Consumer Responses to Food Television Programming:
An Exploration of Social Learning Theory and Source Expertise

by

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ABSTRACT

CONSUMER RESPONSES TO FOOD TELEVISION PROGRAMMING:
AN EXPLORATION OF SOCIAL LEARNING THEORY AND SOURCE EXPERTISE

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This study examined the effects of source expertise and social learning in mainstream food television on viewers’ attitudes, confidence, and behavioural intentions related to food. Following a 2X2 between-subjects design, participants (240) were exposed to two videos, each from a different food television program. Preceding each video, participants were asked to complete a questionnaire measuring the three dependent variables. Using ANOVA, results of this study indicated that exposure to positive social reinforcement can positively affect consumer attitude toward food, while exposure to low source expertise can positively increase consumer confidence in cooking abilities. Social learning and source expertise interacted in their effect on attitude and confidence, while an interaction between gender of the viewer and social learning had an effect on attitude, confidence, and intention. Marketers may use this knowledge when selecting an appropriate medium to advertise food products, and television producers may consider these findings when aiming to increase interest in particular television programs. Other practical implications and contributions are further discussed.
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1.0 INTRODUCTION

Food is relevant to everyone. There exists an inherent need to consume food in order to survive and it has become one of the most heavily marketed products existing today. The growing interest in food is currently evident in food movements, the following of food blogs, and a general increase in positive attitude toward food. Just as evident is the evolution of food television. Many might argue that since its launch in 1993, the attention directed toward the Food Network provided an opportunity for what we see in food TV today. Initial programming focused on educating a target audience that had a general interest in food and was motivated to enhance cooking skills. Currently, much of mainstream food television is built on, at the very least, a foundation of entertainment that targets a much broader audience and goes beyond those who are actively interested in food and related behaviours. The popularity of this genre of television has increased consumers’ exposure to food behaviours on television and possible effects are virtually unknown.

Food research is ubiquitous across disciplines. In terms of food and television, extant literature has examined food portrayal in television programming (e.g., Dickinson, 2000; Greenberg, Rosen, Worrell, Salmon & Volkman, 2009; Story & Faulkner, 1990) including its impacts on food consumption, typically in terms of quantity consumed (e.g., Francis, Lee, & Birch, 2003; Harris, Bargh, & Brownell, 2009) as well as choice behaviour caused by exposure to food commercials (e.g., Francis et al., 2003; Gillespie, Brown, Pontin, & Dovey, 2004; Goldberg, Gorn, & Gibson, 1978). Because of the recent immersgence and popularity of food-focused
television programs, there has been little research surrounding the possibility of their impacts on consumer behaviour.

Many of the current food television shows may fall under the reality-television category, as they are commonly competition based. Typically, individuals are portrayed participating in food related challenges in order to win a pre-determined prize. While this is a typical template for these types of shows, there are aspects that do vary in some ways. Two elements that are frequently portrayed in various ways on food reality television are the level of expertise of those dealing with food (i.e., source expertise, which is a dimension of source credibility; Hovland, Janice, & Kelley, 1953), and the consequences that arise from their behaviours as observed by bystanders.

The former variable differs throughout food television in that sources of food information are either relayed by food professionals (e.g., chefs) or non-professionals (e.g., a typical home viewer). The latter variable can be identified as social learning through social reinforcement and social punishment (Bandura, 1977), which often occurs through verbal critique. In other words, observers of these responses learn through others’ experiences and adjust their own behaviour based on the reinforcements and punishments observed. This is of particular interest to the current research as viewers of food programs may learn through the food behaviour portrayed; however, alterations to their own behaviour may be adjusted based on how credible the source is perceived to be and what type of feedback the source receives. While social learning theory has been somewhat neglected over the past few years in an effort to examine other theories, its reexamination in the context of consumer behaviour and within a growing form of media may
provide interesting findings, particularly at a time when eating habits in North America are frequently in question. The notion that these variables (i.e., expertise, social reinforcement and social punishment) can individually influence consumer attitude toward a person, object or task and ultimately alter intent to change behaviour has been supported by numerous experiments (e.g., Hovland et al., 1953; Nan, 2009; Walters & Parke, 1964).

This thesis has two main goals. The first objective is to address a growing genre of television, which is viewed by a broad market, and understand the effects of source expertise on viewers’ attitudes, confidence and intention in relation to food. Additionally, in order to understand the potential effects of food television, this research applies social learning theory by considering the notion of vicarious learning through both positive social reinforcement and positive social punishment as portrayed in popular food television series.

I propose that exposure to food television can affect one or more of attitude, confidence, and behavioural intention. These relationships have been tested through a between-subjects experimental design. Previous research in the food area has examined television as a prime and the consequent amount of food eaten. Priming studies have been shown to activate relevant mental representations in an unobtrusive manner, and subsequently, unconscious effects of the activation can be assessed (Bargh & Chartrand, 2000). This research used a similar method in which participants were asked to view clips from two popular food-focused reality shows. There is little to no direct advertising in many of these programs and the promotion of positive cooking and eating behaviours is not explicitly suggested to the audience. Moreover, as the shows are essentially produced for entertainment value, there is more focus on people portrayed within the
shows and the social interactions between individuals, rather than on food itself. Thus, this peripheral portrayal of food may have acted as a prime, leading to effects on our main dependent variables following exposure to these types of television programs. Completion of a questionnaire intended to gauge attitude toward food, confidence in one’s abilities to cook, intention to cook, experience and general interests followed the viewing. Analysis of Variance (ANOVA) was used to analyze the data collected.

The following sections will review the literature relevant to source expertise and social learning theory as they apply to food television, as well as viewer intention to alter his or her behaviour. Succeeding sections will discuss the research objectives and hypotheses. In the methodology section, the research design, which is intended to answer the main questions behind the impact of food television, will be explained. Finally, the results of the data analysis will be introduced and discussed alongside implications and limitations of the study.
2.0 LITERATURE REVIEW

2.1 Celebrity Endorsement
The literature involving celebrity endorsement has been influential in marketing and consumer studies over the years, particularly when examining the effects of various forms of advertising. Definitions of ‘celebrity’ have varied throughout the literature, but overall, were described as being well-known to the general public. In general, researchers have found that the use of a celebrity when endorsing a product can lead to fairly relevant outcomes affecting consumers’ perceptions of and intention to adhere to an advertisement, a brand, and an endorser.

In an earlier study, Friedman and Friedman (1979) exposed participants to one of twelve advertisements, which varied based on four categories of endorsers (celebrity, expert, typical consumer, no endorser). Other components of the ad, such as layout, product (home appliance) and general wording, remained consistent throughout the conditions. Following exposure, participants were asked to complete a questionnaire assessing evaluation of the products and the advertisements, and testing brand-name and advertisement recall. Among their mixed results, the authors found that the use of a celebrity endorser can increase the recall of the advertisement and strengthen one’s memory of the message. This could be attributed to being familiar with the celebrity to begin with because of their public lifestyle and media coverage. Additional findings have suggested that celebrity spokespeople can also generate positive attitudes toward the product, the brand and the advertisement, and increase the purchase intention of the product, improving the overall effectiveness of the ad (e.g., Agrawal & Kamakura, 1995; Batra & Homer, 2004).
In addition to the above-mentioned findings, celebrities have been found to aid in the creation of brand personality (e.g., Maehle, Otnes, & Supphellen, 2011; McCracken, 1989). McCracken established the transference of meaning and personality through the meaning transfer model (Figure 1). With this diagram, McCracken identifies three stages: culture, endorsement, and consumption. In the culture stage, the celebrity develops a public image in which several meanings are brought forth through aspects such as demographics and/or lifestyle. In the endorsement stage, these meanings are then passed on to the product and or brand, and the brand personality is created. In the final stage, these meanings are then transferred from the product to the consumer once they have acquired or consumed the product in some way.

Figure 1 – Meaning transfer model

While the use of celebrity endorsers help to establish a brand personality, there are some risks that this personality may not always be a positive one. Celebrity endorsers are individuals who lead very public lives and any controversy can lead to tarnishing their own image as well as the image of the brand. For example, the revelation of Tiger Woods’ extramarital affairs caused several brands to cancel his endorsement contract in an effort to avoid a connection between that controversy and the perception of their products. This may not be an important consideration for all consumers; however, there has been research to support the impact of controversy. For example, by collecting data through the use of mail surveys, Erdogan, Baker, and Tagg (2001) found that consumers consider celebrity related controversy an important factor when
considering their own intentions and attitudes. Beyond controversy, other areas that have been found to impact consumer intention and attitudes are related to perceived credibility of a source.

2.2 Source Credibility

The study of source portrayal has populated areas of both social psychology and consumer research for years. In this area, ‘source’ generally refers to a person who presents a receiver with some type of information or message. Preferred sources tend to create a greater immediate agreement with the message or a greater change in attitude than other sources (McGuire, 1968). More specifically, the credibility of a source of information has been found to influence the attitude and behaviour of the receivers of such information and for that reason has been significant in social psychology and consumer research. Initially, Hovland et al. (1953) developed the source credibility model, which indicated the relevancy of trustworthiness and expertise; however, McGuire (1985) expanded on this model by addressing source attractiveness.

In general, research has supported the effects of the three variables mentioned though the dimensions have typically been separated and individually examined depending on the study. For example, Dholakia and Sternthal (1977) validated that higher trustworthiness and expertise can increase the credibility of the source and yet, others (e.g., Anderson & Clevenger, 1963; McGuire, 1968) have identified that attractiveness and expertise can have similar effects. The examinations of either attractiveness or trustworthiness indicate that the debates surrounding the effects of the two are evident but there has been no substantial questioning of source expertise effects (e.g., McGuire, 1978; Sternthal, Phillips, & Dholakia, 1978). Source expertise is a main
concern for this current study; however, both attractiveness and trustworthiness will be addressed at the onset.

2.2.1 Source attractiveness

McGuire (1985) made a substantial addition to the notion of source credibility with his source attractiveness model. When referring to ‘attractiveness’ this model suggests that its definition is quite layered in that it may be perceived through physical attractiveness, lifestyle, and/or personality, and how similar, familiar, and likeable the consumer considers the source. Since the initial introduction of the model, several studies have found evidence suggesting that perceived attractiveness can lead to an increase in attitude toward the product, brand and advertisement, and that purchase intention may also increase (e.g., Amos, Holmes, & Strutton, 2008; Liu, Huang, & Minghua, 2007).

Despite finding support for the influence of perceived high source attractiveness, it has been noted in the literature that high attractiveness may be more effective under particular circumstances. The match-up hypothesis (e.g., Kahle & Homer, 1985; Kamins, 1990) suggests that endorsers are more effective when there is a match between the endorser and the product being endorsed. This can be directly applied to the effectiveness of source attractiveness as this factor is more relevant when the product has to do with something like physicality (e.g., cosmetics; Kamins, 1990). In the context of the current research, source attractiveness may not be as relevant as the other factors of source credibility as the product under consideration is food related, rather than beauty related. Thus, source attractiveness is a consideration that was pretested and controlled for as much as possible, but was not a focus of this research.
2.2.2 Source trustworthiness

The perceived trustworthiness of a source is one of the two factors that make up source credibility according to the source credibility model (Hovland et al., 1953). Erdogan (1999) defined trustworthiness as referring to a source’s perceived level of honesty, integrity and believability. Trustworthiness can affect whether or not a source appears to be viable in providing information. Chao, Wuhrer, and Werani (2005) argued that sources that are perceived to be trustworthy are able to generate a more positive attitude toward the product, brand and/or ad than a source that is perceived to be less trustworthy; however, this has not been supported across studies. Ohanian (1991) conducted a study in which a student sample was exposed to advertisements of products endorsed by celebrities. While there were some effects of trustworthiness, the author found that the factor was not significantly related to intention to purchase the product. The difference between studies of conflicting findings in this area is the use of celebrity source versus the use of a non-celebrity source as an independent variable. In this case, it is likely that consumers are well aware that celebrity endorsers often receive large remuneration for their endorsements. This consideration could deteriorate the level of perceived trustworthiness.

Within the source credibility literature, trustworthiness makes a warranted appearance and often acts as a main dependent variable. Typically, however, when measuring the effects of perceived trustworthiness, the source is directly endorsing a product or a brand. In the case of my thesis research, the sources of information that are prevalent in the television clips and were observed by participants were not necessarily endorsing a specific product or a brand but more so, a
possibly different perspective of food and food behaviours. Similar to source attractiveness, trustworthiness was extensively involved in the pretests for control purposes, as will be discussed later, but it was not a main consideration for this research.

2.2.3 *Source expertise*

Source expertise is an additional factor initially identified by Hovland et al. (1953) as part of the source credibility model. According the authors, source expertise refers to how knowledgeable, experienced, and skillful the person in question is perceived to be. This is of primary importance to this study of mainstream food television as the level of expertise (i.e., professional versus non-professional) of primary sources within these programs is emphasized. Review of the literature, presented in the next section, has identified that the level of expertise is a strong determinant of attitude toward and perceived persuasiveness of a source, both of which can lead to behavioural compliance.

2.2.3.1 *Source expertise and attitude change*

Source expertise is defined as the extent to which a source is perceived to be able to provide valid assertions (Hovland et al., 1953). Higher perceived expertise has been found to create a positive impact on changes in attitude toward the source and the message that is being promoted (e.g., Horai, Nacari, & Fatoullah, 1974; Maddux & Rogers, 1980; Mills & Harvey, 1972). Frequently, experiments have addressed sources in commercials and the overall level of credibility on the effectiveness on attitude change (Freeman, 1957). Typically, the individual dimension of expertise is also manipulated, eliciting a similar effect. Maddux and Rogers (1980) employed a between-subjects experimental design using photographs and text to vary both
expertise and attractiveness of the source. The experiment was a 2 (source expertise: high vs. low) X 2 (source attractiveness: attractive vs. unattractive) X 2 (supporting arguments: present vs. absent) X 2 (posttest: immediate vs. delayed) design. Participants were randomly assigned to a condition and were told that the topic involved impression management. After receiving a folder containing the source information stimuli, participants were asked to complete a questionnaire concerning but not limited to the competency, knowledgability, and expertise of the source. The results provided support that sources with higher perceived expertise as opposed to low perceived expertise lead to more positive attitudes toward the source, and the message. Attractiveness, which was the other independent variable, had no significant effect on these results. Similar to attitude change, persuasiveness of a source is an additional variable that can be affected by source expertise, which can consequently lead to behavioural compliance. This will be discussed in the following section.

2.2.3.2 Source expertise and source persuasiveness

While source expertise has been found to have significant effects on attitude, there have been mixed results regarding persuasiveness of the source. In general, high expertise has been found to encourage persuasion more significantly than low source expertise (e.g., Horai et al., 1974; Hovland & Weiss, 1951; Whittaker & Meade, 1968; Wiener & Mowen, 1986). Despite the prevailing research, there have been opposing arguments. For example, McGinnies and Ward (1980) conducted a cross-cultural study involving students in the United States, Japan, Australia, and New Zealand. Participants received a booklet containing the author’s information, and the author’s argument relating to international affairs. The author’s information was manipulated to address different levels of trustworthiness and expertise. A questionnaire, which participants
completed, was placed at the end of each booklet and addressed opinions related to the message and the source. Results indicated that the level of expertise did not have a significant effect on how trustworthy participants viewed the source. This is inconsistent with findings of past literature. One possible reason relates to the cross-cultural aspects of the study. It is unclear as to whether the relevancy of the message was applicable across cultures. In addition, it appears possible that the researchers did not account for participants’ level of interest in regards to international affairs. Further, their emphasis on trustworthiness and source attractiveness may have overshadowed the possible effects of expertise.

Similarly, Cantor and her colleagues’ (1976) experimental results indicated that source expertise did not have significant effects on any of their dependent variables. In the experiment, participants viewed a tape-recorded interview in which a female source discussed her opinions of a particular type of contraceptive. Age similarity between the source and the participant, the level of experience the source had with the topic discussed, and the source’s level of relevant expertise were manipulated. Following exposure to the interview, participants were asked to complete a questionnaire, which was used to measure the persuasiveness of the source. The researchers made every effort to avoid swayed results due to socially influential factors by using recorded interviews as stimuli and minimizing contact between the experimenter and the subjects; however, the topic being assessed involved opinions of and experiences with contraceptives. Despite the efforts made, the issue could have seemed too personal for some participants, thus causing the level of expertise to be less salient. Regardless, positive effects of expertise on both attitude and source persuasiveness are apt to lead to behavioural compliance.
2.2.3.3 Source expertise and behavioural compliance

The ability to alter consumer behaviour is often the goal of marketers; however, by simply stating this intention, it may be perceived as manipulative and unappealing to consumers. It is important to note that in many studies, including my thesis, providing support for the ways in which behavioural compliance may occur can have some positive effects on consumer well-being. For example, it is no longer surprising that observing actions on television can sometimes affect the way the viewer behaves, such as viewing violence and consequently acting more aggressive. In relation to this research, the viewing of food behaviours on television may elicit similar results and potentially lead to the basis of a change in eating habits. This change could be positive or negative depending on the portrayal of food.

Typically, the relationship between source credibility and consequent behavioural compliance has been supported. Several studies have looked at the individual dimensions of source credibility (e.g., attractiveness, trustworthiness, and expertise) and have found that high source expertise typically leads to more behavioural agreement compared to a low expertise source (e.g., Crano, 1970; Crisci & Kassinove, 1973). In other words, the more expert the source is perceived to be, the more likely participants intend to use suggestions made by the source (Bannister, 1986). This can be shown to improve performance of a task. For example, if a person is able to make a particular type of dish and he or she observes a food expert preparing the dish in a more efficient way, the observer may alter their current behaviour in order to better match the behaviour of the expert.
2.2.3.4 Source expertise and source similarity

Despite the general consistency of results within the areas mentioned above, further literature has identified certain conditions, in which low source credibility is more effective when the focus is on behavioural rather than attitudinal change (Dholakia & Sternthal, 1977). This effect has been demonstrated through low levels of source expertise. Positive effects of low expertise sources may be attributed to additional research involving similarity between the source and the receiver of information, or the extent to which the receiver can relate to the source. Feldman (1984) exposed high school students to nutritional messages varying only the levels of source familiarity and source expertise. The results show that the greater the perceived similarity, the greater the influence of the message on nutrition behaviour and attitudes toward the related factors. The similarity between sources and observers may be of interest to my thesis, particularly in relation to low source expertise and the behaviour portrayed in food television. For example, if a viewer is not a professional chef and he or she is exposed to someone relatable on television that creates a delicious looking dish, his or her attitude toward the behaviour of cooking may positively increase as their own confidence might increase, particularly if they are exposed to positive feedback from consumers of the food. The feedback acts as an indicator of the quality of the dish and performance of the source. This is highly related to vicarious learning, which will be discussed in the next section.

2.3 Reinforcement and Punishment

The study of reinforcements and punishments or positive, and negative consequences that are elicited from behaviours have been of prominent interest in learning theories and behaviour modification research. A reinforcer is an event that may increase the frequency of a particular
behaviour while a punishment may decrease the frequency of a behaviour. This study has examined positive social reinforcement specifically, which implies that a positive stimulus is introduced. For example, in a food television program, a source may serve his or her dish to a diner and the diner might express his or her positive opinion to the source (e.g., “This tastes great!”). This could cause the source to experience a higher motivation to cook that particular dish. We have also addressed positive social punishment, which includes the introduction of a negative stimulus. Continuing with the example above, that same diner might express his or her negative opinion of the meal (e.g., “This does not taste good.”). It has been suggested that a reinforcer is more effective if it represents a category of events that is highly valued or greatly disvalued in the reference group of the reinforcement recipient (Zigler & Kanzer, 1962).

2.3.1 Effects of verbal feedback
In reference to the example above and in the area of food and consumer behaviour research, verbal praise or criticism could be considered a common type of reinforcement or punishment, respectively. This is one of the most common ways to portray like and dislike in food programming. Past literature has examined the impact of verbal rewards on intrinsic interest, attitude and motivation. Its intangibility has a more positive and continuous effect on intrinsic interest than a tangible reward, such as money (Lepper, Greene, & Nisbett, 1973). In other words, by rewarding someone with money, for example, interest may decrease substantially, especially with the discontinuation of such a reward, whereas verbal praise helps to increase and maintain the level even if the praise is not ongoing. Additionally, while both tangible and intangible rewards have produced positive changes in attitude measures, intangible rewards have produced slightly more positive effects (Cameron & Pierce, 1994). Similarly, verbal praise has
produced an increase in intrinsic motivation through its relation to confidence (e.g., Danner & Lonkey, 1981) though there have also been findings to support minimal change (e.g., Rosenfield, Folger, & Adelman, 1980). However, the difference in results could be due to the sample being studied. For Danner & Lonkey’s study, the focus was on children while for the 1980 study, the participants were all female university students. This thesis research addressed a genre of television that is likely to be uninteresting to most children; therefore, the participants recruited were young adults. However, this sample differs from the sample used by Rosenfield, Folger, and Adelman such that it did not make use of an all female sample.

An increase in motivation can be attested to the type of reinforcement to which verbal praise is categorized. It can be seen as informational, which when received, indicates skill in performing a task. This was shown as part of a triad of well-known experiments completed by Deci (1971). Participants committed to three 1-hour sessions over three days in which they were asked to complete four puzzles in each session. In the second session, the researcher provided verbal praise, indicating that each participant’s work was very good or above average while participants in the control condition received no praise. In the middle of that particular session, the researcher would excuse his or herself and observe the participant’s behaviour through a two-way mirror. As opposed to the control group, participants who received this praise tended to spend more time on the task in the remainder of the second and throughout the third session compared to the first. The results indicate a positive impact of social rewards on motivation and conviction, with monetary reward having a slightly less positive effect. To reiterate, social rewards can influence confidence in one’s ability more than tangible rewards.
As mentioned, verbal praise can have an effect on the level of skill in performance. On the other hand, the opposite of verbal praise is known as an amotivational event or negative feedback. This has been found to hinder competence, and decrease intrinsic motivation and confidence (Deci & Ryan, 1985). According to Deci and his colleague, people have inherent needs for competence and self-determination, which can be influenced by the type of verbal feedback and essentially encourage or discourage a person’s behaviour. For example, a person who has spent time preparing a meal for others is likely to hope that the food is enjoyed. The consumers of the dish have the ability to facilitate or inhibit repetition of this cooking behaviour by providing positive reinforcement or positive punishment regarding the food.

Addressing motivation throughout the literature is as commonplace as addressing some of its issues. One consideration is that motivation itself is not explicitly measured. In essence, its existence is inferred through the observation of changes in behaviour, similar to the level of competence. Nonetheless, the use of self-reported measures, including levels of confidence, interest, satisfaction, attitude and enjoyment, for example, have been found to be beneficial and indicative of motivation (Bandura, 1977). Additionally, it is widely assumed that attitudes are important determinants of overt actions and consequently, changes brought about in the attitudinal area is likely to have widespread effects upon subsequent behaviour.

The effects of verbal feedback have been discussed in terms of direct reception; however, the literature does not focus solely on learning through one’s own behaviour. In fact, people base their actions on consequences, which they themselves create, as well as on observed
consequences. Social learning through the observation of consequences are discussed in the following section.

2.4 Social Learning

Social learning theory postulates that observed rewards and punishments can alter the thoughts, feelings, and actions of those who observe the behaviour (Bandura, 1971). Furthermore, there is substantial evidence that learning can occur through observation regardless of whether or not the observer replicates the model’s actions (e.g., Bandura, 1962). In later literature, this was referred to as vicarious learning (Bandura, 1977). This area is especially relevant to this thesis as the observation of behaviour on food television may have some effects on viewer’s own behaviours in their kitchen or in a restaurant.

2.4.1 Vicarious learning

As indicated, through vicarious learning, positive social reinforcement occurs when the frequency of an observer’s behaviour is increased as he or she sees others being reinforced for the same behaviour. This is the case for both pleasant and unpleasant behaviours (e.g., Bandura, 1965; Walters & Parke, 1964). For example, observation of positive consequences of a pleasant behaviour, such as cooking, might cause the observer to cook or intend to cook more frequently. Nonetheless, cooking is not a pleasant experience for everyone. For those with a less positive attitude toward cooking, the observation of these positive consequences may still foster the behaviour.
In contrast and as mentioned, positive social punishment refers to the introduction of aversive stimulus, which leads to a decrease in the frequency of a response or behaviour. For our interest in vicarious learning, this may be the portrayal of a diner stating his or her distaste for a particular dish to the person who prepared said dish. The statement acts as the aversive stimulus, which may lead an observer to a decrease in confidence, a decrease in intent to replicate that dish or a decrease in the act of cooking altogether. Interestingly, though observing punishment can act as an inhibitor of performance, it may continue to promote learning simply by drawing attention to the act of being socially punished. In fact, both reward and punishment can increase attentiveness to the behaviours through the observation of emotional expression (e.g., the pride or disappointment expressed by the person receiving the feedback), which can lead to an increase in social learning (Yussen, 1974).

Through this observation and an increase in knowledge about possible response consequences, people are inclined to do the things they see well received and avoid those they see punished, even if the punishment is simple verbal dissatisfaction with the behaviour. Further, reinforcement can function as a motivator by arousing expectations in observers that they will receive similar benefits for comparable performances. For the purpose of this thesis, the term ‘social learning’ refers to reactions the observers (i.e., the viewers of food TV) have in response to the reinforcement or punishment portrayed within the shows.

2.4.2 Effects of observation

Vicarious learning can lead to various outcomes, primarily through the modeling effect, inhibitory and disinhibitory effects, and eliciting effects (Bandura & Walters, 1963) and it is
important to distinguish between the three. Modeling effects typically lead the observer to acquire new behaviours that did not previously exist. While research has tended to focus on changes in personality, such as aggression, this research applies it to the act of cooking. By modeling, however, the responses are expected to be very similar to the person being observed. Thus, the observer would essentially go from a state of disinterest in cooking to replicating the dish made in the observed program. Depending on the dish and the person’s intrinsic abilities and motivation, this may or may not be likely.

Inhibitory and disinhibitory effects occur when observations evoke responses that already exist in the observer’s repertoire. Unlike the modeling effect, the responses do not have to be a reproduction of those being observed. Understandably, by observing a chef create a dish, particularly if it is praised, interest to cook may increase substantially. While this may or may not lead to actual behaviour and while the behaviour may not continue for a prolonged period of time, it may be reignited a number of times.

Finally, the eliciting effect evokes previously learned responses by acting as a reminder. This is particularly relevant in food and consumer behaviour. As people have become busier with time, fast and easy to make food has become popular in the market. Through this elicitation, people who had a stronger positive attitude toward cooking or eating in the past may be reminded of this and, at least for a period of time, may intend or actually partake in the behaviour. This being said, findings related to the eliciting effect may only be substantial if the experimenter is aware of participants’ histories. Therefore, at the very least, it was necessary to address these issues in the experiment.
In an experimental setting, inhibitory, dishibitory and eliciting effects will not be observed; however, by measuring confidence and intention of behaviour, a contribution to understanding similar effects may arise. Additionally, in natural settings and particularly for regular viewers of food television shows, the effects may be greater. Understanding the possibilities of these effects could lead to various implications for both marketers and consumers.

2.5 Summary of Research Gaps

Through review of the literature on source credibility, primarily the determinant of source expertise, and social learning theory, and with consideration of the growing exposure to food television, the following research gaps were identified:

1. Literature in food research on the effects of television on consumer food behaviour and attitude is largely based on explicit advertising (e.g., commercials) and the consequent increase in food consumption (e.g., Halford et al., 2004; Harris et al., 2009). Because of the recent growth in popularity of food-focused entertainment, only a few studies have looked at the Food Network in terms of how food is portrayed. Nonetheless, behaviours and attitudes influenced by specific genres of television with minimal explicit advertising have not been heavily researched. This could be particularly useful, as this thesis examined the effects on intent to perform a behaviour that is the essence of these programs, and the changes in attitude toward the growing market of food.

2. In a similar vein, consumer researchers have looked specifically at learned behaviours through television. Generally speaking, these behaviours tend to focus on negative responses such as drinking and violence (e.g., Brocato, Gentile, Laczniak, Maier, & Ji-
Song, 2010; Kohn & Smart, 1984) that are learned through exposure. However, more positive behaviours may be vicariously learned, such as the promotion of cooking behaviours and improved eating behaviours.

3. The area of social learning theory and television is limited particularly in combination with the effects of source expertise. As both the source of information and social learning have been shown to have some effects on consumer learning and acceptance of information, this thesis contributes to an understanding of the interaction between these variables. Because low source expertise, through the notion of source similarity, has sometimes been found to have a greater effect than high source credibility, the relationship elicits interesting effects that have not yet been thoroughly examined.

In order to address these research gaps within the literature, this thesis manipulated the level of source expertise (i.e., professional chef versus non-professional chef) and the type of social learning through positive social reinforcement and positive social punishment as received for the behaviours on which these shows are based (i.e., mainly cooking skills). Specifically, it gauged the effectiveness of these programs in eliciting vicarious learning in the viewers by identifying changes in attitudes toward food, confidence in one’s food related abilities, and behavioural intentions. From this objective, the following research questions were proposed:

1. In what ways does reality television promote positive behaviour through social learning?
2. What is the effect of source expertise on viewers’ attitudes toward food and food related behaviours?
3. How does the interaction between source expertise and social learning affect viewer attitude, confidence, and behavioural intention?
3.0 HYPOTHESES

The following hypotheses are presented in an effort to address the research objectives and aforementioned questions.

The first research question addresses the promotion of positive behaviour through reality television by method of social learning. In relation to this study, I examined food reality television and its effects on food behaviours. Inherently, people have more positive attitudes toward reinforcement than they do punishment. According to social learning theory (Bandura, 1971) and in relation to vicarious learning, when people observe behaviours that are positively reinforced and behaviours that are positively punished, they are more likely to adjust their behaviour to mirror those that were reinforced rather than punished. It may then be expected that they will receive the same reinforcement for similar actions. As attitude change and intention often lead to behaviour, the following hypotheses were proposed (Figure 2):

**Hypothesis 1a:** There will be a main effect of social learning such that positive social reinforcement (SR+) will have a more positive effect on attitude than positive social punishment (SP+).

**Hypothesis 1b:** There will be a main effect of social learning such that SR+ will have a more positive effect on confidence in one’s food related abilities than SP+. 
**Hypothesis 1c:** There will be a main effect of social learning such that $SR^+$ will have a more positive effect on intention to cook than $SP^+$.

**Figure 2 – Hypothesized main effect of social responses type on attitude, confidence, and intention related to food and associated behaviours**

The second research question addresses source expertise more specifically. Food reality television frequently displays the techniques and abilities of professional chefs and non-professional chefs. Viewers may have a more positive attitude toward professional chefs due to a higher level of trust in their abilities. As mentioned in the literature review, results from past research have indicated that a higher perceived expertise leads to more positive attitudes toward the source and the message (e.g., Freeman, 1957). Thus, the following hypothesis was proposed (Figure 3):
Hypothesis 2a: There will be a main effect of source expertise (SE) such that high SE will have a more positive effect on attitude toward food than low SE.

Figure 3 – Hypothesized main effect of source expertise on attitude

Conversely, viewers may perceive certain similarities between their own abilities and those abilities of a non-professional chef. These similarities may lead to a comparison and may have a greater general effect on one’s confidence in his or her abilities than that of a high expertise source. For example, if a viewer observes a low expertise source creating a dish that turns out as expected, the viewer may feel confident that he or she will be able to recreate something similar. On the other hand, if the viewer observes a professional chef making the same dish, he or she may attribute a positive outcome to the source’s professional skills, which the viewer does not possess. The following hypothesis was consequently proposed (Figure 4):
**Hypothesis 2b:** There will be a main effect of SE such that low SE will have a more positive effect on confidence in one’s food related abilities than high SE.

**Figure 4 – Hypothesized main effect of source expertise on confidence**

The third research question addresses the combined effect of both social responses and source expertise on viewers’ confidence in behaviours related to food television programming. The literature indicates a main effect caused by source expertise and a main effect caused by social responses. It was further expected that the interaction between the level of source expertise and the type of social response observed would have combined effects that are shown in Figure 5.

The following hypotheses were proposed:

**Hypothesis 3a:** There will be an interaction effect between SE and social learning such that low SE-SR+ will have the most positive effect on confidence in one’s food related abilities.
**Hypothesis 3b:** There will be an interaction effect between SE and social learning such that low SE-SR+ will have the most positive effect on intention to cook.

**Figure 5 - Hypothesized interaction effect between source expertise and social responses on confidence and intention**

The following section describes the methodology undertaken, which aided in the collection and analysis of data that addressed the above mentioned hypotheses.
4.0 METHODOLOGY

The primary objectives of this thesis were to examine the effects of food television programming on viewers’ attitudes toward food, their confidence in their own abilities and their intention to alter their food related behaviours. Initial pretests were of utmost importance to the validity of this study, thus, the applied pretests will initially be discussed. Subsequently, the level of source expertise portrayed and the type of social learning were manipulated. The impact was analyzed using Analysis of Variance (ANOVA). The following sections will discuss the design of the experiment, the participants, the procedures, the measures used and the method of analysis.

4.1 Design

This study used a 2 (source expertise: low versus high) x 2 (social learning: positive social reinforcement versus positive social punishment) between-subjects design. This type of design can account for both internal and external validity; however, due to the nature of the experiment (i.e., the intent to keep the clip stimuli comparable to what one would see on television), internal validity was prioritized over external validity.

4.1.1 Independent Variables

For this thesis, the experimental design was employed in an effort to manipulate the independent variables: the level of source expertise and type of social learning. In order to address source expertise, pretests were conducted in order to appropriately select a cook with low perceived source expertise and a chef with highly perceived source expertise. The high condition is more
commonly found in food television with the use of professional celebrity chefs, typically in an ongoing basis. Those in the low condition appear in fewer programs and are usually portrayed in no more than five episodes at a time, depending on the premise of the show. These individuals are not professional chefs and are often portrayed in terms of their lower than average cooking abilities.

The type of social learning portrayed varied based on the type of response given in regards to the food prepared. To reiterate, this is manipulated in terms of positive social reinforcement and positive social punishment. The former was expressed through the portrayal of verbal expressions of pleasure and enjoyment while the latter was indicated through expressions of distaste and displeasure. Further, the manipulation of this variable was not implied and rather, was quite explicit (e.g., “I don’t really like this. It’s too dry and tasteless.”). This portrayal was also pretested in order to assure proper manipulation. Results for both of the pretests mentioned will be discussed further on in this section. The resulting conditions developed using these two dependent variables are displayed below in Figure 7.

**Figure 7 - Conditions of the experiment**

<table>
<thead>
<tr>
<th>Source Expertise</th>
<th>Social Learning</th>
<th>SR+</th>
<th>SP+</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.1.2 Dependent Variables

By manipulating the aforementioned independent variables, it was expected that this would have consequent effects on attitude, confidence and behavioural intention. Attitude toward the program, attitude toward the dish portrayed in the clip viewed, and attitude toward food in general were measured. The breadth of this measure is primarily associated with the notion that observers can be more influenced by those who are considered experts in a topic (e.g., Maddux & Rogers, 1980). For example, a professional chef who promotes eating for a particular reason (e.g., health, enjoyment) may be more influential than a non-professional chef who makes the same claim. The confidence measure relates to how confident the participant is in terms of his or her ability to prepare food. This research measured the level of confidence in preparing the dish portrayed in the clip stimuli, as well as the ability to cook in general. Behavioural intention, which is considered to be a function of attitude and confidence, relates to the participants’ plans to cook. Participants were randomly assigned to one of the four conditions and were informed that the interest of the study surrounded their perceptions of food television. The sample will be discussed further in the following section.

4.2 Pretests

In an effort to maintain the realism of mainstream food television, which consequently increases internal validity, this research used short clips from current food programming. This strategy left room for the effects of extraneous variables on the dependent variables and, therefore, it was of high importance that each clip was pretested with precision. Three pretests were conducted prior to implementation of the main study. These pretests included measuring 1) the dimensions of
source credibility, 2) social responses and social learning, and 3) aspects related to the food in the stimuli.

4.2.1 Pretest for Source Credibility

As mentioned earlier in this thesis, source expertise was a main variable of interest coming from the source credibility model. The 7-point scales developed by Ohanian (1990), which are employed to measure the source expertise, source attractiveness, and source trustworthiness, were adopted for this particular pretest. It was necessary that source expertise varied across high expertise and low expertise conditions, and both source attractiveness and source trustworthiness were controlled for as much as possible across all four conditions. In the first pretest, 35 University of Guelph graduate and undergraduate students were exposed to two out of four different clips, which involved information about the main source, their experience cooking during a specific challenge or dinner party, and the feedback they received by individuals who consumed the food. Results for the two clips chosen indicated a significant difference between source expertise conditions, $t(6) = 4.41, p < .00$ (Source expertise $M = 6.01, S.D. = 1.31$ for the high source expertise condition versus $M = 3.42, S.D. = 1.00$ for the low source expertise condition). Additionally, there was no significant difference between perceived source attractiveness or perceived source trustworthiness between the varying levels of source expertise, $t(6) = 3.43, p < .635$ and $t(6) < 4.32, p = .744$.

4.2.2 Pretest for Social Response and Social Learning

The remaining dependent variable was assessed such that the perceived level of positive social reinforcement was controlled for across the two appropriate conditions and positive social
punishment was controlled for across the remaining two conditions. Eleven undergraduate students participated in the pretest in which each participant viewed two clips and answered three questions related to this variable. The questions were used in order to determine the strength and direction of the reinforcement or punishment, and addressed whether or not the response given to the food preparer was positive or negative, whether or not the food preparer directly received the response, and if the response was related to the source’s ability to cook, to their fondness for the cook or to the food in general. Using the two episodes chosen from the source credibility pretest, positive social reinforcement and positive social punishment were found to be significantly different, \( t(6) = 4.23, p < .01 \) (social learning \( M = 5.87, S.D. = 1.20 \) for SR+ versus \( M = 2.33, S.D. = 1.11 \) for SP+).

4.2.3 Pretest for Similarities Between Food Portrayed

Six University of Guelph graduate students were asked to complete the final pretest. In this, each participant watched two out of four of the final clips that were selected for the study based on the results of the first two pretests. The similarity between the food shown in each clip in terms of the type of food and the perceived ease to prepare were also pretested before moving forward with the actual experiment. The food portrayed in the high source expertise and low source expertise conditions were not found to be significantly different, \( t(3) = 1.32, p < .34 \).

These same participants also completed the questionnaire that was used for the main study and were subsequently asked for their opinions about the study and recommendations for improvements including questions regarding the length of the clips, and the questionnaire, the clarity of the instructions, and the believability of the initial shared purpose of research. As the
main study was intended to involve two videos per participant and said videos were counterbalanced, participants were probed for opinions regarding the order of the videos and were asked to indicate if they noticed anything suspicious. Previous pretests indicated the lengths of the clips were too long, thus the videos had already been shortened for this final pretest. The length of time participants took to complete the questionnaire was also noted and will be discussed in subsequent sections. Some participants indicated a need for clarification of the instructions. Consequently, the instructions were changed in order to improve the process. For the final procedures and questionnaires, please see Appendices 1 through 9.

4.3 Participants

Following completion of the pretests, the current study was put into action. Participants were recruited using the Marketing and Consumer Studies student research pool at the University of Guelph. By participating in the experiment and submitting a short, written report regarding the study, students received three course credits for a total of three percent of their final grade. In order to participate in the study, the individuals were required to be television viewers. Neither the amount of television nor the types of programs viewed was considered critical to participation as this information was collected within the questionnaire and was used when analyzing the data.

Student samples are frequently criticized for their lack of generalizability; however, because the audience of the types of programming in question is comprised of people of various ages, this sample remains relevant to the experiment. Theoretically, experiments associated with social and vicarious learning have been run with children, university students and adults, and have
identified similar results (e.g., Danner & Lonkey, 1981; Frayne & Latham, 1987; Rosenfield et al., 1980). Still, in an attempt to address some underlying issues with a student sample and the topic of research involving food related behaviours, this current study prioritized the use of second year undergraduate students and higher. Additionally, the use of such a sample has strengths as a relatively homogeneous pool, which is relevant in maximizing the potential for internal validity in theory development.

In order to calculate an appropriate sample size, a moderate effect size of 0.25, a power of 0.80, 2 predictors and a 0.05 probability level were assumed. Therefore, the appropriate sample size for this study was estimated to be 40 participants per condition for a total of 160 participants.

4.4 Procedures

4.4.1 Cover story and consent form

Recruited participants received notification of the study on their course’s online website. A brief description of the study was provided alongside a link, which directed participants to the consent form when clicked. The consent form briefly explained that the purpose of the study was to gain viewer perception of food television. The primary objective of the study was not yet revealed to the participant in an attempt to avoid response bias. Additionally, as this research aimed to investigate the effect of food television on food-related behaviour and attitudes, it was important that the participants were not consciously aware of what the study was attempting to uncover. Each participant reviewed the consent form as approved by the University of Guelph’s Research Ethics Board (REB) and acknowledged their informed consent by clicking ‘Yes, I want to
participate’ (Appendix I). If they chose not to participate, they simply closed the browser and the survey was terminated.

4.4.2 Clip stimulus

Clip stimulus was carefully selected through the use of the pretests previously mentioned. The television programs chosen varied depending on the condition of source expertise (low versus high). As already stated, it was necessary that the dimensions of source attractiveness and trustworthiness score as closely as possible while the level of expertise was manipulated. For all conditions, responses to the food portrayed and consumed in the stimuli were controlled to come from low expertise consumers and were relayed directly to the food preparer. The clips used for the high source expertise conditions portrayed a professional chef creating his version of a ‘Sloppy Joe’, intending to put a modern and expert twist to an otherwise simple dish that could be replicated by viewers. The clips used for the low source expertise conditions portrayed a non-professional chef who cooked eggplant Parmesan and chicken for a competitive dinner party. Two clips were created from each of the high and low expertise conditions in which each cook received either reinforcement or punishment from the people consuming their food.

Participants viewed two videos each. One involved a high expert source receiving reinforcement or punishment, while the other involved a low expert source receiving reinforcement or punishments. Participants were not able to select the clip they wished to watch, as they were randomly assigned to conditions. Additionally, they were asked to watch the full clips to which they were assigned, which lasted about six to seven minutes in total.
4.4.3 Questionnaire

Immediately following exposure to the clip stimuli, the participant was prompted to complete an online questionnaire initialized through Fluidsurvey. Participants were instructed to answer the questions in sequence of appearance. The questionnaire was divided into several different sections. The first section was meant to gauge participants’ attitude toward food and food behaviours. The second section measured participant confidence in his or her food related behaviour (e.g., cooking). The third section measured participant intentions to cook more. The fourth section was used to measure self-identity in relation to food. The fifth section addressed fear of trying new and unfamiliar things, including food (i.e., neophobia). The final section addressed recent behaviours such as how often one cooks, and what type of television programs he or she typically views. Demographic questions pertaining to age, gender, living situations and education were incorporated at the end of the questionnaire for covariate analysis. These measures will be described in further detail in section 4.5. Following completion of the questionnaire, participants were debriefed. The debrief form (Appendix 2) explained the genuine purpose of the study, reiterated the importance of confidentiality and, as per REB regulations, provided the participant an opportunity to have his or her data removed from the study.

4.5 Measures

As previously mentioned, the explicit item measures questionnaire was divided into six main sections, measuring attitude, confidence, intentions, self-identity in relation to food, level of food and general neophobia and current related behaviours. Section one was intended to better understand viewers’ attitudes toward the program, attitudes toward the dish in the program and attitudes toward food in general. The scale was composed of a series of statements, which were
each scored on 7-point Likert scales anchored by various bipolar dimensions (*Appendix 3*). Some general questions about attitude toward aspects of the clip were also included in the measures as participants were prompted to believe that the intention of the study was to gauge their perceptions of food programming. These scale items were presented first.

The second part of the questionnaire was used to measure participants’ level of confidence in food related behaviour. The measures were adopted from Cook, Kerr and Moore (2002) for the proposed study. Again, this section consisted of a series of 7-point Likert scale statements, anchored by ‘strongly disagree’ and ‘strongly agree’ (*Appendix 4*).

The third section of the questionnaire was used to measure participants’ level of intentions to engage in food related behaviours. These items were adopted from measures used by Cook, Kerr and Moore (2002) and Bredahl (2001), who used these scales to measure participant intention to change purchasing and consumption behaviours of genetically modified food (*Appendix 5*). The variable was measured using 7-point Likert scales. Additionally, as per the cover story, some general questions regarding their intention to watch the program assigned to the condition were posed.

The succeeding portion of the questionnaire involved participant self-identity. The scales were also adopted from ones used by Cook, Kerr and Moore (2002), as well as ones used by Sparks and Shepherd (1992). The latter study addressed self-identity in relation to ‘green consumerism’ and how participants felt participation in related behaviours impacted themselves as individuals. Though not directly related to food behaviours, the relevancy of measuring self-identity allowed
me to distinguish self-identified characteristics (e.g., skill and ability) of participants and compare these to the responses collected after exposure to the stimuli. For instance, those who believe their level of food related skills are high, may have been affected by the stimuli differently than those who do not greatly identify with food and associated behaviours. Again, the scales were 7-point Likert scales and are weighted from ‘strongly disagree’ to ‘strongly agree’ (*Appendix 6*).

The fifth section measured trait variables in terms of general neophobia and food neophobia (Pliner & Hobner, 1992), which refers to one’s willingness to try new things and has been shown to influence food choice and food related behaviour (e.g., King, Meiselman, & Henriques, 2008). This concept was relevant to this study as the measure is often used to predict whether or not participants are willing to change their behaviour, particularly when the behaviour is something new to the individual. The measures were 7-point Likert scales with the endpoints of ‘strongly disagree’ and ‘strongly agree’ (*Appendix 7*). The general neophobia measures were intermingled with the food neophobia measures and other general risk taking measures in order to conceal the true intentions of the study.

Following, participants were asked to indicate their general viewing habits, including the genres of television programs viewed, the number of hours spent watching in a week, if they had watched television recently and if so, for how long. In addition, participants were asked to indicate their general food related behaviours, such as how often they cook or how often they eat out. The demographic considerations were included at the end of the survey (*Appendix 8*).
5.0 RESULTS

The following section discusses the results of my thesis. Description of the final sample including demographic information is presented first, followed by a discussion of the internal consistency of the dependent measures. Following, the results of analysis of variance (ANOVA) corresponding to each hypothesis is reported. Finally, a supplementary analysis is outlined including additional measures, contrasts, and additional analysis involving sub-components of the confidence measure.

5.1 Sample Size

Data was collected from a total of 305 participants. Following data cleaning, 40 data sets were deleted due to incomplete surveys or repetition of the same response throughout the entire process, indicating lack of involvement. Incompletion was based on missing data from the body of the questionnaire; however, surveys with incomplete demographic sections were not removed as it was assumed participants chose not to share this personal information. In order to identify any outliers and to further clean data, crosstabulation was performed based on time completion; however, the chi-square test of crosstabulation indicated there was no significant difference across the completion times of the surveys ($\chi^2 (6) = 1.43, p = .96$). In other words, no inordinate number of people took more than or less than the common amount of time to complete the survey based on the pretests’ typical completion rates (i.e., 12-15 minutes). Despite this finding, 25 data sets were deleted due to short completion times, which implied insufficient exposure to stimuli. Thus, information collected from a total of 240 surveys was used in the final analysis.
5.2 Sample Characteristics

Participants were recruited from the Marketing and Consumer Studies research pool from the University of Guelph, including students from the MCS 1000, MCS 2020 and MCS 2600 marketing classes. The sample itself was made up of 134 male (57.5%) and 99 female (42.5%) participants with ages ranging from 17 to 25+ years old. Forty-five percent of participants were in the youngest age range (17 to 19 years), while 39% of participants were 20 to 22 years old, 10% were 23 to 25 years old, and 2.5% were 25 years or older. The other 3.5% did not respond to this demographic question. Typical demographic considerations such as annual income and education level were not included in this particular study due to the source of recruitment. More relevant, however, was the current year of study of each participant, particularly as an attempt was made to prioritize second year students and above due to the nature of the research topic, as first year students are likely to have a meal plan and purchase food on campus. Sixty-one percent of the participants were in second year or higher, therefore, likely having more cooking experience than first year students.

5.3 Analysis

Two factors were included in the analysis: source expertise (high versus low) and social response (SR+ versus SP+), which resulted in four fully-crossed conditions. Each cell size ranged from 54 to 66 participants. A random number generator was used in order to evenly and randomly distribute participants among the conditions; however, this did not provide a completely even spread because of other reasons such as termination of the survey part way through causing data to be eliminated. A summary of the number of respondents per cell is identified in Table 1.
Table 1 – Number of Participants by Cell

<table>
<thead>
<tr>
<th>Source Expertise</th>
<th>Social Learning High</th>
<th>Low</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Social</td>
<td>59</td>
<td>54</td>
<td>113</td>
</tr>
<tr>
<td>Reinforcement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Social</td>
<td>61</td>
<td>66</td>
<td>127</td>
</tr>
<tr>
<td>Punishment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>120</td>
<td>240</td>
</tr>
</tbody>
</table>

Note. N = 240.

As social response was run as a within-subjects variable, order was tested against each dependent variable. No effects of order were found (attitude: $F(1, 472) = .12, p = .735$; confidence: $F(1, 472) = .32, p = .32$; behavioural intention: $F(1, 472) = .03, p = .88$).

5.3.1 Dependent Measures

The main dependent measures included attitude, confidence, and behavioural intention. Subsequent to running a reliability analysis on each of the three scales, it was found that
Cronbach’s alpha would increase with the deletion of one item from each scale. After examination of these particular items, it was confirmed that it would be theoretically beneficial to eliminate the three items. Cronbach’s alpha for the items in each dependent measure became \( \alpha = 0.83 \) for attitude, \( \alpha = 0.89 \) for confidence, and \( \alpha = 0.87 \) for intention indicating strong internal reliability and internal consistency for the scales used for each dependent measure. When the attitude and behavioural intention scales were combined \( \alpha = .91 \), where there was no improvement if any items were deleted. The final attitude scale, confidence scale, and behavioural intention scale can be found in Appendices 3, 4, and 5 respectively.

Subsequent to the reliability tests, factor analysis was run in order to further examine the scales used in measuring the dependent variables. Initial analysis was run combining attitude and behavioural intention scales. A one-component factor solution accounted for 75% of the variance. The confidence items were also analyzed and again, a one-factor solution best described the data, with each recording a factor loading between .703 to .885 and accounting for 84% of the data. Reliance on Cronbach’s alpha took precedence and no further items were deleted.

Bivariate correlations among each of the dependent variables are shown below in Table 2. It can be seen that significant positive correlations exist between attitude and confidence, attitude and behavioural intention, and confidence and behavioural intention.
### Table 2 – Correlations of Dependent Measures (with Significance in Parenthesis)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Attitude</td>
<td>1</td>
<td>0.59 (0.00)**</td>
<td>0.75 (0.00)**</td>
</tr>
<tr>
<td>2. Confidence</td>
<td></td>
<td>1</td>
<td>0.61 (0.00)**</td>
</tr>
<tr>
<td>3. Intention</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

#### 5.4 Hypotheses Testing

Initially, a multivariate analysis of variance (MANOVA) was run on the three dependent variables in order to verify the proposed use of analysis of variance (ANOVA) for the individual measures. The difference in confidence was significant, $F(3, 476) = 17.65, p < .00$, while attitude approached significance, $F(3, 476) = 2.12, p < .09$. Intention, however, was not significant, $F(3, 17.65) = 10.32, p < .88$ in the MANOVA. Subsequent ANOVAs were run; however, because of intention’s lack of significance, and its strong correlation with attitude, interpretation of intention scores were approached with caution.

Each hypothesis was tested using a 2x2 ANOVA, addressing main effects and interaction effects of social learning (SR+ versus SP+) and source expertise (high versus low), on attitude toward food, intention to partake in food related behaviours, and confidence in cooking abilities. $F$-values (*Appendices 10 to 14*) and mean results (*Appendices 15 to 19*) are displayed for each dependent variable by condition. A summary of the ANOVA results can be found in Table 3.
### Table 3 – $F$-values of ANOVA Results for Various Dependent Variables (with $p$ values in parenthesis)

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Factors</th>
<th>Source Expertise (SE)</th>
<th>Social Learning (SL)</th>
<th>SE x SL (Interaction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td></td>
<td>$F (1, 476) = .42$</td>
<td>$F (1, 476) = 5.20$</td>
<td>$F (1, 476) = .64$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.52)</td>
<td>(.02)</td>
<td>(.043)</td>
</tr>
<tr>
<td>Confidence</td>
<td></td>
<td>$F (1, 476) = 27.50$</td>
<td>$F (1, 476) = .86$</td>
<td>$F (1, 476) = 3.06$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.00)</td>
<td>(.35)</td>
<td>(.08)</td>
</tr>
<tr>
<td>Behavioural Intention</td>
<td></td>
<td>$F (1, 476) = 0.16$</td>
<td>$F (1, 476) = .06$</td>
<td>$F (1, 476) = .44$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.69)</td>
<td>(.81)</td>
<td>(.51)</td>
</tr>
</tbody>
</table>

The results, as shown in the summary ANOVA table, indicate a main effect of social responses on attitude towards food. The results also indicate a main effect of source expertise on confidence in one’s cooking abilities. Furthermore, there is evidence that a directional interaction effect may exist between source expertise and social responses on confidence in one’s food related abilities. The results of each hypothesis will be reported in the subsequent section. Additional analysis is contained in the supplementary analysis.
5.4.1  Hypothesis 1

**Hypothesis 1a:** There will be a main effect of social learning such that SR+ will have a more positive effect on attitude toward food than SP+.

Consistent with hypothesis 1a, the main effect of social responses on attitude toward food was significant, $F(1, 476) = 5.20, p < .02$ (attitude $M = 5.07$, S.D. = 1.12 for positive social reinforcement versus $M = 4.85$, S.D. = .94 for positive social punishment).

**Hypothesis 1b:** There will be a main effect of social learning such SR+ will have a more positive effect on confidence in one’s food related abilities than SP+.

**Hypothesis 1c:** There will be a main effect of social learning such that SR+ will have a more positive effect on intention to alter food behaviours than SP+.

Contrary to hypothesis 1b and 1c, there was not a significant main effect of social learning on confidence, $F(1, 476) = .86, p < .35$ (confidence $M = 4.72$, S.D. = 1.34 for positive social reinforcement versus $M = 4.63$, S.D. = 1.35 for positive social punishment) or behavioural intention, $F(1, 476) = .06, p < .81$ (behavioural intention $M = 4.62$, S.D. = 1.26 for positive social reinforcement versus $M = 4.59$, S.D. = 1.30 for positive social punishment).

5.4.2  Hypothesis 2

**Hypothesis 2a:** There will be a main effect of SE such that high SE will have a more positive effect on attitude toward food than low SE.
Contrary to hypothesis 2a, the main effect of source expertise on attitude was not significant, $F(1, 476) = .42, p < .52$ (attitude $M = 5.00, S.D. = 1.01$ for high source expertise versus $M = 4.93, S.D. = 1.07$ for low source expertise).

**Hypothesis 2b:** *There will be a main effect of SE such that low SE will have a more positive effect on confidence in one’s food related abilities than high SE.*

Consistent with hypothesis 2b, the main effect of source expertise on confidence was significant, $F(1, 476) = 27.50, p < .00$ (confidence $M = 4.36, S.D. = 1.27$ for high source expertise versus $M = 4.58, S.D. = 1.34$ for low source expertise).

### 5.4.3 Hypothesis 3

**Hypothesis 3a:** *There will be an interaction effect between SE and social learning such that low SE-SR+ will have the greatest effect on confidence in one’s food related abilities.*

The interaction effect between source expertise and social learning on confidence approached significance, $F(1, 476) = 3.06, p < .08$. While the effects of social learning in the high source expertise conditions were not significant, it was the contrast between social learning in the low source expertise conditions that drove the interaction effect ($t(476) = 1.89, p < .05$), as opposed to the contrast between social learning in the high source expertise conditions, $p < .56$. This relationship is depicted in Figure 8.
Hypothesis 3b: There will be an interaction effect between SE and social learning such that in low SE-SR+ will have the greatest effect on intention to cook.

Inconsistent with hypothesis 3b, the interaction between source expertise and social learning on intention was not significant, $F (1, 476) = .44$, $p < .51$. Because there was no significant interaction effect, no contrasts are reported for this particular hypothesis.
5.5 Supplementary Analysis

Following the main analysis, it was believed that a supplementary analysis could provide further enlightenment. First, an analysis of additional measures such as attitude toward the show and attitude toward the dish was conducted. These variables were added subsequent to the proposal and thus, hypotheses were not initially developed. Additionally, because food literature frequently examines the differences in food choice and food behaviours based on gender, it was necessary to investigate whether gender had significant effects. These results are provided in the following sections.

5.5.1 Additional Measures

Attitude was also measured in relation to attitude toward the show, and attitude toward the dish in order to use a more encompassing examination of the effects of food programming; however, no effects were predicted for attitude toward the television show or attitude toward the dish in this research. These variables were each measured using two 3-item scales. The main effect of source expertise on attitude toward the show was significant, \( F(1, 476) = 29.68, p < .00 \) (\( M = 4.11, S.D. = 1.23 \) for high source expertise versus \( M = 3.52, S.D. = 1.16 \) for low source expertise). The main effect of social learning on attitude toward the show was also significant, \( F(1, 476) = 23.88, p < .00 \) (\( M = 4.09, S.D. = 1.23 \) for positive social reinforcement versus \( M = 3.55, S.D. = 1.17 \) for positive social punishment).

Additionally, the interaction effect between source expertise and social learning was significant, \( F(1, 476) = 3.97, p < .05 \). In particular, it was the contrast between the magnitude of SR+
SP+ in the high source expertise condition (+.73 points) that drove the interaction, $t(476) = 4.87$, $p < .00$, though the contrast between SR+ and SP+ combined with low source expertise (+.31 points) also displayed significance, $t(476) = 2.05$, $p < .04$. The corresponding graph is displayed below in Figure 9.

**Figure 9 – Mean attitude toward the show score – interaction between source expertise and social learning**

The main effect of source expertise on attitude toward the dish was significant, $F(1, 476) = 35.16$, $p < .00$ (attitude toward the dish $M = 4.49$, $S.D. = 1.57$ for high source expertise versus $M = 3.69$, $S.D. = 1.46$ for low source expertise). The main effect of social learning on attitude towards the dish was also significant, $F(1, 476) = 77.81$, $p < .00$ (attitude toward the dish $M = 4.67$, $S.D. = 1.47$ for positive social reinforcement versus $M = 3.51$, $S.D. = 1.44$ for positive social punishment).
The interaction effect between source expertise and social learning on attitude toward the dish approached significance, $F(1, 476) = .15, p < .07$. The contrast between social learning in the high expertise conditions was significant ($t(476) = 6.52, p < .00$) the contrasts between social learning in the low expertise conditions was also significant, $t(476) = 5.96, p < .00$. This interaction can be seen in Figure 10 below.

**Figure 10 – Mean attitude toward the dish score – interaction between source expertise and social response**

For further discussion, contrasts among the mean attitude scores of the four different conditions were completed. The comparison between social learning (SR+ and SR+) under low source expertise was found to be significant, $t(476) = 2.27, p < .02$. Additionally, the same comparison was significant under high source expertise, $t(476) = 2.25, p < .03$. 
5.5.2 Gender

As mentioned, gender differences in food studies are often explored, in part due to gender roles typically associated with cuisine but also related to general differences in preferences. This difference also tends to be a factor in marketing and consumer behaviour literature when looking at females as the primary shoppers of a household. Therefore, the effects of gender differences on attitude toward food, confidence in one’s cooking abilities and behavioural intentions were explored for social learning and source expertise. Significant findings are reported.

A main effect of gender on attitude toward food was found, $F(1, 458) = 19.11, p < .00$ (attitude $M = 4.84, S.D. = .91$ for males versus $M = 5.24, S.D. = .96$ for females). The interaction effect between gender and social learning was also significant, $F(1, 458) = 4.10, p < .04$. This interaction was driven by gender differences under positive social punishment. While males reported no significant difference in attitude under SR+ and SP+ conditions, females were significantly more positive toward food under SR+ rather than SP+ conditions ($t(462) = 4.49, p < 0.00$). This interaction is depicted in Figure 11. $F$-tables and means tables can be found in Appendix 26 and Appendix 30 respectively.
Similarly, gender had a main effect on the confidence score, $F(1, 458) = 14.70, p < .00$ (confidence $M = 4.52, S.D. = 1.30$ for males versus $M = 4.96, S.D. = 1.29$ for females). An interaction effect on confidence between gender and social learning also approached significance, $F(1, 458) = 3.36, p < .07$. This interaction is magnified through the relationship between gender (male versus female) and positive social punishment ($t(462) = 3.92, p < .00$) and can be seen in Figure 12. The contrast between gender (male versus female) under positive social reinforcement was not significant ($p < .20$). $F$-tables and means tables can be found in Appendix 27 and Appendix 31 respectively.
Again, for intention, a main effect of gender was significant, $F(1, 458) = .08, p < .00$ (intention $M = 4.40, S.D. = 1.21$ for males versus $M = 4.99, S.D. = 1.21$, for females). An interaction effect between gender and social learning was also significant, $F(1, 458) = 6.45, p < .01$. As can be seen in Figure 13, this interaction is driven by the contrasts between gender (male versus female) under positive social punishment, $t(462) = 5.48, p < .00$; gender (male versus female) and positive social punishment approached significance, $p < .06$. $F$-tables and means tables can be found in Appendix 28 and Appendix 32 respectively.
An additional scale that was used to measure desire to learn more about food was drawn from the intention score, however, it only provided significant results when examining gender. When running the ANOVA with gender as a dependent variable, it was found that again, a main effect of gender was significant, $F(1, 458) = 14.94$, $p < .00$ (desire to learn $M = 4.71$, $S.D. = 1.31$ for males versus $M = 5.17$, $S.D. = 1.33$ for females). An interaction effect between gender and social learning was also significant, $F(1, 458) = 6.86$, $p < .01$. Again, the interaction effect resulting from the contrasts of gender (male versus female) under positive social punishment was significant, $t(462) = 4.53$, $p < .00$. The contrast between gender (male versus female) and positive social reinforcement was not significant with $p < .41$. See Figure 14. $F$-tables and means tables can be found in Appendix 29 and Appendix 33 respectively.
Figure 14 – Mean desire to learn score – Interaction between social learning and gender
6.0 DISCUSSION AND CONCLUSIONS

6.1 Discussion

The purpose of this thesis was to better understand how the portrayal of source expertise and social response in mainstream food television might influence viewers’ attitudes toward food, confidence in cooking abilities, and intention to cook. The results, as presented in the previous section lead to much discussion.

6.1.1 Source expertise

Exposure to stimuli had a positive effect in many ways. Source expertise, in particular, had an impact on participants’ attitude toward the television show and the dish portrayed. In part, this is consistent with past research, which indicates that perceived high source expertise develops trust based on the knowledge they are expected to possess. According to McCracken’s (1989) meaning transfer model, these perceptions can transfer to the brand itself, which could be seen as the television program.

In terms of attitude toward food in general, source expertise did not have a significant effect. The concept of attitude toward food provides a broad spectrum of possible meanings, particularly, as a wealth of literature discusses, people have various and differing relationships with food. For example, some find comfort or struggles in consumption of food while others are more interested in food trends (e.g., Bellows, Alcaraz, & Hallman, 2010; Groesz et al., 2012). It is variable that is necessary but is either liked or disliked and the ways in which it is or is not accepted depends on the person. Food television as a broad spectrum of television programming encompasses many of these themes. In particular, both of the programs used for this study seem to emphasize both the
passion individuals feel for food as well as the conflict between some individuals and food. Additionally, while mainstream food television pushes the notion of eating good food as an everyday enjoyment, perhaps the goal of this type of programming is to not only increase ratings but also to ignite an interest that translates, depending on the individual, into eating healthier, trying new foods, or cooking more.

Results also indicated that the portrayal of low source expertise resulted in a higher confidence in one’s ability to cook. Consistent with celebrity endorsement and source literature, these results indicate that similarity of expertise between the source and the individual may contribute to the individual’s belief that they could perform the same tasks or excel in comparison.

6.1.2 Social learning

Social learning was another variable that was tested. Results indicated that consumers’ attitudes were affected by the consequences of behaviour as portrayed in the television shows. Holmes and Jermyn (2004) have discussed the appeal behind reality television, pointing to an interest in drama as well as a happy ending. Attraction to reinforcement is consistent with these thoughts. In regards to attitude toward food, the findings of this thesis research indicate that it is possible that these attitudes may be shaped by noticeable rewards such as reinforcement. While these results are promising, this same variable did not have an effect on confidence in cooking abilities. It is possible that social learning first impacts attitude toward a behaviour and is less likely to influence observers to imagine engaging in the same behaviour and to wonder whether or not they would receive the same consequence. In other words, observers may be aware of what might happen if they cook a certain way, or a particular dish, and might also believe the food
looks good but this may not be related to whether or not they believe they could produce something similar.

6.1.3 Social learning and source expertise

Together, both source expertise and social learning had an impact on attitude toward the show and confidence (in cooking abilities). More specifically, high source expertise and positive social reinforcement had the greatest effect on attitude while low source expertise and positive social reinforcement had the greatest effect on confidence. This is consistent with both bodies of literature (e.g., Bandura, 1977; Ohanian, 1990). As previously mentioned, a source that is perceived to be an expert has the ability to transfer positive perceptions to a brand and in this case, the brand could be considered to be the television program. The interaction with reinforcement may cause an increase in perceived expertise and consequently in attitude toward the show. Low source expertise in terms of cooking abilities provides an easy comparison between the viewer and the source. When the source receives reinforcement this only increases the viewer’s belief that he or she could do something similar.

There was not a significant effect of social learning, source expertise, or the interaction of the two on behavioural intention. This may be attributed to participants having had different concepts of the term ‘cooking’. Literature has created a discourse surrounding the term ‘cooking’ (e.g., Short, 2006) as its definition has changed over the years due to changing perspectives of food such as the value one places on food. This causes people to hesitate when classifying their cooking behaviours. For example, chefs in food television are often portrayed cooking with fresh ingredients and devaluing the use of non-fresh ingredients. Thus, viewers may not believe they
are actually ‘cooking’ based on the expectations they believe exist. In short, a more effective way to address intention as an individual measure may have been to provide a definition of cooking to participants before asking them to rate their level of intention to cook more.

6.1.4 Gender and social learning

Though these initial findings are interesting, the role of gender has played a significant part in understanding the effects of both source expertise and social learning. Gender had an effect on attitude toward the television show, attitude toward food, confidence, and intention. Most interestingly, however, is how gender interacted with social learning. Results indicate that while males have the highest perception of food and intention when viewing an expert source receive positive social reinforcement, females have the highest rating in the high source expertise-positive social punishment condition, while when reinforcement is observed, males and females react similarly.

Males may be more attracted by both the appealing visuals of the professionally made dish as provided by the expert source, as well as by observation of a reward. In comparison to females, males are inherently driven by reward and overall, competition (e.g., Niederle & Vesterlund, 2011). This in particular may lead to the greatest intention to cook more. Females, on the other hand, may lend more to the emotional and social aspect of social punishment by sympathizing with the source. For example, they may feel more of a connection with the person in the program rather than to the competition or reward as males might. This could also be related to the interaction between gender differences and social learning on confidence. For example, males
may have less confidence in the kitchen in comparison to females, and are therefore more greatly affected by witnessing and learning from reinforcement.

Women indicated higher confidence in the positive social punishment condition while men indicated higher confidence in the positive social reinforcement condition, both being portrayed through a low expertise source. Keeping the particular sample in mind, this may be related to a lack of male confidence in the kitchen, implying that the possibility of reinforcement is appealing. Female responses may have been affected by considering the strength of their own abilities in comparison to the source. Furthermore, the low expert source portrayed in the clip was male and appeared to have a lack of confidence. Females may have been more attune to the low standard, believing they could cook better and not necessarily with much effort.

Overall, source expertise and social learning influenced viewers’ attitude toward food television programming and toward the images of food within the shows. Results show that social learning is a driving force behind a general attitude toward food and the importance one places on various relationships with food. Positive reinforcement increased attitude toward food in comparison to positive punishment. While this is not the case for confidence in cooking abilities, the presence of low source expertise can increase viewers’ confidence in cooking and replicating the dishes portrayed. Additionally, the existence of both low source expertise and positive reinforcement can lead to even greater confidence in general cooking abilities. Though intention was not directly affected by either of the dependent variables, the support that indicates a shift in both attitude and confidence is promising. The present study also indicates that males are more affected by rewards through the observation of reinforcement while females are more influenced
by observation of punishment. Because many of these television programs strive on portraying both types of consequences, it is likely that impacts on attitude and confidence may exist for the general audience regardless of gender.

Marketers, television producers and consumers can benefit from these findings. The implications will be discussed in the section 6.3.

6.2 Limitations

As discussed, a limitation of the current study is the stimuli chosen. While it was considered a benefit to external validity to use clips from real food television programs, and while we controlled for as many things as possible, there are other extraneous variables that may not have been accounted for such as consumer reactions to the environment in the clip. Additionally, this study used only one limited exposure to two different conditions. Though the analysis revealed imported findings, multiple exposures may have provided stronger effects.

Another limitation exists in the type of study. Participants participated in the experiment online. It could be argued that participants were able to choose the environment in which to watch the stimuli and complete the study, thereby making the surroundings similar to that which they may watch food television in general (e.g., their homes). Unfortunately, as opposed to conducting a lab study, as experimenters, there is less control causing room for more distractions, for example. It is possible that participants did not fully expose themselves to the entire clips. It is also possible that they did not watch the clips with the sound on. In relation to the sound, it is likely
that participants adjusted the sound to their own preferences, which may have some impact on
the effect of the dependent variables.

Student samples are often seen as hindering research, depending on the research topic. This study
prioritized internal validity and theory building; thus, a homogenous sample was desirable and
attainable through a student sample. Further, by focusing on students in second year and higher,
we hoped to address some of the issues of a student sample. The main concern was that younger
participants might not cook as much as an older population and may not have the same
disposable income to purchase certain food products; however, over a third of the sample stated
that they tend to watch food television regularly and over half of the sample stated that they
watch reality television regularly. Exposure to food television could lead to the start of a pattern
of a more positive attitude toward food.

6.3 Implications and Contributions

The present study examined some of the effects that arise from common themes in food
television, particularly varying levels of expertise and the types of comments that cooks receive
in response to the food. As mainstream food television does not always focus on direct elements
of food, another purpose was to investigate how viewers’ food related attitudes, confidence and
behaviours might be affected. The results could assist marketers in deciding what types of
behaviours to portray in association with particular products that are used. They could also affect
decisions producers may make in order to draw more interest to their shows. Finally, there are
some implications that exist for consumers.
This research reintroduces the social learning theory in a context that is under-researched, particularly in marketing and consumer behaviour. Thus, there are a number of contributions to both the theory and research involving food media in the context of food TV.

First, the application of social learning theory in this context and in collaboration with source expertise contributes to the theory’s literature. This theory has previously been coupled with online learning (e.g., Hill, Song, & West, 2009), behaviours within a corporation (e.g., Lam, Kraus, & Ahearne, 2010), criminal behaviour (e.g., Akers, & Jennings, 2009), and other detrimental behaviours such as binge drinking (e.g., Ward, & Gryczynski, 2009). Much of this literature investigates the use of social learning theory in organizational environments and in influencing consumer values. This current study provides additional insights into how food television may adjust attitudes, confidence, and behavioural intention through social learning.

Second, this research examines food television in its current entertainment (rather than educational) context, which further contributes to an already plentiful area of research. Much of the literature regarding food on television has been focused on the advertisement of food. Those papers that have concentrated on food television in particular have often used qualitative methodologies, examining less recently developed programs. These papers have offered interesting insights into the appeal of such shows and have helped to further develop interesting research questions. What the present research provides is further awareness in terms of the effects of mainstream food television.
This research also provides information for producers of these types of television programs. As expressed in the results and discussion sections, viewers expressed greatest interest in and positive perspectives of the show when expert chefs received positive feedback, and the lowest attitude toward the show when non-professionals received negative feedback. The combination of the two is likely what draws audiences to reality television; however, it is interesting to note, particularly when ratings of programs are in question.

Marketing implications are also of interest. As the results of this study indicated, vicarious learning influenced attitude toward food when positive reinforcement was provided, which offers a clear opportunity for advertising particular food products. For example, by cooperating with television producers and having the television chefs use a specific brand of cookware or a particular brand of food when consumers are most likely to rate their general attitude toward food highest, this may increase consumer interest in the products. Again, as mentioned, while portraying positive reinforcement in an effort to increase attitude toward food, portraying a less expert cook can increase viewers’ confidence in their own abilities. When viewers are most confident and have a higher attitude toward a behaviour, they may be more motivated to move forward and attempt to partake in these behaviours. Marketers may want to consider using this combination as a prime way to advertise their products.

### 6.4 Future Research

Future studies might consider using an older population that is more likely to cook in general. Other interesting areas of research apply to further exploration of gender effects in relation to both the gender of a participant as well as the gender of the source portrayed. Further, a
longitudinal study would be beneficial in order to understand the long-term effects of exposure to food programming as well as actual changes in behaviour.
7.0 REFERENCES


Mills, J., & Harvey, J. (1972). Opinion change as a function of when information about the communicator is received and whether he is attractive or expert. Journal of Personality and Social Psychology, 21, 52-55.


CONSENT TO PARTICIPATE IN RESEARCH

Consumer Responses to Food Television Programming

You are asked to participate in a research study conducted by Dr. Karen Finlay and Jenna-Lee Shuster from the Department of Marketing Consumer Studies at the University of Guelph. The results of this study will contribute to the thesis project of Jenna-Lee Shuster.

If you have any questions or concerns about the research, please feel free to contact Dr. Karen Finlay at 519-824-4120 extension 5334.

PURPOSE OF THE STUDY

The purpose of this study is to investigate perceptions of food television.

PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

After you have read this consent form completely:

View two 3-4 minutes clips from selected food-focused television programs.

Complete a short (20 minute) questionnaire regarding:

(a) your attitudes toward the television clip viewed at the beginning of the study;
(b) your attitudes toward related activities;
(c) your general hobbies or likes and dislikes.

The portion of the study that involves your participation will take about 25-30 minutes.

POTENTIAL RISKS AND DISCOMFORTS

There are no foreseeable risks, physical, financial or social discomforts or inconveniences in participating in this study. However, if you experience any discomforts during the study, please let our researcher know about it as soon as possible. Further, you may initiate skipping certain questions that you do not wish to answer.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

There will be no direct personal benefit from participating in the research today. Findings from this study will help television producers and other media outlets better understand consumers’ attitudes toward food television and consumer advantages that may arise from viewing such programs.

PAYMENT FOR PARTICIPATION
There will be no monetary payment for participating in this study. Instead, you (i.e., a student at the University of Guelph) will receive three course credits for your MCS 1000, MCS 2020 or MCS 2600 class based on participation as well as the write up. Alternatively, you can receive 3 course credits for opting to write a research report and not participating in any research study.

The MCS research participant pool consists of University of Guelph students who are currently enrolled in MCS 1000, MCS 2020, or MCS 2600. Procedures for the use of the MCS research participant database are approved annually by the Research Ethics Board.

CONFIDENTIALITY

Every effort will be made to ensure confidentiality of any identifying information that is obtained in connection with this study. Your responses to the survey will not be matched to your name. Your course instructor will not be privy to which students did or did not decide to participate in this research nor will he/she have access to any identifying data.

An electronic copy of your individual responses to the survey questions will be stored in an encrypted laptop, which requires a password to gain access. Hard copies of your survey will be stored in a locked cabinet. Only Jenna-Lee Shuster will have full access to the surveys. Data will be kept until such time as the final report is written (a maximum of 5 years).

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may exercise the option of removing your data from the study. You may also refuse to answer any questions you don’t want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise that warrant doing so.

RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. This study has been reviewed and received ethics clearance through the University of Guelph Research Ethics Board. If you have questions regarding your rights as a research participant, contact:

Research Ethics Coordinator
University of Guelph
437 University Centre
Guelph, ON N1G 2W1

Telephone: (519) 824-4120, ext. 56606
E-mail: sauld@uoguelph.ca
Fax: (519) 821-5236

SIGNATURE OF RESEARCH PARTICIPANT/LEGAL REPRESENTATIVE

I have read the information provided for the study “An Investigation of Consumers’ Attitudes Toward Food Television” as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

__________________________________________
Name of Participant (please print)

__________________________________________
Signature of Participant

__________________________________________
Date
SIGNATURE OF WITNESS

Name of Witness (please print)

Signature of Witness
DEBRIEF FORM

Consumer Responses to Food Television Programming

PURPOSE OF THE STUDY

This research was actually designed to study the effects of exposure to food television on viewer’s intrinsic motivation and intention to change food related behaviours. It is further interested in how these television programs influence attitude toward food, food products, and food-related behaviours. It should be noted that the actual purpose of this study differs from the explanation provided in the consent form and that there was some deception involved. However, this deception was a necessary component of this research in order to obtain an unbiased representation of your attitudes, motivation and intention toward food and food behaviours. The cover story, as described in the consent form, served to detract from any conscious attempt to notice the portrayal of food and behaviours within the clips you viewed, which consequently may have had an influence on your attitudes, motivations and intentions. Please do not share this information with other students who may be participating in this study in the future.

WITHDRAWAL OF DATA

Since you were not told the true purpose of the project when you gave consent, we are offering you a second opportunity to consent. So, if you wish to have your data removed from this research study, please indicate this to the researcher. There will be no penalty for doing so, and you will still receive the partial credit for your participation in this study as long as the written component is also completed. If you
agree to have your data be included as a part of this research, it would serve a great educational purpose and will be instrumental in furthering consumer behaviour research.

CONFIDENTIALITY

I would like to reiterate that every effort will be made to ensure confidentiality of any identifying information that was obtained in connection with this study. No record of your name will be attached to any responses you have provided. You will not be contacted about this particular survey session by anyone in the future, unless you specifically request this in writing.

I would like to thank you for your participation in this research study. Furthermore, if you would like to know more about this study, wish to learn of the results or have any questions, please contact:

Karen Finlay, PhD, Faculty Supervisor
kfinlay@uoguelph.ca
(519) 824-4120 x53347
Department of Marketing and Consumer Studies
University of Guelph
Guelph, Ontario N1G2W1
Canada

If you have questions or concerns regarding your rights as a research participant, contact:

Research Ethics Coordinator Telephone: (519) 824-4120, ext. 56606
University of Guelph E-mail: sauld@uoguelph.ca
437 University Centre Fax: (519) 821-5236
Guelph, ON N1G 2W1
Appendix 3 – Attitude Scales

Attitude toward the show

On a scale from 1 (very bad) to 7 (very good) please rate the show you just watched:

1 2 3 4 5 6 7
○ ○ ○ ○ ○ ○ ○

On a scale from 1 (not very interesting) to 7 (very interesting) please rate the show you just watched:

1 2 3 4 5 6 7
○ ○ ○ ○ ○ ○ ○

On a scale from 1 (not very important) to 7 (very important) please rate the show you just watched:

1 2 3 4 5 6 7
○ ○ ○ ○ ○ ○ ○

Attitude toward the dish

On a scale from 1 (very bad) to 7 (very good) please rate the main dish you saw in the video:

1 2 3 4 5 6 7
○ ○ ○ ○ ○ ○ ○

On a scale from 1 (not very appetizing) to 7 (very appetizing) please rate the main dish you saw in the video:

1 2 3 4 5 6 7
○ ○ ○ ○ ○ ○ ○
On a scale from 1 (not very delicious) to 7 (very delicious) please rate the main dish you saw in the video:
1 2 3 4 5 6 7

Attitude toward food

Please indicate on a scale of 1 (strongly disagree) to 7 (strongly agree) the extent to which you agree with the statements below:

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food is very important to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eating is often a highlight of my day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don't really care what I eat as long as my hunger is satisfied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I enjoy cooking for myself</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I enjoy cooking for others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food should be enjoyed with others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People should take the time to cook</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is important to know where your food comes from</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eating food is much more enjoyable when I've prepared it myself</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 4 – Confidence Scale

On a scale of 1 (strongly disagree) to 7 (strongly agree) please indicate the extent to which you agree with the statements below:

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>For me, cooking the dish in the video I just watched would be very easy.</td>
<td></td>
<td></td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Cooking the dish in the video I just watched is something I would be able to do.</td>
<td></td>
<td></td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>In general, I am a good cook.</td>
<td></td>
<td></td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>In general, I am able to cook basic dishes.</td>
<td></td>
<td></td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>In general, I am able to follow a recipe.</td>
<td></td>
<td></td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>In general, people appreciate the meals I prepare.</td>
<td></td>
<td></td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>
Appendix 5 – Behavioural Intention Scale

On a scale of 1 (strongly disagree) to 7 (strongly agree) please indicate the extent to which you agree with the statements below:

1 2 3 4 5 6 7

I would like to start cooking more than I already do
I intend to cook a new meal within the next week
I will probably watch a TV show that is about food in the next two weeks.
I want to try new recipes when I'm cooking
In general, I want to experiment with food
In general, I want to try food that is recommended to me at a restaurant
I would like to learn more about food.

○ ○ ○ ○ ○ ○ ○
Appendix 6 – Self-Identity Scales

On a scale of 1 (strongly disagree) to 7 (strongly agree) please indicate the extent to which you agree with the statements below:

1 2 3 4 5 6 7

I think of myself as a person who tries new things
I would feel at a loss if I were forced to only participate in things that are considered normal
To eat food that has a pleasing appearance is an important part of who I am.
It is important to me to eat food that tastes delicious
I consider myself someone who gets pleasure from well-prepared food.
To be able to prepare the food I eat is an important part of who I am.
Appendix 7 – Neophobia Scales

Please indicate on a scale of 1 (strongly disagree) to 7 (strongly agree) the extent to which you agree with the statement below:

1 2 3 4 5 6 7

I am afraid to eat things I have never had before. ○ ○ ○ ○ ○ ○ ○
I like to try new restaurants. ○ ○ ○ ○ ○ ○ ○
I will eat almost anything. ○ ○ ○ ○ ○ ○ ○
If I don't know what is in a food, I won't try it. ○ ○ ○ ○ ○ ○ ○
Appendix 8 – Demographics

The following questions are about yourself and your household. This information is needed to adjust the survey results to reflect the characteristics of the greater population and to compare the results of different types of people (e.g., men vs. women). Remember, none of the information you provide will be used to identify you. Please answer as accurately as possible.

Please indicate which of the activities listed below you do for fun (check all that apply):

- Sports
- Read
- Listen to music
- Play an instrument
- Cook
- Travel
- Shop
- Bake
- Play video games
- Watch TV
- Watch movies
- Other, please specify: ______________________

Please indicate the genres of television shows you typically watch (check all that apply):

- Comedy
- Drama
- Reality
- Food
- Documentary
- Western
☐ Children's TV
☐ Educational
☐ Environmental
☐ Music
☐ Science fiction
☐ Interviews
☐ Soap operas
☐ Cartoons
☐ Game Shows
☐ Other, please specify: ______________________

How often do you tend to eat at a restaurant?

☐ At least once a week
☐ Less than once a month
☐ At least once a month
☐ More than once a month

How often do you cook a meal?

☐ Less than once a week.
☐ At least once a week.
☐ More than once a week.

How many people, including yourself, live in your household (including all adults and children)?

☐ 1
☐ 2
☐ 3
☐ 4
5 or more

What year of your degree are you currently in?
- First year
- Second year
- Third year
- Fourth year
- Fifth year +

Please indicate your gender
- Male
- Female
- Other

Please indicate your age:
- Under 17
- 17 to 19
- 20 to 22
- 23 to 25
- over 25

You’re done! Thank you again for your time
## Appendix 9 – Chi Square Tests of Crosstabulation Between Time & Social Response

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>1.291a</td>
<td>2</td>
<td>.524</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>1.301</td>
<td>2</td>
<td>.522</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.620</td>
<td>1</td>
<td>.431</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>480</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 13.88.
### Appendix 10 - Analysis of Variance for Attitude Toward Food

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Expertise (SE)</td>
<td>1</td>
<td>.42</td>
<td>.52</td>
</tr>
<tr>
<td>Response (R)</td>
<td>1</td>
<td>5.20</td>
<td>.02</td>
</tr>
<tr>
<td>$SE \times R$</td>
<td>1</td>
<td>.64</td>
<td>.43</td>
</tr>
<tr>
<td>Error</td>
<td>476</td>
<td>(1.07)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Values enclosed in parentheses represent mean square errors.
Appendix 11 - Analysis of Variance for Confidence

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Expertise (SE)</td>
<td>1</td>
<td>27.50</td>
<td>.00</td>
</tr>
<tr>
<td>Response (R)</td>
<td>1</td>
<td>.86</td>
<td>.35</td>
</tr>
<tr>
<td>$SE \times R$</td>
<td>1</td>
<td>3.06</td>
<td>.08</td>
</tr>
<tr>
<td>Error</td>
<td>476</td>
<td>(1.71)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Values enclosed in parentheses represent mean square errors.
### Appendix 12 - Analysis of Variance for Intention

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Expertise (SE)</td>
<td>1</td>
<td>.16</td>
<td>.69</td>
</tr>
<tr>
<td>Response (R)</td>
<td>1</td>
<td>.06</td>
<td>.81</td>
</tr>
<tr>
<td>$SE \times R$</td>
<td>1</td>
<td>.44</td>
<td>.51</td>
</tr>
<tr>
<td>Error</td>
<td>476</td>
<td>(1.65)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Values enclosed in parentheses represent mean square errors.
# Appendix 13 - Analysis of Variance for Attitude Toward Show

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Expertise (SE)</td>
<td>1</td>
<td>29.68</td>
<td>.00</td>
</tr>
<tr>
<td>Response (R)</td>
<td>1</td>
<td>23.88</td>
<td>.00</td>
</tr>
<tr>
<td>SE x R</td>
<td>1</td>
<td>3.97</td>
<td>.05</td>
</tr>
<tr>
<td>Error</td>
<td>476</td>
<td>(1.35)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Values enclosed in parentheses represent mean square errors.
### Appendix 14 - Analysis of Variance for Attitude Toward Dish

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Expertise (SE)</td>
<td>1</td>
<td>35.16</td>
<td>.00</td>
</tr>
<tr>
<td>Response (R)</td>
<td>1</td>
<td>77.81</td>
<td>.00</td>
</tr>
<tr>
<td>$SE \times R$</td>
<td>1</td>
<td>.15</td>
<td>.70</td>
</tr>
<tr>
<td>Error</td>
<td>476</td>
<td>(1.98)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Values enclosed in parentheses represent mean square errors.
# Appendix 15 - Mean Attitude Toward Food Score in all Conditions (with Standard Deviations in Parentheses)

<table>
<thead>
<tr>
<th>Social Response</th>
<th>Source Expertise</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Positive Social</td>
<td>5.13 (1.02)</td>
<td>5.00 (1.23)</td>
</tr>
<tr>
<td>Reinforcement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Social</td>
<td>4.85 (.96)</td>
<td>4.86 (.90)</td>
</tr>
<tr>
<td>Punishment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. N = 480*
### Appendix 16 - Mean Confidence Score in all Conditions (with Standard Deviations in Parentheses)

<table>
<thead>
<tr>
<th>Social Response</th>
<th>Source Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Positive Social Reinforcement</td>
<td>4.31 (1.26)</td>
</tr>
<tr>
<td>Positive Social Punishment</td>
<td>4.41 (1.30)</td>
</tr>
</tbody>
</table>

*Note. N = 480*
### Appendix 17 - Mean Intention Score in all Conditions (with Standard Deviations in Parentheses)

<table>
<thead>
<tr>
<th>Social Response</th>
<th>Source Expertise</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expertise</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Positive Social</td>
<td>4.68 (1.17)</td>
<td></td>
<td>4.56 (1.36)</td>
</tr>
<tr>
<td>Reinforcement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Social</td>
<td>4.58 (1.39)</td>
<td></td>
<td>4.61 (1.23)</td>
</tr>
<tr>
<td>Punishment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. N = 480*
Appendix 18 - Mean Attitude Toward the Show Score in all Conditions (with Standard Deviations in Parentheses)

<table>
<thead>
<tr>
<th>Source Expertise</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Response</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Social</td>
<td>4.47 (1.17)</td>
<td>3.68 (1.16)</td>
</tr>
<tr>
<td>Reinforcement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Social</td>
<td>3.74 (1.18)</td>
<td>3.37 (1.14)</td>
</tr>
<tr>
<td>Punishment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. $N = 480$
Appendix 19 - Mean Attitude Toward the Dish Score in all Conditions (with Standard Deviations in Parentheses)

<table>
<thead>
<tr>
<th>Social Response</th>
<th>Source Expertise</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Positive Social</td>
<td>5.07 (1.25)</td>
<td>4.25 (1.45)</td>
<td></td>
</tr>
<tr>
<td>Reinforcement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Social</td>
<td>3.88 (1.52)</td>
<td>3.17 (1.26)</td>
<td></td>
</tr>
<tr>
<td>Punishment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. N = 480*
## Appendix 20 - Analysis of Variance for Attitude Toward Food (with Gender)

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Expertise (SE)</td>
<td>1</td>
<td>.33</td>
<td>.57</td>
</tr>
<tr>
<td>Response (R)</td>
<td>1</td>
<td>4.74</td>
<td>.03</td>
</tr>
<tr>
<td>Gender (G)</td>
<td>1</td>
<td>19.11</td>
<td>.00</td>
</tr>
<tr>
<td>SE x R</td>
<td>1</td>
<td>.01</td>
<td>.92</td>
</tr>
<tr>
<td>G x SE</td>
<td>1</td>
<td>.01</td>
<td>.93</td>
</tr>
<tr>
<td>G x R</td>
<td>1</td>
<td>4.10</td>
<td>.04</td>
</tr>
<tr>
<td>G x SE x R</td>
<td>1</td>
<td>.30</td>
<td>.59</td>
</tr>
<tr>
<td>Error</td>
<td>458</td>
<td>(.89)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Values enclosed in parentheses represent mean square errors.
## Appendix 21 - Analysis of Variance for Confidence (with Gender)

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Expertise (SE)</td>
<td>1</td>
<td>29.64</td>
<td>.00</td>
</tr>
<tr>
<td>Response (R)</td>
<td>1</td>
<td>.19</td>
<td>.67</td>
</tr>
<tr>
<td>Gender (G)</td>
<td>1</td>
<td>14.70</td>
<td>.00</td>
</tr>
<tr>
<td>SE x R</td>
<td>1</td>
<td>5.37</td>
<td>.02</td>
</tr>
<tr>
<td>G x SE</td>
<td>1</td>
<td>.01</td>
<td>.93</td>
</tr>
<tr>
<td>G x R</td>
<td>1</td>
<td>3.36</td>
<td>.07</td>
</tr>
<tr>
<td>G x SE x R</td>
<td>1</td>
<td>.11</td>
<td>.75</td>
</tr>
<tr>
<td>Error</td>
<td>458</td>
<td>(1.57)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Values enclosed in parentheses represent mean square errors.
## Appendix 22 - Analysis of Variance for Intention (with Gender)

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Expertise (SE)</td>
<td>1</td>
<td>27.62</td>
<td>.78</td>
</tr>
<tr>
<td>Response (R)</td>
<td>1</td>
<td>.12</td>
<td>.73</td>
</tr>
<tr>
<td>Gender (G)</td>
<td>1</td>
<td>.08</td>
<td>.00</td>
</tr>
<tr>
<td>SE x R</td>
<td>1</td>
<td>.01</td>
<td>.92</td>
</tr>
<tr>
<td>G x SE</td>
<td>1</td>
<td>.04</td>
<td>.84</td>
</tr>
<tr>
<td>G x R</td>
<td>1</td>
<td>6.45</td>
<td>.01</td>
</tr>
<tr>
<td>G x SE x R</td>
<td>1</td>
<td>.67</td>
<td>.42</td>
</tr>
<tr>
<td>Error</td>
<td>458</td>
<td>(1.46)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Values enclosed in parentheses represent mean square errors.
### Appendix 23 - Analysis of Variance for Desire to Learn (with Gender)

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Expertise (SE)</td>
<td>1</td>
<td>.01</td>
<td>.92</td>
</tr>
<tr>
<td>Response (R)</td>
<td>1</td>
<td>.09</td>
<td>.77</td>
</tr>
<tr>
<td>Gender (G)</td>
<td>1</td>
<td>14.94</td>
<td>.00</td>
</tr>
<tr>
<td>SE x R</td>
<td>1</td>
<td>.06</td>
<td>.80</td>
</tr>
<tr>
<td>G x SE</td>
<td>1</td>
<td>.16</td>
<td>.69</td>
</tr>
<tr>
<td>G x R</td>
<td>1</td>
<td>6.86</td>
<td>.01</td>
</tr>
<tr>
<td>G x SE x R</td>
<td>1</td>
<td>2.16</td>
<td>.14</td>
</tr>
<tr>
<td>Error</td>
<td>458</td>
<td>(1.72)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Values enclosed in parentheses represent mean square errors.
## Appendix 24 - Mean Attitude Toward Food Score with Gender in all Conditions (with Standard Deviations in Parentheses)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Social Response</th>
<th>Source Expertise</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Positive Social Reinforcement</td>
<td>5.09 (.92)</td>
<td></td>
<td>4.99 (1.08)</td>
</tr>
<tr>
<td></td>
<td>Positive Social Punishment</td>
<td>4.68 (.86)</td>
<td>4.66 (.83)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>Positive Social Reinforcement</td>
<td>5.24 (.97)</td>
<td>5.25 (1.08)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Positive Social Punishment</td>
<td>5.28 (.88)</td>
<td>5.18 (.92)</td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 466
### Appendix 25 - Mean Confidence with Gender in all Conditions (with Standard Deviations in Parentheses)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Social Response</th>
<th>Source Expertise</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Male</td>
<td>Positive Social</td>
<td>4.18 (1.26)</td>
<td>5.14 (1.19)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reinforcement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Positive Social</td>
<td>4.22 (1.21)</td>
<td>4.56 (1.34)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Punishment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>Positive Social</td>
<td>4.46 (1.18)</td>
<td>5.33 (1.24)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reinforcement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Positive Social</td>
<td>4.86 (1.20)</td>
<td>5.26 (1.37)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Punishment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. N = 466*
Appendix 26 - Mean Intention Score with Gender in all Conditions (with Standard Deviations in Parentheses)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Social Response</th>
<th>Source Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Male</td>
<td>Positive Social Reinforcement</td>
<td>4.60 (1.09)</td>
</tr>
<tr>
<td></td>
<td>Positive Social Punishment</td>
<td>4.27 (1.31)</td>
</tr>
<tr>
<td>Female</td>
<td>Positive Social Reinforcement</td>
<td>4.79 (1.23)</td>
</tr>
<tr>
<td></td>
<td>Positive Social Punishment</td>
<td>5.22 (1.15)</td>
</tr>
</tbody>
</table>

*Note. N = 466*
Appendix 27 - Mean Desire to Learn Score with Gender in all Conditions (with Standard Deviations in Parentheses)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Social Response</th>
<th>Source Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Male</td>
<td>Positive Social Reinforcement</td>
<td>2.35 (1.33)</td>
</tr>
<tr>
<td></td>
<td>Positive Social Punishment</td>
<td>2.63 (1.48)</td>
</tr>
<tr>
<td>Female</td>
<td>Positive Social Reinforcement</td>
<td>4.89 (1.30)</td>
</tr>
<tr>
<td></td>
<td>Positive Social Punishment</td>
<td>5.46 (1.26)</td>
</tr>
</tbody>
</table>

*Note. N = 466*