents were not well versed in identifying child-targeted advergaming as a prac-

tice. According to quantitative pretests, when prompted with screen captures of advergames as well as a definition, parents initially displayed an ability to effectively identify qualifying advergames as, in fact, advergames. However, on closer examination, parents lacked adequate discrimination, as more than 75% in the pretest sample also identified the Hasbro website capture as an advergame. This hypervigilant identification may be contingent upon parents' interpretation of any child-themed online material, whether it be toy or entertainment related, as an advergame. Even more likely is the finding that parents have no a priori knowledge to guide their interpretation and identification of advergames when confronted with them. Parents' lack of understanding, which did not appear to improve following exposure to an advergame definition and examples, strongly contrasts comprehension of traditional advertising, specifically TV. These findings indicate that advergames, when compared to other more traditional forms, are clearly distinct. Because parents have marketplace and advertising experience, especially when compared to their children, it seems strange that they display an inability to effectively and discriminately identify advergames as such. Considering parents' role as socialization agents, market experts, and monetary beacons; the lack of child-targeted advergame knowledge; and the prevalence of children's advergame play situate parent-focused advergaming research as important to practitioners, academics, and especially regulators.

We believe this research contributes to understanding in several ways. In terms of contributions to theory, we have learned that parental style appears to continue to serve as a robust theoretical foundation, in other words, in our case as a basis for comprehending parental perceptions of advergames, a relatively new form of advertising to children. As noted, advergames, unlike most forms of advertising, are not characterized by distinct and recognizable boundaries that demarcate what constitutes a promotional effort (such as advertising) directed at children versus programming for children. Rather, in advergames such delineations may be more difficult to recognize and, consequently, game players may be subjected to promotional efforts that may not be recognized as such.

From a theoretical perspective, prior work has shown that certain parental style groups differ on how they view advertising in general as well as advertising that is directed at

children specifically (see also Carlson and Grossbart 1988). Prior research also has indicated that such differences across parental styles regarding advertising attitudes may be at least partially attributable to differences on the restrictiveness versus permissiveness dimension that in conjunction with the warmth versus hostility dimension defines the four parental styles (see, for example, Carlson and Grossbart 1988). As noted in the results of our hypotheses tests, styles higher in restrictiveness (i.e., authoritative and authoritarian) are more negative regarding advergames compared to a parental style that is defined as lower in restrictiveness (i.e., indulgent).

While we believed that previous research and conceptualization on parental style provided a solid rationale for these expectations, no prior studies had specifically investigated whether parents actually do differ predictably on their perceptions of advergames. Moreover and given the somewhat unique nature of advergames themselves (e.g., virtually nonexistent distinct delimiters between advertising and programming, as noted) and because our pretesting indicated that parents did not fully comprehend the scope and nature of advergames, it was unclear how exactly parents might react to advergames. Our hypotheses were based on previous literature in which advertising directed at children was identified as such and not on studies in which the promotions themselves may or may not be detectable to receivers as advertising.

Consequently, a contribution of our research is that parents also convey negative attitudes toward a relatively new promotional format and parents we sampled revealed at least some difficulty in identifying advergames as advertising (again, see pretest results). This finding suggests that when parents are informed about what constitutes an advergame (as was the case in our survey research), they express attitudes about advergames that are, in general, negative, while also differing across parental styles in the degree of negativity. Thus, companies that wish to exploit this new form of advertising may need to do so with at least some caution.

IMPLICATIONS AND FUTURE RESEARCH

This study has at least two important public policy implications. First, considering parents' hypervigilance in identifying child-targeted advergames, the need for government or self-regulatory initiatives designed for parents must enter the conversation. Self-regulatory initiatives, such as CARU's (2006) guidelines on the "Blurring of Advertising and Editorial/Program Content," have focused on children's ability to identify advertising in such blurred media as advergames. Even with the CARU-inspired "ad break" initiative in place there remains no standardized approach to convey the commercial nature of advergames. Therefore, it is not surprising to find companies often design ad breaks that meet CARU's minimal requirements but are aligned with corporate interests (An and Stern 2011). This practice may result in mixed effectiveness of ad breaks on children's ability to recognize the commercial nature within the game (An and Stern 2011; van Reijmersdal, Rozendaal, and Buijzen 2012; Waiguny,

Nelson, and Terlutter 2012). The insights garnered from the current study suggest that parents, much like children (An and Stern 2011), may not have the knowledge or skill to correctly identify advergames. For this reason, it is important that regulatory initiatives pertain not only to children but to parents as well.

A governmental regulatory initiative aimed at advergames could come in the form of a specific mandated advertising identifier. While a self-regulatory body like CARU recommends this practice, there is as of yet no governmental requirement to do so. In an effort to spur on governmental action, ChildrenNow.org has pressured the FCC to ban children's embedded advertising and product placement (Eggerton 2012). The concept of mandated advertising identifiers within advergames, while similar to the National Association of Broadcasters (NAB) and FCC ruling for the inclusion of separation devices in between commercials and television programs (NAB 1979), is not without potential issues. Most cable signals received on televisions have geographical boundaries, which the FCC can regulate fairly well. While the FCC can control domestic television signals and ensure a high degree of regulation conformity, the FTC is not afforded the same control over the Internet due to its global presence. Unlike the FCC's ruling on the inclusion of separation devices, any potential FTC ruling on advertising identifiers within advergames would be limited to U.S.-based domains. In other words, even with government-mandated advertising identifiers within advergames, children would still have access to advergames with URLs originating outside the United States. These nondomestic advergames would potentially have absent any advertising identifiers, either at the governmental or self-regulatory level. While a government-mandated advertising identifier within advergames could potentially increase advertising recognition (Friestad and Wright 1994) and mitigate its effects (An and Stern 2011), the actual implementation would fall short because the FTC cannot regulate domains originating outside the United States. Therefore, while governmental regulation of advergames is an attractive and potentially effective option, parents would still need to regulate their children's online activity. Thus, the first public policy implication for advergames suggests a need for both governmental regulation and parental responsibility.

Second, this study indicates to regulators, policymakers, and practitioners a greater need for education and literacy initiatives aimed at parents. Our findings indicate limited parental understanding and awareness of advergames targeting children. If parents wish to socialize, educate, and inform their children as to the nature of advergames (Eagle 2007; Eagle, Bulmer, and de Bruin 2003; Grossbart and Crosby 1984) they must have the necessary and correct knowledge to do so. If parents cannot distinguish between a regular website and an advergame, what is to prevent them from oversensitizing or misinforming their children?

Due to the discrepancy in cognitive ability between adults and children, education and literacy initiatives are typically aimed at children. For example, "the FTC has developed a game entitled *Admongo* to help children aged 8–12 gain advertising literacy in

general . . . and to help identify commercial intent” (Nelson and Waiguny 2012, p. 134). Though cognitive discrepancies exist between adults and children, research on persuasion recognition in interactive environments assumes that adults, and parents for that matter, have the ability to recognize persuasive intent in advergames. Our research indicates this assumption may be just that: an assumption. As author Dan Tapscott notes, “This is the first time in human history where children are an authority on something important . . . this digital revolution” (Chaet 2012, p. 1). With this in mind, children spend nearly \$30 billion a year and influence about \$150 billion of their parents’ spending (Cheat 2012). If parents are hypervigilant in interpreting child-themed websites as advergames and hold negative perceptions of advergames, as our study suggests, what then does that mean for products or brands that do not utilize advergames? It is feasible that parents will be hypervigilant and keep their children off such nonadvergame sites in an effort to protect them from immersive advertising when in fact there is none. As evidenced by our findings, there is potential for parental confusion. Such confusion could result in parents restricting children’s online time, losses in brand exposure and loyalty, and reductions in parents’ spending. While it could be argued that less childhood commercialization is positive, it should be mediated by knowledgeable, not confused, parents engaging in consumer socialization. Indeed, such parental confusion should also concern practitioners.

The lack of standardized advertising indicators within advergames, and parents’ hypervigilance in identifying them, suggests the need for more explicit regulatory measures. Perhaps a similar version of the United Kingdom’s television broadcast rules, where a P logo (for product placement) is inserted during children’s programming containing product placement, could be enacted for advergames in the United States (Nelson and Waiguny 2012). Another possibility could come in the form of new domain extensions. For example, the use of a .gam domain extension for advergames in place of .com domain extension could serve a dual role. On one hand, the implementation of a .gam domain extension could help parents and children correctly identify advergames and increase their recognition of advertising in advergames. On the other hand, the use of a .gam domain extension has direct relevance to advergame literacy and education initiatives. The .gam domain extension could serve as a clearly recognizable cue that could reduce parents’ hypervigilance and confusion with continued exposure. The implications of a government-level regulatory effort aimed at disclosing advergames’ commercial nature would benefit those seeking to regulate them and the practitioners who use them. Furthermore, the presence of domain extensions that identify the commercial nature of advergames would both educate and empower responsible parents.

The findings of the current study suggest that future research should focus on parents’ level of advertising literacy and persuasion knowledge. Understanding the effects of advertising disclosures within advergames on parents’ persuasion knowledge has regulatory and practitioner implications. A more robust experimental evaluation of parents’ recognition of persuasive intent

within advergames would have direct relevance not only for government and self-regulatory bodies but also for parents that have the continued responsibility of educating their children as to the nature of the marketplace.

LIMITATIONS AND CONCLUSION

As with to most research, certain limitations deserve comment, although they may also suggest possibilities for additional investigative endeavors. For example, we used an online panel to access parental views of advergames, which is different from at least some prior studies where surveys were distributed via schools (e.g., Carlson and Grossbart 1988). Whether this discrepancy contributed in any meaningful way to our results is unknown, though we did find in our research an important similarity to prior results, which utilized surveys distributed through schools, in other words, our measures of parenting orientation were not correlated with social desirability. Thus, it would appear that using a more geographically diverse sample as well as obtaining responses from both mothers and fathers still did not result in tendencies by parents to respond in a socially desirable manner. This reality has important implications for the continued use of such indices in classifying individuals into one of the four parental styles that we, and others, have identified and incorporated in a variety of advertising-related studies.

Since we were “expecting” a certain factorial structure with respect to our independent variables (i.e., those used to develop the two parenting orientations and consequently the four resulting parental styles; see Figure 1), it could be argued that a confirmatory factor analysis (CFA) could have been part of our analysis strategy. However, previous work (e.g., Carlson and Grossbart 1988) using virtually the same independent variables as we employed has used CFA and found evidence supporting the same factor structure we used to identify parental styles.

We acknowledge that our sample has a prevalence of college-educated parents. This characteristic of our sample may be a function of who may be more likely to participate in a survey directed at online panel members. Still, even with this tendency toward more education, our parent respondents did not reveal inclinations, as noted, toward responding in a socially desirable manner to items which specifically asked about their own parenting tendencies. Thus, while we cannot control for the fact that our sample tended toward being more educated, this actuality did not appear to manifest itself as a biasing factor in the key variables that were used to determine parental style.

This study has shown that parents may not be fully informed about a relatively new form of advertising to children that deviates from traditional advertising formats that are more easily distinguishable from programming than are advergames. When parents obtain background information about advergames, parents express reactions to them that vary somewhat predictably according to prior theory. We believe these findings support the use of previously developed theoretical bases for understanding parental reactions to advergames as well as suggests caution to advertisers who are considering their use.

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APPENDIX

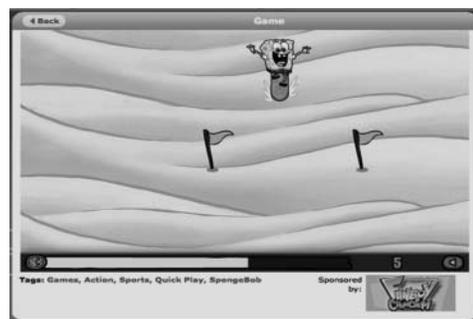
Operationalized Advergaming Definition

Advergames are a type of branded entertainment that feature advertising messages, logos, and trade characters. They are typically found online and allow virtual interaction with a product or brand. Advergames offer a combination of entertainment and advertising that can create an emotional connection between the brand and a game. These games encourage children to return by offering them multiple levels of play, repeat playing opportunities, and suggestions for other games.

Advergame Web Captures



"Oreo Double Stuff Racing League" Advergame.



"SpongeBob SquarePants" Advergame.

URLs for Exploratory Pretesting

Hasbro.com: <http://www.hasbro.com/>
 McDonaldsNutrition.com: http://www.mcdonalds.com/us/en/food/food_quality/nutrition_choices.html
 Oreo Double Stuff Racing League: <http://www.nabisco.world.com/oreo/dsrl/game.aspx>
 Scholastic.com: <http://store.scholastic.com/webapp/wcs/stores/servlet/HomeView?storeId=10052&catalogId=10051>
 SpongeBob SquarePants: http://www.spongebobgames.me/Play_Spongebob_Snow_shredder_Game.html
 Walt Disney World.com: <http://disneyworld.disney.go.com/parks/magic-kingdom/>

Parenting Orientation Items

Parents should never be made to look wrong in their child's eyes.
 I talk it over and reason with my child when he or she misbehaves.
 Parents should know better than to allow their children to be exposed to difficult situations.
 It is best for a child if he or she never gets started wondering whether his or her parents' views are right.
 Children should be kept away from all hard jobs that might be discouraging.
 Children should never learn things outside the home that make them doubt their parents' ideas.
 A child should be able to question the authority of his or her parents.
 A child must learn to conform to all school rules and regulations.
 Children should be allowed to disagree with their parents whenever they feel family rules are unreasonable.
 The preservation of order and tradition should be highly valued.
 Children should be encouraged to tell their parents when they feel family rules are unreasonable.
 When a child is called, he or she should come immediately.
 A child has a right to his or her own point of view and should be allowed to express it.
 *If you let children talk about their troubles, they end up complaining even more. (B)
 *A child's ideas should be seriously considered before making family decisions. (D)
 *Parents who start a child talking about his or her worries don't realize that sometimes it's better to leave well enough alone. (B)
 *Children who are held to firm rules grow up to be the best adults. (C)
 *If a child has upset feelings it is best to leave him or her alone and not make it look serious. (B)
 *I encourage my child to talk about his or her troubles. (A)
 *A child will be grateful later on for strict training. (C)

*I joke and play with my child. (A)
 A child should respect his or her parents because they are his or her parents.
 *I encourage my child to wonder and think about life. (A)
 I don't mind it particularly when my child argues with me.
 *Strict discipline develops a fine, strong character. (C)
 *I express my affection by hugging, kissing, and holding my child. (A)
 *Parents should take seriously the opinions of their young children. (D)
 *I respect my child's opinion and encourage him or her to express it. (D)
 *I feel that a child should be comforted and understood when he or she is scared or upset. (A)

*Emergent measures of parenting orientation style; A = item measuring nurturance; B = item measuring encouraging verbalization; C = item measuring strictness; D = item measuring authoritarian.

Dependent Measures

^AAdvergaming make children want things they don't really need.²
^CMost advergaming for children are okay for them to play by themselves.³
^BMy child learns something by playing advergaming.³
^CAdvergaming allow children to enjoy a world of fantasy.²
^AAdvergaming take undue advantage of children.²
^AAdvergaming lead children to make unreasonable purchase demands on their parents.²
^AThere is too much advergaming directed at children.¹
^AAdvergaming directed at children lead to family conflict.¹
^BAdvergaming teach children good eating habits.¹
^BThere's nothing wrong with advergaming sponsored by toy manufacturers.³
^CMy child enjoys playing advergaming.⁴
^CMy child and I talk about the advergaming he or she plays.³
^AAdvergaming use tricks and gimmicks to get children to buy their products.¹
^BThere's nothing wrong with advergaming for children sponsored by food manufacturers.³
 *My child understands that advergaming are a type of advertising.³
^ANegative perceptions of advergaming; ^Bpositive associations with advergaming; ^Cwhat parents think of advergaming in general; * excluded from analysis.
¹Adapted from Crosby and Grossbart 1984; ²adapted from Wolin, Korgaonkar, and Lund 2002; ³adapted from Walsh, Laczniak, and Carlson 1998; ⁴adapted from Rose, Bush, and Kahle 1998.