

**EXAMINING FUNCTIONAL CONGRUITY AND SELF-CONGRUITY IN  
CELEBRITY SPOKESPERSON ENDORSED ADVERTISING CONTEXT**

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## Abstract

The purpose of this study was to test the dual-pathway persuasion model proposed by Johar and Sirgy (1991) in a celebrity endorsement context. This study attempted to provide empirical evidence for the proposition that the perceived *functional congruity* and *self-congruity* are effective factors to predict viewers' behavioral intentions. The study revealed that celebrity spokespersons who are perceived as expert source are able to improve viewers' utilitarian evaluations and to induce purchase intentions of the endorsed products . Similarly, celebrity spokespersons who are perceived as similar source can make viewers believe that the endorsed products are able to satisfy viewers' value-expressive needs and trigger viewers' purchase intentions of the endorsed products. In addition, this study found that functional congruity and self-congruity are positively correlated with purchase intention, and functional congruity, compared to self-congruity, is able to explain more variance in purchase intention. Findings and contributions of this study, implications of advertising strategy and limitations were discussed.

*Keywords:* source expertise, source similarity, functional congruity, self-congruity, advertising effectiveness

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## Table of Contents

1. Introduction.....	1
2. Literature Review.....	6
2.1 Celebrity Spokesperson Effectiveness.....	6
A. Source Models.....	6
B. Match-up Hypothesis.....	7
C. Identification.....	9
2.2 Utilitarian and Value-expressive.....	10
A. Attitude Functions Theory.....	10
B. Functional Congruity and Self-congruity.....	12
C. Empirical and Theoretical Evidence.....	14
2.3 Discussion.....	16
2.4 Research Hypotheses.....	19
A. Match Effect on Congruity Concept and Behavior Intention.....	23
B. The Mediating Role of Functional Congruity and Self-congruity.....	30
3. Methodology.....	32
3.1 Overview.....	32
A. Purpose of the First Pretest.....	32
B. Purpose of the Second Pretest.....	32
C. Purpose of the Main Study.....	33
D. Statistical Methods.....	33
3.2 First Pretest.....	33
A. Purpose and Participants.....	33
B. Instruments.....	34
C. Questionnaire and Stimulus.....	35
D. Methods and Procedures.....	35
E. Results.....	36
3.3 Second Pretest.....	38
A. Purpose and Participants.....	38
B. Instruments.....	39
C. Questionnaire and Stimulus.....	43
D. Celebrity Spokesperson Selections.....	44
E. Methods and Procedures.....	46
F. Results.....	47
4. Main Study.....	57
4.1 Changes Made to the Main Study.....	57
4.2 Main Study Purpose.....	58
4.3 Main Study Participants.....	61
4.4 Main Study Stimulus and Questionnaire.....	61
4.5 Main Study Methods and Procedures.....	62
5. Main Study Results.....	65
5.1 Descriptive Analysis.....	65
5.2 Reliability Analysis and Manipulation Check.....	65
5.3 Hypotheses Testing.....	70

A. Hypotheses 1a, 1b and 1c.....	71
B. Hypotheses 2a, 2b and 2c.....	75
C. Hypotheses 3a, 3b, 3c and 3d.....	79
D. Hypotheses 4a and 4b.....	83
5.4 Summary of the Main Study Results.....	90
6. Discussion and Implications.....	93
6.1 Celebrity Spokespersons and Congruity Concept.....	93
A. Source Expertise, Utilitarian Product and Functional Congruity.....	93
B. Source Similarity, Value-expressive Product and Self-congruity.....	95
C. Interaction Effect of Source Type by Product Type on Congruity.....	98
6.2 Congruity Concept and Purchase Intention .....	102
6.3 Congruity Concept in Dual-pathway Persuasion Model.....	107
6.4 Implications.....	108
A. Conclusion.....	108
B. Theoretical Implications.....	109
C. Practical Implications.....	112
7. Contributions, Limitation and Future Research.....	116
7.1 Contributions.....	116
7.2 Limitation and Future Research.....	118
Appendix A.....	122
Appendix B.....	124
Appendix C.....	128
Appendix D.....	131
Appendix E.....	134
Appendix F.....	137
Appendix G.....	149
Appendix H.....	155
Reference.....	159

## **List of Figures**

Figure 1: A simplified model of housing preference and choice based on congruity concept.....	14
Figure 2: Dual-pathway persuasion model.....	21
Figure 3: Dual-pathway persuasion model in celebrity endorsement context.....	22
Figure 4: Hypothesis for effect of Type I Match on functional congruity.....	24
Figure 5: Hypothesis for effect of Type II Match on self-congruity.....	26
Figure 6: Hypotheses for effect of congruity concept on behavior intention.....	29
Figure 7: Hypotheses for mediation effect of congruity concept.....	31
Figure 8: Positive relationship between source expertise and functional congruity.....	95
Figure 9: Positive relationship between source similarity and self-congruity.....	97
Figure 10: Four sets of path model comparisons.....	100
Figure 11: Positive relationship between congruity concept and purchase intention.....	103
Figure 12: Functional congruity and self-congruity as two mediators.....	107
Figure 13: The indirect effect of functional congruity on behavioral intention and other indirect effects regarding celebrity spokespersons effectiveness.....	112

## **List of Tables**

Table 1: Scale Used in the first pretest.....	35
Table 2: Summary of t-test analyses of product attitude.....	36
Table 3: Scales used in the second pretest.....	39
Table 4: Summary of study design with celebrity spokespersons.....	46
Table 5: Summary of subject distribution.....	48
Table 6: Cronbach's alpha report for scales used in the second pretest.....	49
Table 7: Tukey HSD report for multiple comparisons.....	50
Table 8: Summary of t-test analyses for expertise manipulation check.....	52
Table 9: ANOVA results for similarity manipulation check.....	53
Table 10: Summary of study design for main study.....	58
Table 11: Ethnicity and marital status distribution information.....	61
Table 12: Random assignment for main study.....	63
Table 13: Summary of subjects distribution.....	65
Table 14: Cronbach's alphas of all measurements used in the main study.....	66
Table 15: Tukey HSD report for multiple comparisons.....	67
Table 16: Tukey HSD report summary for expertise manipulation check.....	68
Table 17: Tukey HSD report summary for similarity manipulation check.....	69
Table 18: Summary of mean values on five variables of interest.....	70
Table 19: Summary of variables involved in the first set of hypotheses.....	71
Table 20: Summary of one-way ANOVA results for the first set of hypotheses.....	73
Table 21: Grouping information for hypothesis 1c.....	75
Table 22: Summary of ANOVA results for the second set of hypotheses.....	77
Table 23: Summary of descriptive statistic results for hypotheses 3c and 3d.....	81
Table 24: Summary of regression analysis for hypotheses 3c and 3d.....	82
Table 25: Regression analysis for effect of expertise on purchase intention.....	84
Table 26: Regression analysis for effect of expertise on functional congruity.....	85
Table 27: Regression analysis for effect of expertise with functional congruity on purchase intention.....	86
Table 28: Regression analysis for effect of similarity on purchase intention.....	87
Table 29: Regression analysis for effect of similarity on self-congruity.....	88
Table 30: Regression analysis for effect of similarity with self-congruity on purchase intention.....	89
Table 31: Summary of descriptive statistics of attributes importance.....	101

## Introduction

Marketers are fond of using celebrity spokespersons because celebrity spokespersons are helpful in promoting products and building product or brand images (Agrawal & Kamakura, 1995). It has been shown that celebrity spokespersons are able to make the advertisements impressive and persuasive. For instance, it was found that advertisements endorsed by celebrity spokespersons are effective and efficient in raising awareness, gaining higher recall, triggering and maintaining interest, and inducing favorable attitudes (Atkin & Block, 1983; Kahle & Homer, 1985; Kamins, 1990; Ohanian, 1991; Kamins & Gupta, 1994; Till & Busler, 2000).

Previous advertising studies have focused on examining the effectiveness of celebrity spokespersons from the information carrier perspective (Kahle & Homer, 1985; Mowen & Brown, 1981; Misra & Beatty, 1990; Lynch & Schuler, 1994; Till & Shimp, 1998; Till & Busler, 2000; Fink, Cunningham, & Kensicki, 2004). The information carrier perspective suggests that celebrity spokespersons are effective sources because they are able to communicate with viewers on utilitarian related features of a product.

Specifically, the *Match-up Hypothesis* concept originally stressed that the perceived consistent match based on physical attractiveness between the spokesperson and the endorsed product can effectively enhance the spokesperson's persuasiveness when the product in question is physical attractiveness related (Kamins, 1990). Kamins (1990) claimed that physical attractiveness, perceived by the viewers from both the celebrity image and the product image is actually acting as adaptive cues, such as "this product can effectively enhance your physical attractiveness just like it did for the celebrity spokesperson". Through these adaptive cues, physical attractive celebrities informed



viewers the utilitarian benefits they would gain by using or purchasing the endorsed physical attractiveness related products. Later, the *Match-up* concept has been extended to other source dimensions such as source expertise. Researchers (Till & Busler, 2000; Fink, Cunningham & Kensicki, 2004) found that effects of matching a celebrity spokesperson with a product on purchase intention is stronger when it is based on an expert spokesperson.

Previous advertising studies have also focused on examining the effectiveness of celebrity spokespersons from the role model perspective (Kelman, 1958; Bandura, 1986; McCracken, 1989; Brown & Basil, 1994; 1995; Basil, 1996; Boon & Lomore, 2001; Hung, Chan, & Tse, 2010). The role model perspective maintains the proposition that a celebrity spokesperson is more effective than other types of endorsers not only because he or she can provide unique attributes to the endorsement process such as symbolic meanings of success and athleticism (e.g. McCracken, 1989) but also for his or her ability to persuade viewers as a role model (e.g. Boon & Lomore, 2001) or through the identification process (e.g. Basil, 1996).

Specifically, McCracken (1989) suggested that every celebrity spokesperson has his or her distinct image which includes a variety of cultural meanings derived from demographic, personality and other types of attributes, and this set of meanings would be transferred through products purchasing or consumption to consumers. The *Identification* concept stresses that person A would adopt person B's or C's attitudes or behaviors in order to maintain a relationship with B or C, through which person A could express his or her self-image (Kelman, 1958). Celebrity-admirer literature (e.g. Boon & Lomore, 2001) suggested that there are some emotional attachments within the relationships between

celebrities and admirers, and once admirers find some “qualities or traits” (p.435) which they want to have in their idealized images from their role models, they would imitate those models’ behaviors, attitudes, and values (Boon & Lomore, 2001).

However, it is argued that neither the information carrier perspective or the role model perspective alone can provide a comprehensive explanation of celebrity spokesperson effectiveness. For instance, if researchers examine Michael Jordan’s success in endorsing Air Jordan products from Nike by using the information carrier perspective, the explanation of Jordan’s effectiveness will only focus on Jordan’s ability of informing viewers about the product’s utilitarian related features. Similarly, from the role model perspective, researchers are only able to discuss the symbolic effects of a celebrity spokesperson. Moreover, the criteria for judging whether a celebrity spokesperson in an endorsement activity (e.g. a product ad endorsement) is influencing viewers as an information carrier or as a role model is not clear. Additionally, researchers have not yet made an empirical comparison between the effect of an information carrier and the effect of a role model when a product is endorsed by a celebrity spokesperson. Questions such as, *under what condition is an information carrier superior to a role model* has yet to be answered in scholarly literature.

This study attempted to fill previous gaps by examining celebrity effectiveness from a more integrated perspective, the dual-pathway persuasion model (Johar & Sirgy, 1991). The dual-pathway persuasion model includes two persuasion pathways, which is able to capture both the information carrier perspective and the role model perspective used by previous studies. Each pathway is responsible to explain how a specific type of source (e.g. a celebrity spokesperson acting as an information carrier) influences a specific group

of viewers (e.g. viewers with utilitarian product attitudes).

The dual-pathway model is derived from the general theoretical framework of the *Attitude Functions* perspective first proposed by Katz (1960). Drawing from Katz's (1960) original theory, Johar and Sirgy (1991) proposed a dual-pathway persuasion model that only utilized two of the four functions which were originally proposed by Katz (1960). Johar and Sirgy's (1991) model suggested that communication effectiveness can be strengthened when viewers perceive a higher degree of functional congruity or self-congruity than when viewers perceive a lower degree of functional congruity or self-congruity. Based on their model, it was proposed for this study that selecting a celebrity who is perceived as a source with *expertise* or a celebrity who is perceived as a source with *similarity* can effectively help to achieve the *functional congruity* or *self-congruity* respectively. When the perceived functional congruity or self-congruity is higher, it is anticipated that purchase intention of the endorsed product would be enhanced.

Purposes of this study were: 1) to conduct an experimental study to fully test the dual-pathway model in the celebrity endorsement advertising context; 2) examine whether a celebrity spokesperson can help to achieve a higher degree of functional congruity or a higher degree of self-congruity; 3) make a comparison between a celebrity spokesperson as an information carrier and as a role model. This study contributed to the limited body of literature on the congruity concept and the celebrity endorsement literature. This study provided an opportunity to augment the congruity concept by fully testing the dual-pathway model originally proposed by Johar and Sirgy (1991). This study unlike past research used empirical evidence for supporting the hypotheses that are based

on the dual-pathway model and new insights for future discussion. This study also provided an opportunity to learn further insights about celebrity spokesperson effectiveness in a more comprehensive manner. Comparing a celebrity spokesperson's effectiveness as a role model with effectiveness as an information carrier generated distinct conclusions for celebrity endorsement literature. More importantly, results of this study were valuable in helping practitioners with their celebrity spokesperson selection processes.

## Literature Review

### 2.1 Celebrity Spokesperson Effectiveness

Advertisements endorsed by celebrities have been regarded as an enhanced communication tool to influence viewers' attitudes and induce behavioral intentions. Previous studies examined celebrity effectiveness mainly from the source effectiveness perspective, celebrity-product congruence perspective and identification perspective. Results from these studies demonstrated why and how celebrity spokespersons are superior to other types of spokespersons (Mowen & Brown, 1981; Petty, Cacioppo, & Schumann, 1983; Kahle & Homer, 1985; Caballero, Lumpkin, & Madden, 1989; McCracken, 1989; Misra & Beatty, 1990; Ohanian, 1990; Brown & Basil, 1994; Lynch & Schuler, 1994; Till & Shimp, 1998; Till & Busler, 2000; Boon & Lomore, 2001; Fink, Cunningham & Kensicki, 2004).

**A. Source Models.** Source effectiveness related studies (e.g. Kamins, 1990) implied that celebrities are more effective than other types of spokespersons for endorsing product advertisements because they are regarded as source with unique characteristics, such as high credibility or attractiveness. Generally speaking, the *Source Credibility* (SC) model (Hovland, Janis & Kelly, 1953) and the *Source Attractiveness* (SA) model which were derived from the *Source Valence* model (McGuire, 1985) are two widely acknowledged and used models in celebrity endorsement literature.

The SA model implies that the effectiveness of a persuasion message is determined by receivers' perceived *likability*, *familiarity*, *similarity* and *attractiveness* degrees of a source, while the SC model indicates that receivers' acceptances of a message is influenced by their perceived *expertise*, *trustworthiness* and *credibility* degrees of a

source (Ohanina, 1990). Specifically, according to McCracken's (1989) study, *likability* is the consequence of the *physical attractiveness*; *similarity* elaborates how alike the celebrities and the viewers are; *familiarity* indicates whether celebrities are well-known or familiar to the viewers; *expertise* refers to the perceived ability to make valid information; and *trustworthiness* deals with the perceived willingness of making valid information.

Goldman and Lewis (1977) claimed that source attractiveness is more valuable than source credibility or "what is beautiful is good". Their results demonstrated that it is the attractiveness of the source that influences viewers' attitudes toward the endorsed products. In other words, viewers who are attracted by celebrities' appeals would generate favorable attitudes, such as liking or preference, toward the endorsed product as well (Goldman & Lewis, 1977; Kahle & Homer, 1985; Kamins, 1990).

However, other researchers (e.g. Ohanian, 1991; Till & Busler, 2000) argued that source credibility is more influential than attractiveness. Several studies compared effects from attractive celebrities with effects from credible celebrities on the attitude changes and behavioral intentions respectively, and evidence pointed to the opinion that behavioral intentions are primarily induced by viewers' perceptions of the credibility rather than the attractiveness of the source (Ohanian, 1991; Till & Busler, 2000; Fink, Cunningham & Kensicki, 2004 ).

**B. Match-up Hypothesis.** The *Match-up Hypothesis* originally stressed that the perceived consistent match based on physical attractiveness between the spokesperson and the endorsed product can effectively enhance the spokesperson's persuasiveness when the product in question is physical attractiveness related (Kamins, 1990).

Specifically, pairing a physically attractive celebrity with a physical attractiveness related product can result in a higher degree of celebrity-product congruence than pairing the same celebrity with a physical attractiveness unrelated product, and the higher degree of celebrity-product congruence is positively correlated with more positive attitudes towards and purchase intention of the endorsed product (Kamins, 1990). Kahle and Homer (1985) conducted a study to examine the *Match-up Hypothesis* and reported positive evidence for the physical attractiveness based celebrity-product congruence effect, but they have not tested the interactive effect of an attractive spokesperson with an attractiveness unrelated product.

Kamins (1990) examined the congruence concept by selecting a luxury car and a home computer in his study representing products for enhancing one's beauty at a higher degree and at a lower degree respectively, and each product was paired with a celebrity spokesperson who is perceived as a physically attractive source and a celebrity spokesperson who is perceived as a physically unattractive source. Results from his study revealed that viewers' attitudes towards the ads and perceptions of the spokesperson's credibility have been enhanced when the spokesperson in the ad was perceived as attractive and the product was also attractiveness related, which confirmed the arguments proposed in the *Match-up* concept.

Later, the traditional celebrity-product concept, or the *Match-up Hypothesis*, has been expanded to other source characteristics such as source expertise. Till and Busler (2000) conducted two studies for testing celebrity-product congruence effects based on source physical attractiveness and source expertise. They failed to find support for the traditional congruence concept based on physical attractiveness. However, results from

their second study indicated that source expertise based celebrity-product congruence has significant positive effects on viewers' attitudes toward the endorsed brand. They attributed their failure of finding a congruence effect based on physical attractiveness to the assumption that the connection between the physically attractive celebrity and physical attractiveness related product is not distinct.

**C. Identification Concept.** The *Identification* concept stressed that person A would adopt person B's or C's attitudes or behaviors in order to maintain a relationship with B or C, through which person A could express his or her self-image (Kelman, 1958).

Kelman (1958) implied that person A who accepted the influence from person B through the identification process is concerned primarily with adopting the action rather than the content of the adopted attitude or behavior. Celebrity endorsement studies (Brown & Basil, 1994; 1995) revealed that viewers who highly identified with Magic Johnson show more concern about AIDS and have more intention to change their sexual behaviors which have been advocated by Magic Johnson than viewers who had lower degrees of identification with Magic Johnson.

Celebrity-admirer literature (Boon & Lomore, 2001) suggested that there are some emotional attachments within the relationship between celebrities and admirers, and this type of relationship can effectively enable a celebrity spokesperson to persuade his or her admirers through a similar process as the identification process does. Boon and Lomore (2001) explained that those emotional attachments are referred to the connection between an admirer's "idealized self image" (p.435) and his or her idol's image. Once admirers find some "qualities or traits" (p.435) which they want to have in their idealized images from their role models, they would imitate those models' behaviors, attitudes, and values



(Boon & Lomore, 2001). A recent celebrity endorsement study (Hung, Chan & Tse, 2010) in China revealed that an intense attachment with a celebrity is positively correlated with the intention to purchase the endorsed product.

Bandura (1986) found that identification process is triggered by the perception of similarity. Basil (1996) suggested that the perception of similarity can come from various attributes which including age, gender, race and physical attractiveness. Wilson and Sherrell (1993) also claimed two types of source effects can lead to the identification process. One is physical attractiveness, and the other is ideological similarity. Cohen (2001) indicated that demographic and attitude similarity are two factors which influence the perceived degree of identification.

## **2.2 Utilitarian and Value-expressive**

**A. Attitude Functions Theory.** Katz (1960) stressed that understanding the underlying motivations of changing or forming an attitude towards an object is crucial for predicting that attitude. His well-known theoretical framework, the *Attitude Functions* theory, includes four basic functions, the *utilitarian function*, the *ego-defensive* function, the *value-expressive* function, and the *knowledge* function, and his theory also suggested that viewers forming attitudes towards an object may serve different functions. The utilitarian function and the value-expressive function have received the most attention in scholarly literature (Sirgy & Johar, 1991). Specifically, the utilitarian function refers to viewers' practical needs of maximizing rewards or minimizing punishments, while the value-expressive function deals with viewers' needs of clarifying or enhancing their self-image (Katz, 1960; Shavitt, 1992).

Viewers who generate favorable attitudes toward or purchase intention of a product based on utilitarian function tend to make decisions based on cognitive evaluation process (Han, 2006). During an evaluation process, a person will put more efforts in consideration of attributes related to quality and cost, and he also has some evaluation criteria in his or her mind in terms of a certain product category and use these criteria to judge whether a product is qualified for his utilitarian needs (Sirgy, Drzeskowiak, & Su, 2005). Once this person perceives a product is in possession of one or more utilitarian benefits which are needed by him, he will likely generate favorable attitudes or purchase intention for this product (Katz, 1960).

Some viewers may also form attitudes for self-expression purposes (Han, 2006). They express their preference of a certain product for showing others one or more symbolic attribute(s), such as success and nobleness, which represent(s) their current images or idealized images. They try to tell others about what they believe in or what they like via buying or consuming a product or a brand, through which they can preserve or enhance their self-images. Katz (1960) indicated that viewers with value-expressive needs tend to choose products or brands which have congruent images as their perceptions of themselves.

Johar and Sirgy (1991) stressed that appeals in ads should be divided into two categories with regards to different attitude functions. In other words, utilitarian based attitudes would be more likely to be influenced by utilitarian appeals, whereas value-expressive based attitudes would be primarily affected by value-expressive appeals. For instance, a jeep ad that is produced for introducing jeep's utilitarian benefits, such as "enhancing travel performance", "insuring traveler's safety", "reducing travel risk" or

“avoiding travel damage”, is more effective for inducing positive attitudes based on utilitarian function, while another jeep ad that delivers jeep’s symbolic characteristics, such as “being a man as tough as this jeep” (Govers & Mugge, 2004), is more persuasive for inducing value-expressive based positive attitudes.

Shavitt conducted a series of studies (1990, 1992) and reported that each type of appeal is more persuasive for its corresponding attitude function. In one of her studies (1990), coffee and air conditioners were selected as utilitarian products, whereas greeting cards and perfume were chosen for representing value-expressive products. Subjects were exposed to both types of appeals for each product. It was found that subjects prefer utilitarian ads to value-expressive ads for utilitarian products, coffee and air conditioner. On the other hand, subjects showed more preference for value-expressive ads when the products are also value-expressive related. Results from this confirmed that more positive attitudes and purchase intention would be induced when a certain type of product was being associated with the same type of appeal.

**B. Functional Congruity and Self-congruity.** Based on *Attitude Function* theory, Johar and Sirgy (1991) proposed a theoretical framework for showing how two types of appeals persuade viewers through two different pathways, the *functional congruity* and the *self-congruity* (p.26). In general, the persuasiveness of a utilitarian ad is mediated by functional congruity, while the persuasiveness of a value-expressive ad is mediated by self-congruity. In order to enhance the overall advertising effectiveness, practitioners should attempt to achieve a higher degree of functional congruity or self-congruity in terms of different types of products.

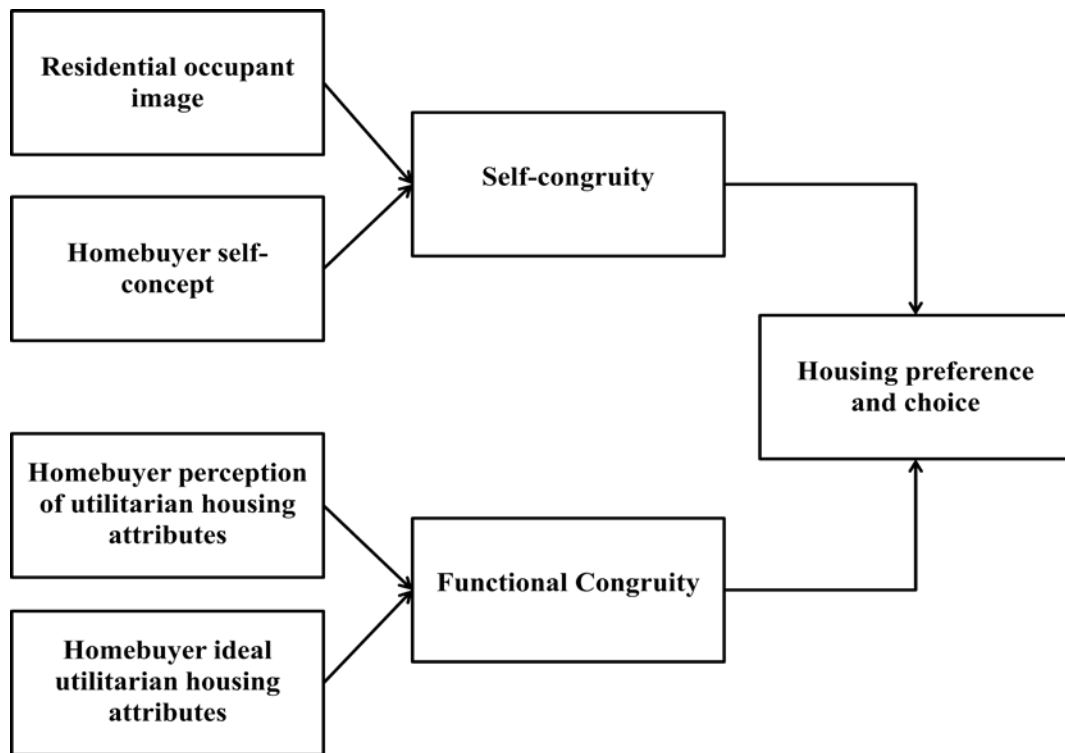
Specifically, *functional congruity* is in charge of the utilitarian based persuasion,

through which there should be a congruence between the product's utilitarian related attributes and the referent attributes which are used by viewers for evaluating a product's utilitarian performance (Sirgy & Johar, 1991). For instance, a watch ad said its watch performs excellent on three utilitarian attributes, "accuracy", "durability", and "waterproofness". A potential watch-buyer evaluates watches by using the same attributes or criteria which have been emphasized in the ad. After seeing the ad, this potential watch-buyer would perceive a higher degree of functional congruity, and, as a result, he or she would very likely form positive attitudes towards that watch. More importantly, the possibility of generating purchase intention of that watch would also be enhanced.

*Self-congruity* is responsible for value-expressive based persuasion, which stresses the congruence between the product image and the viewer's self-concept (Sirgy & Johar, 1991). A product image or a product-user image involves one or more symbolic attributes related to both the product and the typical user of this product. Matching one or more symbolic attribute(s) from product scope with viewers' self-concept would result in a higher degree of self-congruity, and which in turn leads to a higher likelihood of positive attitudes toward the product and purchase intention of that product.

A study related to house buying preference provided a comparison between these two types of congruity (Sirgy, Drzeskowiak, & Su, 2005). According to their study, functional congruity is a way to influence viewers who make purchase decisions based on utilitarian evaluation results, and it can be achieved by matching a house's utilitarian related attributes with a potential buyer's desired house attributes. Those utilitarian related attributes were referred to the perceived quality-cost features of a house. In contrast, matching the perceived house user-image with a potential buyer's self-concept

can effectively affect attitudes based on a value-expressive function. Viewers who purchase a house or show positive attitudes towards a house for their needs to express their social class or aesthetic preferences would more likely to be influenced when they perceive a house image from the residents who live in the same neighborhood are similar to their self-concept or self image. In Figure 1, a simplified model was provided for showing how congruity concept influences housing preference and choice (see original model from Sirgy, Drzeskowiak, & Su, 2005).



*Figure 1.* A simplified model of housing preference and choice based on congruity concept.

**C. Empirical and Theoretical Evidence.** Both types of congruities have been shown to be effective factors for predicting behavioral intentions. Previous studies related to functional congruity and self-congruity, primarily published in tourism and sport

contexts, have supported this relationship. Some studies (Sirgy et al., 1991; Han, 2006) focused on examining the internal relationship between functional congruity, self-congruity and behavioral intention, while others attempted to apply the dual-pathway model in various contexts.

Han (2006) conducted a study to investigate whether the perceived functional congruity is more effective than the perceived self-congruity on predicting brand preference in terms of a certain type of product category. Results indicated that the perceived functional congruity is more effective than the perceived self-congruity for predicting brand preference under convenience product (ski poles) and shopping product (skis) conditions. However, self-congruity is stronger than functional congruity for predicting brand preference when the product category was a specialty product (sunglasses).

In tourism literature, Sirgy and Su (2000) proposed a model for showing how the perceived functional congruity and self-congruity influence viewers' travel behavior. They hypothesized in their study that a person who perceives a greater match between his self-image and the destination visitors' images would show more intention to visit that destination. Based on their theoretical model, an empirical study was conducted by Beerli, Meneses and Gil (2007), and results from their study confirmed that the tendency for a visitor to visit a destination can be enhanced by this visitor's perceived self-congruity degree. Later, Hosany and Martin (2011) found that the perceived higher degree of self-congruity can also positively affect viewers' overall favorable trip experience which in turn is positively correlated with viewers' perceived satisfaction.

Self-congruity has also been shown to be an important factor for predicting viewers'

symbolic consumption of sports related products and luxury related products. Kang (2002) found that viewers who perceive a higher degree of self-congruity show more intention to participate in a sport activity. Kwak and Kang (2009) examined the role of self-congruity in predicting viewers' team-licensed product consumption behavior. The perceived self-congruity in their study was derived from viewers' perceptions of match between their self-image and fans' images. Results verified a positive relationship between the perceived self-congruity and the purchase intention of a team-licensed product, and their findings revealed that the higher perceived degree of self-congruity can effectively influence viewers' perception of product quality. Jamal and Goode (2001) found viewers' preference of a particular jewelry brand is primarily influenced by viewers' perception of symbolic meanings rather than utilitarian features, and they also found viewers prefer jewelry brands which have similar images as their self-images.

Furthermore, it was indicated in previous literature that the perceived higher degree of self-congruity is not only able to influence viewers' brand attitude (e.g. brand preference) and purchase intention (Jamal & Goode, 2001; Sirgy & Su, 2000) but is also capable of reinforcing viewers' brand loyalty (Sirgy et al., 2008). In a brand loyalty study (Sirgy et al., 2008), researchers found the perceived self-congruity can be derived from a person's perception of similar image from a sport event. For example, person A found brand C is sponsoring sports event B, and he also perceived a higher degree of identification with event B. After that, A generated a perception of higher degree of self-congruity for brand C, and, as a result, A's brand loyalty for brand C was reinforced.

## **2.3 Discussion**

Johar and Sirgy's (1991) dual-pathway model is valuable for marketing research because this model provides an opportunity to predict various behavioral intentions based on one criterion in terms of a product category that serve utilitarian function or value-expressive function. Practically, this model can benefit marketing practitioners from various aspects. For instance, knowing of target consumers' primary needs function, practitioners can figure out corresponding strategies for promoting a new product more precisely. With this model, advertising practitioners can make sure a product ad is communicating with its potential buyers on the features which are desired by the potential buyers.

Theoretically, previous literature has shown that there is a clear and positive relationship between the perception of self-congruity and consumer behavioral intention. Researchers (Sirgy et al., 2008) found that viewers will perceive a higher degree of self-congruity for a brand when this brand is sponsoring a sport event that viewers can identify with. However, it is still unknown that whether a higher degree of self-congruity would be triggered if a product is endorsed a celebrity spokesperson who is highly identified by viewers. For example, if a celebrity spokesperson is able to induce a higher degree of self-congruity for a product, it is anticipated that the purchase intention of the endorsed product will also be enhanced.

Moreover, previous studies related to the functional congruity concept concentrated on theoretical discussions and proposition proposing, and it was difficult to find experimental evidence to support the positive relationship between the perceived functional congruity and behavioral intention. In addition, no research has been done to examine celebrity spokesperson effectiveness for product endorsement from the



dual-pathway persuasion perspective in previous literature. Therefore, it was meaningful for this study to apply the dual-pathway persuasion model in celebrity-product advertising endorsement context. Results from this study were not only able to answer question *whether a celebrity spokesperson can help to enhance the advertising effectiveness through either functional congruity or self-congruity* but also to provide empirical evidence for supporting the proposition of positive relationship between the perceive functional congruity and behavioral intention.

Along with providing the opportunity to systematically examine and well understand the dual-pathway model, this study also contributes to celebrity spokesperson effectiveness learning. Specifically, in previous celebrity literature, researchers tried to examine celebrity spokesperson effectiveness from either an information carrier perspective (studies related to the *Match-up Hypothesis* concept) or a role model perspective (studies related to the *Identification* concept). However, either perspective alone was insufficient for fully explaining celebrity effectiveness. For instance, viewers wonder why Michael Jordan as an endorser for Air Jordan products from Nike is so successful. If researchers examine this phenomena by using the information carrier perspective, the explanation of Jordan's effectiveness would only focus on Jordan's ability to inform viewers about the product utilitarian related features. Similarly, if learn from the role model perspective, researchers would be only able to tell the symbolic effects of a celebrity spokesperson. In that case, researchers are unable to answer the questions such as:

1. *In terms of a certain group of viewers (e.g. Michael Jordan's teenage fans), whether a celebrity spokesperson (e.g. Michael Jordan) is influencing them as an information*

*carrier or a role model?*

*2. Under what condition, is an information carrier superior to a role model for endorsing a certain product?*

## **2.4 Research Hypotheses**

This study and related research hypotheses are discussed and proposed based on the assumption that products with a single attitude function, either utilitarian or value-expressive, are able to be identified (Shavitt, 1990). In this case, viewers' product attitudes in terms of utilitarian products serve a utilitarian function predominately, whereas viewers' product attitudes with regards to value-expressive products serve value-expressive functions primarily. For example, a perfume may serve either utilitarian function or value-expressive function. However, Shavitt (1992) found that viewers' attitudes toward a perfume serve value-expressive function predominantly and most of them still serve some basic utilitarian functions such as making users smell delicious. Practically, marketers are always trying to deliver one or more symbolic attribute(s) of a branded perfume to viewers in the ads. *Chance* collection from *Chanel* advocates that the three young fragrances are the reflections of Gabrielle Chanel's belief in the power of chance (Chanel Chance Collection, 2013). Accordingly, two types of products, utilitarian product and value-expressive product, were selected as two types of product attitudes, and types of product rather than types of product attitude will be discussed in the following study.

Katz (1960) suggested that viewers' attitudes towards a product may serve different types of functions such as utilitarian function and value-expressive function. Based on

Katz's theory, Sigry and Johar (1991) proposed a dual-pathway persuasion model indicated in the model that a certain type of attitude is more likely to be persuaded by a certain type of appeal. As seen in Figure 2, there are two persuasion pathways in dual-pathway persuasion model. Utilitarian persuasion pathway involves utilitarian products, utilitarian appeals, functional congruity and attitude changing and behavioral formation. Value-expressive persuasion pathway deals with value-expressive products, value-expressive appeals, self-congruity and attitude changing and behavioral formation. There are three stages in this model. In stage one, viewers with different types of attitudes exposed to different types of appeals. When there is a match between the type of attitude and the type of appeal, viewers would perceive a higher degree of functional congruity or self-congruity in the second stage.

Functional congruity is a perception of satisfaction. When viewers perceive that their utilitarian needs or expectations for a utilitarian product have been satisfied by a specific utilitarian product, they will perceive a higher degree of functional congruity. Self-congruity is a perception of image congruence. When viewers perceive that a specific product's image or the product's typical user's image is consistent with their self-images, they would perceive a higher degree of self-congruity. Congruity concept stresses the perceived similarity between viewers and products. The higher degree of congruity viewers perceive, the more likely positive attitudes and strong behavioral intentions would be induced in the final stage.

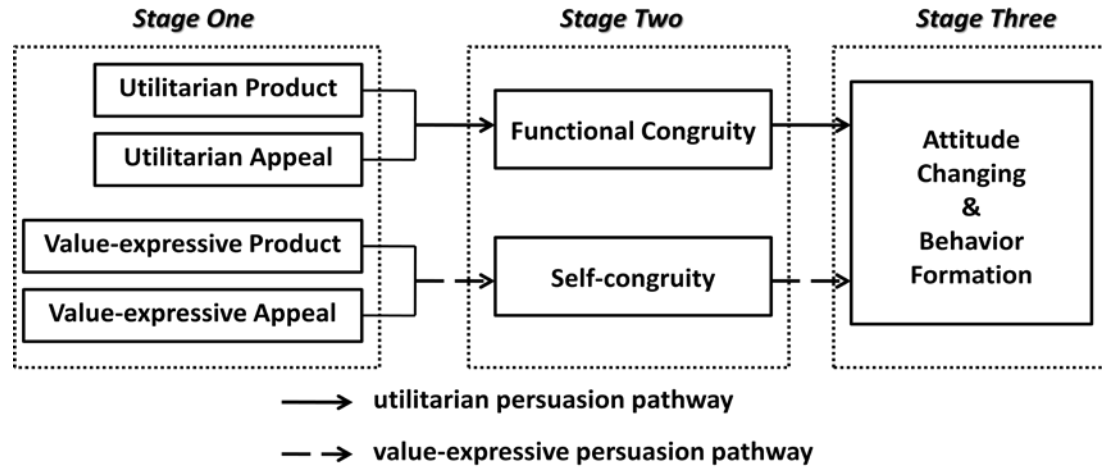


Figure 2. Dual-pathway persuasion model (see original model from Johar and Sigry, 1991).

This study tried to incorporate the dual-pathway persuasion model into celebrity endorsement context. Several key questions were proposed for this study to answer are: 1) whether by pairing celebrity spokespersons with products in the ads can effectively help to enhance viewers' perceived functional congruity or self-congruity degree; 2) if yes for first question, then what kind of celebrity spokespersons are more capable of enhancing the perceived functional congruity degree and what kind of celebrity spokespersons are more capable of enhancing the perceived self-congruity degree; 3) whether the enhancements in functional congruity or self-congruity induced by celebrity spokespersons will result in behavior formations.

As seen in Figure 3, two types of celebrity spokespersons (expert source and similar source) were introduced into the model to represent two types of appeals. According to previous celebrity endorsement literature, source expertise has been proved as an effective factor that influences viewers' perceived source credibility degree (Ohanian, 1991). Viewers usually consider a source with expertise as a communicator who is

knowledgeable, experienced and an expert in an area. Therefore, the recommendations promoted by an expert source are more believable and authentic, and viewers are more likely to believe that viewers' utilitarian needs and expectations can be satisfied by a specific product when the product is endorsed by an expert source. Similarly, previous identification (e.g. Bandura, 1986) and celebrity-admiration (e.g. Boon & Lomore, 2001) literature stressed that viewers, especially for young adults, who perceive similar traits from another person (e.g. a celebrity spokesperson) would be more likely to adopt that person's attitudes or behaviors for the purpose of self-image expression. According to McCracken's (1989) meaning transfer theory, a celebrity spokesperson's image will transfer to a product's or a brand's image through an endorsement activity. Hence, if a product is paired with a celebrity spokesperson who is perceived as a source with similarity, viewers are more likely to perceive a similar image from the endorsed product or brand as well.

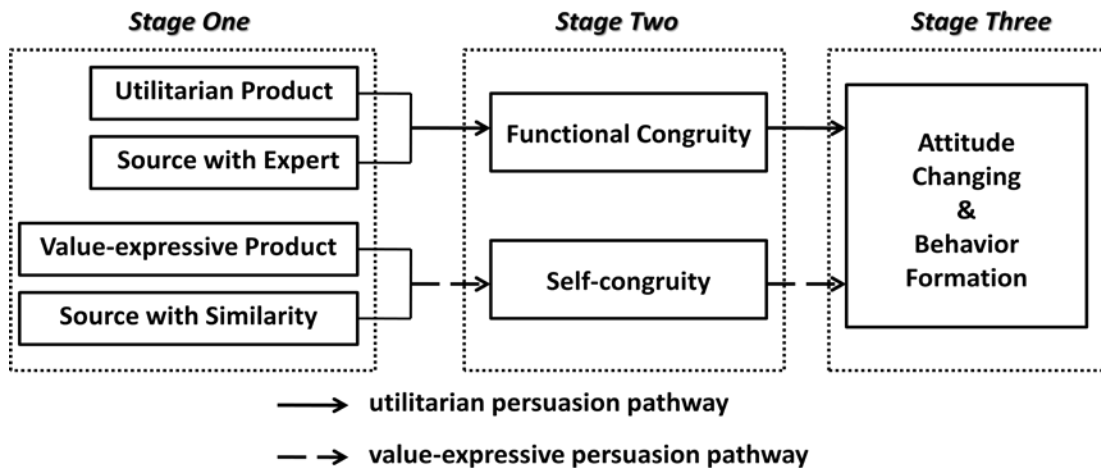


Figure 3. Dual-pathway persuasion model in celebrity endorsement context.

Based on the model in Figure 3, it was proposed for this study that *Type I Match* exists when pairing an expert source with a utilitarian product in the ad and *Type II*

**Match** exists when pairing a similar source with a value-expressive product in the ad. Hypotheses were proposed to investigate the effects of two types of matches on viewers' perceived functional congruity and self-congruity respectively. Purchase intention was proposed as an outcome variable. Functional congruity and self-congruity were proposed as two mediators in the dual-path way model.

**A. Match Effects on Congruity Concept.** Johar and Sirgy (1991) suggested the perceived functional congruity or self-congruity would be enhanced when there is a match between product type and appeal type. A higher degree of functional congruity can be achieved when a viewer perceives the utilitarian attribute(s) from a product is/are consistent with the attribute(s) used by this viewer for product evaluation (Sirgy & Johar, 1991). Evidence from match-up related studies implied that celebrity spokespersons are able 1) to make the utilitarian features of a product become more tangible in an ad and 2) to influence viewers' utilitarian evaluation results positively. According to match-up related literature, the collective source characteristics from both celebrity image and product image were product utilitarian related features. For instance, physical attractiveness related products, razor (e.g. Kahle & Homer, 1985) and acne treatment product (e.g. Bower & Landreth, 2001), were for enhancing physical attractiveness or reducing physical attractiveness related problems.

Secondly, several studies (e.g. Till & Busler, 2000) have found that the perceived collective source characteristics have positive effects on products' utilitarian evaluations. Kamins (1990) claimed that physical attractiveness, perceived by the viewers from both the celebrity image and the product image is actually acting as adaptive cues, such as "this product can effectively enhance your physical attractiveness just like it did for the

celebrity spokesperson”. Till and Busler (2000) found that celebrity-product congruence based on source expertise has a positive effect on the credibility of the endorsed product. However, researchers (Till & Busler, 2000; Simmers, Damron-Martinez, & Haytko, 2009) argued that the likelihood of inducing a positive effect on a product’s utilitarian evaluation is higher when the celebrity-product congruence concept is based on source expertise rather than based on source physical attractiveness except in the case when the product is attractiveness related.

Consequently, it was concluded that pairing a utilitarian product with a celebrity spokesperson who is perceived as a source with expertise in that product category can effectively enhance viewers’ perceived functional congruity. It was proposed for this study that viewer’s functional congruity would be higher when pairing a utilitarian product with a source with a higher degree of expertise than when pairing the utilitarian product with a source with a lower degree of expertise (see Figure 4).

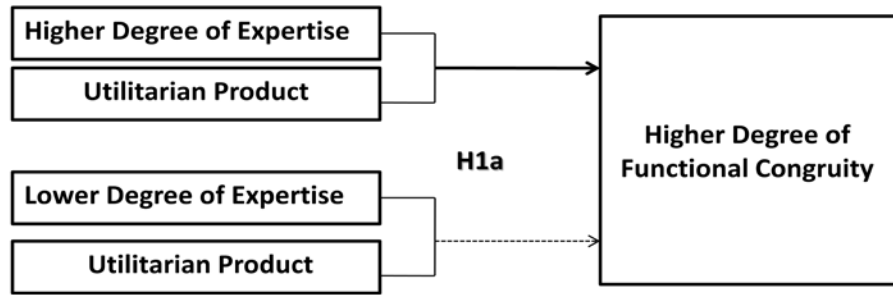


Figure 4. Hypothesis for Type I Match effect on functional congruity.

*H1a: Viewers will perceive a **higher degree of functional congruity** when a **utilitarian product** is endorsed by a celebrity spokesperson with a **higher degree of expertise** than when the **utilitarian product** is endorsed by a celebrity spokesperson with a **lower degree of expertise**.*

Johar and Sirgy (1991) stressed that utilitarian appeals are more persuasive for promoting utilitarian products, therefore, it is proposed for this study that a celebrity spokesperson who is perceived as a source with expertise is more effective for promoting utilitarian product than value-expressive product. Since a ***Type I Match*** exists when pairing a utilitarian product with a celebrity spokesperson with a higher degree of expertise, then the pairing of a utilitarian product with a celebrity spokesperson with a higher degree of expertise was defined as a ***Type I Mismatch***. In other word, this study tried to figure out whether a ***Type I Mismatch*** would generate as much positive effects on subjects' perceived functional congruity as a ***Type I Match*** does.

*H1b: Viewers will perceive a **higher degree of functional congruity** when a **utilitarian product** is endorsed by a celebrity spokesperson with a **higher degree of expertise** than when a **value-expressive product** is endorsed by a celebrity spokesperson with a **higher degree of expertise**.*

A higher degree of self-congruity can be achieved when a viewer perceives the symbolic attribute(s) from a product is/are consistent with the symbolic attribute(s) in this viewer's self-concept. Previous literature around the identification concept indicate that celebrity spokespersons are 1) able to enhance or build up the image for a product because of their symbolic meanings and 2) effective in persuading viewers or admirers as role models. Specifically, McCracken's (1989) indicated that every celebrity has his or her distinct image which includes a variety of cultural meanings derived from demographic, personality and other types of attributes, and this set of meanings would be transferred through products purchasing or consumption to consumers.

Furthermore, the *Identification* concept (Kelman, 1958) stressed that person A would



adopt person B's or C's attitudes or behaviors in order to maintain a relationship with B or C, through which person A could express his or her self-image. Similarly, celebrity-admirer literature (e.g. Boon & Lomore, 2001) indicated that if admirers find some "qualities or traits"(p.435) which they want to have in their idealized images from their role models, they would imitate those models' behaviors, attitudes, and values (Boon & Lomore, 2001). Identification literature (e.g. Bandura, 1986) suggested that identification process is more likely to be triggered by the perception of similarity. Accordingly, it was proposed for this study that pairing a value-expressive product with a celebrity spokesperson who is perceived as similar source would enhance the viewers' perceived self-congruity degree. Specifically, viewers' perceived self-congruity degrees would be higher when pairing a value-expressive product with a highly similar source than when pairing the value-expressive product with a less similar source in the ad (see Figure 5).

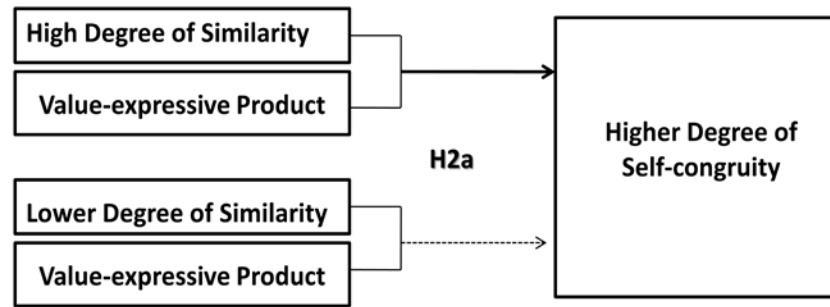


Figure 5. Hypothesis for Type II Match effect on self-congruity.

*H2a: Viewers will perceive a **higher degree of self-congruity** when a **value-expressive product** is endorsed by a celebrity spokesperson with a **higher degree of similarity** than when the **value-expressive product** is endorsed by a celebrity spokesperson with a **lower degree of similarity**.*

Johar and Sirgy (1991) stressed that value-expressive appeals are more persuasive for promoting value-expressive products, hence, it is proposed for this study that a celebrity spokesperson who is perceived as a source with similarity is more effective for promoting value-expressive product than utilitarian product. Since a **Type II Match** exists when pairing a value-expressive product with a celebrity spokesperson with a higher degree of similarity, then the pairing of a value-expressive product with a celebrity spokesperson with a higher degree of expertise was defined as a **Type II Mismatch**. The following hypothesis was proposed to figure out whether a **Type II Mismatch** would generate as much positive effects on subjects' perceived self-congruity as a **Type II Match** does.

*H2b: Viewers will perceive a **higher degree of self-congruity** when a **value-expressive product** is endorsed by a celebrity spokesperson with a **higher degree of similarity** than when a **utilitarian product** is endorsed by a celebrity spokesperson with a **higher degree of similarity**.*

By answering H1a and H2a, this study was able to figure out 1) whether there is a positive relationship between a **Type I Match** and a higher degree of functional congruity and whether there is a positive relationship between a **Type II Match** and a higher degree of self-congruity. However, by comparing the match effect with the mismatch effect, it is only sufficient to prove that the effect of a match pairing is superior to the effect of a mismatch pairing. In other words, there is no evidence showing that a specific type of match is superior to the other type of match in inducing a specific congruity degree. Hence, it is important to compare the effect of **Type I Match** with the effect of **Type II match** on the functional congruity and self-congruity respectively. According to Johar

and Sirgy's dual-pathway model (1991), it was argued that a higher degree of functional congruity would more likely to be aroused by a higher degree of **Type I Match** than by a higher degree of **Type II Match**, whereas a higher degree of self-congruity would more likely to be aroused by a higher degree of **Type II Match** than by a higher degree of **Type I Match**. Therefore, it was proposed that:

*H1c: Viewers will perceive a **higher degree of functional congruity** when a **utilitarian product** is endorsed by a celebrity spokesperson with a **higher degree of expertise** than when a **value-expressive product** is endorsed by a celebrity spokesperson with a **higher degree of similarity**.*

*H2c: Viewers will perceive a **higher degree of self-congruity** when a **value-expressive product** is endorsed by a celebrity spokesperson with a **higher degree of similarity** than when a **utilitarian product** is endorsed by a celebrity spokesperson with a **higher degree of expertise**.*

Johar and Sirgy (1991) indicated that behavior intention is strongly correlated with the congruity concept. Several studies (Sirgy & Johar, 1991; Sirgy et al., 1991; Sirgy & Su, 2000; Sirgy et al., 2008; Kwak & Kang, 2009) found functional congruity and self-congruity are two effective factors for predicting viewers' behavior intention.

Therefore, it was proposed for this study that viewers would perceive a higher degree of purchase intention for a utilitarian product when they perceive a higher degree of functional congruity than when they perceive a lower degree of functional congruity (see Figure 6). Likewise, viewers would perceive a higher degree of purchase intention for a value-expressive product when they perceive a higher degree of self-congruity than when they perceive a lower degree of self-congruity (see Figure 6).

Johar and Sirgy (1991) also suggested that functional congruity is more likely to be involved in the persuasion process if the product is highly utilitarian related, while self-congruity is more likely to be involved if the product is highly value-expressive related. In one of their early studies (1985b), they indicated that functional congruity is able to explain more variance in behavioral changing when the product attitude is highly utilitarian related, while self-congruity is able to explain more variance in behavioral changing when the product in question is highly value-expressive related. Accordingly, it was proposed for this study that functional congruity, compared with self-congruity, is able to explain more variance in purchase intention of utilitarian product, whereas self-congruity, compared with functional congruity, is able to explain more variance in purchase intention of value-expressive product (see Figure 6).

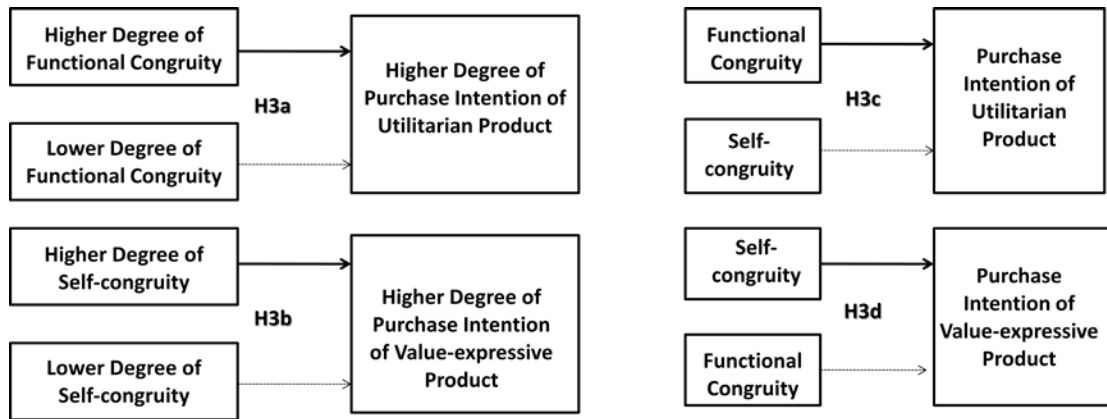


Figure 6. Hypotheses for congruity effects on behavior intention.

*H3a: Viewers will have a **higher degree of purchase intention** for a **utilitarian product** when they perceive a **higher degree of functional congruity** than when they perceive a **lower degree of functional congruity**.*

*H3b: Viewers will have a **higher degree of purchase intention** for a **value-expressive product** when they perceive a **higher degree of self-congruity** than when they perceive a*

*lower degree of self-congruity.*

*H3c: Functional congruity, compared with self-congruity, is able to explain **more** variance in purchase intention of utilitarian product.*

*H3d: Self-congruity, compared with functional congruity, is able to explain **more** variance in purchase intention of value-expressive product.*

**B. The Mediating Role of Functional Congruity and Self-congruity.** Johar and Sirgy (1991) stressed that functional congruity mediates the persuasion process involving a utilitarian appeal, and self-congruity mediates the persuasion process of a value-expressive appeal. Specifically, functional congruity mediates the impact of utilitarian appeals on the behavioral intentions of utilitarian products, while self-congruity mediates the impact of value-expressive appeals on the behavioral intentions of value-expressive products. Usakli and Baloglu (2011) found a partial mediating effect of self-congruity on the relationship between destination personality and tourist's behavioral intentions. Chang, Chen and Huang (2009) also found a partial mediating effect of self-congruity on the relationship between customers' participations of a product customization activity and their satisfactions of the products. Accordingly, H4a and H4b were proposed for testing the mediating effects of the congruity concept in celebrity endorsement context (see Figure 7).

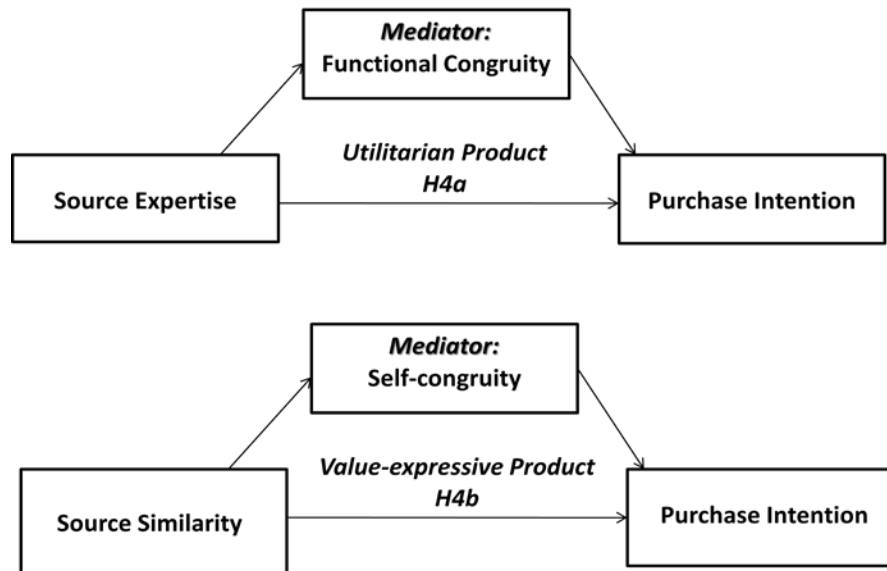


Figure 7. Hypotheses for the mediation effects of congruity concept.

*H4a: Functional congruity will mediate the effect of an **expert source** on viewers' purchase intention of a utilitarian product.*

*H4b: Self-congruity will mediate the effect of a **similar source** on viewers' purchase intention of a value-expressive product.*

## Methodology

### 3.1 Overview

This study was conducted to examine Johar and Sirgy's (1991) dual-pathway persuasion model in the celebrity endorsed advertising context. Two types of products, utilitarian and value-expressive products, and two types of celebrity spokespersons, expert and similar sources, were involved in this study. Overall, there are two pretests and a main study conducted. The purposes of each study and a variety of statistical methods were introduced below. More detailed methodology information and results regarding each test were reported in the following chapters (see Chapter 4.2, 4.3 and 4.4).

**A. Purpose of the First Pretest.** The first pretest was employed to find out which products were perceived by viewers as highly utilitarian and which products were perceived as highly value-expressive related from a product pool of 15 products. Further, this pretest was conducted to figure out several utilitarian attributes which were later used in the second pretest and main study in measurement of functional congruity (see Appendix A for functional congruity measurement).

**B. Purpose of the Second Pretest.** The second pretest was conducted for several purposes. First of all, four celebrity spokespersons were selected based on several reliable celebrity ranking lists. Accordingly, it was necessary to ensure that viewers do not perceive one of the four celebrity spokespersons significantly different from the other three celebrity spokespersons regarding a celebrity spokesperson's perceived level of familiarity, likeability, attractiveness and trustworthiness. Secondly, this study involves the manipulations of high and low expertise and the manipulations of high and low similarity. Hence, the second pretest was conducted to make sure that manipulations were

successful. Thirdly, the reliability of all the scales used in this study were tested in the second pretest (see Appendix A for scales used in this study).

**C. Purpose of the Main Study.** The main study was conducted to test a variety of hypotheses. Hypotheses were proposed to determine: 1) whether celebrity spokespersons are able to enhance viewers' perceived functional congruity or self-congruity; 2) whether a specific type of celebrity spokesperson (e.g. expert source) is more persuasive when promoting a specific product (e.g. utilitarian product); 3) whether the enhancements in functional congruity and self-congruity would result in a higher degree of purchase intention; 4) whether functional congruity and self-congruity work as mediators in the dual-pathway persuasion model (Johar & Sirgy, 1991).

**D. Statistical Methods.** Reliability test, descriptive analysis, t-test, ANOVA and regression analysis were used in this study to examine the hypotheses. Reliability tests were conducted to examine the internal consistency of scales used in this study. Descriptive analyses were carried out for the purpose of showing of how subjects rated on variables of interests. Several t-tests were used to compare the mean difference between two groups. When more than two groups were involved, ANOVA was employed to compare the differences between groups. Linear regression analyses were conducted to find out whether one or more independent variable(s) has/have significant impact on a dependent variable. The mediating effect was examined by using Baron and Kenny's (1986) mediation test.

### **3.2 First Pretest**

**A. Purpose and Participants.** Shavitt (1990) indicated that viewers' attitudes for



some products may predominantly serve a single type of motivation. In her study, greeting cards were selected for representing value-expressive products, whereas air conditioners were chosen for representing utilitarian products. According to Katz's (1960) and Shavitt's (1990) studies, the criteria for selecting a utilitarian product is that this product should be able to maximize viewers' rewards or minimize their punishments or have practical features that meet the consumers' utilitarian needs. On the other hand, value-expressive products are usually consumed to express or to enhance one's self-image. In this study, a pretest was employed to find out which products were perceived by subjects as highly utilitarian and which products were perceived as highly value-expressive from a product pool of 15 products. Furthermore, the pretest was conducted to figure out several utilitarian attributes which were later used in the second pretest and main study in measuring viewers' perceived functional congruity degree (see Appendix A).

A total of 50 participants participated in the first pretest with a response rate of 56%. Participants were invited from a U.S. population from both genders with different education and ethnical backgrounds. Their ages were from 20 years old to 30 years old. The mean age was 24 years old, and there were 25 female and 25 male.

**B. Instruments.** In order to find out whether subjects perceive a product as highly utilitarian related or highly value-expressive related, the utilitarian-value-expressive scale was adopted (Stafford, Stafford & Day, 2002). As seen in Table 1, the scale was a 9-point semantic differential scale, in which 1 stands for strictly utilitarian and 9 represents strictly value-expressive (see Appendix A).

Table 1

### *Scale Used in the First Pretest*

Scale Name & Source & Type	Items
Utilitarian-Value-expressive (Stafford, Stafford & Day, 2002) 9-point semantic differential scale	a. strictly utilitarian 1- 9 strictly value-expressive

**C. Questionnaire and Stimulus.** The questionnaire for the pretest was composed of three parts (see Appendix B). In the first part of the questionnaire, subjects were given definitions regarding what utilitarian and value-expressive product are. This was done due to the technical nature of the terms. In the second part, subjects were given a list of 15 products such as refrigerators and sunglasses that were either highly utilitarian or value-expressive (see Appendix B). They were asked to rate and answer questions for these products. Specifically, they were asked to rate whether they perceived each product as highly utilitarian related or highly value-expressive related. They were also asked to illustrate product attributes which they usually consider when they are purchasing each product. In the last part, subjects were asked to provide their demographic information.

**D. Methods and Procedures.** The pretest was conducted through an online survey company, SurveyMonkey. The recruitment of subjects was conducted by SurveyMonkey. According to their website information, they recruit subjects from their member site SurveyMonkey Contribute. SurveyMonkey sent invitation emails to some potential subjects. Those who decided to participate were redirected to the online questionnaire through that invitation. At first, potential subjects were asked to read a consent letter in which they were introduced briefly about this pretest and were told about their rights of withdraw and how their privacy would be protected. After they read the consent letter,

they were asked to select “next” to proceed to the questionnaire or to “exit your browser” if they wish to withdraw this pretest. They were informed that selecting “next” button represents they have read the consent letter, they are aware of their rights and they wish to participate. During a period of 20 minutes, they were asked to rate and answer questions for 15 products, and they were asked to provide their demographic information at the end of the questionnaire.

**E. Results.** Results for the pretest suggested that *insurance products*, *banking products* and *refrigerators* were three products that were perceived as highly utilitarian related. *Artwork*, *perfume/cologne* and *sunglasses* were the top three highly value-expressive related products. The scale used to measure utilitarian and value-expressive ranking was continuous. The lower the score the higher the perception level of utilitarian function of the product, and the higher the score the higher the perception level of value-expressive function of the product. As seen in Table 2, subjects reported a mean score of 1.62 for insurance, 1.76 for banking products, 2.48 for refrigerators, 8.34 for artwork, 7.94 for perfume/cologne, and 6.86 for sunglasses. Moreover, results from t-tests showed that the products are significantly different from each other (see Table 2). Insurance products and artwork were finally selected to represent utilitarian and value-expressive product respectively.

Table 2

*Summary of T-test Analyses of Product Attitude*

Test Variable	(I) Product	N	Mean	SD	(J) Product	Sig. (2-tailed)
Utilitarian-Value-expressive	insurance products	50	1.62	1.16	artwork	.001
					perfume/cologne	.001
					sunglasses	.001

				banking products	.001
				refrigerators	.001
				artwork	.001
banking products	50	1.76	1.08	perfume/cologne	.001
				sunglasses	.001
				refrigerators	.001
refrigerators	50	2.48	1.61	artwork	.001
				perfume/cologne	.001
				sunglasses	.001
artwork	50	8.34	1.02	perfume/cologne	.001
				sunglasses	.001
perfume/cologne	50	7.94	1.30	sunglasses	.001
sunglasses	50	6.86	1.64		

According to previous literature (Sirgy, Johar, Samli & Claiborne, 1991; Han, 2006), a total of five to nine attributes need to be selected in order to measure the perceived functional congruity degree, and these attributes should be able to account for at least 75% of all attributes. Based on this criteria, product attributes mentioned by subjects for artwork and insurance were collected and calculated. For each product, the total number of all the attributes mentioned by subjects were counted including the recurring attributes. As seen in the formula illustrated below, calculating the frequency of a specific attribute mentioned by subjects was accomplished by dividing the total number of occurrences of this specific attribute by the total number of occurrences of all the attributes mentioned by subjects.

$$f(a) = \frac{Na}{Na + Nb + Nc + \dots + Nx}$$

*Price, coverage, company reputation/company reliability, customer service/customer support, and benefits* were five most frequently mentioned product attributes which subjects usually consider when they are purchasing insurance products. These five

attributes accounted for around 92% of all the attributes mentioned by subjects for insurance. *Price, quality, value, artist reputation/ gallery reputation, and fit with my room/wall/other piece(s)* are the most frequently mentioned attributes which accounted for around 83% of all the attributes mentioned by subjects for artwork.

Consequently, *insurance* and *artwork* were selected to represent utilitarian product and value-expressive product respectively. *Price, coverage, company reputation/ company reliability, customer service/ customer support, and benefits* were collected to assist measuring of viewers' perceived functional congruity degree for insurance, while *price, quality, value, artist reputation/ gallery reputation, and fit with my room/wall/other piece(s)* were collected to assist measuring of viewers' perceived functional congruity degree for artwork.

### 3.3 Second Pretest

**A. Purpose and Participants.** The second pretest was carried out to 1) to examine the internal consistency of the scales used in this study, 2) to ensure that manipulations of expertise and similarity were working effectively in the stimulus and 3) to find out whether the celebrity spokesperson selections were successful. A total of 258 undergraduate students participated in the second pretest. They were students from the Faculty of Management at the University of Lethbridge with different gender and ethnical backgrounds, and their ages were from 18 years old to 30 years old. Among 258 responses, there were 17 invalid responses with a lot of missing data or full of extreme values. After data cleaning, a total of 241 responses with a response rate of 91% were collected, and in which there were 122 male responses and 119 female responses. The

mean age for the subjects was 23 years old.

**B. Instruments.** As seen in Table 3, the nine scales used in the second pretest were source attractiveness, source familiarity, source likeability, source similarity, source expertise, source trustworthiness, functional congruity, self-congruity and purchase intention (Baker & Churchill, 1977; Ajzen & Fishbein, 1980; Kahle & Homer, 1985; Ohanian, 1990; Sirgy, Johar, Samli & Claiborne, 1991; Feick & Higie, 1992; Tripp, Jensen, & Carlson, 1994; Grewal, Mehta, & Kardes, 2004; Han, 2006; Wheeler, 2009; see Appendix A). All these scales have been well developed and are widely used in consumer research, therefore they were considered as valid and reliable scales.

This study attempted to investigate both main effects of source characteristic and interactive effects of source characteristics and product type on the congruity concept and purchase intention. As seen in Table 3, five scales were used to measure these independent and dependent variables (also see Appendix A).

Table 3

*Scales Used in the Second Pretest*

Scale Name & Source & Type	Items & Statements
Source Familiarity (Baker & Churchill, 1977) 7-point semantic differential scale	a. not at all familiar 1-7 familiar b. don't know at all 1-7 know very well
Source Attractiveness (Ohanian, 1990) 7-point semantic differential scale	a. unattractive 1-7 attractive b. not classy 1-7 classy c. ugly 1-7 beautiful d. plain 1-7 elegant e. not sexy 1-7 sexy

Source Likeability (Kahle & Homer, 1985) 7-point semantic differential scale	a. unlikeable 1-7 likeable b. unpleasing 1-7 pleasing c. disagreeable 1-7 agreeable
Source Similarity (Feick & Higie, 1992) 7-point Likert-type scale	disagree 1-7 agree a. " <u>Celebrity Name</u> and I probably have similar values and beliefs." b. " <u>Celebrity Name</u> is quite a bit like me." c. "It's likely that <u>Celebrity Name</u> and I have similar tastes and preferences. "
Source Expertise (Ohanian, 1990) 7-point Likert-type scale	a. not an expert 1-7 expert b. inexperienced 1-7 experienced c. unknowledgeable 1-7 knowledgeable
Source Trustworthiness (Ohanian, 1990) 7-point Likert-type scale	a. undependable 1-7 dependable b. dishonest 1-7 honest c. unreliable 1-7 reliable d. insincere 1-7 sincere e. untrustworthy 1-7 trustworthy
Functional Congruity (Ajzen & Fishbein, 1980; Sirgy, Johar, Samli & Claiborne, 1991; Han, 2006) 7-point Likert-type scale	Functional congruity is calculated by the formula: $FC = \sum biei$ "b" refers to how important each attribute is to subjects when they are purchasing a specific product before they were asked to view the stimulus. "e" refers to how satisfied (e) subjects were with each attribute after they viewed the stimulus.
Self-congruity (Grewal, Mehta, & Kardes, 2004) 7-point Likert-type scale	disagree 1-7 agree a. "The Product <u>Name</u> from <u>Company Name</u> would reflect the kind of person I see myself to be". b. "The Product <u>Name</u> from <u>Company Name</u> would help ascertain my self-identity." c. "The Product <u>Name</u> from <u>Company Name</u> would make me feel good about myself. " d. " The Product from <u>Company Name</u> would be an instrument of my self-expression. " e. "The Product <u>Name</u> from <u>Company Name</u> would play a critical role in defining my self-concept." f. "The Product <u>Name</u> from <u>Company Name</u> would help me to establish the kind of person I see myself to be."

	unlikely 1-7 likely
Purchase Intention (Tripp, Jensen, & Carlson, 1994)	a. Please tell us how likely it is that you would inquire about Product Name from <u>Company Name</u> endorsed by <u>Celebrity Name</u> .
7-point Likert-type scale	b. Please tell us how likely it is that you would consider purchasing Product Name from <u>Company Name</u> endorsed by <u>Celebrity Name</u> . c. Please tell us how likely it is that you would actually purchase Product Name from <u>Company Name</u> endorsed by <u>Celebrity Name</u> .

Ohanian's (1990) original scale was used to measure viewers' perceived expertise level. Subjects were asked to rate their overall feeling about a celebrity spokesperson on a 7-point semantic differential scale when they were told that this celebrity is endorsing a specific product. Three items (expertise, experienced and knowledgeable) were used to capture viewers' perception of a celebrity's expertise degree (see Appendix A).

Subjects' perceived similarity degree was measured on a 7-point Likert-type scale that asks subjects to rate to what degree they 1- agree or 7- disagree with three statements (Feick & Higie, 1992). Three statements measured subjects' perceived similarity degree of a celebrity spokesperson from three dimensions. They are value and belief similarity, self-image similarity and taste and preference similarity(see Appendix A).

According to previous literature (Sirgy, Johar, Samli & Claiborne, 1991; Han, 2006), an effective way to measure people's perceived functional congruity is to collect around five to nine attributes which are most frequently mentioned by subjects and able to account for at least 75% of all attributes, and, then, measure people's perceived importance degree and satisfactory degree on each attribute. Calculate the final perceived functional congruity score by using the formula:



$$FC = \sum bie_i$$

derived from Ajzen and Fishbein's (1980) expectancy-value model. Therefore, subjects were asked to rate five attributes obtained from the first pretest on a 7-point Likert-type scale before and after they view to the stimulus. Subjects were asked to rate how important (*b*) each attribute is to them when they are purchasing a specific product before they were asked to view the stimulus. After they viewed the stimulus, they were asked to rate how satisfied (*e*) they were with each attribute.

Self-congruity was measured by using a 7-point Likert-type scale (Grewal, Mehta, & Kardes, 2004). Subjects were asked to rate to what degree they 1- agree or 7- disagree with a total of six statements such as "product A from company A would help ascertain my self-identity" and "product A from company A would make me feel good about myself".(see Appendix A).

In terms of subjects' perceived purchase intention degree, subjects were asked to answer how likely they were to inquire about, consider purchasing and actually purchase the product in the ad. This was measured by using a 7-point Likert-type scale with the aforementioned three items (Baker & Churchill, 1977).

In order to ensure that the celebrities are not perceived significantly different by the subjects on their perceived attractiveness, familiarity, likeability and trustworthiness degrees, four scales borrowed from the Source Attractiveness Model (Baker & Churchill, 1977; Kahle & Homer, 1985) and the Source Credibility Model (Ohanian, 1990) were used. These scales were used to help to rule out the differences in the overall appeal of the celebrity. There are five items (attractive, classy, beautiful, elegant and sexy) in

attractiveness scale, two items (familiar and know) in familiarity scale, three items (likeable, pleasing and agreeable) in likeability scale and five items (dependable, honest, reliable, sincere and trustworthy) in trustworthiness scale (see Appendix A). Subjects were asked to rate on a 7-point semantic differential scale for these items respectively.

**C. Questionnaire and Stimulus.** The questionnaire for the second pretest was composed of two parts (see Appendix C). In the first part, subjects were asked to provide their demographic information including gender, age, ethnicity and marital status. Then, they were asked to answer if they had purchased insurance or artwork. After that, subjects were given five attributes, and asked to rate for each attribute regarding how important each attribute is in the process of making a purchase decision of insurance/artwork.

In the second part, there was a copy of a print ad and a brief advertising copy placed above the ad (see Appendix E). Both print ad and advertising copy worked as stimulus in the questionnaire. In the ad, subjects were able find some product/company information, a celebrity spokesperson and a short testimony or a company slogan. After reading through the introduction material and the ad, subjects were asked to answer some questions regarding their perceptions towards the celebrity spokesperson and the endorsed product in the ad.

The manipulation of expertise was accomplished by exposing subjects to different versions of stimulus. Stimulus for the higher degree of expertise condition differed from the lower degree of expertise condition in two sections. The first one is the ad copy placed above the ad, which informed subjects the fact that a specific celebrity was invited by a specific product company to be its endorser. In the high degree of expertise condition, subjects were not only told about the endorsement fact but also were informed

about some information regarding the celebrity spokesperson's rich experience in using the endorsed product and his or her involvement with the endorsed product or company, whereas subjects in lower degree of expertise condition were only informed about the endorsement activity. The second section is the testimony or slogan part in the ad. In higher degree of expertise condition, the celebrity gave a short testimony regarding his or her rich experience in using the endorsed product and his or her involvement with the product or company. However, in lower degree of expertise condition, there was a product or company slogan rather than celebrity spokesperson testimony.

The manipulation of similarity was done by selecting celebrity spokespersons based on age. A highly similar source was a celebrity spokesperson of similar age as subjects. On the contrary, a less similar source was a celebrity spokesperson who was much older than the subjects. Additionally, subjects were randomly assigned to female or male celebrity spokesperson conditions so that subjects' perceived similarity degree was able to be influenced by gender as well. Responses were collected from both subject-celebrity same gender condition and subject-celebrity different gender conditions. By doing this, this study was able to find out whether gender or age alone was able to affect subjects' perceived similarity degree or whether gender and age together were able to generate stronger effects on perceived similarity.

**D. Celebrity Spokesperson Selection.** Gender difference was accomplished by randomly assigning subjects to female or male celebrity spokesperson endorsed ads, while age difference was achieved by altering celebrity spokespersons of similar ages or older ages in the ads. Hence, both male and female celebrity spokespersons were required, and both younger and older celebrity spokespersons were required. Specifically, two

young celebrities (one male and one female) and two older celebrities (one male and one female) were needed to determine perceived high/low similarity.

After reviewing a list, *The World's Most Powerful Celebrities 2011*, published by Forbes.com, Julia Roberts, Tom Hanks, Katy Perry were selected (Celebrity 100, 2011). Forbes's *Celebrity 100 List* was considered as a valid and reliable source because they generated this list based on multiple resources (Forbes's List Methods, 2013). Celebrities appeared in this list came from various fields. They were film and television actors or actress, TV personalities, runway models, athletes, authors, musicians or comedians. According the introduction of Forbes's methods, ranking was come up by giving the considerations to 1) professional research firm statistics, 2) celebrity social power statistics, 3) entertainment-related earnings statistics and 4) media visibility statistics. Compare to other types of public figures, singer, actor and actress are more widely recognized, therefore, Julia Roberts, Tom Hanks and Katy Perry were selected, and they ranked at No.69, No.58 and No.12 in this list respectively. However, this study failed to find a young male celebrity from this list because most young male celebrities on the list were athletes or non-Caucasian people, which was very different from the three celebrities we already selected.

Finally, Ryan Gosling was selected for two reasons. Firstly, he had widespread recognition during 2010 and 2012 according to Wikipedia (Ryan Gosling Wikipedia, 2013), which matches with Forbes's list in terms of timing. Secondly, Ryan Gosling appeared very frequently in the lists related to most popular or best young actors published by IMDb.com (Ryan Gosling IMDb, 2013). It was considered that Ryan Gosling had a relatively good recognition and reputation. Consequently, Julia Roberts,

Tom Hanks, Katy Perry and Ryan Gosling were selected as four celebrity spokespersons for this study. As seen in Table 4, celebrity spokespersons were incorporated with study design.

Table 4

*Summary of Study Design with Celebrity Spokespersons*

Product Type	Source characteristic	Condition	Celebrity Spokesperson
Utilitarian Product	High Expertise	cell 1 & 2	<i>Julia Roberts/ Tom Hanks with manipulation of expertise</i>
	Low Expertise	cell 3 & 4	<i>Julia Roberts/ Tom Hanks</i>
	High Similarity	cell 5 & 6	<i>Katy Perry/ Ryan Gosling</i>
	Low Similarity	cell 7 & 8	<i>Julia Roberts/ Tom Hanks</i>
Value-exp ressive Product	High Expertise	cell 9 & 10	<i>Julia Roberts/ Tom Hanks with manipulation of expertise</i>
	Low Expertise	cell 11 & 12	<i>Julia Roberts/ Tom Hanks</i>
	High Similarity	cell 13 & 14	<i>Katy Perry/ Ryan Gosling</i>
	Low Similarity	cell 15 & 16	<i>Julia Roberts/ Tom Hanks</i>

**E. Methods and Procedures.** The second pretest was conducted through an online survey company (Qualtrics), however participants were recruited from a student subject pool managed by the Faculty of Management at the University of Lethbridge. A total of 283 students were invited via an invitation email, and they were asked to complete the questionnaire online at anytime and at any place of their choice in a three-week time period by clicking a web link provided in the invitation email. Participations were voluntary and students who participated in the manipulation check received an additional 5% percent of their course marks as a reward.

Once a subject decided to participate and clicked the given web link in the invitation email, he or she was redirected to a web page. There was a letter providing subjects an

overall idea about the nature of the study and informing subjects about their rights to withdraw at anytime during their participations. After subjects clicked the “next” button on the bottom of the consent letter, they were considered as they have read the consent letter and agreed to participate in this study. Otherwise, subjects were asked to leave the web page by exiting their browsers.

Those who agreed to participate were randomly assigned to one of sixteen cells automatically by Qualtrics. Firstly, subjects were asked whether they had a purchase history of insurance/artwork (see Appendix C for the second pretest questionnaire). Then, they were asked to rate five attributes of insurance/artwork on a scale of degree of importance. After that, subjects were asked to read an ad and to answer questions regarding their perceptions towards the celebrity spokesperson and the endorsed product he or she has seen in the ad. Subjects’ attitude towards the celebrity spokesperson included their perceived familiarity degree, attractiveness degree, likeability degree, similarity degree, expertise degree and trustworthiness degree.

Subjects’ attitude towards the product refers to subjects’ perceived importance degree and satisfaction degree on five product attributes, subjects’ perceived self-congruity and subjects’ perceived purchase intention. At the end of the questionnaire, subjects were asked to answer several demographic questions including gender, age, ethnicity and marital status. After they had submitted their completed questionnaires, they were automatically redirected to another short survey run by the subject pool committee, in which they were asked to fill out their names and course names in order to get their participation rewards afterwards.

**F. Results.** As seen in Table 5, this study obtained an acceptable equivalence in

terms of number of subjects collected in each cell and number of male and female responses collected in each cell. The average number of subjects each cell collected was 20, and in which there were 10 male and 10 female.

Table 5

*Summary of Subject Distribution*

Condition	Number of Subjects	Male Subjects versus Female Subjects
Insurance_ JR (High Expertise)	21	10:11
Artwork_ JR (High Expertise)	19	10:9
Insurance_ JR (Low Expertise)	18	9:9
Artwork_ JR (Low Expertise)	19	9:10
Insurance_ TH (High Expertise)	20	11:9
Artwork_ TH (High Expertise)	22	11:11
Insurance_ TH (Low Similarity)	18	9:9
Artwork_ TH (Low Similarity)	21	10:11
Insurance_ KP (High Similarity)	21	11:10
Artwork_ KP (High Similarity)	20	10:10
Insurance_ RG (High Similarity)	20	10:10
Artwork_ RG (High Similarity)	22	11:11
Note: JR=Julia Roberts, TH= Tom Hanks, RG=Ryan Gosling, KP=Katy Perry		

Reliability analyses were conducted to examine the internal consistency of the scales used in the manipulation check. Results suggested that source attractiveness scale, source likeability scale, source similarity scale, source expertise scale, source trustworthiness scale, satisfactory scale, self-congruity scale and purchase intention scale all reported a Cronbach's alpha score exceeds 0.800 (see Table 6). Results also revealed that the familiarity scale reported a Cronbach's alpha of 0.765, while importance scale used in insurance condition and in artwork condition reported a score of 0.702 and a score 0.700 respectively. Although the Cronbach's alpha scores for familiarity scale and importance scales were much lower than others, they were still considered acceptable. Therefore, all

scales used in the manipulation check were acceptable.

Table 6

*Cronbach's Alpha Report for Scales Used in the Second Pretest*

Scale Name	Number of Items	Cronbach's Alpha
Importance_ Insurance	5	.702
Importance_ Artwork	5	.700
Familiarity	2	.765
Attractiveness	5	.810
Likeability	3	.867
Similarity	3	.940
Expertise	3	.938
Trustworthiness	5	.906
Satisfactory_ Insurance	5	.812
Satisfactory_ Artwork	5	.863
Self-congruity	6	.953
Purchase Intention	3	.939

In order to examine whether the celebrity spokesperson selections were successful, a set of one-way between-groups analysis of variance (ANOVA) were employed. It was anticipated for a successful selection that no significant difference would be found between any two celebrities on subjects' perceived familiarity degree, attractiveness degree, likeability degree and trustworthiness degree. Before the ANOVA was carried out, responses were divided into four groups based on which celebrity spokesperson subjects been exposed to in the questionnaires. Each group was named after its celebrity spokesperson's name. For example, subjects who saw Julia Roberts in the questionnaire were classified into Julia Roberts's group.

Results from a set of ANOVA analysis indicated that groups did not differ from each other significantly on the perceived familiarity ( $F(3,237)=0.467$ ,  $p=0.705$ ), attractiveness ( $F(3,237)=1.573$ ,  $p=0.197$ ), likeability ( $F(3,237)=1.781$ ,  $p=0.151$ ) and trustworthiness



( $F(3,237)=1.371$ ,  $p=0.252$ ). As seen in Table 7, no significant differences were found between any two celebrities on any variable of interest. All significant values reported in the post hoc tests exceeded 0.05. Consequently, it was concluded that there is no significant difference in the overall appeals of the celebrity.

Table 7

*Tukey HSD Report for Multiple Comparisons*

Dependent Variable	(I) Celebrity Name	Mean	(J) Celebrity Name	Sig.
FAMILARITY	Julia Roberts	5.79	Tom Hanks	.824
			Katy Perry	.993
			Ryan Gosling	.999
	Tom Hanks	5.93	Katy Perry	.754
			Ryan Gosling	.833
	Katy Perry	5.73	Ryan Gosling	.999
	Ryan Gosling	5.76		
ATTRACTIVENESS	Julia Roberts	5.58	Tom Hanks	.519
			Katy Perry	.985
			Ryan Gosling	.857
	Tom Hanks	5.40	Katy Perry	.444
			Ryan Gosling	.211
	Katy Perry	5.63	Ryan Gosling	.981
	Ryan Gosling	5.71		
LIKEABILITY	Julia Roberts	5.95	Tom Hanks	.165
			Katy Perry	.274
			Ryan Gosling	.720
	Tom Hanks	5.67	Katy Perry	1.000
			Ryan Gosling	.907
	Katy Perry	5.65	Ryan Gosling	.908
	Ryan Gosling	5.78		
TRUSTWORTHINESS	Julia Roberts	5.08	Tom Hanks	.980
			Katy Perry	.232
			Ryan Gosling	.739
	Tom Hanks	5.03	Katy Perry	.387
			Ryan Gosling	.897

Katy Perry	4.80	Ryan Gosling	.863
Ryan Gosling	4.93		

To examine the effectiveness of the expertise manipulation, a set of t-tests were employed. It was anticipated that subjects in the highly expertise group would perceive a significantly higher degree of expertise than subjects in less expertise group for both insurance and artwork conditions. Expertise manipulations were carried out for the two different products, insurance and artwork, and two celebrities, Julia Roberts and Tom Hanks, hence it was necessary to analyze data singly.

A t-test was conducted to examine the effectiveness of the expertise manipulation accomplished in the Julia Roberts endorsed insurance ads. As seen in Table 8, results suggested that there was no significant difference between higher and lower degrees of expertise. Subjects ( N=21) in the higher degree of expertise group reported a mean score of 4.40 on the perceived expertise degree for Julia Roberts, whereas subjects in lower degree of expertise group ( N=18) reported a mean score of 3.5. The significant value (2-tailed) reported for this t-test was 0.053 which implies no significant difference was found between two groups. In other words, expertise manipulation in Julia Roberts endorsed insurance ads was not significant but the direction of the mean values was consistent with the manipulation.

After that, a t-test was adopted to examine the effectiveness of expertise manipulation in Tom Hanks endorsed insurance ads. As seen in Table 8, results from higher degree of expertise group (N=20) reported a mean score of 5.07, whereas lower degree of expertise group (N=18) reported a mean score of 3.37. A significant value of 0.001 suggested that significant difference was found between higher degree of expertise

group and lower degree of expertise group. Hence, expertise manipulation in Tom Hanks endorsed insurance ads was effective.

Another pair of t-tests were conducted to analyze responses collected from Julia Roberts endorsed artwork ads and Tom Hanks endorsed artwork ads. As seen in Table 8, results from this pair of t-tests found that all the expertise manipulations were not effective in artwork ads. Specifically, in Julia Roberts condition, there is no significant difference was found between higher degree of expertise group (N=19, M=4.19) and lower degree of expertise group (N=19, M=3.97) ( $p = 0.546$ ). In Tom Hanks condition, there is no significant difference was found between higher degree of expertise group (N=22, M=4.49) and lower degree of expertise group (N=21, M=3.84) ( $p=0.054$ ). Therefore, the expertise manipulations were not successful in the artwork ads. To conclude, manipulation of expertise was not effective. It was assumed that the copy of ad with regard to expertise manipulation was weak and needed to build a stronger case to make the celebrities appear to be more expert in the products.

Table 8

*Summary of T-test Analyses for Expertise Manipulation Check*

Test Variable	Group	N	Mean	SD	Sig. (2-tailed)
Source Expertise	Julia Roberts_ Insurance_ HE	21	4.40	1.17	0.053
	Julia Roberts_ Insurance_ LE	18	3.5	1.32	
	Tom Hanks_ Insurance_ HE	20	5.07	0.98	0.001
	Tom Hanks_ Insurance_ LE	18	3.37	1.32	
	Julia Roberts_ Artwork_ HE	19	4.19	1.02	0.546
	Julia Roberts_ Artwork_ LE	19	3.97	1.27	
	Tom Hanks_ Artwork_ HE	22	4.49	1.02	0.054
	Tom Hanks_ Artwork_ LE	21	3.84	1.02	
Note: HE= High Expertise; LE= Low Expertise					

In order to examine the effectiveness of the similarity manipulation, a two-way ANOVA was employed. There were two independent variables involved, age and gender. Each independent variable was composed of two levels. Similar age group, dissimilar age group, same gender group and different gender group. Perceived similarity degree was the dependent variable in this test. As seen in Table 9, results suggested that there was a significant interactive effect of age by gender found on perceived similarity degree ( $F(1,237)=50.685, p<0.001$ ), which implied that effect of age on perceived similarity degree was different for two gender groups and the effect of gender on perceived similarity degree was different for two age groups.

Table 9

*ANOVA Results for Similarity Manipulation Check*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Age Group	209.270	1	209.270	322.713	.001
Gender Group	138.557	1	138.557	213.667	.001
Age Group * Gender Group	32.868	1	32.868	50.685	.001
Error	153.688	237	.648		
Total	2469.222	241			
Corrected Total	503.236	240			

Note: R Squared = .695 (Adjusted R Squared = .691); Dependent Variable= Similarity

Since the interactive effect of age and gender was significant, a pair of one-way ANOVAs were conducted to investigate the simple main effect of age and simple main effect of gender on subjects' perceived similarity degree. Specifically, when responses were divided into two groups based on two levels of age, results from a one-way ANOVA suggested that subjects in the same gender group perceived a significantly

higher degree of similarity than subjects in the different gender group in both similar age condition ( $F(1,237)=180.295$ ,  $p<0.0001$ ) and dissimilar age condition ( $F(1,237)=40.844$ ,  $p<0.0001$ ). When subjects' ages were similar to celebrity spokespersons' ages, subjects in same gender group reported a mean value of 5.33 ( $N=41$ ), while subjects in different gender group reported a mean value of 2.96 ( $N=42$ ). When subjects' ages were dissimilar to celebrity spokespersons' ages, subjects in same gender group reported a mean value of 2.60 ( $N=79$ ), while subjects in different gender group reported a mean value of 1.78 ( $N=79$ ).

When responses were divided into two groups based on two levels of gender, results from a one-way ANOVA indicated that subjects in similar age group perceived a significantly higher degree of similarity than subjects in dissimilar group in both same gender condition ( $F(1,237)=312.438$ ,  $p<0.0001$ ) and different gender condition ( $F(1,237)=59.316$ ,  $p<0.0001$ ). When subjects' genders were the same as celebrity spokespersons, subjects in similar age group reported a mean score of 5.33 ( $N=41$ ), while subjects in dissimilar group reported a mean score of 2.60 ( $N=79$ ) for perceived similarity degree. When subjects' genders were different from celebrity spokespersons' gender, subjects in similar age group reported a mean score of 2.96 ( $N=42$ ), while subjects in dissimilar age group reported a mean score of 1.78 ( $N=79$ ).

When responses were divided into four groups based on two levels of gender and two levels of age, results from a one-way ANOVA suggested that there was significant difference between groups,  $F(3,237)=180$ ,  $p<0.001$ . Subjects in the same gender and similar age group perceived significantly higher degree of similarity than subjects in any of other three groups.

To sum up the findings of the second pretest, it was found that celebrity spokesperson selections were successful because they were perceived as being similar on important source characteristics such as likability and familiarity. The expertise manipulation was effective only in Tom Hanks endorsed insurance condition. The expertise manipulation was not effective in Julia Roberts endorsed insurance condition and two artwork conditions. The similarity manipulation was effective. Both the main effect of age, main effect of gender and interactive effect of age and gender were found to be positively and significantly related to the perceived similarity. However, the highest mean value of similarity degree was found when celebrity spokespersons in the ads were at similar age and with same gender as subjects.

Accordingly, the main study for this research will continue to use Julia Roberts, Tom Hanks, Katy Perry and Ryan Gosling. The similarity manipulation in the main study will be carried out by altering celebrity spokespersons in the ads based on both gender and age. In other words, a higher degree of similarity source in terms of female subjects would be a young female celebrity spokesperson (Katy Perry), whereas a lower degree of similarity source in terms of female subjects would be an older male celebrity spokesperson (Tom Hanks). In terms of male subjects, a higher degree of similar source would be a young male celebrity spokesperson (Ryan Gosling) and a lower degree of similar source would be an older female celebrity spokesperson (Julia Roberts).

The reason for the failure of the expertise manipulation could be various. It might be due to the reason that manipulations in the ads and advertising copies were not strong enough to arouse viewers' perceptions of expertise. It might also be due to the placement of advertising copy and print ads. They were placed on the same page with the questions.

Subjects may not have read through the ad copy and print ad very carefully. Moreover, celebrities' images in the ads may also cause the failure of the manipulation of expertise. For example, in insurance ads, Tom Hanks was wearing a suit. However, Julia Roberts wore casual clothes instead. Wearing a suit might be considered as more professional than wearing t-shirt and jeans when a spokesperson is trying to promote insurance. Additionally, since we were using real celebrity spokespersons, viewers may have previous beliefs about the celebrities chosen for the study. Based on the discussion above, several suggestions were proposed for future adjustments in the main study: 1) try to make the copy of the ad in high expertise conditions more believable and persuasive and 2) try to find appropriate celebrity images, especially image of Julia Roberts, for insurance ads; 3) place the copy of the ad on a separate page for high expertise conditions so that subjects will have multiple opportunities to read through the expertise manipulation materials.

## **Main Study**

### **4.1 Changes Made to the Main Study**

Several adjustments were made to the main study based on results of the first and the second pretest. First of all, the similarity manipulation was accomplished based on two factors, age and gender, together. In that case, young female subjects were randomly assigned to either a young female celebrity condition or an older male celebrity condition, while young male subjects were randomly assigned to either a young male celebrity condition or an older female celebrity condition. Assignment into higher similar and dissimilar conditions was also done for the older participants in the study.

Secondly, Julia Roberts's image in the insurance ads was replaced (see Appendix G). Julia Roberts was wearing casual clothes in the old copies of ads (see Appendix F), whereas she wore suit in the new copies of ads. Moreover, in highly expertise condition, new scenarios were added into the questionnaires before the ads pages (see Appendix H). New scenarios focused on emphasizing 1) celebrity spokespersons' personal involvements with the endorsed products and 2) their depth of knowledge of the endorsed products.

Thirdly, the participants in the second pretest were young adults from 18 years old to 30 years old, which limited the generalizability of this study. For the main study, we recruited subjects from 20 years old to 50 years old. Subjects that were aged between 20 to 35 years old were grouped together as a young adult group and subjects that were aged between 36 to 50 years old were grouped together as a middle-aged adult group. Katy Perry and Ryan Gosling acted as highly similar sources for the young adult group and less similar sources for the middle-aged adult group. Julia Roberts and Tom Hanks acted



as highly similar sources for the middle-aged adult group and less similar sources for the young adult group.

Moreover, a fully crossed factorial design was proposed to replace the old  $2 \times 4$  factorial design. The design used in the second pretest treated high expertise, low expertise, high similarity and low similarity as one factor with four levels. By doing this, it was unable to investigate the interactive effects of expertise and similarity on the perceived congruity concept and purchase intention. Accordingly, a  $2 \times 2 \times 2$  factorial experimental design was proposed. Three factors, product type, expertise degree and similarity degree were involved. Each factor contains two levels (see Table 10).

Table 10

*Summary of Study Design for the Main Study*

	High Expertise		Low Expertise
	High Similarity	HeHs- cell 1	LeHs- cell 3
Utilitarian Product	Low Similarity	HeLs- cell 2	LeLs- cell 4
Value-expressive Product	High Expertise		Low Expertise
	High Similarity	HeHs- cell 5	LeHs- cell 7
	Low Similarity	HeLs- cell 6	LeLs- cell 8

#### 4.2 Main Study Purpose

The main study was conducted to test the hypotheses proposed below:

Hypothesis 1a was proposed to examine the relationship between the ***Type I Match*** and the ***functional congruity*** concept. Hypothesis 1b was proposed to figure out whether a ***Type I Mismatch*** would generate as much positive effects on subjects' perceived ***functional congruity*** as a ***Type I Match*** does. ***Type I Match*** exists when pairing a utilitarian product with an expert source, whereas the ***Type I Mismatch*** is defined as the pairing of a value-expressive product with an expert source.

*H1a: Viewers will perceive a **higher degree of functional congruity** when a **utilitarian product** is endorsed by a celebrity spokesperson with a **higher degree of expertise** than when the **utilitarian product** is endorsed by a celebrity spokesperson with a **lower degree of expertise**.*

*H1b: Viewers will perceive a **higher degree of functional congruity** when a **utilitarian product** is endorsed by a celebrity spokesperson with a **higher degree of expertise** than when a **value-expressive product** is endorsed by a celebrity spokesperson with a **higher degree of expertise**.*

Hypothesis 2a was proposed to examine the relationship between the **Type II Match** and the **self-congruity** concept. Hypothesis 2b was proposed to figure out whether a **Type II Mismatch** would generate as much positive effects on subjects' perceived **self-congruity** as a **Type II Match** does. **Type II Match** exists when pairing a value-expressive product with a similar source, whereas the **Type II Mismatch** is defined as the pairing of a utilitarian product with a similar source.

*H2a: Viewers will perceive a **higher degree of self-congruity** when a **value-expressive product** is endorsed by a celebrity spokesperson with a **higher degree of similarity** than when the **value-expressive product** is endorsed by a celebrity spokesperson with a **lower degree of similarity**.*

*H2b: Viewers will perceive a **higher degree of self-congruity** when a **value-expressive product** is endorsed by a celebrity spokesperson with a **higher degree of similarity** than when a **utilitarian product** is endorsed by a celebrity spokesperson with a **higher degree of similarity**.*

Hypothesis 1c and 2c were proposed to compare the effect of **Type I Match** with the

effect of **Type II match** on the **functional congruity** and **self-congruity** respectively.

*H1c: Viewers will perceive a **higher degree of functional congruity** when a **utilitarian product** is endorsed by a celebrity spokesperson with a **higher degree of expertise** than when a **value-expressive product** is endorsed by a celebrity spokesperson with a **higher degree of similarity**.*

*H2c: Viewers will perceive a **higher degree of self-congruity** when a **value-expressive product** is endorsed by a celebrity spokesperson with **higher degree of similarity** than when a **utilitarian product** is endorsed by a celebrity spokesperson with **higher degree of expertise**.*

Hypotheses 3a through 3d were proposed to investigate the relationship between the **congruity concept**, functional congruity and self-congruity, and **behavioral intention**.

*H3a: Viewers will have a **higher degree of purchase intention** for a **utilitarian product** when they perceive a **higher degree of functional congruity** than when they perceive a **lower degree of functional congruity**.*

*H3b: Viewers will have a **higher degree of purchase intention** for a **value-expressive product** when they perceive a **higher degree of self-congruity** than when they perceive a **lower degree of self-congruity**.*

*H3c: **Functional congruity**, compared with self-congruity, is able to explain **more variance in purchase intention of utilitarian product**.*

*H3d: **Self-congruity**, compared with functional congruity, is able to explain **more variance in purchase intention of value-expressive product**.*

Hypotheses 4a and 4b were proposed to examine the **mediating effect** of the **congruity concept** in **dual-pathway persuasion model**.

*H4a: Functional congruity will mediate the effect of an **expert source** on viewers' purchase intention of a utilitarian product.*

*H4b: Self-congruity will mediate the effect of a **similar source** on viewers' purchase intention of a value-expressive product.*

### 4.3 Main Study Participants

The main study required a sample of 640 subjects from 20 to 50 years old with different gender, education and cultural backgrounds. Subjects were recruited by an online survey company, Qualtrics. A total of 705 valid responses were collected for analyses. Subjects were all U.S. citizens and their marital status and ethnicity information are illustrated in Table 11.

Table 11

#### *Ethnicity and Marital Status Distribution Information*

Ethnicity	Percent	Marital Status	Percent
African	7.7	Single	47.4
Asian	6.1	Married	47.2
Central/ South American/Caribbean	8.1	Divorced	5.4
European	46.7		
First Nations	3.0		
Middle Eastern	2.6		
other	26.0		
Total	100.0	Total	100.0

### 4.4 Stimulus and Questionnaire

The questionnaire for the main study was composed of two parts (see Appendix D). In the first part, subjects were asked to provide their demographic information including gender, age, ethnicity and marital status. Then, they were asked to answer whether they

had a purchase history of insurance/artwork. After that, subjects were given five attributes, and asked to rate each attribute regarding how important it is in the process of making a purchase decision of insurance/artwork. Attributes collected from the first pretest are *price, coverage, company reputation/company reliability, customer service/ customer support*, and *benefits* for insurance and *price, quality, value, artist reputation/ gallery reputation*, and *fit with my room/wall/other piece(s)* for artwork (see Appendix A).

In the second part, subjects were asked to read through stimulus materials carefully. Stimulus materials include a scenario material, a copy of ad and a print ad for highly expert conditions and a copy of ad and a print ad for less expert conditions. After reading through and viewing the stimulus materials, subjects were asked to answer some questions regarding their perceptions towards the celebrity spokesperson and the endorsed product in the ad.

#### **4.5 Methods and Procedures**

The main study was conducted through an online survey company, Qualtrics. Subjects were recruited by Qualtrics through a participant pool. They were asked to answer an online questionnaire in a period of 20 minutes. In the questionnaire, subjects were firstly asked to read carefully through a consent letter, in which they were informed that the participation is voluntary, they are free to withdraw at anytime during their participation, and their confidentiality and anonymity are going to be protected. After that, they were asked to make a decision on whether they'd like to participate in this study or not. Those who decided to participate in this study were asked to click the "next" button. Otherwise, they were asked to exit out of their browsers.

Subjects who agreed to participate were asked to answer some questions regarding their demographic information. They were asked to indicate their gender, age, ethnicity and marital status. Based on their gender, subjects were automatically divided into two groups, male subject group and female subject group. After that, they were asked to answer which age group they were in. Based on their age, subjects were automatically divided into young adult group and middle-aged group. As seen in Table 12, subjects in male subject group were randomly assigned to one of eight conditions endorsed by Ryan Gosling and Julia Roberts, whereas subjects in female subject group were randomly assigned to one of eight conditions endorsed by Katy Perry and Tom Hanks.

Table 12

*Random Assignment for the Main Study*

Gender	Female Subject Group		Male Subject Group	
Age	Young	Middle-aged	Young	Middle-aged
Insurance	HeHs: KP	HeHs: JR	HeHs: RG	HeHs: TH
	HeLs: TH	HeLs: RG	HeLs: JR	HeLs: KP
	LeHs: KP	LeHs: JR	LeHs: RG	LeHs: TH
	LeLs: TH	LeLs: RG	LeLs: JR	LeLs: KP
Artwork	HeHs: KP	HeHs: JR	HeHs: RG	HeHs: TH
	HeLs: TH	HeLs: RG	HeLs: JR	HeLs: KP
	LeHs: KP	LeHs: JR	LeHs: RG	LeHs: TH
	LeLs: TH	LeLs: RG	LeLs: JR	LeLs: KP

Note: 1. Expertise manipulations were carried out in HeHs and HeLs conditions.

2. Expertise manipulations were not carried out in LeHs and LeLs conditions.

3. JR= Julia Roberts; KP= Katy Perry; TH= Tom Hanks; RG= Ryan Gosling

After subjects had been randomly assigned to a specific cell, a questionnaire was opened on their screen (see Appendix D). Firstly, they were asked to answer whether they had purchase history of insurance/artwork depending on the condition they were assigned

to. They were given five attributes and asked to rate each attribute regarding how important it weights in the process of making a purchase decision of insurance/artwork. Then, subjects in highly expert cells were asked to read through a scenario on a separate page and a copy of ad with a print ad on the following page, whereas subjects in less expert cells were asked to read through the copy of ad and print ad directly. After that, they were asked to rate their perceptions in terms of celebrity spokesperson's physical attractiveness degree, likeability degree, similarity degree, familiarity degree, trustworthiness degree, and expertise degree. Subjects were also asked to rate their perceived functional congruity degree, self-congruity degree and purchase intention for the endorsed product in the ad.

## Main Study Results

### 5.1 Descriptive Analysis

As seen in Table 13, a total of 705 responses were collected from eight cells. On average, there were 88 responses in each cell, and each cell had a good gender balance. Among the 705 responses, 354 responses were collected from insurance conditions and 351 responses were collected from artwork conditions. 178 responses were collected from the Julia Roberts scenario, 176 responses were collected from the Ryan Gosling scenario, 175 responses were collected from the Tom Hanks scenario and 176 responses were collected from the Katy Perry scenario. Overall, data were evenly distributed.

Table 13

*Summary of Subjects Distribution for the Main Study*

Product Type	Expertise Degree	Similarity Degree	Cell	Number of Subjects	Gender (Male versus Female)
Insurance	High	High	1	91	45:46
		Low	2	89	45:44
	Low	High	3	87	43:44
		Low	4	87	43:44
Artwork	High	High	5	87	44:43
		Low	6	90	44:46
	Low	High	7	88	43:45
		Low	8	86	43:43
		Total:		705	351:354

### 5.2 Reliability Analysis and Manipulation Check

The internal consistencies of the scales used in the main study were examined through several reliability analyses (see Table 14). Results revealed that most of the Cronbach's alphas exceeded good level of 0.80. Similar to the results of reliability analyses conducted in the second pretest, the Cronbach's alphas for importance scales



used in the insurance questionnaire and artwork questionnaire were still relatively low although they were considered as acceptable.

Table 14

*Cronbach's Alphas of All Measurements Used in the Main Study*

Scale Name	N of items	Cronbach's Alpha
Importance_ Insurance	5	0.782
Importance_ Artwork	5	0.711
Familiarity	2	0.871
Attractiveness	5	0.888
Likeability	3	0.939
Similarity	3	0.922
Expertise	3	0.954
Trustworthiness	5	0.911
Satisfactory_ Insurance	5	0.832
Satisfactory_ Artwork	5	0.893
Self-congruity	6	0.945
Purchase Intention	3	0.949

Several one-way ANOVA analyses were adopted to examine whether the subjects in the main study perceived the celebrities significant differently on the perceived familiarity, attractiveness, likeability and trustworthiness measurements. Responses were divided into four groups based on which celebrity spokesperson subjects had seen in the ads. Results found that all significant values reported in the post hoc tests exceeded 0.05, which indicated that there was no significant difference between any two groups on the perceived familiarity, attractiveness, likeability and trustworthiness measurements (see Table 15). In other words, four celebrity spokespersons perceived similarly to each other regarding their overall appeals.

Table 15

*Tukey HSD Report for Multiple Comparisons*

Dependent Variable	(I) Celebrity Name	Mean	(J) Celebrity Name	Sig.
FAMILARITY	Julia Roberts	5.63	Tom Hanks	.999
			Katy Perry	.809
			Ryan Gosling	.942
	Tom Hanks	5.65	Katy Perry	.723
			Ryan Gosling	.888
	Katy Perry	5.52	Ryan Gosling	.988
	Ryan Gosling	5.56		
ATTRACTIVENESS	Julia Roberts	5.27	Tom Hanks	.076
			Katy Perry	.999
			Ryan Gosling	.721
	Tom Hanks	4.98	Katy Perry	.058
			Ryan Gosling	.525
	Katy Perry	5.28	Ryan Gosling	.653
	Ryan Gosling	5.14		
LIKEABILITY	Julia Roberts	5.61	Tom Hanks	.696
			Katy Perry	.786
			Ryan Gosling	.551
	Tom Hanks	5.75	Katy Perry	.183
			Ryan Gosling	.078
	Katy Perry	5.49	Ryan Gosling	.981
	Ryan Gosling	5.44		
TRUSTWORTHINESS	Julia Roberts	5.12	Tom Hanks	.293
			Katy Perry	.949
			Ryan Gosling	.999
	Tom Hanks	5.36	Katy Perry	.100
			Ryan Gosling	.230
	Katy Perry	5.04	Ryan Gosling	.978
	Ryan Gosling	5.10		

A manipulation check was conducted to determine the effectiveness of the expertise manipulation. Firstly, regardless of celebrity spokesperson, responses collected from insurance conditions were divided into two groups based on two levels of expertise. A

t-test was conducted, and results suggested that subjects in the high expert group ( $M=4.80$ ,  $SD=1.46$ ) perceived a significantly higher degree of expertise than subjects in less expert group ( $M=3.55$ ,  $SD=1.46$ ) did ( $t(352)=8.098$ ,  $p<0.001$  two tailed).

Similarly, regardless of responses celebrity spokesperson, responses collected from artwork conditions were divided into two groups based on the two levels of expertise. A t-test was conducted to compare mean differences on perceived expertise degree between highly expert group and less expert group. Results implied that subjects in highly expert group ( $M=5.13$ ,  $SD=1.31$ ) perceived a significantly higher degree of expertise than subjects in less expert group ( $M=3.74$ ,  $SD=1.52$ ) did ( $t(340.042)=9.193$ ,  $p<0.001$  two tailed).

After that, responses were regrouped into sixteen groups based on which product and which celebrity spokesperson they have seen in the ads and which level of expertise they have been assigned to. A one-way ANOVA was conducted to examine mean differences between sixteen groups on the expertise measurement. Results revealed that a significant difference was found between groups ( $F(15,689)=13.358$ ,  $p<0.001$ ). Moreover, as seen in Table 16, results from a post hoc test indicated that, for any product endorsed by any celebrity spokesperson, subjects in highly expert group perceived a significantly higher degree of expertise than subjects in less expert group did. Hence, it was concluded that the expertise manipulation was effective.

Table 16

*Tukey HSD Report Summary for the Expertise Manipulation Check*

Insurance	N	Mean & SD	Sig.
	(High: Low)	(High: Low)	

Julia Roberts	46:44	(M=5.05, SD=1.64) : (M=3.83, SD=1.58)	0.005
Ryan Gosling	46:43	(M=4.49, SD=1.40) : (M=3.31, SD=1.25)	0.008
Tom Hanks	43:43	(M=5.23, SD=1.31) : (M=3.94, SD=1.35)	0.003
Katy Perry	45:44	(M=4.46, SD= 1.35) : (M=2.91, SD= 1.44)	0.001
Artwork	N (High: Low)	Mean & SD (High: Low)	Sig.
Julia Roberts	43:45	(M=5.19, SD=1.16) : (M=3.90, SD=1.51)	0.002
Ryan Gosling	44:43	(M=5.03, SD=1.47) : (M=3.93, SD=1.38)	0.027
Tom Hanks	46:43	(M=5.36, SD=1.15) : (M=4.02, SD=1.59)	0.001
Katy Perry	44:43	(M=4.94; SD=1.45) : (M=3.08, SD=1.46)	0.000

In order to examine the effectiveness of the similarity manipulation, a t-test was conducted to compare mean differences on the perceived similarity. Results suggested that significant difference was found between groups ( $t(352)=12.06$ ,  $p<0.001$ ) two tailed). Specifically, subjects in highly similar group reported a mean score of 4.54 (SD=1.40) on the perceived similarity measurement, while subjects in less similar group reported a mean score of 2.81 (SD=1.30).

Then, responses were regrouped into eight groups based on which celebrity spokesperson they have seen in the ads and which level of similarity they have been assigned to. A one-way ANOVA was adopted to examine the mean differences between groups. Results suggested that significant difference was found between groups ( $F(7,697)=34.632$ ,  $p<0.001$ ). Furthermore, as seen in Table 17, results from a post hoc test revealed that, for any celebrity spokesperson, subjects in highly similar group perceived a significantly higher degree of similarity than subjects in less similar group did.

Table 17

*Tukey HSD Report Summary for the Similarity Manipulation Check*

Celebrity	N	Mean & SD	Sig.
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Spokesperson	(High: Low)	(High: Low)	
Julia Roberts	89:89	(M=4.46, SD=1.43) : (M=2.92, SD=1.35)	0.001
Ryan Gosling	88:88	(M=4.48, SD=1.48) : (M=2.95, SD=1.33)	0.001
Tom Hanks	87:88	(M=4.81, SD=1.33) : (M=3.11, SD=1.34)	0.001
Katy Perry	89:87	(M=4.42, SD= 2.88) : (M=2.91, SD= 1.29)	0.001

### 5.3 Hypotheses Testing

Before a variety of statistical analyses were carried out, it was necessary to gain an overall idea about how many responses have been collected in each cell and how subjects in each cell were rated on expertise, similarity, functional congruity, self-congruity and purchase intention respectively (see Table 18). Based on the information illustrated below, it was concluded that there was an acceptable equivalency in terms of total number of subjects distributed in each cell. It was also found that, regardless of product type, subjects in a highly expert condition perceived celebrity spokespersons to be more expert than subjects in a less expert condition. Moreover, subjects in a highly similar condition perceived celebrity spokespersons to be more similar than subjects in a less similar condition. In terms of functional congruity, self-congruity and purchase intention, the highest mean value can be found in HeHs condition for both insurance and artwork.

Table 18

#### *Summary of Mean Values on Five Variables of Interests*

Product Type	Conditions		Expertise	Similarity	FC	SC	PI
Insurance	HeHs	M	4.90	4.68	5.28	4.13	4.73
	N=91	SD	1.41	1.36	1.01	1.50	1.46
	HeLs	M	4.70	2.97	5.17	2.96	4.30
	N=89	SD	1.51	1.30	1.09	1.36	1.54
	LeHs	M	3.66	4.40	4.68	3.59	3.25
	N=87	SD	1.40	1.43	0.91	1.36	1.48
	LeLs	M	3.44	2.66	4.46	2.78	2.92

	N=87	SD	1.51	1.29	1.10	1.40	1.63
	HeHs	M	5.15	4.67	5.21	4.35	4.87
	N=87	SD	1.20	1.24	0.87	1.44	1.40
	HeLs	M	5.12	3.28	5.20	3.20	4.64
Artwork	N=90	SD	1.42	1.37	1.10	1.37	1.51
	LeHs	M	3.81	4.40	4.80	4.23	3.64
	N=88	SD	1.58	1.54	0.94	1.56	1.62
	LeLs	M	3.66	2.94	4.78	2.72	3.45
	N=86	SD	1.46	1.31	0.91	1.26	1.47

Note: 1. FC=Functional Congruity; SC= Self-congruity

2. HeHs= High Expertise High Similarity; HeLs=High Expertise Low Similarity; LeHs=Low Expertise High Similarity; LeLs=Low Expertise Low Similarity

**A. Hypotheses 1a, 1b and 1c.** Hypotheses 1a through 1c were proposed to examine the effect of *Type I Match*, the effect of *Type I Mismatch* and the effect of *Type II Match* on the functional congruity concept. Specifically, *Type I Match* was defined as the pairing of a utilitarian product with an expert source, whereas *Type I Mismatch* was defined as the pairing of a value-expressive product with an expert source. *Type II Match* was defined as the pairing of a value-expressive product with a similar source, whereas *Type II Mismatch* was defined as the pairing of a utilitarian product with a similar source. As seen in Table 19, there were three independent variables (product type, expertise and similarity) and one dependent variable, functional congruity, involved in the first set of hypotheses. Product type deals with utilitarian product and value-expressive product. Each of the source contains two levels, high and low.

Table 19

*Summary of Variables Involved in the First Set of Hypotheses*

	Variable Name	Level
Independent Variables	Product Type	Utilitarian
		Value-expressive
	Expertise	High

		Low
		High
	Similarity	Low
Dependent Variable	Purchase Intention	

Hypothesis 1a was proposed to examine the relationship between the *Type I Match* concept and the functional congruity concept. It was anticipated to find out that, when a utilitarian product is endorsed by a highly expert source and a less expert source respectively, subjects in highly expert group will perceive a higher degree of *Type I Match*, than subjects in less expert group, and, as a result, subjects in highly expert group will perceive a higher degree of functional congruity. In order to test hypothesis 1a, responses were grouped based on two types of product and two levels of expertise. A one-way ANOVA was conducted to examine mean differences on subjects' perceived functional congruity between highly expert group and less expert group in insurance condition.

As seen in Table 20, for insurance condition, subjects in highly expert group (N=180, M=5.22) perceived a higher degree of functional congruity than subjects in less expert group (N=174, M=4.57) did. The significant value ( $p < 0.001$ ) reported for the comparison suggested that differences between high and low groups were significant. Hence, hypothesis 1a is supported.

Findings indicated that when the product in question is utilitarian related the higher the degree of expertise of a celebrity spokesperson is perceived by viewers, the higher the degree of functional congruity of the product will be induced. For example, to pair a celebrity spokesperson who has high levels of expertise in the insurance industry with a specific insurance company in an ad, viewers will very likely to believe that products

from the endorsed insurance company can satisfy their utilitarian needs, such as: a reasonable price, desirable coverage and reliable customer service.

Table 20

*Summary of One-way ANOVA Results for the First Set Hypotheses*

Descriptive Statistics				
Groups	N	Mean	Std. Deviation	Std. Error
Insurance_ Higher Degree of Expertise	180	5.2239	1.04520	.07790
Insurance_ Lower Degree of Expertise	174	4.5702	1.01016	.07658
Artwork_ Higher Degree of Expertise	177	5.2026	.99073	.07447
Artwork_ Lower Degree of Expertise	174	4.7860	.92194	.06989
Multiple Comparisons (Tukey HSD)				
(I) Product Type_ Expertise Degree	(J) Product Type_ Expertise Degree	Mean Difference (I-J)	Std. Error	Sig.
Insurance_ Higher Degree of Expertise	Insurance_ Lower Degree of Expertise	.65372*	.10562	.001
	Artwork_ Higher Degree of Expertise	.02131	.10516	.997
	Artwork_ Lower Degree of Expertise	.43794*	.10562	.001
Note: 1. Grouping Variable= Product Type and Expertise Degree; 2. Dependent Variable= Functional Congruity				

Hypothesis 1b was proposed to compare the effect of *Type I Match* with the effect of *Type I Mismatch* on the functional congruity concept. It was anticipated to find out that, when both utilitarian and value-expressive products are endorsed by a highly expert source, subject in utilitarian group will be more likely to perceive a higher degree of



functional congruity than subjects in value-expressive group. In order to test hypothesis 1b, responses were grouped based on product types and two levels of expertise. A one-way ANOVA was conducted to examine the differences on subjects' perceived functional congruity between the insurance group and artwork group in highly expert condition.

As seen in Table 20, for highly expert condition, subjects in insurance group (N=180, M=5.22) perceived a slightly higher degree of functional congruity than subjects in artwork group (N=177, M=5.20) did. The significant value ( $p=0.997$ ) reported suggested that the differences between insurance and artwork group were not significant. Hence, hypothesis 1b is not supported.

Findings of hypothesis 1b indicate that the effect of source expertise on functional congruity is slightly stronger in utilitarian condition than in value-expressive condition. In other words, when both utilitarian and value-expressive products are endorsed by a highly expert source, viewers in utilitarian condition tend to evaluate the product's utilitarian features more positively than viewers in value-expressive condition. However, the differences between two conditions were not statistically significant.

Hypothesis 1c was proposed to compare the effect of *Type I Match* with the effect of *Type II Match* on the functional congruity concept. It was anticipated that when a utilitarian product is endorsed by a highly expert source and a value-expressive product is endorsed by highly similar source subjects in the utilitarian product condition will be more likely to perceive a higher degree of functional congruity than subjects in the value-expressive product condition.

In order to test hypothesis 1c, responses were regrouped into eight groups based on

the product types, two levels of expertise and two levels of similarity (see Table 21). The *Type I Match* group (TIM) was composed of Group 1 and Group 3, while the *Type II Match* group (TIIM) was composed of Group 5 and Group 6. Then, an independent sample t-test was conducted to compare the differences between TIM group and TIIM group on functional congruity. Results suggested that subjects in TIM group ( $M=5.22$ ,  $SD=1.05$ ) perceived a significantly higher degree of functional congruity than subjects in TIIM group ( $M=5.00$ ,  $SD=0.93$ ) did ( $t(353)=2.126$ ,  $p=0.034$  two tailed). Accordingly, hypothesis 3c is supported.

Table 21

*Grouping Information for Hypothesis 3c*

	Higher Degree of Similarity		Lower Degree of Similarity	
Higher Degree of Expertise	Insurance	Group 1	Insurance	Group 3
	Artwork	Group 5	Artwork	Group 7
Lower Degree of Expertise	Insurance	Group 2	Insurance	Group 4
	Artwork	Group 6	Artwork	Group 8

Findings indicated that *Type I Match*, compared to *Type II Match*, is able to induce more positive impact on the functional congruity measurement. That is, when a utilitarian product is endorsed by a highly expert source viewers' evaluations of the product's utilitarian features (e.g. customer service and quality) are going to be impacted more significantly than when a value-expressive product is endorsed by a highly similar source.

**B. Hypotheses 2a, 2b and 2c.** Hypotheses 2a through 2c were proposed to examine the effect of *Type II Match*, the effect of *Type II Mismatch* and the effect of *Type I Match* on the self-congruity concept. Similarly, there were three independent variables, product

type, expertise and similarity, and one dependent variable, functional congruity, involved. Product type deals with utilitarian product and value-expressive product. Each source contains two levels, high and low.

Hypothesis 2a was proposed to examine the relationship between the *Type II Match* and the self-congruity concept. It was anticipated to find out that, when a value-expressive product is endorsed by a highly similar source and a less similar source, subjects in highly similar group will more likely to perceive a higher degree of self-congruity. In order to test hypothesis 2a, responses were grouped based on two types of product and two levels of similarity. A one-way ANOVA was conducted to examine the differences on subjects' perceived self-congruity between highly similar group and less similar group in artwork condition.

As seen in Table 22, for the artwork condition, subjects in highly similar group (N=175, M=4.29) perceived a higher degree of self-congruity than subjects in less similar group (N=176, M=2.97) did. The significant value ( $p < 0.001$ ) reported for the comparison suggested that the differences between high and low groups were significant. Hence, hypothesis 2a is supported.

Findings of hypothesis 2a indicate that *Type II Match* is positively correlated with the self-congruity concept. Specifically, when the product in question is value-expressive related, the higher the degree of similarity of a celebrity spokesperson is perceived by viewers, the higher the degree of self-congruity will be induced. For example, when a value-expressive product (e.g. artwork) is endorsed by a highly similar source and a less similar source respectively, viewers in highly similar source group will more likely to perceive that the endorsed product can express or enhance their self-images (e.g. luxury

and noble) than viewers in less similar source group.

Table 22

*Summary of One-way ANOVA Results for The second Set of Hypotheses*

Descriptive Statistics				
Groups	N	Mean	Std. Deviation	Std. Error
Insurance_ Higher Degree of Similarity	178	3.8642	1.45269	.10888
Insurance_ Lower Degree of Similarity	176	2.8750	1.36806	.10312
Artwork_ Higher Degree of Similarity	175	4.2914	1.49813	.11325
Artwork_ Lower Degree of Similarity	176	2.9650	1.33697	.10078
Multiple Comparisons (Tukey HSD)				
(I) Product Type_ Similarity Degree	(J) Product Type_ Similarity Degree	Mean Difference (I-J)	Std. Error	Sig.
Artwork_ Higher Degree of Similarity	Insurance_ Higher Degree of Similarity	.42720*	.15068	.024
	Insurance_ Lower Degree of Similarity	1.41643*	.15110	.001
	Artwork_ Lower Degree of Similarity	1.32647*	.15110	.001
Note: 1. Grouping Variable= Product Type and Similarity Degree 2. Dependent Variable= Self-congruity				

Hypothesis 2b was proposed to compare the effect of *Type II Match* with the effect of *Type II Mismatch* on the self-congruity concept. It was anticipated when both utilitarian and value-expressive products are endorsed by a highly similar source subject in the value-expressive group will more likely to perceive a higher degree of self-congruity than subjects in insurance group do. In order to test hypothesis 2b, responses were grouped based on two types of product and two levels of similarity. A one-way ANOVA was conducted to examine the differences on subjects' perceived

self-congruity between insurance group and artwork group in highly similar condition.

As seen in Table 22, subjects in the artwork group (N=175, M=4.29) perceived a much higher degree of self-congruity than subjects in the insurance group (N=178, M=3.86). The significant value ( $p=0.024$ ) reported suggested that the differences between insurance and artwork group were statistically significant. These findings indicate that *Type II Match* will generate a more positive impact on self-congruity than *Type I Mismatch* do, and the differences of the impact are significant. Hence, hypothesis 2b is supported.

Findings of hypothesis 2b indicated that, when both utilitarian product and value-expressive product are endorsed by a highly similar source, viewers in value-expressive product condition will more likely to perceive that the product is able to enhance their self-image than viewers in utilitarian product condition do.

Hypothesis 2c was proposed to compare the effect of *Type I Match* with the effect of *Type II Match* on the self-congruity concept. It was anticipated that when a utilitarian product is endorsed by a highly expert source and a value-expressive product is endorsed by highly similar source subjects in value-expressive product condition will more likely to perceive a higher degree of self-congruity than subjects in utilitarian product condition do.

In order to test hypothesis 2c, we followed the same procedures conducted in the hypothesis 1c. Specifically, responses were regrouped into eight groups based on two types of product, two levels of expertise and two levels of similarity (see Table 21). The *Type I Match* group (TIM) was composed of Group 1 and Group 3, while the *Type II Match* group (TIIM) was composed of Group 5 and Group 6. An independent- sample

t-test was conducted to compare the differences between TIM group and TIIM group on the self-congruity measurement. Results suggested that subjects in TIM group ( $M=3.55$ ,  $SD=1.53$ ) perceived a significantly lower degree of self-congruity than subjects in TIIM group ( $M=4.29$ ,  $SD=1.50$ ) did ( $t(353)=4.592$ ,  $p<0.001$  two tailed). Accordingly, hypothesis 2c is supported.

**C. Hypotheses 3a, 3b, 3c and 3d.** Hypotheses 3a through 3d were proposed to examine the relationship between the congruity concept and purchase intention. Specifically, hypothesis 3a predicted that, when the product in question is utilitarian related, the perceived functional congruity is positively related with the purchase intention. It was anticipated that subjects with high levels of functional congruity will perceive a higher degree of purchase intention than subjects with lower levels of functional in utilitarian condition.

In order to test hypothesis 3a, it was necessary to convert the continuous variable, functional congruity, into a category variable of two levels, high and low. Firstly, a univariate analysis was conducted to determine the mean value on the functional congruity measurement in utilitarian product condition. The mean value was 4.90. Based on this result, the researcher defined the two groups using a mean split. The highly functional congruity group was composed of responses that are equal to or more than 4.90, whereas less functional congruity group was composed of responses that are less than 4.90.

Secondly, an independent- sample t-test was conducted to compare the differences between highly functional congruity group and less functional congruity group on purchase intention of insurance. Results suggested that subjects in highly functional

congruity group ( $M=4.85$ ,  $SD=1.33$ ) perceived a significantly higher degree of purchase intention than subjects in less functional congruity group ( $M=2.70$ ,  $SD=1.28$ ) did ( $t(352)=15.575$ ,  $p<0.001$  two tailed). Accordingly, hypothesis 3a is supported.

Hypothesis 3b predicted that, when the product in question is value-expressive related, self-congruity is positively related to purchase intention. It was anticipated that subjects with higher levels of self-congruity group will perceive a higher degree of purchase intention than subjects with lower levels of self-congruity in value-expressive product condition.

In order to test hypothesis 3b, it was necessary to convert the continuous variable, self-congruity, into a category variable of two levels, high and low. Similarly, a univariate analysis was conducted to find out what is the mean value on the self-congruity measurement in value-expressive product condition. Results suggested that subjects in artwork condition scored a mean value of 3.63 on self-congruity measurement. Based on this result, a mean split was adopted, and the higher degree of self-congruity group was composed of responses that are equal to or more than 3.63, whereas the lower degree of self-congruity group was composed of responses that are less than 3.63.

An independent- sample t-test was conducted to compare the differences between highly self-congruity group and less self-congruity group on purchase intention of artwork. Results suggested that subjects in highly self-congruity group ( $M=4.90$ ,  $SD=1.27$ ) perceived a significantly higher degree of purchase intention of artwork than subjects in less self-congruity group ( $M=3.37$ ,  $SD=1.57$ ) did ( $t(326.281)=10.045$ ,  $p<0.001$  two tailed). Accordingly, hypothesis 3b is supported.

Hypothesis 3c predicted that functional congruity, compared to self-congruity, is

able to explain more variance on purchase intention of a utilitarian product. On the contrary, hypothesis 3d predicted that self-congruity, compared to functional congruity, is able to explain more variance in purchase intention of value-expressive product. In order to test hypothesis 3c and 3d, a linear regression analysis was conducted to find out how much of the variance in purchase intention of insurance/artwork is explained by a model that includes the variables of functional congruity and self-congruity.

Firstly, responses were divided into two groups, insurance and artwork groups. Then, a descriptive analysis was conducted to gain an overall idea about how subjects rated for functional congruity, self-congruity and purchase intention in each group (see Table 23). It was found that subjects in both insurance and artwork conditions rated higher on functional congruity than on self-congruity. Subjects rated higher on functional congruity, self-congruity and purchase intention higher in artwork condition than in insurance condition.

Table 23

*Summary of Descriptive Statistic Results for Hypotheses 3c and 3d*

Descriptive Statistics				
Product Type		Mean	SD	N
Insurance	Purchase Intention	3.8107	1.68954	354
	Functional Congruity	4.9026	1.07758	354
	Self-congruity	3.3724	1.49376	354
Artwork	Purchase Intention	4.1519	1.61610	351
	Functional Congruity	4.9961	.97838	351
	Self-congruity	3.6263	1.56546	351

After that, a linear regression analysis was carried out (see Table 24). It was found that 63.6 of the variance in purchase intention of insurance were able to be explained by



the model with functional congruity and self-congruity ( $R^2 = .638$ ,  $F(2,351) = 309.678$ ,  $p < 0.001$ ), while 68.4 of the variance in purchase intention of artwork were able to be explained the model with functional congruity and self-congruity ( $R^2 = .686$ ,  $F(2,348) = 309.678$ ,  $p < 0.001$ ). Both regressions for insurance and artwork were significant. Both functional congruity and self-congruity were significantly and positively correlated with purchase intention of insurance and purchase intention of artwork respectively.

For insurance purchase intention, functional congruity had a higher beta than self-congruity in the equitation model ( $\beta_{(fc)} = 0.616$ ,  $p < 0.001$  versus  $\beta_{(sc)} = 0.276$ ,  $p < 0.001$ ). Similarly, for artwork purchase intention, functional congruity had a higher beta than self-congruity in the equitation model ( $\beta_{(fc)} = 0.666$ ,  $p < 0.001$  versus  $\beta_{(sc)} = 0.263$ ,  $p < 0.001$ ). Hence, hypothesis 3c is supported, whereas hypothesis 3d is not supported. Findings suggested that, regardless of product type, functional congruity is able to explain more variance in purchase intention than self-congruity.

Table 24

*Summary of Regression Analysis for Hypotheses 3c and 3d*

Model Summary <sup>b</sup>							
Product Type	Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate		
Insurance	1	.799 <sub>a</sub>	.638	.636	1.01904		
Artwork	1	.828 <sub>a</sub>	.686	.684	.90811		
ANOVA <sup>b</sup>							
Product Type		Model	Sum of Squares	df	Mean Square	F	Sig.
Insurance	1	Regression	643.161	2	321.581	309.678	.001 <sub>a</sub>
		Residual	364.491	351	1.038		
		Total	1007.653	353			
Artwork	1	Regression	627.133	2	313.566	380.232	.001 <sub>a</sub>
		Residual	286.986	348	.825		
		Total	914.118	350			
Coefficients <sup>a</sup>							
Product Type	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Insurance	1	(Constant)	-1.977	.253		-7.815	.001
		Functional Congruity	.966	.060	.616	16.180	.001
		Self-congruity	.312	.043	.276	7.244	.001
Artwork	1	(Constant)	-2.328	.253		-9.205	.001
		Functional Congruity	1.100	.057	.666	19.255	.001
		Self-congruity	.271	.036	.263	7.591	.001
Note: 1. Predictors= (Constant), Self-congruity, Functional Congruity							
2. Dependent Variable= Purchase Intention							

**D. Hypotheses 4a and 4b.** Hypotheses 4a and 4b were proposed to examine the

functional congruity and the self-congruity as mediators in the dual-pathway persuasion model proposed by Johar and Sirgy (1991). Specifically, hypothesis 4a dealt with the mediating impact of functional congruity on the relationship between the expertise source and purchase intention of a utilitarian product. In order to test the mediation effect, Baron and Kenny's (1986) approach was employed. There are four steps required to determining mediation.

In the first step, a linear regression analysis was conducted to examine the direct effect of expertise on purchase intention in the insurance condition. As seen in Table 25, 56.2 per cent of the variance in purchase intention of insurance was explained by source expertise ( $R^2 = .562$ ,  $F(1,352) = 452.257$ ,  $p < 0.001$ ). Results indicated that the regression was significant, and results also implied that expertise has a significant and positive impact on purchase intention of insurance ( $\beta = 0.75$ ,  $t = 21.266$ ,  $p < 0.001$ ).

Table 25

*Regression Analysis for the Effect of Expertise on Purchase Intention*

Model Summary <sup>b</sup>						
Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.750 <sup>a</sup>	.562	.561	1.11933		
ANOVA <sup>b</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	566.632	1	566.632	452.257	.001 <sup>a</sup>
	Residual	441.020	352	1.253		
	Total	1007.653	353			
Coefficients <sup>a</sup>						
	Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta		
1	(Constant)	.469	.168		2.793	.006

Expertise_ Insurance	.799	.038	.750	21.266	.001
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Note: 1. Predictors= (Constant), Expertise\_ Insurance  
2. Dependent Variable= Purchase Intention\_ Insurance

In the second step, a linear regression analysis was conducted to examine the effect of expertise on the functional congruity concept. As seen in table 26, 63.5 per cent of the variance in functional congruity was explained by source expertise ( $R^2 = .635$ ,  $F(1,352) = 613.617$ ,  $p < 0.001$ ). Results suggested the regression was significant and expertise has a significant and positive impact on functional congruity concept ( $\beta = 0.797$ ,  $t = 24.771$ ,  $p < 0.001$ ).

Table 26

*Regression Analysis for the Effect of Expertise on Functional Congruity*

Model Summary <sup>b</sup>						
Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.797 <sup>a</sup>	.635	.634	6.10615		
ANOVA <sup>b</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22878.755	1	22878.755	613.617	.001 <sup>a</sup>
	Residual	13124.349	352	37.285		
	Total	36003.104	353			
Coefficients <sup>a</sup>						
	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.960	.917		4.321	.001
	Expertise_ Insurance	5.074	.205	.797	24.771	.001
Note: 1. Predictors: (Constant), Expertise_ Insurance						
2. Dependent Variable: Functional Congruity_ Insurance						

In the third step, a linear regression analysis was conducted to examine the indirect effect of source expertise on purchase intention through the potential mediator, functional congruity. As seen in Table 27, the new model that included expertise and functional congruity was able to explain 64.6 per cent of the variance in purchase intention of insurance ( $R^2 = .646$ ,  $F(2,351)=320.909$ ,  $p<0.001$ ). Results suggested that regression was significant and the weightiness given to source expertise and functional congruity were 0.367 and 0.48 respectively. Both source expertise and functional congruity had significant and positive impact on purchase intention in the model.

Table 27

*Regression Analysis for the Effect of Expertise with Functional Congruity on Purchase Intention*

Model Summary <sup>b</sup>						
Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.804 <sup>a</sup>	.646	.644	1.00744		
ANOVA <sup>b</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	651.408	2	325.704	320.909	.001 <sup>a</sup>
	Residual	356.244	351	1.015		
	Total	1007.653	353			
Coefficients <sup>a</sup>						
	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.151	.155		.973	.331
	Expertise_Insurance	.391	.056	.367	6.980	.001
	Functional Congruity_Insurance	.080	.009	.480	9.139	.001
Note: 1. Predictors= (Constant), Functional Congruity_ Insurance, Expertise_ Insurance						

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## 2. Dependent Variable= Purchase Intention\_ Insurance

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In the final step, we compared the beta weight reported for source expertise in the first regression analysis with the beta weight reported in the third regression analysis; it was found that the value had decreased from 0.75 to 0.367. However, the impact of source expertise on purchase intention was still significant even when the functional congruity was included in the model (see Table 27). Accordingly, it was concluded that functional congruity was partially mediating the effect of expertise on purchase intention of insurance, and, thus, hypothesis 4a is supported.

Hypothesis 4b dealt with the mediating impact of self-congruity on the relationship between the source similarity and purchase intention of value-expressive product. In order to test the mediation effect, Baron and Kenny's (1986) four step approach was carried out. First of all, a linear regression analysis was conducted to examine the effect of similarity on purchase intention of artwork (see Table 28) Results revealed that 30.2 per cent of the variance in purchase intention of artwork was explained by source similarity ( $R^2 = .302$ ,  $F(1,349)=150.916$ ,  $p<0.001$ ) . Results also suggested that the regression was significant and similarity was positively correlated with purchase intention of artwork (  $\beta =0.549$ ,  $t=12.285$ ,  $p<0.001$ ).

Table 28

*Regression Analysis for the Effect of Similarity on Purchase Intention*

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.549 <sup>a</sup>	.302	.300	1.35224
ANOVA <sup>b</sup>				

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	275.957	1	275.957	150.916	.001 <sup>a</sup>
	Residual	638.162	349	1.829		
	Total	914.118	350			
Coefficients <sup>a</sup>						
	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.948	.193		10.077	.001
	Similarity_ Artwork	.576	.047	.549	12.285	.001

Note: 1. Predictors= (Constant), Similarity\_ Artwork  
2. Dependent Variable= Purchase Intention\_ Artwork

The second linear regression analysis was conducted to examine the effect of similarity on the self-congruity concept. As seen in Table 29, 74.8 per cent of the variance in self-congruity were able to be explained by similarity ( $R^2 = .748$ ,  $F(1,349) = 1036.228$ ,  $p < 0.001$ ). Results indicated that the regression was significant and similarity was positively correlated with self-congruity ( $\beta = 0.865$ ,  $t = 32.191$ ,  $p < 0.001$ ).

Table 29

*Regression Analysis for the Effect of Similarity on Self-congruity*

Model Summary <sup>b</sup>						
Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.865 <sup>a</sup>	.748	.747	.78689		
ANOVA <sup>b</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	641.633	1	641.633	1036.228	.001 <sup>a</sup>
	Residual	216.101	349	.619		
	Total	857.734	350			
Coefficients <sup>a</sup>						
	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
	(Constant)	.266	.113		2.367	.018
1	Similarity_ Artwork	.879	.027	.865	32.191	.001

Note: 1. Predictors= (Constant), Similarity\_ Artwork  
2. Dependent Variable= Self-congruity\_ Artwork

The third linear regression analysis was conducted to examine the effect of similarity on purchase intention of artwork with self-congruity as a potential mediator included in the model. As seen in Table 30, 35.7% of the variance in purchase intention of artwork were able to be explained by the new model with both similarity and self-congruity as predictors ( $R^2 = .357$ ,  $F(2,348) = 96.566$ ,  $p < 0.001$ ). Results suggested that the regression was significant, and only self-congruity ( $\beta = 0.467$ ,  $t = 5.456$ ,  $p < 0.001$ ) was positively correlated with purchase intention of artwork. The impact of similarity on purchase intention of artwork in this new model was found to be not significant anymore ( $\beta = 0.145$ ,  $t = 1.696$ ,  $p = 0.091$ ).

Table 30

*Regression Analysis for the Effect of Similarity with Self-congruity on Purchase Intention*

Model Summary <sup>b</sup>						
Mode	R	R Square	Adjusted R Square		Std. Error of the Estimate	
1	.597 <sup>a</sup>	.357	.353		1.29972	
ANOVA <sup>b</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	326.251	2	163.126	96.566	.001 <sup>a</sup>
	Residual	587.867	348	1.689		
	Total	914.118	350			
Coefficients <sup>a</sup>						
	Model	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.



	(Constant)	1.820	.187		9.715	.001
1	Similarity_ Artwork	.152	.090	.145	1.696	.091
	Self-congruity Artwork	.482	.088	.467	5.456	.001
Note: 1. Predictors= (Constant), Self-congruity_ Artwork, Similarity_ Artwork						
2. Dependent Variable= Purchase Intention_ Artwork						

In the last step, we compared the beta weight reported for source similarity in the first regression analysis with the beta weight reported in the third regression analysis. It was found that beta weight has decreased from 0.549 to 0.145. Moreover, there was no significant relationship found between similarity and purchase intention of artwork when self-congruity was included in the model. Findings implied that self-congruity fully mediate the effect of similarity on purchase intention of artwork. Hence, hypothesis 6b is supported.

#### 5.4 Summary of the Hypotheses Results

H1a: Viewers will perceive a higher degree of functional congruity when a utilitarian product is endorsed by a celebrity spokesperson with a higher degree of expertise than when the utilitarian product is endorsed by a celebrity spokesperson with a lower degree of expertise. **SUPPORTED**

H1b: Viewers will perceive a higher degree of functional congruity when a utilitarian product is endorsed by a celebrity spokesperson with a higher degree of expertise than when a value-expressive product is endorsed by a celebrity spokesperson with a higher degree of expertise. **NOT SUPPORTED**

H1c: Viewers will perceive a higher degree of functional congruity when a utilitarian

product is endorsed by a celebrity spokesperson with a higher degree of expertise than when a value-expressive product is endorsed by a celebrity spokesperson with a higher degree of similarity. **SUPPORTED**

H2a: Viewers will perceive a higher degree of self-congruity when a value-expressive product is endorsed by a celebrity spokesperson with a higher degree of similarity than when the value-expressive product is endorsed by a celebrity spokesperson with a lower degree of similarity. **SUPPORTED**

H2b: Viewers will perceive a higher degree of self-congruity when a value-expressive product is endorsed by a celebrity spokesperson with a higher degree of similarity than when a utilitarian product is endorsed by a celebrity spokesperson with a higher degree of similarity. **SUPPORTED**

H2c: Viewers will perceive a higher degree of self-congruity when a value-expressive product is endorsed by a celebrity spokesperson with a higher degree of similarity than when a utilitarian product is endorsed by a celebrity spokesperson with a higher degree of expertise. **SUPPORTED**

H3a: Viewers will have a higher degree of purchase intention for a utilitarian product when they perceive a higher degree of functional congruity than when they perceive a lower degree of functional congruity. **SUPPORTED**

H3b: Viewers will have a higher degree of purchase intention for a value-expressive product when they perceive a higher degree of self-congruity than when they perceive a lower degree of self-congruity. **SUPPORTED**

H3c: Functional congruity, compared with self-congruity, is able to explain more variance in purchase intention of utilitarian product. **SUPPORTED**

H3d: Self-congruity, compared with functional congruity, is able to explain more variance in purchase intention of value-expressive product. **NOT SUPPORTED**

H4a: Functional congruity will mediate the effect of an expert source on viewers' purchase intention of a utilitarian product. **SUPPORTED**

H4b: Self-congruity will mediate the effect of a similar source on viewers' purchase intention of a value-expressive product. **SUPPORTED**

## **Discussion and Implication**

This study was conducted to examine Johar and Sirgy's (1991) dual-pathway persuasion model in a celebrity endorser advertising context (see Figure 3 on page 28) . Specifically, it was conducted to find out 1) whether pairing celebrity spokespersons with products in print ads can effectively enhance viewers' perceived functional congruity and self-congruity; 2) if yes for the first question, then what kind of celebrity spokespersons are more capable of enhancing the perceived functional congruity and what kind of celebrity spokespersons are most capable of enhancing the perceived self-congruity; 3) whether the enhancements in functional congruity or self-congruity induced by celebrity spokespersons will result in behavior formations; 4) whether functional congruity and self-congruity work as mediators in the dual-pathway persuasion model. Discussion of the findings will be carried out by answering the questions illustrated above one by one.

### **6.1. Celebrity Spokespersons and Congruity Concept**

The first question concerns whether a celebrity spokesperson in an ad can effectively enhance a viewer's perceived functional congruity or self-congruity of the advertised product. This question will be discussed separately for each congruity concept.

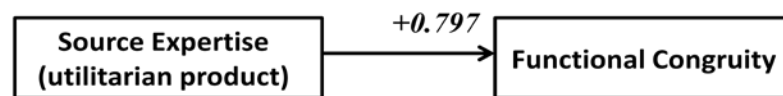
**A. Source Expertise, Utilitarian Product and Functional Congruity.** According to Johar and Sirgy's (1991) dual-pathway model, when the product in question is utilitarian related, viewers will process persuasion messages through a functional congruity pathway (see Figure 2 on page 27). They also suggested that perceived functional congruity will be enhanced when a person perceives the utilitarian attribute(s) from a product is/are consistent with the attribute(s) used to evaluate this product. For

example, person A wanted to purchase insurance, and person A usually evaluates insurance company based on three attributes, price, reputation and customer service. Then, person A saw an advertisement announced by an insurance company saying that their products are well-known for the competitive prices, high reputation and five-star customer services. Ideally, after person A saw that ad, he or she may perceive a higher degree of functional congruity for the insurance company.

However, in most cases, it is not sufficient to arouse a higher degree of functional congruity by only highlighting one or more product attribute(s) in an ad. Viewers always look for recommendations from professional institutions or ask friends for suggestions because they rely on more credible source than advertisements. Accordingly, one of the purposes of this study was try to make the advertisement become more credible by pairing a utilitarian product with a celebrity spokesperson who is perceived as a highly expert source so that viewers' perceived functional congruity will be enhanced (see Hypothesis 1a on page 29).

Findings of hypothesis 1a indicated that when the product in question is utilitarian related the higher the degree of expertise of a celebrity spokesperson is perceived by viewers, the higher the degree of functional congruity will be induced. As seen in Figure 8, when the product in question is utilitarian related, expertise and functional congruity are strongly and positively correlated,  $r(352)=0.797$ ,  $p<0.001$ . For example, to pair a celebrity spokesperson who is highly expert and a celebrity spokesperson who is less expert in using GPS navigation systems with a specific GPS navigation product in an ad respectively, viewers in highly expert source group will more likely to believe that the endorsed GPS navigation product is able to satisfy their utilitarian needs, such as a

reliable warranty and lifetime map and traffic updates. Therefore, part of the answer for the first question is yes. Pairing a celebrity spokesperson who is perceived as a highly expert source with a utilitarian product in an ad is able to induce a higher degree of functional congruity.



*Figure 8.* Positive relationship between source expertise and functional congruity.

Finding of the positive relationship between the source expertise and functional congruity when utilitarian product is involved in persuasion process is consistent with Johar and Sirgy's proposition, and results of hypothesis 1a also support source expertise literature. Specifically, Johar and Sirgy (1991) indicated that the utilitarian appeals are responsible to inform viewers of one or more utilitarian attribute(s) that are usually the benefits viewers will gain by purchasing or using the product in the ad. Celebrity endorsement studies suggested that source expertise can effectively make the persuasion messages become more believable and truthful (Ohanian, 1991; Goldsmith, Lafferty & Newell, 2000; Till & Busler, 2000; Simmers, Damron-Martinez, & Haytko, 2009), and, as a result, positive effect will impact viewers' evaluations of a product' or a service' utilitarian features (Dean & Biswas, 2001). In other words, viewers will perceive that the endorsed product can effectively meet their utilitarian needs, resolve their problems or benefit them just like it did for the celebrity spokesperson.

**B. Source Similarity, Value-expressive Product and Self-congruity.** According to Johar and Sirgy (1991), when the product in question is value-expressive related, viewers will process persuasion messages through a self-congruity pathway (see Figure 2 on page

27). Self-congruity stresses the congruence between the product image and the viewers' self-images. A product image or a product-user image involves one or more symbolic attributes related to both the product and the typical user of this product. Matching one or more symbolic attribute(s) from the product scope with viewers' self-concept will result in a higher degree of self-congruity. For example, person B wanted to purchase artwork. Rich, successful and being techsavvy technology are three attributes person B has or wants to have in his self-image. Then, person B sees an advertisement announced by an art gallery saying that their regular customers are some world famous technology CEOs. After person B saw this ad, he will perceive a higher degree of self-congruity for this art gallery.

Marketing or advertising practitioners are trying to relate a company image or a product's typical user image to some visible things, such as celebrity spokespersons and company slogans. Celebrity spokespersons are effective because they are well-known public figures, and most of them have attractive appeals (McCracken, 1989). More importantly, researchers (e.g. Kellner, 2001; Fraser & Brown, 2002) have indicated that celebrities are admired by people for their outstanding talents (e.g. acting and singing) and unique symbolic attributes (e.g. successful, luxury and intelligent). Hence, this study proposed that pairing a celebrity spokesperson who is perceived as a highly similar source with a value-expressive product is able to enhance viewers' perceived self-congruity of the endorsed product.

Findings of hypothesis 2a indicate that, when the product in question is value-expressive related, the higher the degree of similarity of a celebrity spokesperson is perceived by viewers, the higher the degree of self-congruity will be induced. As seen

in Figure 9, there is a strong and positive correlation between source similarity and self-congruity when the product in question is value-expressive related,  $r(349)=0.865$ ,  $p<0.001$ . For example, when artwork is endorsed by Tom Hanks and Katy Perry respectively, middle-aged male viewers perceive Tom Hanks as a highly similar source and Katy Perry as a less similar source. Results of hypothesis 2a implied that Tom Hanks ad viewers are more likely to perceive that the endorsed artwork can express or enhance their self-images (e.g. masculine and elegant) than viewers in Katy Perry's group. Therefore, the other part of the answer for the first question is yes. Pairing a celebrity spokesperson that is perceived as a highly similar source with a value-expressive product in an ad is able to induce a higher degree of self-congruity for the endorsed product.



*Figure 9.* Positive relationship between source similarity and self-congruity.

Findings of the positive relationship between the source similarity and the self-congruity concept in value-expressive condition supports Johar and Sirgy's dual-pathway model and also supports the identification literature. Specifically, identification theory (Kelman, 1958; Boon & Lomore, 2001) suggests that person C will adopt a celebrity spokesperson's attitudes or behaviors because person C found that celebrity spokesperson possessing one or more symbolic attribute(s) person C has or wants to have in his or her self-images. Furthermore, the meaning transfer theory (McCracken, 1989) proposed that celebrity spokesperson's image will transfer to the product image through an endorsement activity, and, as a result, person C will perceive that the endorsed product possesses the similar attribute(s) he or she has or wants to have



in his or her self-image.

Kelman (1961) stressed that celebrities are very effective communicators due to their ability to make viewers want to identify with them and internalize the content they say about the endorsed products. Bandura (1986) suggested that identification is a modeling process that goes beyond the imitation of behavior from a celebrity by a receiver. Consequences of generating a higher degree of identification include the changing of attitudes, values, aspirations and behaviors. Caughey (1986) and Boone and Lomore (2001) found that, in order to become more like admired celebrities, viewers made changes in their appearance, attitudes, values and activities.

Two studies (Austin & Meili, 1994; Austin, Pinkelton, & Fujioka, 2000) conducted by Austin and her colleagues indicated that children's expectancies about alcohol use and actual drinking behavior were influenced by identification with the characters in advertisements. Overall, it was concluded that Identification theory fits very well with the self-congruity concept in explaining how celebrity spokespersons are able to enhance viewers' perceived self-congruity.

**C. Interaction Effect of Source Type by Product Type on Congruity.** The second question that needs to be answered is that what kind of celebrity spokespersons are more capable of enhancing the perceived functional congruity and what kind of celebrity spokespersons are more capable of enhancing the perceived self-congruity. Johar and Sirgy (1991) proposed that utilitarian appeals, compared to value-expressive appeals, are more effective in persuading utilitarian attitudes, whereas value-expressive appeals, compared to utilitarian appeals, are more effective in persuading value-expressive attitudes. Based on this proposition, this study proposed that, when the product in

question is highly utilitarian, an expert source is superior to a similar source, but, when the product in question is highly value-expressive, a similar source is more effective than an expert source.

Results of hypothesis 1b revealed that the effect of expertise on functional congruity did not differ between a utilitarian product and a value-expressive product significantly. As seen the top left set of comparison in Figure 10, the positive correlation between source expertise and functional congruity is stronger when the product in question is utilitarian related,  $r(352)=0.797$ ,  $p<0.001$ , than when the product is value-expressive related  $r(349)=0.591$ ,  $p<0.001$ .

Results of hypothesis 2b found that subjects scored on the self-congruity significantly higher in similar-value-expressive condition than in similar-utilitarian condition. As seen the top right set of comparison in Figure 10, the positive correlation between source similarity and self-congruity is stronger when the product in question is value-expressive related,  $r(349)=0.865$ ,  $p<0.001$ , than when the product in question is utilitarian related  $r(352)=0.755$ ,  $p<0.001$ .

Results of hypothesis 1c and 2c revealed that functional congruity is influenced more by *Type I Match* (utilitarian appeal paired with utilitarian product) than *Type II Match* (value-expressive appeal paired with value-expressive product), whereas self-congruity is influenced more by *Type II Match* than by *Type I Match* (see p.29 for more information regarding *Type I Match* and *Type II Match* definitions). As seen the bottom left set of comparison in Figure 10, functional congruity is more closely and positively correlated with *Type I Match*,  $r(352)=0.797$ ,  $p<0.001$ , than *Type II Match*,  $r(349)=0.464$ ,  $p<0.001$ , whereas self-congruity is more closely and positively correlated

with *Type II Match*,  $r(349)=0.865$ ,  $p<0.001$ , than *Type I Match*,  $r(352)=0.524$ ,  $p<0.001$ .

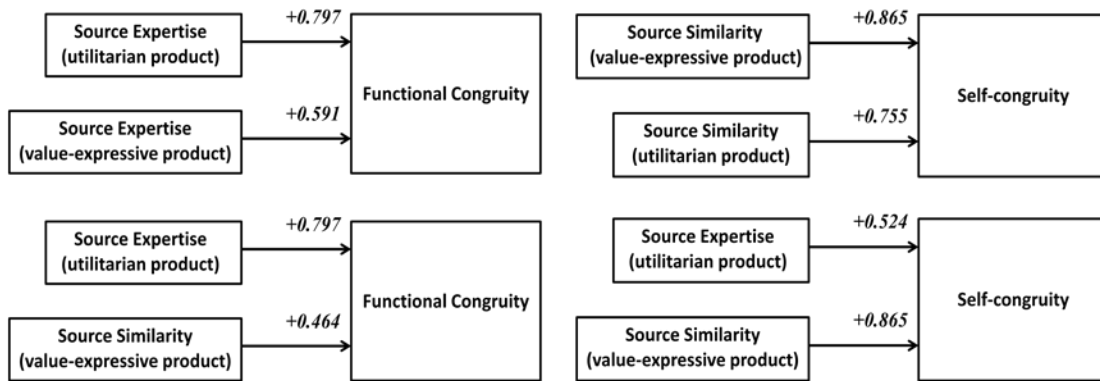


Figure 10. Four sets of path model comparisons.

These findings partially support Johar and Sirgy's (1991) propositions regarding which type of appeal is more effective than the other type of appeal in persuading a specific attitude type. The lack of significant finding of expert source is more effective in persuading utilitarian attitudes than in persuading value-expressive attitudes is the focus of the following discussion. Two potential reasons will be discussed.

First of all, it is possible that value-expressive product used in this study may violate the assumption that viewers' attitude towards a product serve a specific attitude function predominately. Johar and Sirgy (1991) suggested that viewers' attitude towards automobiles may serve both utilitarian function and value-expressive function. It is possible that artwork may also serve multiple functions like automobiles.

To find out how viewers perceive artwork, a descriptive statistics analysis was conducted to gain an idea about how subjects perceive five utilitarian attributes (price, quality, value, artist/gallery reputation, fit with my room/wall) as important attributes in their purchase decision making process (see Appendix A for information regarding functional congruity scale). It was anticipated that subjects perceive the five utilitarian

attributes of artwork are not important factors that influence their artwork purchase decisions, or, at least, these five utilitarian attributes of artwork are not as much important as the five utilitarian attributes used to determine subjects' insurance purchase decisions. However, as seen in Table 31, results suggested that subjects perceived the five utilitarian attributes of artwork similarly as how they perceived the five utilitarian attributes in insurance condition, which implied that subjects' product attitude towards artwork may serve utilitarian function as well as value-expressive function.

Table 31

*Summary of Descriptive Statistics of Attributes Importance*

Descriptive Statistics				
Product	Attribute	N	Mean	Std. Deviation
Insurance	price	354	6.4520	.91522
	coverage	354	6.3870	.94910
	company reputation	354	5.7260	1.18826
	customer service	354	5.7655	1.13350
	benefits	354	6.0819	1.04112
Artwork	price	351	5.8575	1.23158
	quality	351	6.1368	1.06024
	value	351	5.7037	1.25492
	artist/gallery reputation	351	4.8376	1.39770
	fit with my room/wall	351	6.0570	1.16234

Secondly, McCracken (1989) indicated in the meaning transfer theory that celebrity spokespersons are effective not only because they were considered as sources with higher degree of credibility or attractiveness, but also because they were sources with various cultural meanings. It is argued that the cultural meanings possessed by celebrity spokespersons may reinforce celebrity spokespersons' abilities of being expert sources

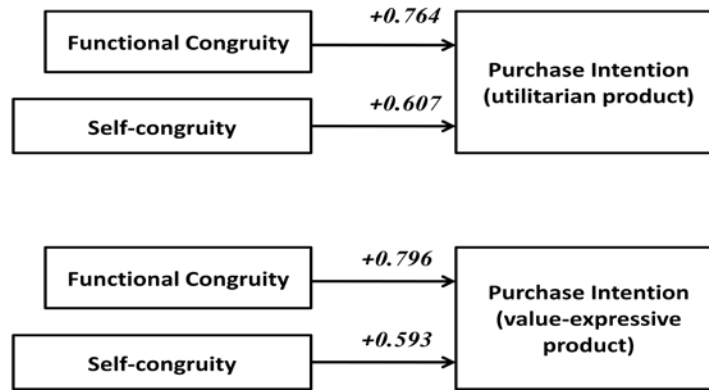
for value-expressive products. Biswas and his colleagues (2006) found that the differential effects of non-celebrity expert source versus celebrity spokespersons depends on viewers' perceived congruency degree between the endorser and the endorsed product. They argued it is possible that a celebrity spokesperson is equally effective as a non-celebrity expertise source on influencing viewers' utilitarian evaluations of the endorsed product when the perceived congruence between celebrity spokesperson and product type is high. In terms of this study, it is possible that viewers perceive that the artwork-celebrity expert source congruence is higher than insurance-celebrity expert source due to the nature of celebrities. Accordingly, the effect of celebrity expertise source on functional congruity may be equally effective for utilitarian and value-expressive products.

## **6.2 Congruity Concept and Purchase Intention**

The third question that needs to be answered is that whether the enhancements in functional congruity or self-congruity induced by celebrity spokespersons will result in behavioral intentions. Johar and Sirgy's (1991) suggested in the dual-pathway model that functional congruity and self-congruity are positively correlated with behavioral intentions.

As seen in Figure 11, findings of hypothesis 3a revealed that, when the product in question is utilitarian related, the higher the degree of functional congruity is perceived by viewers, the higher the degree of purchase intention will be induced, which means functional congruity is positively correlated with purchase intention of utilitarian product,  $r(352)=0.764$ ,  $p<0.001$ . Findings of hypothesis 3b suggested that, when the product is

question is value-expressive related, the higher the degree of self-congruity is perceived by viewers, the higher the degree of purchase intention will be induced, which implied that self-congruity is positively correlated with purchase intention of value-expressive product,  $r(349)=0.593$ ,  $p<0.001$ .



*Figure 11.* Positive relationship between congruity concept and purchase intention.

Based on hypotheses 3a and 3b, it is inferred that utilitarian attitude customers are more likely to purchase the vacuum machines that have been well demonstrated by sales people than the vacuum machines that have been only displayed on the racks because people who have seen the demonstrations are more likely to perceive that the vacuum machines are able to satisfy their utilitarian needs, such as easy to clean and quiet cleaning experience. In contrast, environmentally friendly customers are more likely to purchase products that have been labeled as eco-friendly because they will perceive purchasing or consuming eco-friendly products is the way to express their self-image.

To conclude, findings of hypotheses 3a and 3b provided a yes as an answer to the third question. Celebrity spokespersons are able to enhance viewers' perceived functional congruity and self-congruity, and, consequently, the enhancements in the congruity concept will result in higher degree of purchase intention of the endorsed products. These

findings are consistent with the proposition proposed by Johar and Sirgy (1991) in the dual-pathway model (see Figure 2) and previous empirical evidence.

Results of this study are in line with a study conducted by Hung and Petrick (2011) which suggesting that perceived functional congruity is an effective factor that predicts viewers' cruising intentions. Chon and Olsen (1991) found that a tourist's satisfaction or dissatisfaction is influenced by both functional congruity and self-congruity. The functional congruity in their study refers to a tourist's perceived match between his or her expectations of a destination and performance perceptions. A restaurant hospitality study found that whether customers patronize a specific restaurant depends on whether they perceive their utilitarian needs will be meet (Eliwa, 2006). Similarly, whether customers would induce positive attitudes and behavioral intentions for a specific restaurant also depends on whether the restaurant has provided customers food and services that are able to satisfy their expectations regarding some utilitarian features such as food quality and environment (Ryu, Lee, & Kim, 2012 ).

Other studies on the relationship between the perceived self-congruity and behavioral intention support the findings of this study. Researchers found that customers are more willing to form positive attitudes and behavioral intentions for products with similar images as their own images (Onkvisit & Shaw, 1989; Sirgy & Samli, 1985). For example, Beerli and his colleague (2007) found that the perceived self-congruity can effective enhance a visitor's intention to visit a destination. Kang (2002) found that viewers' intention to participate in a spot activity can effectively be predicted by viewers' perceived self-congruity. Additionally, Kwak and Kang (2009) found that the intention to consume a team-licensed product by a team follower is depends on this person's

perception of the congruity degree with his self-image and other team follower's images.

Based on the findings of hypothesis 3a and 3b, a new questions focused on learning which type of congruity concept is able to explain more variance in purchase intention of utilitarian product and which type of congruity concept is able to explain more variance in purchase intention of value-expressive product emerged. As seen in Figure 11 on page 106, findings of hypotheses 3c and 3d suggested that functional congruity, compared to self-congruity, is a superior behavioral intention predictor than self-congruity for both utilitarian product condition and value-expressive condition. These findings are partially in line with Johar and Sirgy's (1991) propositions. They proposed that, when the product in question is utilitarian related, functional congruity is a more effective behavioral intention predictor, whereas, when the product in question is value-expressive related, self-congruity is a more effective behavioral intention predictor.

The potential reason to explain why this study found that functional congruity is more effective than self-congruity on predicting behavioral intentions of value-expressive product is the biasing effect of self-congruity on functional congruity. Sirgy and his colleagues' (1991) suggested that functional congruity is slightly but significantly influenced by self-congruity. To understand why there is a biasing effect exists in the dual-pathway model, it is important to review the Elaboration Likelihood Model proposed by Petty and Cacioppo (1981, 1986). ELM is an important social psychology theory that has been widely used as an underlying theory to help to understand the dual-pathway persuasion model and the internal relationship between functional congruity, self-congruity and behavioral intention (Xue, 2008).

Specifically, there are two persuasion routes in ELM. They the central route and the



peripheral route. To process persuasive messages through the central route usually requires more thoughtful considerations, and these attitude changes are perceived to be lasting and confident (Petty & Cacioppo, 1981). In contrast, to process persuasion messages through peripheral route may only require weak arguments or/and low elaboration likelihood, and attitude changes through this route are perceived to be temporary (Braverman, 2008; Petty, Cacioppo, & Schumann, 1983). Functional congruity is the consequence of elaboration in the central route by evaluating the utilitarian features of a product, whereas self-congruity is the result of connecting the product images with viewers' self-images (Johar & Sirgy, 1991; Sirgy et al., 2000). Although, the central and peripheral routes are two different persuasion pathways, the persuasion processes can take place via both routes simultaneously (Sirgy et al., 2005; Hung & Petrick, 2011).

Researchers found that customers' affective responses often occur before their cognitive evaluations of a product's functional attributes (Phillips and Baumgartner, 2002). Self-congruity, as a form of affective responses, is able to enhance the effect of functional congruity on purchase intention (Sirgy et al., 2005; Han, 2006; Kressmann et al., 2006).

For example, if Sunglass Hut invited Julia Roberts to endorse their products targeted at middle-aged women. The viewers may found that Julia Roberts is a highly similar source, and, as a result, they may believe that the sunglasses are elegant and stylish. These positive attitudes and thoughts were primarily from the peripheral route. After that, viewers then decided to process more information in the central route based on increased motivation and ability (Braverman, 2008). The purchase intention of the sunglasses will be initially induced by peripheral route information and later information gained about

the quality of the glasses and prices.

### 6.3 Congruity Concept in Dual-pathway Persuasion Model

The last question that needs to be answered is that whether functional congruity and self-congruity work as mediators in the dual-pathway model. Results of hypotheses H4a and H4b confirmed that functional congruity and self-congruity works as mediators in dual-pathway persuasion model (see Figure 12). Specifically, it was found that the effect of expertise on purchase intention of insurance is partially mediated by functional congruity, while the effect of similarity on purchase intention of artwork is fully mediated by self-congruity. Therefore, the answer for the last question is yes.

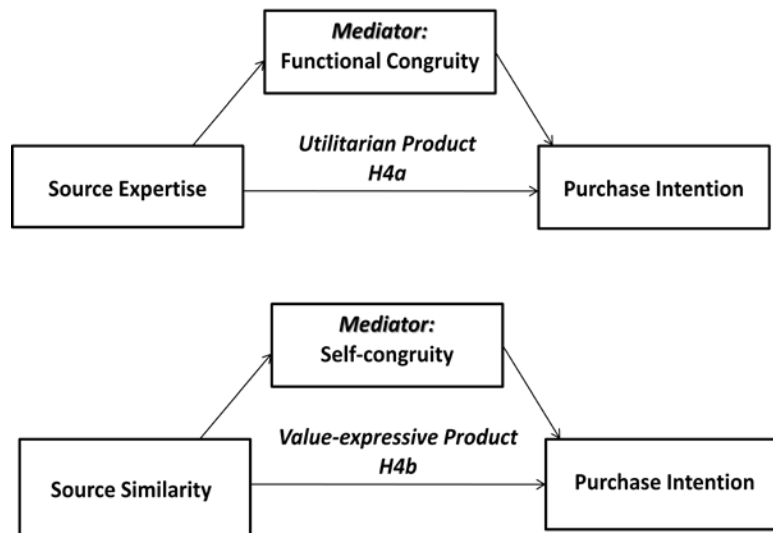


Figure 12. Functional congruity and self-congruity as two mediators.

These findings were in line with previous findings in congruity concept literature. Sirgy et al. (2008) found that the relationship between corporate sponsorship and brand loyalty is mediated by self-congruity with a sponsorship event. Usakli and Baloglu (2011) found a partial mediating effect of self-congruity on the relationship between destination

personality and tourist's behavioral intentions. Chang, Chen and Huang (2009) also found a partial mediating effect of self-congruity on the relationship between customers' participations of a product customization activity and their satisfactions of the products.

## **6.4 Implications**

**A. Conclusion.** This study was conducted to test Johar and Sirgy's dual-pathway persuasion model in the celebrity endorser advertising context. Results of this study found that celebrity spokespersons are able to influence viewers' evaluations of a product's utilitarian attributes (e.g. price, quality and value) as information carriers, and they are also able to impact viewers' evaluations of a product's symbolic attributes (e.g. elegant, luxury and intelligent) as role models. Results of this study also revealed, when viewers perceive the utilitarian attributes are able to meet their utilitarian needs or when the symbolic attributes are similar to the attributes which they would like to maintain or to possess in their self-images, they will be more likely to purchase the endorsed products. Moreover, it was found that celebrity spokesperson effectiveness varies by product type . Specifically, celebrity spokespersons that are perceived as highly expert sources are extremely helpful when they are being paired with utilitarian products. In contrast, celebrity spokespersons that are perceived as highly similar sources are superior in endorsing the value-expressive products. Findings of this study also revealed that the effect of a highly expert source on purchase intention is able to be partially mediated by the perceived functional congruity, and the effect of a highly similar source on purchase intention is able to be fully mediated by the perceived self-congruity. Based on the results concluded above, theoretical implications and practical implications will be discussion in

the following sections.

**B. Theoretical Implications.** First of all, attitude function is a fundamental marketing theory and researchers should be aware of when trying to examine what factor(s) is/are able to influence viewers' attitudes and behavioral intentions. Moreover, Johar and Sirgy's (1991) dual-pathway persuasion model is applicable in the celebrity endorsement context. These implications suggest that researchers should be aware that how viewers process persuasive information is largely determined by what their motivations towards a specific product are. Whether they are looking for utilitarian benefits or effective ways through which they can expressive their self-images? Previous celebrity endorsement literature has focused on either the information carrier perspective or the role model perspective. Most of the studies have failed to consider that even a specific celebrity spokesperson may influence people's attitudes and behavioral intentions through two different ways. It is inappropriate to consider Katy Perry as a pure role model or Tom Hanks as a pure information carrier. For example, Michael Jordan might be perceived as a role model when he was the endorser for Coca-Cola, but he might be perceived as an information carrier when he was the endorser for Gatorade. The failure of consider what function a viewer's attitude towards a product serves may explain why some researchers found what is beautiful is good, while others argued that expertise is more effective than physical attractiveness.

Furthermore, this study implied that congruity concept is a meaningful theory that provides researchers an opportunity to truly understand why celebrity spokespersons are able to influence attitudes and induce behavioral intentions. As seen in Figure 3 on page 28, previous celebrity endorsement literature have mainly focused on examining the

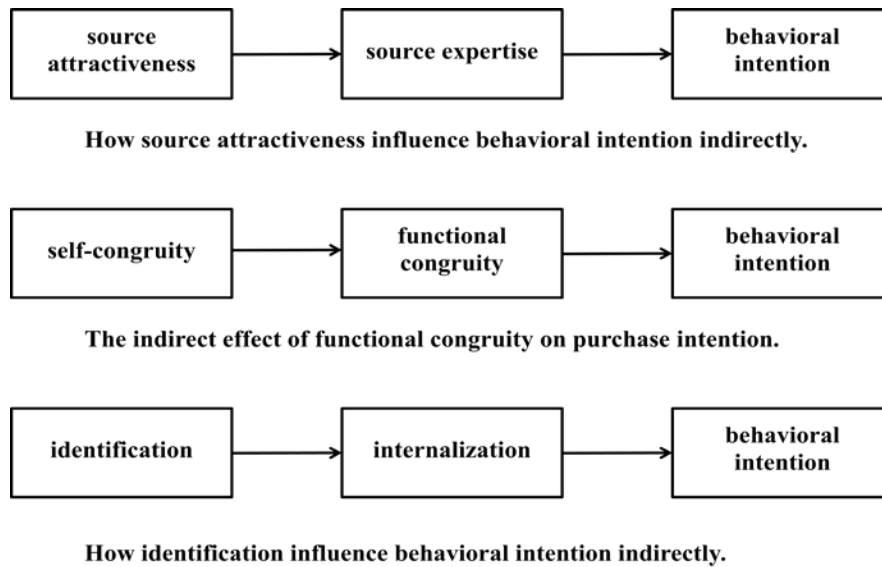
direct connections between the independent variables in stage one and the dependent variables in stage three. Studies have been conducted to learn whether source expertise/attractiveness is able to induce positive attitudes and behavioral intentions, but they are unable to explain why Tiger Woods is still as an endorser for Nike and why some people decided to stop buying golf products from Nike while others decided to keep purchasing even after Tiger Wood's scandal had been released in 2009.

Positive attitudes and purchase intentions are induced for products, hence, it is necessary to understand how exactly people feel about the products rather than some basic feelings such as liking or preference. Functional congruity enables researchers to measure how people perceive a product's utilitarian performance and how their utilitarian needs have been satisfied. Self-congruity enables researchers to measure how much people perceive a product is able to express their self-images. By measuring people's perceived functional congruity and self-congruity, researchers are better able to explain why some people chose to stay with Nike while others chose to stay away. People's attitude towards golf products serve utilitarian functions and they may consider Tiger Woods as a highly expert source and products from Nike are able to satisfy their utilitarian needs, such as accuracy and quality. Accordingly, they may chose to continue purchasing products from Nike. In contrast, when people's attitude towards golf products serve value-expressive functions, they may consider Tiger Woods as a dissimilar and undesirable source. The Tiger Woods endorsed products from Nike are ineffective in expressing a positive self-image for the potential buyers. Hence, they may chose to swift to other brands.

Besides, this study treated functional congruity and self-congruity as two competing

concepts. However, it was found that functional congruity, compared to self-congruity, is able to explain more variance in purchase intention of value-expressive product. A potential reason to explain this finding is the indirect effect of functional congruity on purchase intention (see Figure 12). This indirect effect of functional congruity was found in previous congruity studies (Samli & Sirgy, 1981; Sirgy & Samli, 1985). Researchers argued that self-congruity is able to enhance the effect of functional congruity on behavioral intentions. Accordingly, it is possible that functional congruity and self-congruity are two competing concepts, and they are able to work together simultaneously or in a one by one order.

More importantly, this indirect effect of functional congruity may be helpful in explaining why researchers found that source expertise is more closely related to purchase intention than source attractiveness (Till & Busler, 2000). Specifically, as seen in Figure 13, attractive sources may be unable to influence behavioral intentions directly, but they may be able to influence viewers' perceived expertise degree, and, which, in turn, influence viewers' behavioral intentions. Similarly, as seen in Figure 13, the indirect effect of functional congruity also imply that celebrity spokespersons that are highly identified by viewers may influence viewers' behavioral intentions indirectly. In other words, it is possible that people eventually decided to induce a behavior is due to the fact that they have internalized the content of the recommendations made by the highly identified celebrity spokesperson.



*Figure 13.* The indirect effect of functional congruity on behavioral intention and other indirect effects regarding celebrity spokespersons effectiveness.

**C. Practical Implications.** Marketing and advertising practitioners should be aware of the importance of selecting an appropriate celebrity spokesperson to endorse a specific product or a brand ad. They should consider two questions before they make the selection decision. Firstly, marketers should think about what kind of product is going to be advertised and what is the main purpose of the ad. Is it a utilitarian product or a value-expressive product? Utilitarian advertisements deliver messages regarding the utilitarian benefits of using a product. Value-expressive advertisements deliver information regarding the symbolic images of a product, a brand or a product's typical user. If a utilitarian message is desired, a knowledgeable and experienced celebrity spokesperson is able to make the content of the ad become more believable and authentic. For example, if LG were going to introduce a new refrigerator to the U.S. market. They

are going to launch a one-page printed advertisement in a cooking magazine. Based on the results of this study, LG should consider to choose Curtis Stone who is one of the most popular celebrity chefs in the U.S., rather than Taylor Swift, to endorse the refrigerator in the ad. Although Taylor Swift is well-known, talented in music area and liked by a lot of people in the U.S., she has no expertise in home appliances. Viewers will be more likely to believe that the new LG refrigerator is able to satisfy their utilitarian needs (e.g. energy saving) and to induce purchase intention of the refrigerator when endorsed by Curtis Stone.

The second question marketers should consider is the target audience. Whether they are young or old? Are they male or female? What symbolic attributes do these people have or want to have in their self-images? This question is extremely important when the answer for the first question is value-expressive. Viewers with value-expressive product attitudes are looking for some attributes which are similar to the attributes they would like to maintain or to possess in their self-images. By showing positive attitudes toward a specific product or a specific brand, viewers try to let others know who they are and what kind of people they want to be. In this case, marketers should select a celebrity spokesperson who is perceived by viewers as a highly similar source.

For example, M.A.C cosmetics is going to launch a new series of make-up products that target at young ladies who wants to be attractive and distinctive. M.A.C planned to announce a one-page printed ad in a fashion magazine, and they were thinking about having a celebrity spokesperson to endorse the products in the ad. Advertising practitioners should make a profile for this group of young ladies. In the profile, symbolic attributes should be illustrated to capture who are these young ladies and what do they



want in their self-images. In this case, this group of ladies are *young female* want to become *unique* and *unconventional*. They may also want to *try new things* and *breakthrough their selves*. Based on this profile, advertising practitioners may want to consider celebrities such as Lady Gaga or Katy Perry. Regardless of their talent in music, they are well-known for their stage performing and unconventional styles of dresses and makeup. Viewers who perceive Lady Gaga or Katy Perry as a highly similar source will be more likely to perceive the new product image of M.A.C to be similar as their self-images. More importantly, as a result, viewers are more likely to form positive attitudes and purchase intentions towards the endorsed products.

This practical implication is supported by Erdogan and Drollinger's (2008) study, in which they proposed a normative model that can be used to guide practitioners in their celebrity spokesperson selection process. This model indicated that practitioners should fully understand the endorsed brand's image and the audience's characteristics before they decide which celebrity spokesperson to choose to endorse a specific brand. It also suggested that practitioners should launch a qualitative research to find out whether a specific celebrity spokesperson is capable of communicating message with audience or perceived by the audience as a suitable endorser for the endorsed brand.

However, in some cases, it is very difficult to define whether people's attitudes towards a product or a brand mainly serves a utilitarian function or a value-expressive function. This may due to the fact people's attitudes towards a product serves multiple functions, or a brand carries both utilitarian products and value-expressive products. For instance, some people perceive a jeep to be a more utilitarian product, while others perceive a jeep to be a more value-expressive product. Utilitarian jeep ads may want to

focus on telling the utilitarian benefits of the jeeps, such as enough space for family travel, excellent horse power and outstanding off-road performance. Celebrities, such as a country music singer who has a large family, are considered to be appropriate endorsers. In contrast, value-expressive jeep ads may focus on image delivering. This kind of ads may want to invite celebrities who are perceived to be masculine and tough to endorse the ads, such as rock singer and football players.

When a brand carries a variety product lines, such as watch brand like OMEGA, marketers should consider to having multiple celebrity spokespersons so that a brand' image is not limited to a specific celebrity spokesperson. According to OMEGA official website (2013) information, they have 15 celebrity spokespersons who are endorsing their watch products. These celebrity spokespersons are famous astronauts, athletes, actors and actress and models, and each of them expresses a distinctive product image. To conclude, marketing and advertising practitioners should be very cautious when selecting celebrity spokespersons for endorsing different products. Appropriate celebrity spokespersons can be treasures to brands or companies.

## **Contributions, Limitations and Future Research**

### **7.1 Contributions**

First of all, this study is the first study to examine celebrity spokespersons' effectiveness from an integrated perspective and investigate Sirgy and Johar's dual-pathway model in the celebrity endorsement context. Previous studies investigated celebrity spokesperson effectiveness either from the match-up hypothesis perspective or from the identification perspective. The match-up hypothesis emphasized the utilitarian based effectiveness of celebrity spokespersons in the ads, while identification theory stressed the importance of some emotional attachments between celebrity spokespersons and viewers. This study is the first study to compare the effect of being an information carrier (match-up hypothesis perspective) with the effect of being a role model (identification perspective).

Results suggested that an information carrier is slightly superior to a role model in terms of its ability to enhance viewers' perceived functional congruity of a utilitarian product. Results also suggested that a role model is significant superior to an information carrier regarding its ability to enhance viewers' perceived self-congruity of a utilitarian product. Findings provide marketing and advertising practitioners with guidelines regarding how to select an appropriate celebrity spokesperson to achieve a specific object, such as build brand image or introduce a new product, and how to maximize the celebrity spokespersons' effectiveness. More importantly, these findings provide supportive evidence for Johar and Sirgy's (1991) dual-pathway model.

In addition, this study is among the small body of research investigating the effects of perceived similarity between celebrity spokespersons and viewers. Similarity was

usually considered as a dimension under source attractiveness, however, the importance of learning the perceived match or congruence between celebrity spokespersons and consumers has been noted by researchers recently (Choi & Rifon, 2012). Choi and Rifon conducted a study to examine two types of congruence. One congruence is the perceived match between celebrity spokespersons and consumers, while the other congruence is the well-known match-up hypothesis. Dependent variables involved in their study include attitude towards ad, attitude towards brand and purchase intention. Results of their study suggested that viewers are more likely to perceive positive attitude towards the ad when they found the celebrity spokesperson in the ad is possessing an image close to viewers' self-images. More importantly, both result from this study and result from their study found that the perceived celebrity-consumer match effectively induce more behavioral intention.

Moreover, functional congruity and self-congruity as two dependent variables were examined in this study. Dependent variables such as viewers' attitude towards ad, viewers' attitude towards celebrity spokesperson were main interests in previous literature. This study involved more specific variables, which provides an opportunity to understand the underlying reasons why viewers' attitudes towards the endorsed products have been enhanced and why viewers' purchase intentions have been induced. For instance, this study found that, no matter it was utilitarian product or value-expressive product endorsed by a celebrity spokesperson in an ad, functional congruity is able to explain more variance in purchase intention than self-congruity, which implies that viewers' purchase intentions are more likely to be induced when they perceive their utilitarian needs are able to be satisfied.

Last but not least, this study found that functional congruity has more impact on behavioral variables than self-congruity. A potential reason to explain this finding is the biasing effect of self-congruity on functional congruity. Although, this study did not proposed a theoretical framework to examine the internal relationship between the functional congruity and self-congruity or the biasing effect, results of this study may inspire future researchers to consider the way through which functional congruity and self-congruity should be discussed. Whether they should be discussed as two competing concepts or whether they should be discussed together.

## **7.2 Limitation and Future Research**

There are several limitations of this study. First of all, the demographics of participants were not identical between the first and the second pretest and the main study. Specifically, the second pretest was conducted in a Canadian based university, and the participants were mostly Canadian students from 18 years old to 30 years old. Participants involved in the first pretest and the main study were U.S. citizens. First and second pretests involved participants from 20 years old to 30 years old. Main study has extended the sample age from 30 years old to 50 years old. Accordingly, future studies should maintain a sample consistency between the pretest and the main study.

Furthermore, the main study of this project only involved a U.S. sample, future studies should also consider to recruit participants from more diverse backgrounds. A cross-cultural study will be able to find out how celebrity spokespersons work differently on the perceived congruity concept for different cultural backgrounds. Besides, similarity in this study was manipulated mainly based on demographic attributes, age and gender.

Cohen (2006) suggested that the perceived similarity based on attitude and personal attribute may be superior to the perceived similarity based on demographic attributes. Hence, future studies should consider manipulating similarity based on attitude or personal attributes, such as personality and life experience. For example, according to five factor model (Costa & McCrae, 1985), most individuals can be characterized by using five traits, openness, conscientiousness, extraversion, agreeableness and neuroticism. A cross-cultural study can be conducted in the future to compare the effect of two types of similarity based on different personality traits. Specifically, whether a specific type of similarity, openness for example, would be more influence than another type of similarity, agreeableness for example, on viewers' perceptions of functional congruity and self-congruity degrees for a certain cultural background.

The congruity literature suggested that there are several kinds of self-concept, actual self-congruity, ideal self-congruity, social self-congruity and social ideal self-congruity (Katz, 1960). This study has only examined a general self-congruity which is more based on actual self-concept. Accordingly, it is proposed that future studies can examine self-congruity based on other types of self-concept match. For example, it would be meaningful to find out whether a specific value-expressive product is mainly for helping to enhance their self-concepts or maintain their self-concepts. If product A is mainly for enhancing viewers' self-concepts, then a celebrity spokesperson who is perceived as a source with similar image as viewers' actual self-concepts may be not effective as a celebrity spokesperson who is perceived as a source with similar images with viewers' ideal self-concept. Moreover, studies can be conducted to answer questions such as whether celebrity spokespersons work differently for different types of self-concepts and

whether celebrity spokespersons are more effective in inducing a higher degree of self-congruity based on a particular self-concept. It was also found that some viewers are more likely to avoid some images which are similar to their actual self-concepts and look for images which are similar to their ideal self-concepts, hence, the perceived similarity based on age or/and gender that used in this study may be either positive or negative factor(s) that influence viewers' perceived self-congruity degree.

The celebrity spokespersons used in this study were selected from several lists. Future studies should consider to conduct a pretest to assist the celebrity spokesperson selection process. With regard to product selections, insurance and artwork were used in this study. Insurance is considered as more service than product. Product is a visible and tangible object, whereas service is intangible. Viewers can own products, but they cannot own services. It was argued that viewers evaluate and purchase services in a different manner than products. Hence, future studies should consider to compare effects between two products or two services.

Last but not least, Johar and Sirgy (1991) suggested that effect of congruity concept on behavioral intention may be moderated or mediated by product-related factors and audience-related factors. Among the audience-related factors, elaboration-likelihood model literature proposed that audience involvement and prior knowledge are two factors which influence the product value-expressiveness and utilitarianism (Petty & Cacioppo, 1986). It was proposed in Sirgy and Johar's study that viewers who have low audience involvement and/or prior knowledge are more likely to evaluate the product based on self-congruity, whereas viewers who has high audience involvement and/or prior knowledge are more likely to process persuasion message based on functional congruity.

Based on this proposition, this study has grouped the responses into two categories based on subjects' answers to whether they have purchase experience of insurance or artwork. It was anticipated to find out that self-congruity is a stronger factor than functional congruity for predicting purchase intention for "no" experience group, while functional congruity is superior to self-congruity for predicting purchase intention for "yes" experience group. However, results from a regression analysis revealed that, no matter viewers have or do not have purchase experience of insurance or artwork, functional congruity is always considered as a stronger predictor for predicting viewers' purchase intention than self-congruity. Since this study has only measured viewers' purchase history of a specific product, it is not sufficient to evaluate viewers' involvement degrees only based on one dimension. Future studies should include product involvement as a moderator in the model and attempt to find out how product involvement impacts viewers' perceived congruity.



## APPENDIX A

### Scales Used in This Study

**1. Utilitarian-Value-expressive Scale** (Stafford, Stafford & Day, 2002)

9-point semantic differential scale

I found Product Name: strictly utilitarian 1- 9 strictly value-expressive

**2. Source Familiarity Scale** (Baker & Churchill, 1977)

7-point semantic differential scale

Please tell us how you view Celebrity Name on the following item:

not at all familiar 1-7 familiar

don't know at all 1-7 know very well

**3. Source Attractiveness Scale** (Ohanian, 1990)

7-point semantic differential scale

Please tell us how you view Celebrity Name on the following item:

unattractive 1-7 attractive

not classy 1-7 classy

ugly 1-7 beautiful

plain 1-7 elegant

not sexy 1-7 sexy

**4. Source Likeability Scale** (Kahle & Homer, 1985)

7-point semantic differential scale

Please tell us how you view Celebrity Name on the following item:

unlikeable 1-7 likeable

unpleasing 1-7 pleasing

disagreeable 1-7 agreeable

**5. Source Similarity Scale** (Feick & Higie, 1992)

7-point Likert-type scale

Please rate how much you agree or disagree with the following statements: disagree 1-7 agree

"Celebrity Name and I probably have similar values and beliefs."

"Celebrity Name is quite a bit like me."

"It's likely that Celebrity Name and I have similar tastes and preferences. "

**6. Source Expertise Scale** (Ohanian, 1990)

7-point Likert-type scale

As a spokesperson for Product/Company Name, how did you find Celebrity Name to be?

not an expert 1-7 expert

inexperienced 1-7 experienced

unknowledgeable 1-7 knowledgeable

**8. Source Trustworthiness Scale** (Ohanian, 1990)

7-point Likert-type scale

As a spokesperson for Product/Company Name, how did you find Celebrity Name to be?  
undependable 1-7 dependable  
dishonest 1-7 honest  
unreliable 1-7 reliable  
insincere 1-7 sincere  
untrustworthy 1-7 trustworthy

**9. Functional Congruity Scale** (Ajzen & Fishbein, 1980; Sirgy, Johar, Samli & Claiborne, 1991; Han, 2006)

7-point Likert-type Scale

Part One: The following items refer to how important each evaluative criterion is when you are considering purchasing Product Name. Please rate each of the following items (5 items for each product) on a scale of not at all important to very important.

Part Two: If you were to buy Product Name from Company Name, how satisfied do you think you would be with regards to each of the following items (same 5 items used in Part One)?

**Insurance items:** price; coverage; company reputation/ company reliability ; customer service/ customer support; benefits

**Artwork items:** price; quality; value; artist/ gallery reputation ; fit with my room/wall/other piece(s)

**10. Self-congruity Scale** (Grewal, Mehta, & Kardes, 2004)

7-point Likert-type scale

Please rate how much you agree or disagree with the following statements: disagree 1-7 agree

“The Product Name from Company Name would reflect the kind of person I see myself to be”.

“The Product Name from Company Name would help ascertain my self-identity.”

“The Product Name from Company Name would make me feel good about myself. ”

“ The Product from Company Name would be an instrument of my self-expression. ”

“The Product Name from Company Name would play a critical role in defining my self-concept. ”

“The Product Name from Company Name would help me to establish the kind of person I see myself to be.”

**11. Purchase Intention Scale** (Tripp, Jensen, & Carlson, 1994)

7-point Likert-type scale

Please tell us how likely it is that you would inquire about Product Name from Company Name endorsed by Celebrity Name. unlikely 1-7 likely

Please tell us how likely it is that you would consider purchasing Product Name from Company Name endorsed by Celebrity Name. unlikely 1-7 likely

Please tell us how likely it is that you would actually purchase Product Name from Company Name endorsed by Celebrity Name. unlikely 1-7 likely

## APPENDIX B

### Questionnaire Used in the First Pretest

#### Part One:

##### Definition of Utilitarian Products and Value-expressive Products

Before you answer this questionnaire, we would like you to review the definition of utilitarian products and value-expressive products. We will also give you an example for each category. This will help you to answer the questions in the following pages.

What is a utilitarian product?

We purchase this kind of product for functional use. Usually, we consider cost and quality when we purchase products in this category. For example, most viewers purchase a fan in order to cool down their room temperature. Viewers may consider whether the price of a fan is within their financial budget, or whether a fan has functional features they want. Utilitarian products are those that help us with the function of daily tasks.

What is a value-expressive product?

We purchase this kind of product to express ourselves. Usually, we consider symbolic attributes related to our personality, values, social status and so on when we purchase products in this category. For example, a lot of viewers purchase a watch to express who they are. Some viewers purchase luxury diamond watches to express their wealth, and other viewers purchase sports watches to express their passion for sports. Viewers may consider whether a watch has some symbolic features which may reflect who they are or their personal tastes. Value-expressive products are those we buy to express our unique personal images.

If you are ready to answer the questions, please press “next” button. If you still have some doubts or concerns in terms of what is a utilitarian or value-expressive product, please exit out of your browser and feel free to contact us by email at [shengchen.huang@uleth.ca](mailto:shengchen.huang@uleth.ca) or phone at +1(403)-9291850. We will be happy to answer any questions or concerns.

By clicking "next", you consent that you understand what a utilitarian product is and what a value-expressive product is and wish to continue.

If you do not wish to continue, please exit out of your browser.

#### Part Two:

Please rate each of the following products on the scale below and then provide your comments regarding important attributes you usually consider when you are purchasing this product.

1a. I found sunglasses:

1	2	3	4	5	6	7	8	9
<i>Strictly Utilitarian</i>					<i>Strictly Value-expressive</i>			

1b. When purchasing sunglasses I usually consider attributes such as:

---

2a. I found desktop computers:

1	2	3	4	5	6	7	8	9
<i>Strictly</i> <i>Utilitarian</i>							<i>Strictly</i> <i>Value-expressive</i>	

2b. When purchasing a desktop computer I usually consider attributes such as:

---

3a. I found headphones:

1	2	3	4	5	6	7	8	9
<i>Strictly</i> <i>Utilitarian</i>							<i>Strictly</i> <i>Value-expressive</i>	

3b. When purchasing a headphone I usually consider attributes such as:

---

4a. I found jeans:

1	2	3	4	5	6	7	8	9
<i>Strictly</i> <i>Utilitarian</i>							<i>Strictly</i> <i>Value-expressive</i>	

4b. When purchasing jeans I usually consider attributes such as:

---

5a. I found laptops:

1	2	3	4	5	6	7	8	9
<i>Strictly</i> <i>Utilitarian</i>							<i>Strictly</i> <i>Value-expressive</i>	

5b. When purchasing a laptop I usually consider attributes such as:

---

6a. I found telephones:

1	2	3	4	5	6	7	8	9
<i>Strictly</i> <i>Utilitarian</i>							<i>Strictly</i> <i>Value-expressive</i>	

6b. When purchasing a telephone I usually consider attributes such as:

---

7a. I found mobile phones:

1	2	3	4	5	6	7	8	9
<i>Strictly</i> <i>Utilitarian</i>							<i>Strictly</i> <i>Value-expressive</i>	

7b. When purchasing a mobile phone I usually consider attributes such as:

---

8a. I found banking products (e.g. checking, saving):

1	2	3	4	5	6	7	8	9
Strictly							Strictly	
Utilitarian							Value-expressive	

8b. When purchasing a banking product I usually consider attributes such as:

---

9a. I found insurance products (e.g. health, life, car):

1	2	3	4	5	6	7	8	9
Strictly							Strictly	
Utilitarian							Value-expressive	

9b. When purchasing an insurance product I usually consider attributes such as:

---

10a. I found t-shirts:

1	2	3	4	5	6	7	8	9
Strictly							Strictly	
Utilitarian							Value-expressive	

10b. When purchasing a t-shirt I usually consider attributes such as:

---

11a. I found GPS navigation systems:

1	2	3	4	5	6	7	8	9
Strictly							Strictly	
Utilitarian							Value-expressive	

11b. When purchasing a GPS navigation system I usually consider attributes such as:

---

12a. I found perfume/cologne:

1	2	3	4	5	6	7	8	9
Strictly							Strictly	
Utilitarian							Value-expressive	

12b. When purchasing perfume/cologne I usually consider attributes such as:

---

13a. I found socks:

1	2	3	4	5	6	7	8	9
Strictly							Strictly	
Utilitarian							Value-expressive	

13b. When purchasing socks I usually consider attributes such as:

---

14a. I found refrigerators:

1	2	3	4	5	6	7	8	9
Strictly							Strictly	

*Utilitarian*

*Value-expressive*

14b. When purchasing a refrigerator I usually consider attributes such as:

---

15a. I found artwork:

1            2            3            4            5            6            7            8            9

*Strictly*

*Strictly*

*Utilitarian*

*Value-expressive*

15b. When purchasing artwork I usually consider attributes such as:

---

16. Please tell us your gender.

a. male

b. female

17. Please tell us your age.

---

Thank you for your participation!

## APPENDIX C

### Questionnaire Used in the Second Pretest

1. Have you ever purchased Product Name?

- a. yes
- b. no

2. Assuming you are going to purchase Product Name, please answer the following question.

The following items refer to how important each evaluative criterion is when you are considering purchasing Product Name. Please rate each of the following items on a scale of not at all important to very important.

1	2	3	4	5	6	7
not at all						very
important						important

*Items for insurance questionnaire:*

price; coverage; company reputation/ company reliability ; customer service/ customer support; benefits

*Items for artwork questionnaire:*

price; quality; value; artist/ gallery reputation ; fit with my room/wall/other piece(s)

3. Please read through this ad carefully and answer the questions on this page.

Please tell us how you view Celebrity Name on the following items.

1	2	3	4	5	6	7
not at all familiar						familiar
don't know at all						know very well
unattractive						attractive
not classy						classy
ugly						beautiful
plain						elegant
not sexy						sexy
unlikeable						likeable
unpleasing						pleasing
disagreeable						agreeable

4. Please rate how much you agree or disagree with the following statements.

1	2	3	4	5	6	7
disagree						agree

"Celebrity Name and I probably have similar values and beliefs."

"Celebrity Name is quite a bit like me."

"It's likely that Celebrity Name and I have similar tastes and preferences. "

5. As a spokesperson for Product/Company Name, how did you find Celebrity Name to be?

1	2	3	4	5	6	7
not an expert						expert

experienced  
knowledgeable  
dependable  
honest  
reliable  
sincere  
trustworthy

1 2 3 4 5 6 7  
not at all satisfied very satisfied

price; coverage; company reputation/ company reliability ; customer service/ customer support; benefits

price; quality; value; artist/ gallery reputation ; fit with my room/wall/other piece(s)

1 2 3 4 5 6 7  
disagree agree

“The Product Name from Company Name would be an instrument of my self-expression.”

“The Product Name from Company Name would help me to establish the kind of person I see myself to be.”

1 2 3 4 5 6 7  
unlikely likely

1 2 3 4 5 6 7  
unlikely likely

1 2 3 4 5 6 7



unlikely

likely

11. Please tell us your age.

---

12. Please tell us your gender.

a. male

b. female

13. Please tell us your marital status.

a. single

b. married

c. divorced

14. Please tell us your ethnicity.

a. African

b. Asian

c. Central South American/ Caribbean

d. European

e. First Nations

f. Middle Eastern

g. Other (please specify)

---

Thank you for your participation!

**APPENDIX D**  
**Questionnaire Used in the Main Study**

1. Please tell us your ethnicity.

- a. African
  - b. Asian
  - c. Central South American/ Caribbean
  - d. European
  - e. First Nations
  - f. Middle Eastern
  - g. Other (please specify)
- 

2. Please tell us your marital status.

- a. single
- b. married
- c. divorced

3. Please tell us your gender.

- a. male
- b. female

4. Please tell us which age group are you in.

- a. under 20
- b. 20-24
- c. 25-29
- d. 30-34
- e. 35-39
- f. 40-44
- g. 45-50
- h. more than 50

5. Have you ever purchased Product Name?

- a. Yes
- b. No

6. Assuming you are going to purchase Product Name, please answer the following question.

The following items refer to how important each evaluative criterion is when you are considering purchasing Product Name. Please rate each of the following items on a scale of not at all important to very important.

1	2	3	4	5	6	7
<i>not at all</i>						<i>very</i>
<i>important</i>						<i>important</i>

*Items for insurance questionnaire:*

price; coverage; company reputation/ company reliability ; customer service/ customer

support; benefits

*Items for artwork questionnaire:*

price; quality; value; artist/ gallery reputation ; fit with my room/wall/other piece(s)

## 7. Scenario Material for Expertise Conditions

8. Please read through this ad carefully and answer the questions on this page.

Please tell us how you view Celebrity Name on the following items.

1	2	3	4	5	6	7
not at all familiar					familiar	
don't know at all					know very well	
unattractive					attractive	
not classy					classy	
ugly					beautiful	
plain					elegant	
not sexy					sexy	
unlikeable					likeable	
unpleasing					pleasing	
disagreeable					agreeable	

9. Please rate how much you agree or disagree with the following statements.

1	2	3	4	5	6	7
disagree					agree	
"Celebrity Name and I probably have similar values and beliefs."						
"Celebrity Name is quite a bit like me."						
"It's likely that <u>Celebrity Name</u> and I have similar tastes and preferences. "						

10. As a spokesperson for Product/Company Name, how did you find Celebrity Name to be?

1	2	3	4	5	6	7
not an expert					expert	
inexperienced					experienced	
unknowledgeable					knowledgeable	
undependable					dependable	
dishonest					honest	
unreliable					reliable	
insincere					sincere	
untrustworthy					trustworthy	

11. If you were to buy Product Name from Company Name, how satisfied do you think you would be with regards to each of the following items?

1	2	3	4	5	6	7
not at all satisfied					very satisfied	

*Items for insurance questionnaire:*

price; coverage; company reputation/ company reliability ; customer service/ customer

price; quality; value; artist/ gallery reputation ; fit with my room/wall/other piece(s)

“The Product Name from Company Name would help me to establish the kind of person I see myself to be.”

1 2 3 4 5 6 7  
unlikely likely

133

## **APPENDIX E**

### **Expertise Manipulations Applied in the Second Pretest and the Main Study**

#### **A. Insurance Conditions:**

North American Stars(NAS) is an insurance company based in North America. Recently, this insurance company invited Celebrity Name to endorse its products. Over the years, Celebrity Name has had to insure his/her home, her cars , his/her health and even his/her smile, and he/she has relied on North American Stars Insurance for all his/her needs.



*"Over the years, I have had to insure my home, my cars, my health and even my smile. I have relied on North American Stars Insurance for all my needs. I trust North American Stars!"*



**Customizable coverages:** At North American Stars, we can cover all your valuable assets. We offer customizable protection for a range of products: auto, home, powersports and personal umbrella



**Cost-saving discounts:** You can always find a discount code for your own case



**By Your Side® Rewards:** You have access to a variety of By Your Side Rewards, including Accident Forgiveness, Good-As-New coverage, Roadside Assistance and Vanishing Deductible



**Quality customer service:** Pay your bill, view your policy and track a claim quickly and easily using NAS's online access. We also have customer service professionals available to help you 24 hours a day, seven days a week.

**Toll Free number:** 1.866.889. 9999

**visit our website:** [www.northamericanstars.com](http://www.northamericanstars.com)



"When you need us, we are always there"

#### B. Artwork Conditions:

[www.myartwork.com](http://www.myartwork.com) is an online artwork gallery. Viewers can find and purchase various artwork from this online gallery. Recently, this gallery invited Celebrity Name to endorse its products. Julia Roberts is a painter in her daily life, and she is well known for her

artwork collection.

ROOM 1

ROOM 2

ROOM 3


VISIT US AT  
[www.myartwork.com](http://www.myartwork.com)

"I am unstoppable when it comes to collecting art.  
In fact, I am a painter.  
If I am not busy being an actress, a Mom and a wife,  
I grab a brush and paint !"

**WE ARE ART**

*(Ad illustrated below is an example for demonstration purpose. Please find more print ads information in Appendix F)*

**APPENDIX F**  
**Ads Used in the Second Pretest**



*"Over the years, I have had to insure my home, my cars, my health and even my smile. I have relied on North American Stars Insurance for all my needs. I trust North American Stars!"*

- ☒ **Customizable coverages:** At North American Stars, we can cover all your valuable assets. We offer customizable protection for a range of products: auto, home, powersports and personal umbrella
- ☒ **Cost-saving discounts:** You can always find a discount code for your own case
- ☒ **By Your Side® Rewards:** You have access to a variety of By Your Side Rewards, including Accident Forgiveness, Good-As-New coverage, Roadside Assistance and Vanishing Deductible
- ☒ **Quality customer service:** Pay your bill, view your policy and track a claim quickly and easily using NAS's online access. We also have customer service professionals available to help you 24 hours a day, seven days a week.

**Toll Free number:** 1.866.889.9999  
**visit our website:** [www.northamericanstars.com](http://www.northamericanstars.com)

  
"When you need us, we are always there"





*"When you need us, we are  
always there."*  
—North American Stars



**Customizable coverages:** At North American Stars, we can cover all your valuable assets. We offer customizable protection for a range of products: auto, home, powersports and personal umbrella



**Cost-saving discounts:** You can always find a discount code for your own case



**By Your Side® Rewards:** You have access to a variety of By Your Side Rewards, including Accident Forgiveness, Good-As-New coverage, Roadside Assistance and Vanishing Deductible



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**Toll Free number:** 1.866.889.9999  
**visit our website:** [www.northamericanstars.com](http://www.northamericanstars.com)



"When you need us, we are always there"

ROOM 2

ROOM 3

VISIT US AT  
[www.myartwork.com](http://www.myartwork.com)



*"I am unstoppable when it comes to collecting art.  
In fact, I am a painter.  
If I am not busy being an actress, a Mom and a wife,  
I grab a brush and paint !"*

**WE ARE ART**





*"Over the years, I have had to insure my homes, my cars, my health and even my smile. I have relied on North American Stars Insurance for all my needs. I trust North American Stars."*



**Customizable coverages:** At North American Stars, we can cover all your valuable assets. We offer customizable protection for a range of products: auto, home, powersports and personal umbrella



**Cost-saving discounts:** You can always find a discount code for your own case



**By Your Side® Rewards:** You have access to a variety of By Your Side Rewards, including Accident Forgiveness, Good-As-New coverage, Roadside Assistance and Vanishing Deductible



**Quality customer service:** Pay your bill, view your policy and track a claim quickly and easily using NAS's online access. We also have customer service professionals available to help you 24 hours a day, seven days a week.

**Toll Free number:** 1.866.889. 9999

**visit our website:** [www.northamericanstars.com](http://www.northamericanstars.com)



"When you need us, we are always there"



*"When you need us, we are  
always there."*

—North American Stars



**Customizable coverages:** At North American Stars, we can cover all your valuable assets. We offer customizable protection for a range of products: auto, home, powersports and personal umbrella



**Cost-saving discounts:** You can always find a discount code for your own case



**By Your Side® Rewards:** You have access to a variety of By Your Side Rewards, including Accident Forgiveness, Good-As-New coverage, Roadside Assistance and Vanishing Deductible



**Quality customer service:** Pay your bill, view your policy and track a claim quickly and easily using NAS's online access. We also have customer service professionals available to help you 24 hours a day, seven days a week.

**Toll Free number:** 1.866.889. 9999  
**visit our website:** [www.northamericanstars.com](http://www.northamericanstars.com)



"When you need us, we are always there"

ROOM 2

VISIT US AT  
[www.myartwork.com](http://www.myartwork.com)

ROOM 3

*"I am unstoppable when it comes to collecting art.  
In fact, I am a painter.  
If I am not busy being an actor, a Father and a husband,  
I grab a brush and paint !"*

**WE ARE ART**





*"When you need us, we are  
always there."*

—North American Stars



**Customizable coverages:** At North American Stars, we can cover all your valuable assets. We offer customizable protection for a range of products: auto, home, powersports and personal umbrella



**Cost-saving discounts:** You can always find a discount code for your own case



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**Toll Free number:** 1.866.889.9999  
**visit our website:** [www.northamericanstars.com](http://www.northamericanstars.com)



"When you need us, we are always there"





**Customizable coverages:** At North American Stars, we can cover all your valuable assets. We offer customizable protection for a range of products: auto, home, powersports and personal umbrella



**Cost-saving discounts:** You can always find a discount code for your own case



**By Your Side® Rewards:** You have access to a variety of By Your Side Rewards, including Accident Forgiveness, Good-As-New coverage, Roadside Assistance and Vanishing Deductible



**Quality customer service:** Pay your bill, view your policy and track a claim quickly and easily using NAS's online access. We also have customer service professionals available to help you 24 hours a day, seven days a week.

**Toll Free number:** 1.866.889. 9999

**visit our website:** [www.northamericanstars.com](http://www.northamericanstars.com)



"When you need us, we are always there"





**APPENDIX G**  
**Ads Added in the Main Study**



*"Over the years, I have had to insure my home, my cars, my health and even my smile. I have relied on North American Stars Insurance for all my needs. I trust North American Stars."*

- ☒ **Customizable coverages:** At North American Stars, we can cover all your valuable assets. We offer customizable protection for a range of products: auto, home, powersports and personal umbrella
- ☒ **Cost-saving discounts:** You can always find a discount code for your own case
- ☒ **By Your Side® Rewards:** You have access to a variety of By Your Side Rewards, including Accident Forgiveness, Good-As-New coverage, Roadside Assistance and Vanishing Deductible
- ☒ **Quality customer service:** Pay your bill, view your policy and track a claim quickly and easily using NAS's online access. We also have customer service professionals available to help you 24 hours a day, seven days a week.

**Toll Free number:** 1.866.889. 9999  
**visit our website:** [www.northamericanstars.com](http://www.northamericanstars.com)

  
"When you need us, we are always there"



**Customizable coverages:** At North American Stars, we can cover all your valuable assets. We offer customizable protection for a range of products: auto, home, powersports and personal umbrella



**Cost-saving discounts:** You can always find a discount code for your own case



**By Your Side® Rewards:** You have access to a variety of By Your Side Rewards, including Accident Forgiveness, Good-As-New coverage, Roadside Assistance and Vanishing Deductible



**Quality customer service:** Pay your bill, view your policy and track a claim quickly and easily using NAS's online access. We also have customer service professionals available to help you 24 hours a day, seven days a week.

**Toll Free number:** 1.866.889. 9999  
**visit our website:** [www.northamericanstars.com](http://www.northamericanstars.com)



*"When you need us, we are always there"*



*"Over the years, I have had to insure my homes, my cars, my health and even my voice. I have relied on North American Stars Insurance for all my needs. I trust North American Stars."*



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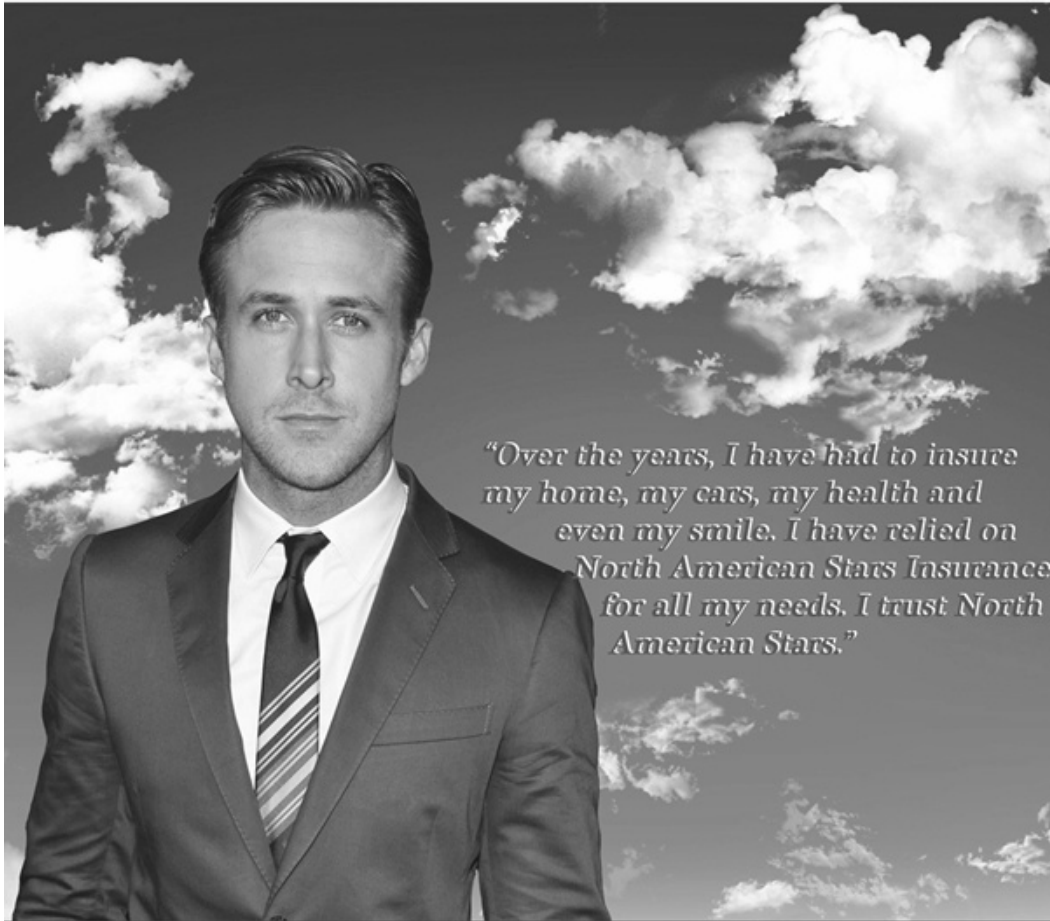


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"When you need us, we are always there"

ROOM 2

ROOM 3

VISIT US AT  
[www.myartwork.com](http://www.myartwork.com)



A woman with dark hair, wearing a white button-down shirt with a dark collar and a plaid skirt, stands with her hands on her hips in the center of an art gallery. The gallery has white walls and a light-colored floor. Several framed artworks are displayed on the walls. To the left, a tall, narrow painting of a building is labeled 'ROOM 2'. To the right, a painting of a person at a desk is labeled 'ROOM 3'. Above the woman, a sign reads 'VISIT US AT www.myartwork.com'. The background features various other paintings, including a large one of a street scene and a smaller one of a person at a desk.

*"I am unstoppable when it comes to collecting art.  
In fact, I am a painter.  
If I am not busy being a singer,  
I grab a brush and paint!"*

**WE ARE ART**





## Appendix H

### Scenarios Added in the Main Study



Recently, Julia Roberts was invited by the National Insurance Association (NIA) to address the top board members on the various types of benefits families are seeking when insuring their loved ones health and livelihood. She has long been an advocate of home and health insurance affordability since her childhood home was damaged by a fire and left her with lifelong asthma. She has been an effective lobbyist to Congress on issues of affordable health insurance.



Recently the Metropolitan Museum of Art invited Julia Roberts to become a member of their advisory board. Julia Roberts was chosen because she is an avid art collector and is also an accomplished artist who paints in oils and watercolors. Her love of art began years ago as she spent hours sketching friends and family members. She originally thought that she would become an artist rather than an actress when she was growing up. Her addition to the Metropolitan Museum of Art advisory board will enhance the board's ability to connect with visitors to the museum.



Recently, Tom Hanks was invited by the National Insurance Association (NIA) to address the top board members on the various types of benefits families are seeking when insuring their loved ones health and livelihood. He has long been an advocate of home and health insurance affordability since his childhood home was damaged by a fire and left him with lifelong asthma. He has been an effective lobbyist to Congress on issues of affordable health insurance.



Recently the Metropolitan Museum of Art invited Tom Hanks to become a member of their advisory board. Tom Hanks was chosen because he is an avid art collector and is also an accomplished artist who paints in oils and watercolors. His love of art began years ago as he spent hours sketching friends and family members. He originally thought that he would become an artist rather than an actor when he was growing up. His addition to the Metropolitan Museum of Art advisory board will enhance the board's ability to connect with visitors to the museum.



Recently, Katy Perry was invited by the National Insurance Association (NIA) to address the top board members on the various types of benefits families are seeking when insuring their loved ones health and livelihood. She has long been an advocate of home and health insurance affordability since her childhood home was damaged by a fire and left her with lifelong asthma. She has been an effective lobbyist to Congress on issues of affordable health insurance.



Recently the Metropolitan Museum of Art invited Katy Perry to become a member of their advisory board. Katy Perry was chosen because she is an avid art collector and is also an accomplished artist who paints in oils and watercolors. Her love of art began years ago as she spent hours sketching friends and family members. She originally thought that she would become an artist rather than a single when she was growing up. Her addition to the Metropolitan Museum of Art advisory board will enhance the board's ability to connect with visitors to the museum.



Recently, Ryan Gosling was invited by the National Insurance Association (NIA) to address the top board members on the various types of benefits families are seeking when insuring their loved ones health and livelihood. He has long been an advocate of home and health insurance affordability since his childhood home was damaged by a fire and left him with lifelong asthma. He has been an effective lobbyist to Congress on issues of affordable health insurance.



Recently the Metropolitan Museum of Art invited Ryan Gosling to become a member of their advisory board. Ryan Gosling was chosen because he is an avid art collector and is also an accomplished artist who paints in oils and watercolors. His love of art began years ago as he spent hours sketching friends and family members. He originally thought that he would become an artist rather than an actor when he was growing up. His addition to the Metropolitan Museum of Art advisory board will enhance the board's ability to connect with visitors to the museum.

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