Old Dominion University
ODU Digital Commons

College of Business (Strome)

Spring 1996

Extreme Response Style

Irvine Clarke III
Old Dominion University

Follow this and additional works at: https://digitalcommons.odu.edu/businessadministration_etds

Part of the Marketing Commons, and the Social Psychology Commons

EXTREME RESPONSE STYLE

The Impact of Culture and Likert Response Formats

by

Irvine Clarke, III
B.S.B.A., University of Richmond, 1986
M.B.A., Old Dominion University, 1990

A Dissertation submitted to the Faculty of
Old Dominion University in Partial Fulfillment
of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

BUSINESS ADMINISTRATION

OLD DOMINION UNIVERSITY
February, 1996

Approved by:

_____
C. P. Rao (Chairman)

_____
John B. Ford, IV

_____
Wilbur W. Stanton

EXTREME RESPONSE STYLE

The Impact of Culture and Likert Response Formats

ABSTRACT

EXTREME RESPONSE STYLE
The Impact of Culture and Likert Response Formats

Irvine Clarke, III
Old Dominion University, 1996
Director: Dr. C. P. Rao

The objective of this research was to understand the effect of culture on Extreme Response Style (ERS) for cross-cultural marketing efforts employing Likert type scales. Growth in quantitative cross-cultural marketing research has brought alternative methodological considerations, like ERS, to the forefront of attention, since, traditional inferential statistics used in group comparisons become confounded by this systematic bias. Marketers comparing groups with differing degrees of response style may incorrectly make claims based on observed differences that are strictly attributable to cultural ERS. Therefore, the specific objective of this dissertation was to relate ERS to culture, Likert response formats and to demonstrate the statistical adjustment required to remove the inherent bias ERS imposes on marketing scales. Finally, the study investigated a culturally based explication of this response style.

Data were collected via a translated questionnaire distributed to students in Australia, France, Mexico and the U.S. Hypotheses were investigated through ANOVA and correlational analyses. Response style adjustment was demonstrated using a *post hoc*

attitude/behavior adjustment. Reliabilities of scales are reported through Cronbach's Alpha and split-halves statistics.

The hypothesis that culturally distinct countries will have different levels of ERS was supported. Support was found for the hypothesized relationship between ERS and cultural value. ERS was found to be related to the agreement response style, but, not to differ with social desirability. Increasing the number of response formats was found to decrease ERS within cultural groups, but, not to reduce between group differences beyond the 7-point format. Inconsequential ERS difference was found between odd and even numbered scales. Higher numbers of response intervals did not result in a convergence of between culture ERS difference. ERS was found to bias the outcomes of the CETSCALE in a cross-cultural setting. When *post hoc* adjustments were invoked, the statistical outcomes varied from the unadjusted set.

Recommendations for cross-cultural research include: (1) the continued reporting of response styles, (2) the use of 5, 6 or 7-point scales to minimize between group differences, (3) removing the ERS bias through a *post hoc* procedure prior to making across group comparisons. Discussion of study limitations and possible future research are included.

TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

FIGURE

Page

vi

CHAPTER I: RESEARCH HYPOTHESES

INTRODUCTION

The progressive globalization of markets has begotten an ever increasing reliance upon cross-cultural marketing research. As a result, the volume of scholarly cross-cultural marketing research has continued to grow, transporting alternate methodology issues to the forefront of consideration. One such relevant cross-cultural marketing methodological consideration is extreme response style (Samiee and Jeong 1994). While concern with response style is as old as attitude measurement itself, the evolution of multicultural markets has made viewing this bias in a cross-cultural context imperative for marketing researchers. Therefore, this dissertation will investigate the relation of culture to extreme response style and investigate the methodological alternatives for this cross-cultural methodological problem.

Cross-cultural quantitative marketing research often compares the individuals of differing cultures in their responses to various items of interest. However, cultural difference can also influence the manner in which subjects respond to these research efforts (Albaum et al. 1987; Bocker 1988; Chun, Campbell and Yoo 1974; Green and White 1976; Yu et al. 1990). For example, if members of one culture have an inherent inclination to respond using only the extreme response categories of a scale (ERS), while other cultures routinely display an inhibited response style, comparisons between groups will be distorted. Consequently, the confounding of genuine effects could improperly sway conclusions based on these instruments (Hui and Triandis 1985a, b).

Early discussions relied heavily on explaining ERS as an individual personality trait, however, a more recent stream of research has proposed that response style is a common trait in cross-cultural research. Researchers have postulated that there may be a "cultural difference in the subjects' willingness to use the extreme ends of the scale" (Leung and Bond 1989, p.136). Chun, Cambell and Yoo (1974) explain the importance of this discovery:

> "Cross-cultural differences in ERS would be of interest either as a reflection of cultural differences on substantive dimensions or for its implications for the methodology of cross-cultural research, or both" (p.466).

The methodological considerations arise as researchers attribute ERS bias to the type of scale format used in attitude measurement. The Likert scale, and specifically the number of scale items, is at the forefront of discussion. Past research suggested that cultural differences exist in the use of the number of categories for response judgements (Hui and Triandis 1989; Wright et al. 1978). Display of ERS bias is reportedly related with the number of response categories available to the respondent. Nonetheless, a consensus on the optimal number of response categories has not been obtained. It is hoped that this study will culminate in recommendations for scale format selection to minimize ERS between cultures.

The existing theories of ERS adjustment are often as biased as the response style itself. Too often the adjustments have thrown out valuable construct information in the effort to remove bias. The adjustments advocated range from correlations to covariates and standardization (Greenleaf 1992a). Hence, market researchers have been reluctant to utilize these adjustments, which discard valuable construct 'signals,' in order to eliminate the response style 'noise.' The most promising of these adjustments is founded on the premise that

the 'signal' and 'noise' elements in response styles can be detected through deviations in attitude/behavior pairs. The detected deviations allow researchers to adjust the standard deviations used for subsequent standardizations, thereby, removing the 'noise' without affecting the 'signal' (Greenleaf 1992a). While this procedure has not been applied expressly to the character of this study, culturally-influenced extreme response style, the technique appears situationally fitting. Therefore, the focus of this research is to investigate a *post hoc* attitude/behavior based adjustment designed to limit ERS noise while retaining construct signal.

The fundamental problem addressed by this research is the effect of culture on ERS for cross-cultural marketing analyses employing Likert type scales. As the statistical consequences of ERS in marketing research have been well addressed, this study will investigate the cultural dimensions that may induce ERS and the statistical alternatives that are appropriate for bias compensation. This research will advance marketing theory by offering future cross-cultural researchers a practical method to address this methodological quagmire.

The purpose of this chapter is to provide the groundwork for the project. The chapter is divided into five sections. The first defines response styles and particularly addresses the implications of extreme response style for empirical marketing research. In the second section the conceptual framework that integrates culture, response formats and ERS into research hypotheses is developed. The third section highlights the scope and primary objectives of the study. The justification and purpose of the study are discussed in the fifth section. The final section addresses the theoretical and practical contributions made from this research.

BACKGROUND

Extreme Response Style Defined

Marketers have long acknowledged the difficulties associated with response sets. Response sets, or response styles, are defined as "systematic ways of answering which are not directly related to the question content, but which represent typical behavioral characteristics of the respondents" (Oskamp 1977, p.37). The problem of cultural response styles for self-rating scales is often singled out as the primary methodological consideration in pancultural analysis (Leung and Bond 1989; Stening and Everett 1984). The four most common response styles, yea-saying/nay-saying, social desirability, centrism and extremism, have been recognized for decades (Couch and Keniston 1960; Cronbach 1946; Wells 1961) and have been concretely demonstrated to "... influence measures of abilities, attitudes, opinions, beliefs, and personality, and thus be the source of response effects" (Heide and Grønhaug 1992).

The special case of extreme response bias was recognized by Cronbach (1946) as one of the major response classes and thereby became one of the most discussed. Extreme response style is classified as the tendency for some individuals to consistently use the extreme ends of response scales in a multiple category response format. Subsequent research found ERS to be consistent, stable and a valid response style over time (Bachman and O'Malley 1984b; Berg 1953; Berg and Collier 1953; Das and Dutta 1969; Greenleaf 1992b; Hamilton 1968; Littrell 1971; Merrens 1970; Peabody 1962; Rundquist 1950; War and Coffman 1970).

Implications of Extreme Response Style

As ERS is systematic, consistent and stable, the implications cannot be trivialized.

Shapiro et al. (1976) explain:

> "...extreme response style problems are not just oddities or occasional
> matters. They occur frequently even in carefully controlled research.
> Unless they are properly noted and treated they may lead to errors in
> the analysis and interpretation of research finding." (p.362).

The possible consequences of ERS are sufficient to confound the use of inferential

statistics. Standard deviation and variance are biased by the response style and misrepresent

research relying on the use of Likert-type rating scales. ERS artificially increases the within-

group variance, leading to a corresponding increase in type-II error (Hui and Triandis 1985).

Additionally, ERS skews frequency distributions toward the outermost regions, which

in turn, increases the standard deviations and reduces correlations. For example, figure one

contains both a group (1) without ERS and a group (2) exhibiting ERS. Initially, assume that

the two groups have similar construct attitude and only differ in their response style. ERS

becomes visible in a comparison of the distribution patterns between groups.

Figure 1: ERS Distribution

Group 1: No ERS   **Group 2: ERS**
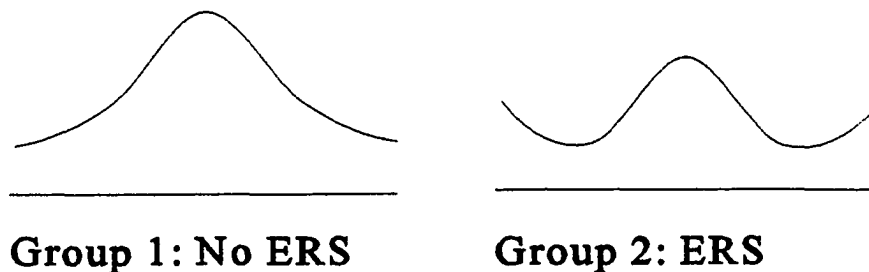
The distribution for group (2) flattens and exhibits a greater standard deviation which would concurrently create reduced correlations. These weaker correlations modify beta-coefficients and cause a reduction in explained variance (R^2). In measures where the means between items are greatly dissimilar, the damaging effects of ERS are even more pronounced (Heide and Gronhaug 1992). Additionally, ERS group (2) displays larger variance, directly affecting the size of item intercorrelations, thereby distorting true factor structure or cluster solutions (Chun, Cambell and Yoo 1974; Greenleaf 1992a; Hui and Triandis 1989; Leung and Bond 1989). ERS can sufficiently alter eigenvalues, in factor analysis, to create an incorrect factor interpretation (Heide and Grønhaug 1992). Preeminently, the two groups, possessing identical construct attitude, will appear dissimilar in variance based statistics, solely from extreme response style (Goldsamt 1971).

Extreme response style can pose serious problems to segmentation analysis. Multivariate statistical segmentation methods will typically group individuals with similar response styles, forming a segment based on distinctive behavioral characteristics rather than directly related to the question content. Although the segment will share certain basic characteristics, a style of response, marketers are likely to find such a segment useless for targeting actions (Gurwitz 1987).

Moreover, correlations of ERS scores between test groups become meaningless, since response styles bias the correlations (Cronbach 1946; Greenleaf 1992a). Wells (1961), in a discussion of advertising survey research, summates the effects:

> "When measures subject to response style bias are correlated, positive relationships are likely to appear where none exist, genuine positive relationships are likely to be inflated, and genuine negative relationships are likely to be obscured" (p.5-6).

Lastly, since ERS is consistent, it may heighten reliability, but, lower the validity of the test (Cronbach 1946; Webster 1958). Overall, ERS will influence most traditional quantitative marketing techniques and a strong bias could induce market researchers into erroneous inferences in cross-cultural research. An even more relevant and concrete conclusion is that disregarding the effect of ERS on cross-cultural marketing research could have a notable influence on the validity of research findings.

THE CONCEPTUAL FRAMEWORK

The preceding section explains extreme response style and its methodological importance. This section will develop the relationship between culture, Likert formats and ERS.

Culture

Cross-cultural divergence in ERS has been used to resolve study results across various settings, subcultures and ethnic groupings (Das and Dutta 1969; Hamilton 1968; Hui and Triandis 1989; Marin, Gamba and Marin 1992; Shapiro, et al. 1976; Triandis and Triandis 1962; Zax and Takahashi 1967). The general premise behind the research is that cultural orientation will be reflected through response style.

Culture is relevant to every "aspect of marketing" (Jain 1989, p.73). The collective cultural posture serves as the boundary for relevant marketing groups (Ralston et al. 1993). Hoebel (1960) defines culture as "... the integrated sum total of learned behavioral traits that are shared by members of a society" (p.168). Therefore, culture must be reflected in all aspects of society, including the manner of response to marketing research.

Since societies differ in their aggregation of the values, beliefs and behaviors, which constitute culture, vast cultural disparities exist. Accordingly, comparisons across cultures, would incorporate these differences in the research responses. As these responses are systematically unrelated to the research items, they become classified as response styles. Consequently, different cultures should reflect different response styles.

Results in cross-cultural studies involving Asians (Chun, Cambell and Yoo 1974; Zax and Takahashi 1967), Hispanics (Hui and Triandis 1989; Marin et al. 1992), American-blacks (Bachman and O'Malley 1984), Moroccans (Shapiro et al. 1976), and Germans (Brengelmann 1960) are explained using extreme response style. They suggest that the willingness to use scale points varies as cultural differences intensify, since, "ERS may be an index of the manner in which a person orientates himself in relation to the external world" (Biggs and Das 1973, p.208). Therefore, this study will investigate whether extreme response style varies across cultural groups.

Prior research has focused on comparative studies which provide a basis that ERS may differ between countries. Yet, the methodological difficulties and unsystematic approaches to a cultural assessment has left the fundamental concept empirically untested. Since "national differences can have the single greatest impact upon cultural aggregation" (Ford and Honeycutt 1992, p.28), this study uses countries as a cultural proxy to propose:

H1a: Culturally distinct countries will have different levels of ERS.

If culture is so important as to cause identifiable differences in the response style of respondents, "mere description will not do; we need an approach that allows comparisons - that is, an identification of cultural variations" (Hofstede and Bond 1988, p.10). To relate ERS to an established cultural schema that identified variations would enhance the development of a general theory of cultural response styles. Hofstede and Bond (1984) explain how cultural understanding is advanced:

"Finding statistically significant correlations between one's results and those of other studies represents a powerful validation of both works and advances our search for fundamental dimensions of cultural variations" (p.418).

Also, researchers would be able to extend the relationships established in this research, between ERS and cultural dimensions, to cultures with similar characteristics.

ERS is described as an enduring, consistent state based on the interpersonal cultural relationship with the world. Culture is described as a collection of values and beliefs. In essence, cultural behavior stems from the building blocks of value systems (Hofstede 1980; Wallendorf and Reilly 1983). Valencia (1989) remarks that values "are said to lie at the core of culture and act as a norm for ethnic consumer behavior" (p.24). Accordingly, understanding the relation between values and ERS improves the more general cultural understanding.

Segal, Segal and Niemczycki (1993) instruct that "understanding of the interrelationships among culture, values, and managerial behavior is essential to effective cross-national marketing and management of the marketing function" (p.66). Values are the enduring beliefs that a mode of conduct is preferred for the conduct of one's life (Kahle 1983; Rokeach 1968, 1973). These values guide behavior and serve as the norms for cultural existence (Hunt and Vitell 1986; Kahle 1983; Rokeach 1973; Valencia 1989). Ralston (1993) concludes that cultural differences between societies emanate from the distinctive societal values. Societal culture is attributable to the predominant value and belief system (Hofstede 1980; Munson and McIntyre 1979; Wallendorf and Reilly 1983). Munson and McIntyre (1979) elaborate that culture can be determined by the "generalizable aspects of personal values" (p.48). The aggregation of fundamental personal values can be used to develop and

explain shifts in cultural value dimensions (Hawrysh and Zaichkowsky 1990; Hofstede 1980;

Ralston et al. 1993; Schopphoven 1991; Triandis 1984; Triandis et al. 1988; Tse, Belk and

Zhou 1989). Hence, if ERS is related to culture, and values are integral to culture, then the

response style should also be related to the value elements of culture. Thus:

H1b: Extreme Response Style differs on the level of cultural value.

Response Style

ERS is only one of the major response styles. Response styles of Social Desirability

(SD) and Acquiescence (ARS) have equal opportunity to operate in culturally-diverse groups.

Smith (1967) proposes that individuals may exhibit multiple, related response styles. The

notion that a relationship exists between different response styles interjects the concept of an

interaction amongst the response styles. Rorer (1965) contends that the multiple response

styles may balance effects, thereby, creating an overall negligible effect on survey research.

Heide and Grønhaug (1992) find, that in large, heterogeneous samples, the effects of ERS and

ARS may balance. Hence, ERS may vary in relationship with other response sets.

ARS, the tendency to agree irrespective of content, could influence the level of ERS

extant by placing responses at one end of the continuum. ARS is suggested to represent a

"deep-seated personality syndrome" (Couch and Keniston 1960, p. 151) and represents a

statistical nuisance and should be removed from the data (Cronbach 1958). Respondents with

ARS have, by definition, gravitated to the positive side of the response scale, thereby,

minimizing any centrality tendency (Goldsamt 1971). When ARS is vigorous, respondents will

be checking the most positive extreme points of the scale. In these cases, ARS scores will resemble ERS. Since ARS is intrinsically established in ERS, this study proposes:

H2a: Extreme Response Style increases with the Acquiescence Response Style.

ERS is also theorized to be related to social desirability response tendencies (Kloot, Kroonenberg and Baker 1985). Social desirability, the giving of a socially approved response or the need for approval (Crowne and Marlowe 1964), also reflects respondents motivation other than the primary interest of the research. If an individual is sufficiently motivated to present oneself in a socially-correct manner, then the item response will be distorted, irrepressive of the true item-attitude score. Much like ERS, SD indicates a willingness of the respondent to demonstrate responses other than the attitude construct of interest. Thereby, the respondent may become focused on peripheral concepts, becoming more susceptible to additional response styles. "Extreme responding tendencies also may be related to social desirability" (Goldsamt 1971, p.26). Thus, this study proposes:

H2b: Extreme Response Style differs with the Social Desirability Response Style.

Response Format

A variety of recommendations are offered for the appropriate number of response intervals to minimize ERS. Overall, the effect of scale intervals has shown contrasting results in contemporary ERS research (Albaum 1988; Albaum and Murphy 1988; Berg and Collier

1953; Biggs and Das 1973; Borgotta and Glass 1961; Biggs and Das 1973; Hui and Triandis 1985; Peabody 1962; Schwarz et al. 1985). The variety of recommendations can be explained, in part, by the use of assorted tests designed to measure different constructs or the circumstances of the item discussion. Yet, most researchers agree that various Likert scale formats may affect ERS levels. This variety of research leads to the research proposition that extreme response style varies in relation to response format.

Display of ERS bias is reportedly related to the number of response intervals available to the respondent. In other words, different numbers of response intervals may be associated with differing levels of response bias (Greenleaf 1992a). If the relationship holds true, the number of intervals in the scale may influence the degree of bias present, affecting the overall quality of the research (Hui and Triandis 1989; Kloot, Kroonenberg and Bakker 1985).

The theory is based on the idea of respondents stretching their subjective space to match the categories provided. In other words, people with different subjective space would have a different recognition of extreme points. For example, the Japanese have a cultural tendency emphasizing restraint, thereby perceiving scaling space differently than other groups. But, there will be some point where the response categories approach the groups perception of space and any addition of points beyond this level will not result in a reduction of the use of end points. Thus:

H3a: Extreme Response Style differs, within cultural groups, with the number of response categories.

Generally, the use of scales possessing an even number of response intervals has been found to minimize the effects of some response styles in various cultures by forcing the respondent away from a neutral position. O'Neill (1967) argues that the best method of avoiding response styles is to present even alternative formats. Theoretically, forced-choice scales should have little effect on ERS since respondents merely agree most strongly with the worded items themselves (Greenleaf 1992b). Yet, even numbered scales force choice removing some components of central tendency (Nunnally 1967), and thereby, merit specific investigation. The following hypothesis is posited:

H3b: Extreme Response Style levels differ between odd and even point scales.

Hui and Triandis (1989), in a cross-cultural ERS study, suggested that additional response categories would be capable of encompassing the entire subjective range, resulting in reduced use of the extreme response style. A scale with finer gradations allows subjects, with differing judgement styles, more possibilities of matching their subjective categories within the scale range, simplifying the task. So for all groups, many response categories would assure full conceptual representations in the scale format; thereby:

H3c: Differences in Extreme Response Style between cultural groups will converge with a higher number of response intervals.

Finally, ERS is postulated to comprise both a signal and a noise element (Greenleaf 1992). If the response style only contains attitude information, it does not distort the use of

inferential statistics. Yet, if it contains some element of bias (noise), the inflated standard deviations will make the respondents attitude score on most marketing scales appear greater than the true score. These bias elements become particularly important when market research focuses on the aggregate-level analysis of attitudes for differing groups. Greenleaf (1992) contends that ERS contains both a bias and a signal element that traditional correction techniques such as standardization and normalization fail to reflect. He suggests a normalization technique based on attitude/behavior pairs. This procedure adjusts for the bias while leaving the construct signal intact.

Response styles are by definition independent of the item-subject. In other words, it is not the marketing construct being tested that dictates the response patterns. Rather, response styles should permeate all attitudinally-based marketing scales. One such cross-cultural marketing scale is the CETSCALE. The CETSCALE is designed to measure consumers' ethnocentric attitudes by measuring their beliefs on the morality of purchasing foreign-made products (Shimp and Sharma 1987). If response styles are independent of item-subject, the CETSCALE should be affected by the response styles, as would any attitudinal measure.

Therefore, the application of any cross-cultural marketing scale, such as the CETSCALE, should be affected by both the signal and noise element of the response style, should they exist. The removal of the bias, while retaining the signal, could significantly alter the results of this marketing scale; thus:

H4: Extreme Response Style biases the measure of the construct for the CETSCALE.

SCOPE OF THE STUDY

The fragmented knowledge base, for such a consequential marketing methodological concern, provides the basis for this attempt to develop a better understanding of the relation of ERS with specific universal cultural elements and methods of control. This study investigates the issue of cross-cultural ERS; specifically analyzing these differences across scale response formats. Hence, the primary objectives of the study are: (1) to investigate cultural differences in extreme response styles in a Likert-type format, (2) to identify scale formats that have equal proportions of ERS between cultures, (3) to demonstrate a *post hoc* ERS bias adjustment, and (4) to develop a culturally-based explication of ERS. Specifically, this study empirically investigates whether ERS differs across cultural groups in sufficient magnitude to evoke significant differences in the outcomes of cross-cultural comparisons. If this level of ERS is detected, to appropriately use any marketing scale, it may become necessary to vary the number of response categories, adjust with a covariate or even use a *post hoc* response style correction technique (Greenleaf 1992a; Gurwitz 1987). This study will demonstrate this methodological consideration by comparing the ERS levels of differing response formats and investigating the *post hoc* correction technique suggested by Greenleaf (1992a).This study also seeks to further the development of cross-cultural measurement instruments, by identifying *a priori* scale formats which reduce the intrinsic bias of ERS between groups, thereby, increasing the validity of the cross-cultural survey results (Heide and Gronhaug 1992). Additionally, it inquires whether ERS within groups and between

groups, can actually be reduced by adding, or reducing, response categories. Previous studies, although utilizing measures not specifically designed to empirically test for ERS, have suggested that varying the number of response categories can compensate for culturally-influenced ERS (Hui and Triandis 1989). Therefore, this study will empirically test with an ERS measure, whether cultural ERS differences can be compensated by varying response categories. Finally, the study investigates the cultural determinants of ERS. Prior efforts have used ERS to explain spurious results and have done little to explain the cultural dimensions responsible for these results (Chun, Cambell and Yoo 1974).

The study will take the form of an in-class survey of students, in four countries, to obtain their responses to response style measures and attitude/behavior pairs for adjustment purposes. A common international marketing scale will be used to demonstrate the impact of the bias and the suggested adjustment procedure. Heretofore, no cross-cultural marketing application has been attempted using an ERS specific measure or a attitude/behavior based adjustment factor for response styles. The research design and statistical techniques employed are described in Chapter III.

The current study focuses on the singular response style of ERS and therefore does not attempt to develop a complete cultural understanding of response styles. Importantly, this study is not intended to be representative of the entire cultural examples studied, rather, it serves as an exploratory methodology for future cross-cultural investigations.

JUSTIFICATION

While the prior ERS research develops a conceptual foundation for future empirical investigations into cultural response bias, all of the prior efforts at investigating the effects of culture on ERS report the same basic methodological limitation: *the measurement instrument is not intended or designed to measure ERS* (Goldsamt 1971; Greenleaf 1992b). Rather, researchers have estimated ERS with multi-item measures conceived for distinctive objectives. Since these scales typically have high inter-item correlation, to ensure the measurement of the desired construct, ERS scores are easily confused with the content of the items. Therefore, the psychometric tests themselves may influence the response style, since they are fashioned to measure some alternate construct. Relationships once thought to be associated with ERS may in fact be unique to the thesis of the instrument (Merrens 1971). Subsequently, ERS conclusions could be explained by item content variance rather than the reported extreme responses style (Biggs and Das 1973; Greenleaf 1992b; Hamilton 1968; Jones and Rorer 1973; Wyer 1969).

This fundamental problem has allowed skeptics to contend that the methodological limitations of the current literature prohibits it from demonstrating the relationship between response bias and systematic bias, consequently leading them to "hope away" the effects (Gove and Geerken 1976; Rorer 1965). O'Neill (1967) summarized that "too frequently the researcher's response style is to overlook response style" (p.102). Until a broad-range study employs an instrument specifically designed for the discovery of ERS, cross-cultural researchers will not become obligated to consider this integral methodological influence.

Recognizing this concern, important questions are raised: Are cross-cultural differences in ERS unique to the psychometric test or more generalizable across cultures? An affirmed finding, from a multicultural empirical study, would indicate that ERS may be a more generalizable cultural phenomenon which impacts a broad scope of marketing research. Are all Likert scale formats equally prone to ERS? Perhaps by altering the scale formats market researchers may be able to direct the instrument's sensitivity to ERS. Can ERS bias be detected and removed from marketing scales? If extreme response style does exist in various cultures, cross-cultural marketing researchers cannot merely 'hope away" the effects, but, must correct for the bias in order to accrue meaningful results.

CONTRIBUTION

Previous research has been limited by inadequate research designs and a fragmented approach to the relation of ERS and culture (Goldsamt 1971; Hamilton 1968). Most of the studies have used cultural ERS as an afterthought to explain unusual results in otherwise unrelated research. Methodological research has not been directed at his primary problem. Past efforts provide considerable insight but fail to provide an encompassing framework of the cultural dimensions involved in ERS. Additionally, they ignore the effects of ERS on the scaling issues.

Generally, this study addresses the cross-cultural marketing methodological issues suggested in prior research. Specifically, this study would further the marketing literature by:

(1) providing empirical evidence for (or against) the hypothesized relationship that ERS varies between cultures,

(2) demonstrating the impact of ERS on traditional marketing scales in cross-cultural research,

(3) establishing cultural-specific adjustment factors and demonstrating these methodological adjustments for cultural ERS,

(4) identifying the optimal number of response intervals to minimize ERS in cross-cultural research,

(5) identifying the cultural values and dimensions of ERS,

(6) relating ERS to other response styles,

(7) conducting a multicultural multilingual questionnaire to a global sample, thereby, furthering cross-cultural research issues.

The range of difficulties associated with extreme response style has lead many researchers interested in cross-cultural marketing investigations to the erroneous belief that there is little that can be contributed to controlling the ERS bias. This may not be the case. Three levels of advancement are provided by this research: identification, understanding and control.

Initially, the identification, through empirical methods designed for this purpose, of cultural ERS would enhance the quality of cross-cultural marketing research. As ERS has been shown to have profound consequences on statistical analysis, the identification of cultural groups displaying varying levels of bias would allow marketers to develop statistical methodologies appropriate for their target populations. This research will attempt to provide empirical support for the relationship between culture and ERS, while facilitating the establishment of cultural ERS norms. Future cross-cultural research would benefit from the enhanced knowledge of the degree of bias in the statistical analysis. Cross-cultural knowledge

would be enriched, as this study builds on the foundation of prior research to achieve a higher level of methodological sophistication (Aulakh and Kotabe 1993; Nasif, et al. 1991; Robert and Boyacigiller 1986; Sekaran 1983). As there is no flawless cross-cultural research, the formation of cultural ERS norms and the identification of ERS sensitive Likert-type response formats, could guide future researchers in the development of culture-appropriate research designs and analysis techniques.

This study will also investigate the possibility of finding significant differences between cultural groups solely through ERS bias. The implications of such a finding are far reaching: current cross-cultural marketing researchers may be making claims of significant differences between groups based on research constructs, when the differences are truly the result of divergent cultural ERS bias. The identification of response formats and cultural groupings could provide future researchers guidance in avoiding this pitfall.

The second focus of this ERS study is to enhance understanding. While researchers have been quick to warn of ERS in multicultural investigations, few have addressed the issue of explaining why these differences exist. Although Bachman and O'Malley (1984a) suggested that ERS differences may be attributed to "... subcultural differences in language use or style" (p.503) a specific multicultural investigation of cultural determinants has not been attempted. Enhanced knowledge of how cross-cultural subjects stretch their subjective categories to meet the available response categories would improve marketing research efforts.

While the broad term "culture" has been used as a possible explanation for extreme response style, discussion of the specific cultural attributes is not found in the current literature. Culture is much too generalizable a term to offer marketers meaningful insight. An

understanding of the relation between culture and ERS will begin when specific cultural elements are identified as germane. Theory will be advanced when response style is affiliated with familiar cultural dimensions and values. If ERS is identified within an established cultural schema, marketers will be better able to understand the nature of the response style on a broader context. Concurrently, a deeper understanding would develop.

Finally, cross-cultural marketing methodologists are not likely to be solely satisfied with the identification of ERS in their data set. Control of the bias element inherent in the response style would be of special interest. The identification of response formats that are sensitive to ERS in specific cultures would enhance the methodological development of cross-cultural efforts. In instances when an *a priori* matching of ERS equal response sets is not appropriate or available for cross-cultural marketing research, the *post hoc* modification may prove proper. The choice of approach is likely to be determined by the specific research constraints. An application of a *post hoc* ERS correction that minimized the consequences of response set bias would offer marketing methodologists an alternative that would be useful across most empirical cross-cultural investigations. The methodological failures of traditional inferential techniques to adjust for ERS bias make a demonstration of an ERS specific adjustment meaningful.

Plan of the Report

The purpose of this chapter is to develop the basis for testing research hypotheses based on culture and Likert-type scale formats in relation to ERS. Chapter II provides a comprehensive review and integration of the literature on extreme response style with

research on response styles, culture, scaling and cross-cultural marketing methodology. Selection of measures, their translation, sample selection and statistical techniques to empirically test the hypotheses, are presented in Chapter III. Chapter IV presents the results of the data analysis of a multicultural sample. Finally, Chapter V discusses the findings, conclusions, limitations and research directions for future study.

CHAPTER II: LITERATURE REVIEW

INTRODUCTION

The purpose of this chapter is to provide theoretical support, from relevant literature, for the hypotheses developed in Chapter I. The first section will provide a comprehensive review of literature to integrate the current research on: response styles, extreme response style, and the optimal Likert-type response format. ERS research will be divided into subsections on personality, cultural and methodological concepts. The second section will evaluate the adjustment solutions offered for response style bias.

RESPONSE STYLES OVERVIEW

Deliberation on response styles is well documented in attitude research. Cronbach (1946) defined response styles "as any tendency causing a person consistently to give different responses to test items than he would when the same content is presented in a different form" (p.476). This definition is broad and encompasses response patterns like social desirability, acquiescence, centrism and extremity. Cronbach stated that (1) response sets are reliable, (2) have greatest influence in ambiguous or unstructured situations, (3) heighten reliability of a test, (4) always lower the logical validity of a test, and (5) interfere with inferences from the test data. He stated that "response sets should be eliminated where possible" (p.487). Rundquist (1950), Nunnally (1967) and Goldsamt (1971) concurred with this conclusion.

Nunnally (1967) characterized the reliable qualities of response styles as creating "pseudo reliability."

Cronbach (1950) continued his discussion of response sets, reviewing the literature to find that "response sets dilute a test with factors not intended to form part of the test content, and so reduce its logical validity. These sets may also reduce the test's empirical validity. Response sets tend to reduce the range off individual differences in score" (p.4). Response sets are most likely in difficult tests, tests with various alterations, and correlated with attitudes, interests and personality. It becomes apparent that response sets are important for all types of marketing research with consequences that cannot be overlooked. Goldsamt (1971) stated that "to whatever extent the total variance is not 100 per cent stimulus-determined, response bias is operative" (p.2). Response styles are so fundamental to research that DeVellis (1991), in his text *Scale Development*, recommended the inclusion of validation items for "detecting undesirable response tendencies" (p.77) in the final scale.

Many authors, like Cronbach, use the terms response set and response style interchangeably, thus, fundamentally confusing the methodological discussion. Conversely, methodologists like Harry W. O'Neill (1967) were able to distinguish between the terms and find response styles of greater importance to marketing and advertising research. O'Neill (1967) explains:

> " Such behavior patterns are of two general types: response styles, where the individual tends to select disproportionately a particular response category regardless of item content; and response sets, where the individual responds to item content in such a way as to portray himself in other than a true light (e.g. responding to items in terms of the social desirability of the answers). ... But the distinction is important. Inventories and questionnaires obviously are composed of items that have content. If response styles are an important variable,

however, then, no matter how well written the items are or how much caution is exercised to control for and measure content-related biases, distortion of the data still will result from response behavior unrelated to specific content. Response styles, therefore, would be the more serious type of bias, particularly with public opinion surveys where respondent motivation often is more favorable than with personality inventories." (p.95).

Response styles, not response sets, are likely to exert greater impact on quantitative marketing research.

Since the response style pattern is not related to the content of the research questions, the bias imposed when style overcomes the information gains innately contaminates the results of measurements of attitudes (Wells 1961). Yet, the vexing nature of response styles and the possibility that response bias could invalidate "much (if not most) of the work" (Gove and Geerken 1976) has lead researchers to treat them as a nuisance variable and ignore their influence (Gurwitz 1987; Wells 1963). "When such a serious issue as response bias is ignored, there is apt to be a certain amount of unease" (Gove and Geerken 1976, p.1290). The long-term effect of this unease has caused cross-cultural methodologists to recognize, but, not necessarily adjust research methodologies for response styles.

The depreciation of the importance of response styles is no more prevalent than in the writings of Leonard G. Rorer (1965). He differentiated between response sets and response styles to claim that when you divide the terms, response sets are not important variables in personality inventories. Response sets refer to the evaluative criteria used on each item. Sets are unique to the content of the item. Response styles refer to a general manner or way of responding. Rorer cited the poor quality and conflicting results of response style research to contend that response styles are a function of the content of the research items. He used a

review of the literature to demonstrate that variations are really specific to the test items, where, conflicting results occur when the stimuli are altered. These inconsistencies in research findings built his case of little variation in response style, thus, the conclusion of their insignificant importance in attitude research. Most of the current response style research to date has been directed at refuting his general indictment. While Rorer's paper never directly addresses ERS, the following literature review, specific to ERS, will show that his broad indictment has merit in its discussion of inconsistent research, although his conclusions of importance are fundamentally flawed.

Most notably in this refutation, controlled computer simulations of synthetic data sets have been conducted to study the effects of response styles on attitude research. Heide and Grønhaug (1992) create a data set with extreme respondents, and compare it to another artificial data set with normal response patterns, to see the effects on regression and factor analysis. They find that ERS reduces correlation-coefficients, reduces the R^2, with a reduction in the factor loadings sufficient to periodically alter factor interpretations. In surveys where means of variables are all around the mid-point of the response categories, the effects of ERS are small. But, "it was found that an extreme response style will be most harmful in surveys with a great deal of variance in variable-means" (Heide and Grønhaug 1992, p. 215). The specific effects of ERS on attitude research are discussed in detail in Chapter I.

Most interestingly, Heide and Grønhaug (1992) argued that the effects of different response styles may nullify in samples that are heterogeneous and containing several thousand respondents. Analysis is based on the assumption that the large samples will have equal proportions of all response sets. Smaller surveys, like typical marketing studies, have less opportunity for complete response set coverage, and therefore will concurrently have a greater response bias. The effects on smaller surveys will "have a devastating effect on the validity of the survey results" (Heide and Grønhaug, p.227). Mitzel, Rabinowitz and Ostreicher (1956) considered the possibility of response sets canceling out each other and conclude that the sets will always create both valid and invalid test variance, with the degree of each response set varying between group. In comparisons of multiple groups the effects of response sets may be substantial enough to account for substantial proportions of the test variance. In tests on human subjects, there is no assurance of equal weight of response sets between groups, therefore, response sets should be avoided. The interaction of response set effects is still largely untested.

Most response styles are believed to be correlated to one another. Response styles like ERS and social desirability are proposed as closely related (Goldsamt 1971; Jones and Rorer 1973). Acquiescence and ERS are also proposed to be related (Goldsamt 1971; Zuckerman, Norton and Sprague 1958). The nature of both interrelationships is left unexplained in the current literature.

EXTREME RESPONSE STYLE

Extreme response style can be defined as "the tendency of some respondents to favor or avoid answering in extreme intervals on rating scales, independent of specific item content" (Greenleaf 1992a, p.328). Uniquely, ERS is the only response style not indicted by the response bias critics. This may be partially explained by the special statistical complications of ERS and the dearth of empirical research on the particular style.

Since the present study is focused on the singular response style of ERS, the literature relevant to the development of the research hypotheses will be investigated in-depth. The current stream of research on extreme response style can be divided into three categories: personality, cultural, and methodological. Overwhelmingly, the preponderance of current literature has focused on ERS as a personality trait, thereby, focusing on human judgement and the effects of subject's mapping onto rating scales. Only recently has culture entered the field as a possible condition of ERS. Culture focuses on the societal norms that impact response. Finally, research methodologists have discussed the implications of research designs and the response style. This literature review will look at these three major approaches to develop the foundation for the study. At the end of the chapter, there is a table, outlining the major findings of the seminal ERS works.

PERSONALITY

Hamilton (1968) reviews the research on personality attributes associated with ERS and found relations with sex, level of adjustment, anxiety, intelligence, occupational status, age, deviancy, rigidity, intolerance of ambiguity, drive, anxiety, and cognitive development.

This section will review the seminal personality works on these topics to develop an overall understanding of the individual factors proposed to relate to ERS.

Substantial differences exist in individual tendencies for extreme positions (Rundquist 1950; Van der Kloot, Kroonenberg and Bakker 1985). Personality is most strongly linked to ERS when involvement is high (Warr and Coffman 1970). ERS is a stable, non-test specific pattern of personality response (Merrens 1970). Peabody (1962) looked at English and American engineering students to find ERS to be a general personality characteristic and therefore reflects little about the intensity of belief. Rather, ERS is a reflection of the person's perceptions. Van der Kloot, Kroonenberg and Bakker (1985) investigate eleven personality traits through three-way principal component analysis to plot the multidimensional space of respondents on stimuli, scales and subjects. They found ERS to be prevalent in individuals with higher sums of squares and higher loadings on the subject dimension.

Cronbach (1946; 1950) noted that situational ambiguity and unstructured situations enhanced the likelihood of all response sets. Lorge (1937) explained that the tendency to respond in a particular manner is likely to be an aspect of personality. Thus, Berg and Collier (1953) decided to test whether the tendency to use extreme points in response to ambiguous items was a personality trait. They found that extremeness of response varied with personality characteristics like anxiety and sway. Of equal importance, "extreme response set scores were found to be reliable in test-retest situations, and the scores reflect certain group and personality differences" (p.168). The authors also expanded on the idea that both personality and group factors can contribute to ERS. They compared males and females, Negroes and whites, across personality tests on anxiety and neuroticism. They found "a tendency for

females in general and maladjusted males to make more extreme responses" (p.167). In a more general sense, the authors concluded: "These findings are believed to indicate that extreme response set scores can reflect certain personality and group characteristics and that the scores are reliable." (p.168).

In a related article, Couch and Keniston (1960) investigated the agreeing response set as a personality variables. The authors found the agreeing response set to be "ephemeral set" that should be removed from the data (p.151). They developed an agreement response scale that is found to correlate positively with dependence, impulsivity, anxiety, mania, anal preoccupation and anal resentment. The response set was found to be negatively correlated with impulse control and ego strength. They concluded by stating that response sets have great importance to psychological testing and can be based on personality syndromes.

There remains an agreement that ERS is stable across scales, implying that item content is irrelevant to response styles (Cronbach 1946; Peabody 1962; Warr and Coffman 1970). Biggs and Das (1973) challenge this understanding. They found that ERS was strongly influenced by item-content. ERS respondents take more time per response and were more extreme about items that define their personal domain. Biggs and Das (1973) explained that there are two types of ERS: internal and external. An internal ERS individual is introverted, divergent, non-dogmatic and interested in meaning learning. An external ERS individual would be extroverted, dogmatic. interested in self-image and interested in fact-rote learning. If these findings are correct, the items of their ERS measures (Personal Friends Questionnaire, Dogmatism and Study Behavior Questionnaire) may in fact be eliciting the ERS responses. Their study supports the use of a ERS specific measure that investigates a broad range of

constructs. In support, Iwawaki and Zax (1969) found extroverts to be more extreme than introverts. O'Donovan (1965) claimed that neurotics and psychosomatics use the extreme point more often for stimuli they perceive as meaningful and meaningless.

The severity of psychotic illness is shown to relate with to frequency of checking extreme points. Neuringer (1961) stated: "Dichotomous Evaluative Thinking seems to be a common characteristic of emotionally disturbed persons" (p.449). Clinically abnormal subjects displayed a high use of ERS (Barnes 1955; Borgatta and Glass 1961; Brengelmann 1958; 1960b; Jones 1956; Neuringer 1961; Werheimer and McKinney 1952). Arthur (1966) compared patients at a large mental hospital in New Zealand for their style in checking scales. They found psychotic patients to have a higher frequency of extreme checking than neurotic patients. The response bias was shown to be a reliable personality characteristic. These findings directly conflict with Luria' s (1959) earlier claim of abnormal groups not taking extreme positions on semantic differential scales. Hovland and Sherif (1952) concluded that abnormal groups may have greater extreme responses to attitude measures using a Thurstone scale. The cumulative explanation rests on noting differences in the judgement phenomenon between groups. Abnormal patients appeared to have a different "judgement process within experimentally established dimensions" (Arthur 1966, p.103). Neurotic subjects were found to make more extreme ratings than non-neurotic subjects (Iwawaki and Zax 1969; Wertheimer and McKinney 1952).

Mental disturbance has been shown to have an influence on ERS. Maladjusted subjects use the extreme more often than emotionally stable individuals (Iwawaki and Zax 1969). Borgatta and Glass (1961) studied mental patients, prisoners and college students and

found that females and mental patients have statistically higher levels of ERS. Mental illness was found to be a stronger determinant of ERS than sex. However, the authors were unable to find a consistent pattern of personality traits associated with ERS. Borgotta and Glass questioned whether personality traits are important considerations for ERS. The results can be partially explained by the block design and occurring sample size in the high ERS blocks (mental patients) of 11 for females and 10 for males. Poorly adjusted individuals were found to be more likely to organize thoughts in the extreme categories (Zax, Gardiner and Lowy 1964). "Maladjusted groups tended to use extreme points more and intermediate points less" (Zax, Gardiner and Lowy 1964, p.654). In opposition, Gove and Geerken (1977) found no relationship between general response styles and psychiatric symptoms, self-esteem and positive effect. Their findings lead to the conclusion that measurement of response bias will not always be important.

Jenkins (1992) found ERS to be associated with low scores on the Encouragement Scale. The four dimensions of encouragement included: positive and adequate view of self; positive view of others; openness to experience, and; sense of belonging. ERS was found to be associated with low overall scores on these dimensions. Simple changes in mood states could also influence ERS (Lorr and McNair 1982; Lorr and Wunderlich 1980).

The proposition that social interest, concern for others and adjustment in relation to ERS was explored by Crandall (1982). The research was based on the concept that ERS is related to neurosis and therefore serves as an indicator of individual adjustment. If social interest is important for adjustment, and ERS is highest among maladjusted individuals, then there should be an inverse relationship between social interest and ERS. The study found that

"people with greater interest in others are less inclined to make extreme responses in judging themselves, others, and a wide variety of attitudinal issues" (p.88). Differences in sex were not found to be related to ERS. However, the inverse relationship between adjustment and ERS was supported, providing further support for maladjusted individuals being more extreme. "ERS may be a manifestation of a general behavioral deviancy" (Hamilton 1968, p.199). Berg (1957) explained that deviancy in key areas of behavior are associated with deviancy in non-key areas like responses.

Individuals suffering from high anxiety demonstrated higher scores of ERS (Berg and Collier 1953; Lewis and Taylor 1955). Norman (1969) explained that anxiety narrows the cognitive field leading to a pronounced use of extreme categories in situations where stimuli is ambiguous. He studied students and found anxiety was related to ERS and repression was related to neutrality of response. On the other hand, Kerrick (1954) found no differences between differing anxiety groups on response style. Crandell (1965) explained the conflicting results by suggesting that there was an interaction between anxiety, sex and intelligence. Low intelligence individuals make more extreme responses (Kerrick 1954; Light et al. 1965; Osgood 1941). It is not clear the degree of moderation caused by these additional effects. Additional clarity is lost as Innes (1977) found that the level of anxiety was positively related to extreme agreement and negatively related to extreme disagreement. The findings suggest that there may be two distinct types of ERS for high anxiety individuals. Peabody (1962) specifically investigated the direction of the responses and concludes that subject who use the strongest positive response categories also use the most negative ones.

The rigidity complex may cause individuals to exhibit ERS. Brengelmann (1960) stated:

> "Extreme positive response set is significantly correlated with rigidity, indicating a high degree of (positive) response intensity in the rigid personality. This result has now been obtained in a number of occasions and may be considered an established fact" (p.177).

The rigidity complex can be characterized by ERS. Confirmation can be found in the work of Schutz and Foster (1963) on inflexibility. Related results were found by Damarin and Messick (1965) and Brim and Hoff (1957) when they found a relationship between ERS and the need for certainty in interpretation. A need for certainty is a fundamental personality trait in ERS (Cantril 1946). Hamilton (1968) elaborated:

> "... individual differences in extreme responding reflect differences in intolerance to ambiguity, which in turn was considered a function of a need for certainty. The tendency to respond in the extreme is here seen as an effort to achieve a greater degree of structure in the environment, thus reducing ambiguity" (p.199).

Intolerance to ambiguity can be inferred from ERS (Frenkel-Brunswik 1949, Goldsamt 1971). Soueif (1958) investigated the intolerance to ambiguity theory and discovered "that a social group with a higher tension level tends to manifest higher intolerance of ambiguity, in terms of extreme responses, than a social group with a lower level of tension" (p.333).

However, the results are less clear if authoritarianism is considered as a complementary construct. Authoritarianism has shown mixed results in relation to ERS (Mogar 1960; Peak, Muney and Clay 1960; Zuckerman and Norton 1961). Warr and Coffman (1970) suggested that the relationship only holds in situations of high involvement. Subjects that report the most extreme attitude may be the ones with little interest in the content of the items, therefore the least involved in the test (Wyer 1969). But, the evidence

does point to rigidity in personality being a factor in individual ERS. Schutz and Foster

(1963) investigated 150 college students and found ERS to relate to an authoritarian

personality with strong rigid opinions. However, they also found that ERS cannot be

generalized onto all tests.

The cognitive approach to ERS considers the response style to reflect the cognitive

judgement process of knowledge retrieval, interpretation and a corresponding selection of

response (Hippler, Schwarz and Sudman 1987; Tourangeau and Rasinski 1988; Ottati et al.

1989). Emmerich (1971) looked at the cognitive development of children and discovered that

the level of cognitive development influences extremeness of response on two levels. "Perhaps

there are two distinct kinds of "extreme" responses, the first defined in terms of a category's

ordinal position on a scale, and the second in terms of the absoluteness of its definition

relative to other scale points" (p.540). As children develop, their cognitive level will mediate

the kind of extreme responses relevant. ERS appears to be related to the developmental and

cognitive growth from less to more differentiated cognitive structures (Hesterly 1965; Light,

Zax and Gardiner. 1965; Zax et al. 1964).

Light, Zax and Gardiner (1965) found the extreme responses to be a function of the

combination of cognitive development that accompanies age and intellectual maturity. The

authors were able to find significant differences between children's age groups for ERS. They

found that through the development of cognition and IQ, older children use fewer extreme

ratings. The combination of the intellectual powers would appear to correspond with the

development of abstract power amongst children. Goldsamt (1971) proposed that a curvi-

linear relationship exists between ERS and age, with children taking more extreme positions than young adults.

Individual demographic characteristics have been investigated in relation to ERS. Age has been found to be a consideration in ERS (Gove and Geerken 1977; Greenleaf 1992a). Children and adolescents are believed to have higher ERS (Hesterly 1963; Light et al. 1965; Soueif 1958; Zax et al 1964). Das and Dutta (1969) used Soueif's (1965) Personal Friends Checklist among Indian students to show how ERS scores were high amongst adolescents and lower for both young and old adults. Correlations revealed ERS to be negatively related to intelligence, and positively related to hypnotic susceptibility, favorable attitude to religion and semantic satiation. These personality considerations are explained in relation to rigidity. Hesterly (1963) even found that the elderly have similar levels of ERS to those of children, suggesting a curvi-linear relationship. Explanations were provided based on the cognitive development of a return to childhood. Subjects with a concrete cognitive structure displayed higher ERS than cognitively abstract subjects (White and Harvey 1965; Harvey et al 1961; Zax, Cowen and Peter 1963).

Crandall's (1973) earlier work found women to consistently make higher extreme ratings than men. Particularly, the study found that women have more extreme reactions to moderately positive stimuli than men. There was no difference in the use of negative extreme points. Some of the plausible explanations provided were: (1) women are better carriers of cultural values than men, (2) women are trained to look on the bright side of situations, (3) women experience more intense stimuli than men. They concluded that women have a broader, more differentiated 'affective continua', thereby requiring a broader scale to

38

adequately reflect these feelings. Studies by Soueif (1958), Berg and Collier (1953), Borgatta and Glass (1961), Brown (1964), Crandell (1965), Peak, Muney and Clay (1960) and Zuckerman, Oppenheimer and Gershowitz (1965) universally concluded that women have higher ERS than males. Only Brengelmann (1959) reports males as having higher levels.

CULTURE

This section on culture attempts to integrate the general concept of culture to the specific cultural application of ERS. The section will begin with a general discussion of culture, to develop a foundation for the following detailed discussion of the specific cultural explications provided for ERS. For additional information on culture, please refer to Chapter I and Chapter III.

While culture pervades all of marketing (Jain 1989), the fundamental treatment of culture in the marketing literature has been suspect. Ford and Honeycutt (1992) elaborate:

> "Culture is given only cursory treatment in the majority of comparative academic articles that have appeared. Even when culture is used to explain differences, it is not examined in its basic national elements. Discussions of the impact of basic cultural elements (such as language and social structure) on business practices are often ignored in favor of very specific generalizations that provide little, if any, insight for the strategic analyst" (p.27-8).

Often, the cultural generalization merely serves to mask unexplainable results of the original study.

Central to the discussion, is the question of whether culture is learned or inherited. The consensus in marketing literature is posited by Terpstra (1983): "... culture or way of life is learned behavior which depends upon the environment and not heredity." This fundamental

assumption is integral to association of response styles and culture. Response styles are an extension of the learned cultural factors. In the simplest of terms, the literature will reveal that response styles are learned as culture is learned.

Cultural literature schizophrenia has not limited the application in ERS research. Culture is a parameter in the development of ERS theories (Leung and Bond 1989). Shapiro et al. (1976) and Triandis (1972) concurred that extreme response styles were common in cross-cultural work (Shapiro, et al. 1976; Triandis 1972). ERS has been used to resolve cross-cultural study results across subcultures and ethnic groupings (Das and Dutta 1969; Hamilton 1968; Hui and Triandis 1989; Marin, Gamba and Marin 1992; Shapiro et al., 1976; Stening and Everett 1984b; Triandis and Triandis 1962; Zax and Takahashi 1967). Response sets can be found across boundaries or across subcultures. Cunningham et al. (1971) concluded:

"... cross-national research. This is an area where differences in response sets can frequently occur because of substantial cultural variation between subject groups. ... However, differences in response sets need not cross national boundaries. It is equally possible to find such differences among subcultures within a country" (p.384).

The researchers universally contend that there is a cultural difference in the subjects use of the extreme points of a scale. This style is postulated to reflect the culture of the subject, in other words, the learned pattern of behavior that is acceptable in the given society.

Yet, a complete review of the literature reveals that these cultural explanations in ERS have been applied in a capricious manner to cultural analysis, leaving researchers with only a fragmentary sketch of cultural ERS. Chun, Campbell and Yoo (1974) provided a good overview of the ERS in cross-cultural research. They found that ERS has been virtually

ignored in cross-cultural research. Through a comparison of U.S. and Korean students, the authors were able to demonstrate a shift from significant to insignificant findings between the groups, on general personality scales, when the statistical correction for restricted range is applied to the Korean sample. The authors were able to prove that ERS is a cultural phenomenon and "the phenomenon of ERS and its consequences merit greater attention than accorded in the past" (p.477).

Periodically, extreme response style is used to explain the group differences in black/white subcultural comparisons. Bachman and O'Malley (1984a, b) demonstrated that blacks and whites have differences in response styles to self-esteem measures. They suggest that ERS may be attributed to "... subcultural differences in language use or style ..." (p.503).

Berg and Collier (1953) also found that black males use the extreme scales on the Perceptual Reaction Test more often than whites. Blacks have been shown to be more likely than whites to employ the extreme response categories for Likert-type questions on self-esteem. This has been primarily with regard to scales with an agree/disagree format (Bachman and O'Malley 1984a, b). "Put the other way around, whites are more likely than blacks to qualify their responses on such scales" (Bachman and O'Malley 1984a, p. 506). Either perspective yields the same conclusion: the degree of ERS bias varies between black and white groups.

The seminal works on Black-White differences in response styles were presented by Bachman and O'Malley (1984a, b). They found that blacks are more likely to use the extreme points on a Likert-type format across a broad range of topics. Specifically, they used global self-esteem measures (1984a) to look at the effect of ERS in group comparisons. They found

a near-zero partial correlation between race and self-esteem when ERS is controlled. When

it was not controlled the findings indicated a statistically significant difference between race

for self-esteem scores. They suggested that researchers may be using scoring methods, in

particular, full scales, to find racial differences in self-esteem.

Bachman and O'Malley (1984b) continued their black-white analysis to discover that

blacks were more likely to use the extreme points on Likert scales, particularly those with

agree-disagree formats. The difference was estimated to be 7 to 8 percent regardless of

geographic region. "The pattern appears across a broad range of topic areas, and it appeared

(with roughly the same frequency) whether the methodology involved group administered

questionnaires or individual face-to-face interviews" (p.498). They were unable to link ERS

with indicators of status, academic abilities or aspirations. This led the authors to conclude

that subcultural differences may be the cause of the difference and that researchers should be

cautious in reporting racial differences in attitude measures.

Prior research has implied that there is a cultural-specific tendency among Hispanics

for ERS. Marin et al. (1992) concluded that "... Hispanics prefer extreme responses to a

greater extent than non-Hispanic Whites" (p.506) and that this preference is culturally

determined. Extreme response style was explained as consistent with the Hispanic cultural

values of collectivism (Marin and Triandis 1985) and *Simpatia* (Triandis et al. 1984).

> "Hispanics may prefer to use extreme responses because of a cultural
> value that associates extreme responses with sincerity. According to
> this cultural rule, he use of the middle categories of a response scale
> could be perceived as a way of hiding a person's real feelings by
> presenting them in moderating terms" (Marin et al. 1992, p.507).

In an earlier study, Hui and Triandis (1989) found Hispanic U.S. navy recruits to have

greater ERS than non-Hispanic recruits using a 5-point Likert-type scale on supervisors.

> "The present study found that a previously reported cross-ethnic
> difference in ERS is generalizable beyond the black/white comparison.
> Just like blacks, Hispanics tend to use the extreme points of the scale
> more often than non-Hispanic samples do. Of course, additional
> studies are needed, with other cultural groups and other response sets,
> to fully explore cultural differences in ERS" (Hui and Triandis 1989,
> p.306)

They suggested that dissimilarities in cultural 'styles of distinction' between subjective

categories could explain the results. Hispanic ERS was found to correspond to the level

indicated by non-Hispanics when a 10-point scale was utilized.

The cultural explanations of ERS have been explored between Asian and American

cultures. Chun, Cambell and Yoo (1974) found an overall lower level of extreme category use

for Korean than U.S. students. Zax and Takahashi (1967) investigated response styles

between Japanese and American students and its relationship to cultural setting. They

hypothesized that Japanese will make fewer extreme ratings than Americans, based on the

structured child rearing practices emphasizing restraint, predominant in Japan. Cultural

restraints will lead most Japanese to " ... act to suppress impulsive displays in most areas of

functioning" (p.5). Zax and Takahashi found support for differences between American and

Japanese students in their use of extreme and neutral ratings on a Likert type questionnaire.

The results are explained as "... an unwillingness among Japanese to 'stick their necks out' as

individual personalities. They require more definite standards before responding" (p.8).

Reliance on cultural standards is demonstrated in the general cultural response style. Gordon

and Kikuchi (1970) also compared Japanese and Americans for extremeness in response only

43

to find that ERS was prevalent amongst the Japanese but did not differ in strength or

contribution to scale variance than for Americans.

An extreme response style for Bedouin and Moroccan boys was explained as "learned

habits' (Shapiro et al. 1976). Extreme response was correlated with rigidity amongst Germans

(Brengelmann 1960), and Triandis and Triandis (1962) addressed ERS differences between

Greek and U.S. student samples. While these studies looked at ERS across cultures, the

implications of ERS were not systematically pursued. Overall, the primary themes of these

studies have little to do with cross-cultural differences and their consequences (Chun, Cambell

and Yoo 1974).

METHODOLOGY

While the relationship between subject's personality and the instrument characteristics

has been suggested by Poggio and Funk (1977), there has been a lack of systematic efforts

directed at the methodological considerations of ERS (Hamilton 1968). Goldsamt (1971)

discussed the research oversights:

> "Yet many studies of extreme response tendencies have not
> systematically examined that style, either conducting isolated studies
> in this area or relegating ERS research into a secondary phase of
> studies concerned with measurement of other response styles.
> Methodological considerations as they apply to ERS measurement
> generally seem to have been overlooked" (p.35).

Many of the conflicting findings can be attributed to the different rating scales used to

measure the response style. Greenleaf (1992a) explained the difficulty of this approach:

"ERS researchers have each tended to develop their measures rather than reusing measures from other ERS studies. This makes it extremely difficult to compare results across studies, especially in an attempt to reconcile conflicting results. Furthermore, the measures that are used are rarely developed for the special purpose of measuring ERS and rarely address the particular requirements of ERS measurement. Instead, many researchers estimate ERS with existing multiple-item measures originally developed for other purposes" (p.329).

Measurement of ERS will vary with stimuli. O'Donovan (1965) and Hamilton (1968) found that responses will be more extreme to meaningful rather than meaningless stimuli. Ambiguity in the stimuli may also work as a moderator (Banta 1961). "ERS should be measured independently by methods using a high degree of stimulus ambiguity" (Hamilton 1968, p.201).

Merrens (1971) expanded on the idea:

"Since the vast majority of the ERS measures previously used contain at least moderate content loadings, the personality attributes associated with ERS on a given measure might be best interpreted as reflecting a relationship between the content of the measure and the personality variable, rather than a relationship between ERS and aspects of personality. Thus, the personality variables thought to be significantly related to ERS may have been specific to the content of the given ERS measure" (p.314).

Built on these findings, Greenleaf (1992a) developed an ERS measure of uncorrelated and equal extreme response proportions which consistently measures ERS across the U.S. population. Response styles will have a greater opportunity to surface when the content of the scale is no longer singular (Hamilton 1968). The existing research does not use a measurement with these desirable qualities. The improper measurement of ERS in the existing research could explain some of the conflicting results of the early research.

45

Extreme response styles may be more difficult to measure than originally thought.

Gordon (1971) found " that there are two extremeness response sets, one at each pole, which are sufficiently different from one another to require separate summarizations" (p.867). The disparity of ERS results could be partially attributed to the need to study ERS as two separate phenomenon based on its two poles. Using tests of authoritarianism and dogmatism, ERS effects on scale validity contribute differently whether they are positive or negative.

A comparison of scales, and their ability to elicit extreme responses, must also take into consideration the number of attributes in the scale. Gold (1975a, b) and Shulman (1973, 1975) entered into a debate over the use of a agreement scale or a bipolar reversal scale to limit the number of extreme responses. Shulman (1973) originally contended that the agreement scale elicited 5 to 7 per cent less extreme response bias. Gold (1975a) countered that Shulman's method of analysis failed to take into consideration the number of attributes rated, since this would influence the basic probability of extremeness. Shulman (1975) agreed to the theoretical basis of the observation, but, found that in practice it did not hold. His original claim of higher levels of extreme raters with bipolar, as opposed to agreement, scales was confirmed. Yet, Gold (1975b) countered by looking at the binomial model to show how the number of attributes rated profoundly affected the score for extremeness. Therefore, to compare extremeness across scales with differing numbers of attributes, researchers should consider the use of a statistical test like goodness-of-fit to determine which scale is superior.

Scaling Issue

Culture has an effect on the effectiveness of scale formats. Cheron, Padgett and Woods (1987) found that "the same scales may have different reliabilities in different cultures, and that the same scales may exhibit different reliabilities when used by the same individual in evaluating products from different cultures" (p.45). They concluded that it is not appropriate to use simple comparisons in cross-cultural research and that it is necessary to make adjustments for cultural variations. Cultural differences in probablistic thought have been used to explain the cultural differences in scale use (Wright et al. 1978). Cateora (1993) argued that the scaling issues in cross-cultural consumer research represent "a special problem" (p.353) and have been given insufficient attention. Specific to the discussion was the effects of extremeness to the scale.

Arthur and Freemantle (1966) tested the hypothesis that "a subject's tendency to give extreme responses in the semantic differential is related to his tendency to give words with greater associative commonality in word association" (p.399). The study was based on the work by Osgood, Suci and Tannenbaum (1957) that word associations will have responses that are more common in the population and thus have more intense and shorter latencies to the individual. They found statistical support for the hypothesis indicating that extreme responses may be mediated by a mechanism with greater availability of intense responses. In other words, dichotomous evaluation of alternatives is observed when meaningful stimuli are used (O'Donovan 1965). Litteral's (1971) results are in direct contradiction with Arthur and Freemantle (1966) and suggest extreme responses are in response to unfamiliar stimuli.

Central to the scaling issue is the effect of the Likert-type format on ERS. Gordon and Kikuchi (1970) explained:

> "Results of this and other studies that have reported significant cross-cultural differences in response sets where Likert-type response format has been used have important implications for the investigator who intends to employ this format in comparative opinion or attitude research. Significant differences obtained between cultures could well result solely from response set differences, or nonsignificant findings could be due to disregard response set differences. Thus, the investigator is cautioned against making inferences regarding cultural differences in the absence of response set information" (p.147).

Albaum et al. (1987) reported that a one-stage, five category Likert scale may confound both the direction and intensity of attitude measurements so that extreme positions are underreported. The finding implies that the most common cross-cultural scale format may not be tapping the entire dimension of attitude in cross-cultural research. Albaum and Murphy (1988) continued this line of research by administering both a one-stage and two-stage Likert scale to three samples of New Zealand students responding to s series of 13 economic questions. The two-stage process first asks respondents to indicate if they agree or disagree and then they report the strength of the response. The authors found a two-stage format was able to generate a greater proportion of responses on both ends of the scale. The authors recommended the use of a two-step format for cross-cultural research to ensure the detection of the most extreme positions. However, they also noted that the method can be "complex, time-consuming, and costly" (p.501).

Optimal Number of Response Categories

Central to the scaling issues is the question of the appropriate number of scale items.

> "The scale should not be too coarse or some of the discriminative ability of the rater is lost. Nor should the number of categories greatly exceed the ability of the rating to discriminate differences between the stimuli and so introduce added error variance to the ratings" (Bendig and Hughes 1953, p.87).

Reducing the number of scale intervals could alter the eigenvalues and change factor loadings (Martin, Fruchter and Mathis 1974). The Likert-type scale format, for marketing research, has been found to achieve the same results as tests using, open choice preference, open choice objection, limited choice, order-of-merit, and paired comparison (Kassarjian and Nakanishi 1967). Concurrently, the reliability of tests are thought be related to the number of categories. A plethora of studies have been completed viewing the general use of scale categories. While these studies do not directly address ERS, they do provide a solid foundation for the understanding of the appropriate use of scale categories. Therefore, this section will be divided into two parts; the first, will look at the general use of rating categories, while, the second will investigate the relation to ERS.

Reliability is generally thought to be independent of the number of scale points used in Likert-type scales (Bendig 1954; Komorita 1963; Komorita and Graham 1965; Peabody 1962; Matell and Jacoby 1971). Validity is also surmised to be independent of the number of scale points (Matell and Jacoby 1971).

The reliability of test may be impacted by the number of scale categories included in the research. Bendig (1954) found that "test reliability is independent of the number of scale

categories, and that rater reliability is relatively constant" (p.40). He cautioned that further research is needed to assess rater reliability for below five-scale categories. The results remain consistent with his earlier work (Bendig 1953) where equal reliabilities were discovered for scales of 3, 5, 7 and 9 categories, but, decreased for 11 categories.

Most marketers maintain that the reliability of a scale is independent of the number of scale points (Komorita and Graham 1965). However, Champney and Marshall (1939) confirmed the earlier work of Symonds (1924) and concluded that reliability is dependent on the number of scale points. Some research has also indicated that the reliability of the scale also increases as the number of points increases (Ferguson 1941; Jahoda, Deutsch and Cook 1951). Lissitz and Green (1975) are able to rectify these conflicting reports by demonstrating the difference to actually be caused by the size of the standard deviation. When the standard deviation effects are accounted for, an increase in the number of points corresponded with an increase in reliability. This lead the authors to conclude against the common use of the seven point scale and suggest matching the scale with the objectives of the study. Overall, the utility of having scales greater than five categories would appear to be of little value.

The clear delineation of end-points to anchor a Likert-type scale may also affect the reliability of the scale. Bendig (1953) found that reliability could be increased by adding scale anchoring. When alternatives in Likert-type scales are be clearly defined, ERS has been reported to decrease (Cronbach 1950).

The amount of information conveyed appears to be dependent on the number of rating scales. Information is thought to increase as more response categories are added when subjective and internal stimuli are being tested. Verbal anchoring of the scales may also

increase the informational content.(Bendig and Hughes 1953). Symonds (1924) called for seven intervals for measuring personality traits. Green and Rao (1970) and Matell and Jacoby (1972) found that a seven-point scale worked best for information recovery. Five to seven points is considered necessary to get accurate measures of individual behavior. Benson (1971) found fault in the technique of simulation used by Green and Rao, and suggested that a two-point scale may be appropriate for certain research designs. Increasing the number of scale points increases nonresponse bias, fatigue and increases cost (Lehman and Hulbert 1972). Green and Rao (1971) responded by discussing the loss of information inherent in a two point scale. For multidimensional scaling work more categories are recommended.

Miller (1956) argued that humans are not capable of discriminating among more than about 10 categories, and recommended against the use of larger scale categories, since the information gain is limited, while the opportunity for error increases. He contended that a subject's perception of stimuli is limited to seven bits of information. This finding is accepted since there is a common use of seven point scales currently. Hulbert (1975) supported the earlier findings of information processing limits by reporting the average number of categories used by respondents to fall between 6 and 10, influenced by the task at hand. Yet, Garner (1960) was able to find increases in discrimination up to 20 categories. Testing time and time related factors were found to be independent of the number of scale points (Matell and Jacoby 1972). Litteral (1971) found response time to be independent of ERS.

The call for limited categories was lead by Jacoby and Matell (1971). They suggested allowing the rater to chose the format that best suits their cognitive space and then convert the data to dichotomous or trichotomous measures. They found that no significant decrease

in either reliability or validity necessarily resulted from the technique. Komorita (1963) reported that a Likert-type format will have no appreciable difference in outcome from a dichotomous format testing the identical stimuli. A two-point format was generally preferable to a multi-item format (Komorita and Graham 1965).

Difference in results may be explained by the stimuli rated. Champney and Marshell (1939) counciled against the standardized use of five and seven-point scales, since the discrimination abilities will vary by test. A practice of constantly using 5 and 7 point scales will "give inexcusably inaccurate results" (p.331). There may be no single number of categories appropriate for all research situations (Garner 1960), and the number may be dependent on the goals of the study (Komorita and Graham 1965, Lehman and Green 1972). Pemberton (1933) suggested that researcher begin with 6 points and test to find the optimum rating scale measure.

Miller (1956) and Cox (1980) provided excellent reviews of the information and reliability discussions. They both concluded that limited benefits are gained by extensive growth in the number of response categories. Overall, "the magic number seven" plus or minus two appears appropriate for attitude research. The precise number will vary with the research objectives.

Optimal Response Format - ERS

This extensive stream of research focused on the reliability and information content as its criteria for selection of the optimal number of response categories. Another consideration, response styles, is quite relevant to the discussion. At the center of this

discussion is the number of scale intervals. "ERS may be affected by the number of intervals in the scale" (Greenleaf 1992a). A respondent will consider the number of alternatives provided and use this range as a frame of reference for evaluating his or her own attitudes. Respondents may be reluctant to report outside the standard parameters. An examination found that when subjects were presented with a small range of response alternatives they tended to choose the middle. When larger ranges were presented, they endorsed the first behavior (Schwarz, et al. 1985). This suggests that the use of open-ended questions is relevant, to avoid response styles, for behavioral questions. However, Wyer (1969) reported that ERS is independent of the category widths.

Hui and Triandis (1989) claimed that the addition of response categories will reduce between cultural group differences in ERS in attitude measures.

> "... the addition of more categories to a scale will simplify the task of those wo cannot 'elastically' and more evenly distribute their subjective categories over the response categories. These subjects can now represent each of their subjective categories with one type of response, which is a unique position on the scale. In other words, with a scale of finer gradation the crowded responses at the extremes can be spaced out. This is so because a scale with more points appears to be more capable of encompassing the respondents' entire subjective range, while a 3- or 5-point scale leaves many judgements out of range" (Hui and Triandis 1989, p.300).

The analysis conflicted with the earlier works on optimal scale categories. The authors found that a 10-point scale created equal patterns of extremity between Hispanic and non-Hispanic subjects.

Cronbach (1946) and Rundquist (1950) claimed that it is best to eliminate response sets whenever possible. "Since response sets are a nuisance, test designers should avoid forms of items which response sets infest" (Cronbach 1950, p.21). Cronbach (1950) suggested that

researchers would be advised to reduce the pattern of Likert-type scales to a two-choice

judgement. Fewer response categories reduces ambiguity. Multi-point Likert-type scales are

open to individual differences in reference positions. This may reduce the reliability of the test

but should eliminate response set effects. Komorita and Graham (1965) explained:

> " ... some type of response set such as an 'extreme response set,'
> (Cronbach 1946; 1950) may be operating to increase the reliability of
> heterogeneous scales. If the reliability of the response set component
> is greater than the reliability of the content component of the scale, the
> reliability of the scale will be increased by increasing the number of
> scale points. ... Thus, it is reasonable to assume that increasing the
> number of scale points permits an extreme response set to be evoked,
> and the use of a two-point response scale eliminates or minimizes this
> set" (p.994).

Peabody (1962) postulated that extended scales, ones with more points, might multiply the

role of ERS.

Yet, to use the most limiting response scale format, in order to avoid response sets,

ignores the information and reliability improvements discussed above. Rating scales that avoid

ERS were found to have poorer reliability and discrimination (O'Donovan 1965). Zuckerman,

Norman and Sprague (1958) discussed the primary disadvantage of limited response formats.

> "Response sets have been treated as an unwelcome 'freeloader' in
> personality tests. Some authors advocate eliminating response-set,
> using forced choice. Since response sets may be indicative of
> personality in themselves, it might be profitable to let the 'freeloader'
> earn his keep" (p. 43).

Scaling formats need to be found that still offer item discrimination while allowing for equal

response set opportunities for each group. The scientist Eiduson (1962) summed up this

philosophy: "If you never chase sidelines, you never find anything new; if you chase all the

sidelines, you never find anything because you are running down too many blind alleys"

(p.126). The optimal number of scale categories will allow for informational gains and still minimize response set opportunities.

A small amount of research has been completed relating the method of data collection and ERS. Jordan, Marcus and Reeder (1980) found ERS to be greater in telephone interviews. Herzog and Rodger's (1988) findings of no difference in response style by interview method would serve to partially refute the earlier findings. The conclusion of Jordan, Marcus and Reeder (1980) support the individual personality research of stimulus ambiguity creating opportunity for ERS.

Some evidence is available to suggest that ERS changes over the length of the survey. Hui and Triandis (1985) looked at three separate data sets and found that extremity varied at the stages in the questionnaire. This is explained by the respondent becoming more familiar with the concepts of the scale and therefore becomes more willing to commit to a more extreme position. Indirectly, this study provides support for measuring ERS with low-correlation stimuli since highly correlated scales will have changes in ERS through familiarity.

Goldsamt (1971) summated the entire debate:

"Thus no hard and fast rule seems to exist as to the optimal number of
scale points but this source of variation may affect the relative amount
of ERS detected by a particular scoring method" (p.46).

ADJUSTMENTS

Since the problems associated with response styles are well known to cross-cultural researchers, many suggestions have been offered on how to best address the problem. Two forms of response style allowance are possible: *a priori* and *post hoc*. The first would identify

scales that have equal levels of ERS between the designated cultures. The second adjusts for

ERS after data collection.

A PRIORI APPROACHES

Crandell (1973) suggested a balancing of the number of positive and negative items

to offer equal opportunity for extremeness. This would be insufficient to cancel out the ERS

effects since respondents may still exercise their inclination to use the extreme points.

Cronbach (1958) recommended using only dicotomous response formats, thereby, eliminating

any possibility of ERS. But, many attitude constructs are not efficiently identified by this

response format. Many marketing scales are not designed as dichotomous questions and may

require the entire range scale parameter to accurately capture the latent construct.

Additionally, dichotomous scales reduce the number of people willing to respond leading to

"inaccurate results" (Ghiselli 1939).

An alternative, which affords the use of Likert-type response formats, would be to

develop response formats with equal opportunity for ERS in multiple cultures. An *a priori*

approach, of matching ERS equivalent scales, would allow researchers to develop

measurement instruments that insure the assessment of the construct across cultures, devoid

of the statistical bias of culture specific ERS. Heide and Grønhaug (1992) suggested that

"improved measurements to reduce response effects will increase the validity of survey

results" (p.227).

POST HOC APPROACHES

In the most direct approach, Cronbach (1950) offered the opportunity to "identify all cases with extreme response sets and drop such cases from the sample, admitting that measurement for them is invalid" (p.25). The method has the disadvantage of "throwing out numerous subjects, but is vastly better than treating the subjects as if the scores were valid" (p.26). Only when the personality variable being studied is related to the response set is it reasonable to keep the bias. Building on this work, Schmitt and Stults (1985) and Wilcox, Howel and Hora (1986) suggested using Item Response Theory or the residuals from canonical analysis to identify extreme responders, so that they would be deleted from consideration. However, if ERS is a generalizable cultural phenomenon, the approach of deleting ERS responders is not practical, nor appropriate, for cross-cultural research.

To rectify this bias, in a cross-cultural comparison, Bachman and O'Malley (1984b) recommended the use of collapsed scoring to minimize the effects of ERS. Backman and O'Malley (1984a) suggested using a collapsed scoring method (scales recoded to a 0 or 1) for cross-ethnic research, albeit under the caveat of that "collapsed scoring may well throw out the baby with the bathwater" (p.637). They found that differences in racial groups were eliminated when answers were recoded to dichotomous responses. However, a truncated scoring approach lessened item variance, inter-item correlation, and index reliability, thereby creating a measure that was less sensitive to the authentic changes in the construct of interest. Collapsed scoring techniques designed to compensate for ERS could reduce the information content and alter conclusions, yet still entail the undesirable bias of ERS in a 'condensed form'.

It is possible that a level of degree is removed by collapsing scoring. A *post hoc* collapse of scoring may remove the required information for accurate measurement.

Triandis (1972) advocated the use of correlational techniques as a method for controlling ERS bias in cross-cultural research. However, correlations are themselves inherently biased by ERS, making them equally inappropriate for this purpose. Hamilton (1968) explained that correlations are susceptible to ERS and comparisons using these techniques fail to address the issue.

Standardization may appear to address this methodological quagmire. By standardizing the variables within culture prior to cross-cultural analysis, an attempt is made to eliminate the extreme response style. But, it also eliminates meaningful variations between cultures as scores are forced to a mean of zero and one as their standard deviation. This procedure eliminates the bias, or noise, in ERS at the expense of the meaningful item variance, or signal, between culture. "The standardization procedure would eliminate these true differences at the cross-cultural level" (Leung and Bond 1989, p.137).

At first glance, traditional normalization would appear to rectify the situation, but to fully remove the effects of standard deviation could suppress any attitude information in the component. Normalization does not gauge the amount of bias and attitude information in standard deviation, therefore they remove both elements. Normalization removes valuable attitude information (Greenleaf 1992b).

An ipsative process, where an appropriate value is added to each subjects responses so that all of the responses will add to the same number, has been suggested as one technique for controlling response sets in cross-cultural research (Cunningham et al. 1971). "Ipsative

data is: any score matrix, which has the property that the sum of the scores over the attributes for each of he entities is a constant" (Cunningham et al. 1971, p.380). The ipsative score is the number of units the observed score must be changed to reach the constant. This is the number used for analysis. The procedure is as follows: (1) standardize the data, (2) ipsatize the data, and then (3) standardize the data. In a study comparing product attributes in the United States, France, India and Brazil, the authors found that the difference between cultural groups changed when ipsatized data was used.

Gurwitz (1987) found the technique particularly effective for neutralizing response sets in segmentation analysis. The technique has been shown to profoundly effect to results of segmentation structure. His technique builds on the Cunningham et al. procedure to arrive at the following model:

$$I_{ij} = (X_{ij} - M_i)/S_i$$

I_{ij} = the ipsatized response of respondent i to item j
X_{ij} = the raw response of respondent i to item j′
M_i = respondent i's mean raw score
S_i = the standard deviation of respondent i's raw responses

This approach avoids the double standardization of the original ipsatization and basis scores on the relative evaluation of each respondent.

However, the authors contended that the technique is appropriate only when there is an *a priori* assumption of response sets and "the application of the ipsative measure could serve to mask actual differences in the results. Therefore, the ipsative measure should be used with discretion by the researcher" (Cunningham et al. 1971, p.384). Another limitation of this research is that the authors failed to provide guidance in discovering when the technique is appropriate. Further, ipsatization removes the magnitude of each respondent's score,

independent of the degree bias, eliminating one signal of attitude information.. The process requires initial standardization which encounters all the problems discussed in that section. Additionally, since the original technique standardizes the data *twice*, the loss of attitude information is compounded. Even with the limitations, ipsative rescaling would appear to be clearly superior to ignoring the effects and results in a level of improvement over common standardization techniques.

The bias component in ERS will create a prediction bias when the observed scores are compared to the predicted behavior. Attitude-behavior models will display a different set of predictions if ERS contains an attitude information. A proper adjustment would correct the attitude score to remove the bias without losing the information element.

Linking attitude to behavior could provide the basis for removing bias. If behavioral data is reported through a self-report scale, the scales should be less sensitive to ERS than attitude scales. If these behaviors can be linked to strongly correlated attitudes, a comparison of attitude to behavior would illustrate the level of bias. When no bias is present, the level of attitude should predict behavior.

CONCLUSIONS

In conclusion, the literature suggests that extreme response style should vary across cultures. However, the specific cultural attributes which affect ERS have not yet been developed. There has also been a long history of conflicting results of personality relationships and response styles. The confusion generally stems from the use of tests designed to measure

other traits. The impact of this confusion has been to cause some researchers to discount the entire effect of ERS.

There is a finely developed stream of research available on the optimal number of alternatives for response formats. However, the criteria for this research has focused on reliability and information content. The research stream of the effects on response alternatives on ERS is not as well defined; leaving researchers with conflicting results on whether to use a greater or fewer number of response categories when ERS is suspected.

Finally, the methodological suggestions of adjusting for response styles have unique limitations. Little guidance is provided for when each technique is best suited. The literature implies that a *post hoc* approach, of adjusting attitudinal responses based on behavioral standard deviations, could have special applications when ERS is suspected. Possibilities for research exist in comparing the *a priori* and *post hoc* approaches.

At this point, it is possible to conclude that ERS is an important, albeit often ignored, methodological consideration for cross-cultural research. While a cultural explication is still unresolved, further empirical testing of the response style is merited.

Table 2.1.1: ERS Literature
Personality

AUTHORS	METHOD	SAMPLE	FINDINGS
Arthur 1966	Two tests: (a) Response bias was measured with 9 semantic differential scales for 7 concepts; (b) 10 semantic differential scales for 2 sets of 7 concepts and retested after 4 weeks.	(a) 18 psychotic and 18 neurotic subjects from a large public mental hospital; (b) 94 first year psychology students	Psychotics use the extreme positions more often than neurotics; extreme response bias is a reliable occurrence.
Arthur and Freemantle 1966	Response bias was measured with 10 semantic differential scales for 10 concepts and 20 stimulus words from Kent-Rasanoff.	40 teachers' training college students	Extreme response style is related to associative commonality in word association.
Berg and Collier 1953	The Perceptual Reaction Test, The Sway Suggestibility Test and the Taylor Anxiety Scale with a retest between 4 and 15 days later	634 college students	Extreme response style is found reliable with higher scores for Negro males and high-anxiety males. Anxious and general neurotic groups also scored significantly higher.

62

Biggs and Das 1973	ERS was measured with the Personal Friends questionnaire, Dogmatism, and Study Behavior Questionnaire and compared to a range of personality and performance measures.	90 summer session older, undergraduate students enrolled in educational psychology classes	The findings suggest that ERS is determined by item content. "ERS may be an index of the manner in which a person orientates himself in relation to the external world" (p.208).
Borgatta and Glass 1961	ERS data is gathered using the General Orientation Profile; personality is measured with the Cattrell 16-Factor Personality Schedule and the Edwards Personal Preference Schedule.	Six samples: male college (n=183), male prisoners (n=31), male mental patients (n=170), female college (n=84), female prisoners (n=11), female mental patients (n=10)	Finds an inconsistent relationship, across the heterogeneous sampling groups, between personality traits and ERS. Females, the mentally disturbed, and those scoring lowest on self-control tend to score higher on ERS.
Brengelmann 1960	Extreme response sets were derived from the personal friend check list and compared to rigidity, the California Psychological Inventory of Rigidity, dogmatism, intolerance to ambiguity, drive, extroversion, neuroticism and manifest anxiety.	88 normal and 105 abnormal persons divided into unskilled, skilled, higher trained, and academic occupations	Extreme response was found to be correlated with rigidity.

Crandell 1982	3 studies: ERS measures were gathered with Wightman's (1964) Philosophy of Human Nature Questionnaire the Misanthropy scale, an 10 personality traits; SI through the Social Interest Scale.	(a) 31 men and 15 women; (b) 55 men and 82 women; (c) 15 men and 23 women; in an introductory psychology course	Inverse relations are found between social interest and ERS scores. People with great interest in others are less likely to make extreme responses.
Crandell 1973	3 experiments of providing semantic differentials representing: content-free stimuli, negative personality traits and all regions of semantic space	151 women and 120 men in an introductory psychology course	Women consistently use the extreme positive ratings more than men. Mild, positive stimuli evoke a greater range of reaction in women.
Emmerich 1971	60 normative statements and the Iowa Test of Basic Skills for cognitive level	627 middle-class children and adolescents through the Educational Testing Service	Two type of extremeness are identified: (a) dependent of the category's ordinal position on the scale, and (b) absoluteness relative to the other points.

64

Hamilton 1968	Literature Review	Period: 1937-1967	He finds that personality attributes like, sex, adjustment, anxiety, intelligence, occupation, deviancy, rigidity, drive, meaning and cognitive development are associated with extreme response style. ERS is stable and consistent over time.
Innes 1977	The Manifest Anxiety Scale, Kent-Rosanoff Word Association Test, Dogmatism and a varied concept semantic differential	54 male science students at the College of Technology over a 4 week period	Relationships are found for ERS and anxiety and commonality.
Iwawaki and Zax 1969	The Japanese version of the 7-point semantic differential Maudsley Personality Inventory	158 male Japanese college students	Neurotics exhibit greater ERS than non-neurotics, while stable introverts have less ERS than neurotic extroverts.
Kloot, Kroonenberg and Baker 1985	The Adjective Checklist, Form A of the Cattell's 16 PF, MMPI A, and the Nichols-Schnell CPI were used .	27 men and 61 women undergraduates were paid to report over a 3 week period.	ERS is related to social desirability response tendencies. However, bias is attributed to content rather than overall response style.
Light, Zax and Gardiner 1965	Data was obtained using 10 Rorschach inkblots and 15 7-point Semantic differential scales.	240 NY public school students in the 4th, 8th, and 12th grades	More intelligent and older students showed lower levels of ERS. No difference was found between sex.

Littrell 1971	Words from the Kent-Rosanoff list and Berg's Perceptual Reaction Test	40 college women	Extreme responders were not found to respond more quickly to free association.
Lorr, McNair and Fisher 1982	The cases responded to a 72 adjective version of the Profile of Mood States.	3 subsamples of 87 anxious, 175 depressed, and 41 diagnosed agoraphobics	When ERS was partialed out, mood states moved from monopolar to bipolar.
Lorr and Wunderlich 1980	The 63-adjective Feeling and Mood Scales	349 high school students	Partialing out response bias from the intercorrelations changed the factor solution from 8 to 7 and indicated that 3 of the mood states became bipolar.
Merrens 1971	The Personal Friends Checklist, 10 tonal patterns evaluated by a semantic differential scale	90 female subjects	The personality scales of the PFCL related positively to the tonal patterns indicating that the ratings are based on content factors and therefore may be representative of the true attitudes rather than ERS.
Merrins 1970	Two minimal content measures and one visual/auditory test across 2 semantic differential factors	90 female subjects	ERS is found to be not test specific, not unstable and important in the understanding of the respondent.
Norman 1969	79 items of the Welsh A and R scales and 9 verbal and visual stimuli on 21 semantic differential scales	115 general psychology students at the College of William and Mary	Anxiety is related to ERS and repression is not. ERS is most pronounced when stimuli is ambiguous.

O'Donovan 1965	Literature Review	Study comparison Period: 1911-1964	Extremeness of the response will depend on the meaningfulness of the stimuli. Meaningful stimuli lead to polarization.
Peabody 1962	F-scale, Rokeach's Dogmatism Scale, 32 items on political/economic doctrine, 208 items of general agreement	88 American and 75 English engineering students	Extremeness seems to be a very general individual characteristic, suggesting that it represents a response set.
Poggio and Funk 1977	The Phillips 18-item Self-Acceptance Measure, and Christie's Machiavellianism Scale	212 graduate and undergraduate enrollees at a Midwestern university	ERS varied as a function of both the response format and the style of the respondent.
Rorer 1965	Conceptual Analysis based on a Literature Review	Reviews the F-scale, PRT, MMPI, Social Desirability, and Multimeasure methods	Response styles are of only trivial importance; as long as there is content, it will account for the variance.
Rundquist 1950	200 self descriptive words, 100 activities	111 factory girls performing the same work	Differences exist in ERS; it is better to eliminate the response set than to use it as a measure.
Schutz and Foster 1963	The Aphorisms Questionnaire, The Perceptual Reaction Test, Activity Scale, Information-True Test, Self-report Markers, F-scale	75 male and 75 female freshman psychology students at the University of Texas	ERS is not a generalized response tendency; rather reflects the measure of the dimension.

Shulman 1973	Brand attribute ratings compiled from 14 studies over 2 years	6,307 female respondents	Extreme rating is inversely related to education. ERS may come from a scale that respondents have difficulty understanding.
Soueif 1958	The 70-item Characteristics of Personal Friends Questionnaire	1028 Egyptian students (in Arabic)	Social groups with higher levels of tension, and a higher intolerance to ambiguity, have higher ERS.
Van der Kloot, Kroonenberg and Bakker 1985	11 personality traits scales, across rating scales 1 to 10, were described in 2 to 5 stimuli personality trait adjectives	95 recruited Dutch paid subjects from Leiden University	The personal relevance of the stimuli and scales will result in ERS. They suggest standardization of subject matrices to check for ERS.
Warr and Coffman 1970	4 experiments.(a) 12 stimulus persons judged against 6 bipolar constructs, (b) personality traits, interest, F-scale, judgement and word familiarity, (c) 2 judgement and 2 personality tasks, (d) a 10-scale semantic differential applied to 30 concepts	(a) 58 male undergraduates at Princeton, (b) 45 male and 45 female undergraduates at the University of Sheffield, (c) 13 male and 18 female undergraduates at the University of Sheffield, (d) 36 male and 40 female undergraduates at the University of Sheffield	Personality and ERS are linked when involvement is high.

Zax, Gardiner and Lowry 1964	21 semantic differential ratings of 10 Rorschach inkblots	30 male chronic schizophrenics, 30 male hospital attendants, 30 female undergraduates at William Smith College, 80 emotionally disturbed children	Maladjusted groups use the extreme points more often.
Zuckerman, et al. 1958	F-scale, PARI, Edwards Personal Preference Scale	88 sophomore student nurses	Response sets may be indicative of personality, are reliable, have generality between tests.

Table 2.1.2: ERS Literature
Culture

AUTHORS	METHOD	SAMPLE	FINDINGS
Backman and O'Malley 1984	Extreme responses where registered using the Rosenberg (1965) self-esteem scale or an adaptation of this scale.	Questionnaires were administered to a "nationally representative" group through: *The Monitoring the Future Project, High School and Beyond, the National Longitudinal Study of the Class of 1972,* and *Youth in Transition* projects.	Blacks are more likely to use the extreme response categories on a Likert-type questionnaire. Truncated scoring may control for the differences.
Backman and O'Malley 1984	5 questionnaire forms covering a broad range of topics, i.e., self-esteem, internal-external control, loneliness, independence, concern for others, sex-role attitudes.	A nationally representative sample of the high school senior classes from 1975-1982; yielding 17,000 respondents annually.	Blacks are more likely than whites to use the extreme response categories on Likert-type scales.
Chun, Campell and Yoo 1974	130-item, 5-point Likert format questionnaire on interpersonal and social trust	A 204 student sample from Yonsei, Seoul, Korea and a 187 student sample from the University of Michigan.	The study found significant difference between the groups and calls for the continued reporting of ERS in cross-cultural research.

Das and Dutta 1969	The Friend Check List for rigidity	672 students at Utkal University, India, representing 7 different age groups	ERS is high in adolescents and older groups while decreasing for young adults. ERS is negatively correlated with intelligence and positively with religion.
Gordon and Kikuchi 1970	School Environmental Preference Schedule	189 Japanese and 172 American Students	While ERS is identifiable in the Japanese culture, it does not differ in strength from the U.S.
Hui and Triandis 1989	165 items for rating supervisors were blocked by 5 and 10-point formats and by culture (Hispanic and non-Hispanic).	59 Hispanic and 60 non-Hispanic Navy recruits in Orlando, San Diego and the Great Lakes.	Hispanics have a higher level of ERS than non-Hispanics on a 5-point scale. A 10-point scale reduced the level of Hispanic ERS to that of non-Hispanics. ERS for non-Hispanics did not vary with scale format.
Hui and Triandis 1985	3 studies: (a) 50 concepts of evaluation, potency, activity, and familiarity; (b) 62 self-concept questions; (c) 91 ideal-self items.	(a) 219 Navy recruits, divided into Hispanic and non-Hispanic; (b) 160 Hispanic and Mainstream Navy recruits; (c) same group as "b".	Response sets are found to be inconsistent across time. A "sequential response set" is used as a possible explanation.

Marin, Gamba and Marin 1992	4 and 5 point Likert scales were developed to cover the topic areas of smoking, AIDS awareness, acculturation, and HIV exposure. Only attitude questions were analyzed in this study.	1,908 Hispanics and 14,425 non-Hispanics participated in 4 studies; 3 in the San Francisco area, 1 nationwide. Subjects were allowed to respond in English or Spanish.	Hispanics prefer the extreme response categories more than non-Hispanics Whites. Less educated respondents and less acculturated Hispanics have higher ERS score. No difference is found for sex.
Soueif 1968	Personal Friend Check List	Six groups of male and female (n=276) Egyptian, Syrian and Jordanian students	Males exposed to rapid cultural change demonstrated higher ERS.
Shapiro, et al. 1976	Two studies: (a) The 20-item Student questionnaire, (b) Raven Matrices	(a) 285 Bedouin or Moroccan 9th and 10th grade students; (b) 16 Bedouin and 16 Moroccan boys	ERS was evident in both cultures and related to the learning habits of reading and writing. Difficulty in items may elicit ERS.
Zax and Takahashi 1967	Response style was measure with Rorschach inkblots on 21 semantic differential scales	4 groups of 40 subjects representing: male American, female American, male Japanese, female Japanese college students	Japanese and Americans were found to have differing response styles explained by cultural factors.

Table 2.1.3: ERS Literature
Methodology

AUTHORS	METHOD	SAMPLE	FINDINGS
Albaum and Murphy 1988	Alternate scale formats (one-stage, two-stage and a modified one-stage) of Likert-type scales of agreement to economic questions.	Three separate samples of New Zealand students. Sample size of 34, 38, 34	The reporting of extreme attitudes can vary with scale format. Recommend using a two-stage format.
Cronbach 1950	Conceptual	Literature review. Period: 1927-1949	1. response sets should be avoided 2. omit cases with ERS from consideration
Cronbach 1946	Conceptual	Literature Review. Period: 1926-1945	Multiple choice or 2-choice alterative will reduce the occurrence of response sets.
Cunningham, Cunningham and Green 1977	Scores were obtained from a 5-point Likert-type scale of importance of attributes for toothpaste and soft drinks.	A cross-cultural sample was gathered from the U.S., France, India, and Brazil.	When substantial cultural variations occur between groups, the ipsative method can be used to minimize response styles.
Goldsamt 1971	Tests used: Numbers, CVC Words, Random Shapes test, Desire for Certainty, S.A.T.-Verbal section.	165 students at the University of Maryland	Content-ERS interactions exist. Single extreme category scoring is preferable. Sex and intelligence are not related to ERS.
Gordon 1971	The California F-scale and Rokeach's D-scale	212 students of a university high school	ERS is composed of 2 different extreme response sets at each end of the continuum.

Greenleaf 1992	16-item ERS Measure	3,288 and 4,061 members of the DDB Needham Market Facts consumer panel during 1975 and 1987 respectively.	ERS is stable and valid across time. ERS may differ based on age, education and income.
Greenleaf 1992	16-item ERS measure, 29 attitude and 19 behavioral items	4,061 respondents to the 1987 DDB Needham Market Facts consumer panel	It is possible to correct for the bias component in response sets based on attitude/behavior pairs.
Gurwitz 1987	Importance measures on 22 car benefit attributes with a 5-point Likert-type scale	1,244 new-car Volkswagon respondents	Ipsative rescaling is demonstrated as a method to correct for response sets in segmentation analysis.
Heide and Gronhaug 1992	A simulation study of the effects of response sets	A imaginary survey of 500 respondents to ten product related statements on a 7-point Likert scale. Scores were progressively recoded with increased response style.	An increase in ERS will reduce correlation coefficients, increase standard deviations, weaken beta-coefficients in regression analysis, and skew factor interpretations. In small surveys with homogeneous groups, could devastate survey results.
Wyer 1969	240 personality trait adjectives on a 21 point rating scale; attitudes toward Negroes; readministered 3 weeks later	400 introductory psychology students	Response styles tend to generalize across content and were not related to category width.

CHAPTER III: METHODOLOGY

INTRODUCTION

Chapters I and II discussed the research hypotheses for this study and the relevant literature from which they originate. Chapter III will explain the basic methodology to be used in the study. The first section will describe the scales selected for the final research instrument. Specific justification for each selection is provided. The second section will describe the translational steps required to ensure equivalency of measures. The third section looks at the sample group. Finally, the discussion will focus on the statistical techniques that will be used to operationalize the testing of the theoretical hypotheses.

SELECTION OF MEASURES

Measurement concerns the systematic assignment of numbers to the states or events of interest (Stevens 1966). The appropriate measurement is dependent upon the definition of the constructs as represented by the researcher. Accordingly, the measurement approaches the theoretical reality of the researcher when the scales employed in the instrument meet the conceptual definitions of the research.

> "Measurement instruments that are collections of items intended to
> reveal levels of theoretical variables, not readily observed by direct
> means, are usually referred to as *scales*. We develop scales when we
> want to measure phenomena that we believe to exist because of our
> theoretical understanding of the world, but which we cannot assess
> directly" (DeVellis 1991, p.8-9).

DeVellis (1991) explains that "typically, the measurement procedure used is the questionnaire, and the variables of interest are part of a broader theoretical framework" (p.3). Thus, this study measures the latent traits relevant to the research hypotheses by developing a questionnaire employing established scales. Constructs and framework for this study are explained in the prior chapters. This section provides an operationalization of latent constructs, through scale selection. Additional justification is provided for a clear understanding of the scale appropriateness for the theoretical construct.

The study borrows from previous research for multi-item indicants of measurement for ERS, LOV, CETSCALE, DDB Needham Attitude/Behavior Pairs, and Demographics. Additional scales are included for social desirability (Crowe and Marlowe 1964) and acquiescence (Couch and Keniston 1960).

Extreme Response Style

Most response styles will have maximal occasion to operate when stimulus content is missing (Cronbach 1946; Cruse 1966; Hamilton 1968). Therefore, the use of a scale that specifically measures ERS, while reducing external content cues, would offer a more accurate assessment of ERS. As long as the content specific limitation remains, researchers cannot be sure that the ERS conclusions implied in the prior studies are valid.

The questions analyzed for ERS in this study, came from the 16-item Greenleaf ERS Measure. Subjects were asked to respond to a broad range of attitude and opinion questions using the same response format across all items. The Greenleaf scale was designed to specifically measure ERS, while minimizing external content cues. This summated index,

with low inter-item correlations, item stability and approximately equal extreme response proportions (developed on a 6-item format), was designed to measure ERS without the content specific limitations of earlier measures. The measure makes ERS analysis more accurate and autonomous from item specific content bias.

The 16 items were developed from a pool of 171 attitude, opinion and interest items on a six-interval Likert response format, annually administered to a representative adult sample of the U.S. population, between 1975 and 1987, through the DDB Needham Worldwide Consumer mail panel. The final 16-item Likert response ERS scale was able to detect differences in ERS based on age, education and income. The measure is as follows:

EXTREME RESPONSE STYLE MEASURE (Greenleaf 1992b)

(Scored: 6-point Likert; strongly agree = 6, strongly disagree= 1)

1. When I see a full ashtray or wastebasket, I want it emptied immediately.

2. I am a homebody.

3. Television is my primary form of entertainment.

4. No matter how fast our income goes up, we never seem to get ahead.

5. I try to avoid foods that are high in cholesterol.

6. Advertising insults my intelligence.

7. Investing in the stock market is too risky for most families.

8. Everyone should use a mouthwash to help control bad breath.

9. TV commercials place too much emphasis on sex.

10. A college education is very important for success in today's world.

11. My days seem to follow a definite routine - eating meals at the same time each

day, etc.

12. I like to visit places that are totally different from my home.

13. I work very hard most of the time.

14. I like to feel attractive to members of the opposite sex.

15. I will probably have more money to spend next year than I have now.

16. I eat more than I should.

Agreement Response Scale

The agreement response scale was designed to measure the inner dynamics of the agreement personality syndrome. Couch and Keniston (1960) began with 681 items covering the psychological concepts deemed relevant to compose an Overall Agreement Score. The final scale is comprised of the 15 items with the highest correlation to the 360-items representing the 30 psychological concepts. The scale achieved a split-half reliability of .85 making it "the best short scale measure of the agreeing response tendency" (Couch and Keniston 1960). The measure showed internal reliability, test-retest reliability consistency over time, and generality over tests across student samples. The authors concluded that the measure "functions as a reliable and valid measure of this general agreeing tendency" (p. 154). The items are:

Agreement Response Scale *(Couch and Keniston 1960)*

(Scored: 7-point Likert; strongly agree = 7, strongly disagree= 1)

1. Novelty has a great appeal to me.

2. I crave excitement.

3. It's a wonderful feeling to sit surrounded by your possessions.

4. There are few things more satisfying than really to splurge on something -- books, clothes, furniture, etc.

5. Only the desire to achieve great things will bring a man's mind into full activity.

6. Nothing is worse than an offensive odor.

7. In most conversations, I tend to bounce from topic to topic.

8. I really envy the man who can walk up to anybody and tell him off to his face.

9. I could really shock people if I said all of the dirty things I think.

10. There are few more miserable experiences than going to bed night after night knowing you are so upset that worry will not let you sleep.

11. I tend to make decisions on the spur of the moment.

12. Little things upset me.

13. Drop reminders of yourself wherever you go and your life's trail will be well remembered.

14. I like nothing better than having breakfast in bed.

15. My mood is easily influenced by the people around me.

Social Desirability

Crowne and Marlowe's (1964) measure of social desirability was developed to

measure candor and social politeness. The questions invoke yes/no responses to behaviors

which society teaches as undesirable. Widespread applications of the measure lead Reynolds

(1982) to remark:

> "Although a number of instruments and techniques have been
> developed for the assessment of social desirability response tendencies
> (Block 1965; Crowne & Marlowe 1960, 1964; Edwards 1957, 1970;
> Messick, 1962), an examination of the current literature that deals
> with the measurement of affect and personality indicates the Marlowe-
> Crowne Social Desirability Scale (Crowne & Marlowe 1960) to be the
> primary social desirability measure in use at this time" (p.119).

The measure is of particular importance in cross-cultural research. Ralston et.al. (1993)

explained:

> "Different cultures place different values on these items, and therefore,
> may respond in differing patterns to questionnaire items. Using this
> measure as a covariate may help to increase the precision of the
> analysis and adjust for some differences across the countries due to
> differences in socially desirable response patterns" (p.259).

However, the length of the original 33 item format forced researchers to investigate shorter

forms of the scale (Ballard 1992; Ballard, Crino and Rubenfeld 1988). Several of the items

were found to contribute little to the overall measure (Ballard, Crino and Rubenfeld 1988;

Strahan and Gerbasi 1972). Reynolds (1982) reported " ... that reliable and valid Marlowe-

Crowne Social Desirability Scale short forms can be constructed, with substantially fewer

items than the original scale" (p.124). In particular, short SD scales have demonstrated

satisfactory consistency and reliability scores in cross-cultural applications (Ray 1984). Ray

(1984) commented that shortened forms have satisfactory alphas (ranging from .60 to .77) and "seem particularly recommendable" (p.134).

Only 4 items are consistently isolated in SD scale investigations (Ballard 1992). Smith (1967), in a cross-cultural business study, used the 4 item SD measure to identify attitude-opinion items with high levels of SD. On the use of shortened SD scales, Ballard (1992) remarks that a short form " ... has a reliability of .70 - only .05 less than that for the full scale. In addition, it is nearly as well-balanced as the full scale ." (p.1159). The items selected for this study were taken form the cross-cultural adjustments demonstrated by Smith (1967).

Social Desirability *(Crowne and Marlowe 1964)*

(Scored: Yes/No format)

1. Do you like everyone you know?

2. Have you envied the good luck of others at times?

3. Have you taken advantage of someone at times?

4. Have you ever felt you were being punished without justification?

CETSCALE

To assess the impact of ERS, the study requires a cross-cultural marketing scale that matches the tenor of the research and is strongly validated. An appropriate scale would: (1) measure a meaningful marketing application; (2) be designed for cross-cultural research; (3) be well validated in a multicultural setting. Through such a scale, the research would be able to investigate the effect of ERS on cross-cultural marketing research.

The CETSCALE (Shimp and Sharma 1987), designed to measure consumers'

ethnocentric tendencies toward purchasing foreign or U.S. products, is a scale which would

meet these criteria. The final 10-item, unidimensional scale was developed and validated from

the original 17-item pool of ethnocentrism items. The CETSCALE has been demonstrated

to discriminate group ethnocentrism between geographic regions in the U.S. and in cross-

cultural situations.

Netemeyer, Durvasula and Lichtenstein (1991) tested the CETSCALE on students

in Germany, France, Japan and the U.S. and found strong support for its nomological validity,

discriminant validity, reliability and unidimensionality. They concluded:

> "By administering the scale in foreign countries, one can assess the
> level of ethnocentrism across countries, as well as across segments
> within countries. Such information should be useful to multinational
> firms for devising positioning strategies for both domestic and
> exported goods" (p.326).

Herche (1992) found further support for the predictive validity of the scale. Subsequent cross-

cultural support was found by Sharma, Shimp and Shin (1995) through a sample of Korean

consumers. They discovered that"consumer-ethnocentric tendencies can be easily measured

by the well-developed and cross-culturally validated CETSCALE" (p.35).

Consumer ethnocentricity is the "beliefs held by consumers about the appropriateness,

indeed morality, of purchasing foreign-made products" (Sharma, Shimp and Shin 1995, p.

27). These beliefs increase cultural conformity and solidarity. Cundiff and Hilger (1988)

established the relationship between culture and ethnocentrism:

"Cultural influence also directly affects the climate for business in general and international business in particular. National idealogy determines how members of a culture view the role of business and how strong the culture's identity is. These factors in turn determine attitudes toward foreigners, foreign products and foreign ideas."

The cultural composition and cross-cultural structure of this study make the CETSCALE suitable for investigating ERS in cross-cultural marketing efforts. The CETSCALE represents a unidimensional, attitudinal based cross-cultural marketing scale with typical reliability and validity figures. CETSCALE items include:

CONSUMER ETHNOCENTRISM: THE CETSCALE *(Shimp & Sharma 1987)*
(Scored: 7-point Likert; strongly agree = 7, strongly disagree= 1)

1. Only those products that are unavailable in the U.S. should be imported.

2. American products, first, last and foremost.

3. Purchasing foreign-made products is un-American.

4. It is not right to purchase foreign products.

5. A real American should always buy American-made products.

6. We should purchase products manufactured in America instead of letting other countries get rich off us.

7. Americans should not buy foreign products, because this hurts American business and causes unemployment.

8. It may cost me in the long run but I prefer to support American products.

9. We should buy from foreign countries only those products that we cannot obtain within our own country.

10. American consumers who purchase products made in other countries are responsible for putting their fellow Americans out of work.

Variations in national identifications, to the host country, were made to the final items as prescribed by Sharma, Shimp and Shin (1995). For example, American and U.S. were changed to French and France for the French sample.

List of Values

To assess the relationship between cultural values and ERS, this research requires an instrument that can reliably represent the theoretical base of values in a cross-cultural setting. The List of Values (Kahle 1983) provides the basis for value research in this study. The LOV was developed from a parsimonious reduction of the value schemas developed by Feather (1975), Maslow (1954) and Rokeach (1973). Developed at the Survey Research Center of the Institute for Social Research at the University of Michigan, the nine values have been used to classify consumer behavior across cultures (Kahle 1986; 1985; Kahle and Kennedy 1988; Kahle, Liu and Watkins 1992; Kahle, Poulos and Sukhdial 1988). LOV has been shown to explain more variance in consumer behavior than Values and Lifestyle (VALS) in a cross-cultural setting (Kahle, Beatty and Homer 1986; Schopphoven 1991) and has demonstrated greater construct validity than the Rokeach Value Survey (Beatty et al. 1985). Additionally, the Rokeach Value Survey (RVS) has difficulty in the scaling of items and may not be appropriate for cross-cultural investigations (Munson and McIntyre 1979; Hofstede and Bond 1984). Since the LOV represents the value schemas of both the RVS and VALS without the cumbersome cross-cultural scaling problems, this study used the LOV as a measure of values.

THE LIST OF VALUES: LOV (Kahle, 1983)

(Scored: 9-point Likert; very unimportant=1, very important)

1. Sense of belonging

2. Excitement

3. Warm relationships with others

4. Self-fulfillment

5. Being well respected

6. Fun and enjoyment of life

7. Security

8. Self-respect

9. A sense of accomplishment

DDB Adjustment Pairs

If ERS contains a bias element, the relation between a respondent's observed attitude score and the behavior score will become exaggerated. Corrected scores are then created by removing the bias without suppressing the attitude information. The statistical techniques are discussed below. Therefore, established pairs of attitude and behavior questions are required to expose any bias level.

Choosing strongly related attitude and behavior pairs is fundamental to the objective testing of information and bias in the response style. Attitude-behavior relationships are well established in current literature (For a complete meta-analysis of the relationship refer to Kim and Hunter (1993)). The attitude/behavior pairs used in this study were developed from a mail

survey of 4061 respondents, by the DDB Needham Worldwide advertising agency in 1987. The survey was designed to be representative of the U.S. population and was balanced for age, income, family size, geographic region and population density. Attitudinal and behavioral questions were employed which covered a broad range of consumer constructs designed to classify people into benefit, psychographic and personality segments. The original survey included 224 attitude items and 127 behavior pairs. In a previous study of response styles, Greenleaf (1992a) used Pearson correlations to develop highly correlated attitude behavior pairs from the original items. Twenty-nine attitude and nineteen behavior items yielded correlations greater than .22 and thus were included in the response bias adjustment. This study uses the same attitude and behavior items.

The cross-cultural tenor of this research placed added limitations on the items selected. Removing items deemed culturally inappropriate to the regions involved in the survey, reduced the pairs to 9 attitude and 7 behavior questions. These items were selected based on the combined of recommendations from the translation teams and on pretest responses. For example, questions on legalized abortions, sex on television, contraceptive products, alcohol and illicite drugs were removed. Permission was obtained directly from DDB Needham Worldwide to use the final items. Items include:

ATTITUDE/BEHAVIOR PAIRS (DDB Needham Worldwide Consumer Mail Panel, 1987)

ATTITUDE QUESTIONS (Scored 1-6, Definitely Disagree-Definitely Agree)	BEHAVIOR QUESTIONS (Scored Categorically: Number of times participated in past 12 months. None in the past year, 1-4 times, 5-8 times, 9-11 times, 12-24 times, 25-51 times, 52 or more)
There is too much emphasis on sex today.	Attended church.
I work very hard most of the time.	Stayed late at work.
I have more stylish clothes than most of my friends.	Went shopping for clothes.
I am good at fixing mechanical things.	Worked on a do-it-yourself project around the house.
I have a lot of spare time.	Stayed late at work.
I like to cook.	Made homemade soup (not from a can or package). Made baked goods from scratch.
I like to bake.	Made homemade soup (not from a can or package). Made baked goods from scratch.
Religion is an important part of my life.	Attended church.
Staying physically fit is important to me.	Did exercises at home (not at a class).

Demographics

The demographic section was constructed based on designations suggested by the

U.S. census. Questions were asked on gender, race, nationality, religion, age and income in

a categorical format. Accommodations were made for country/cultural differences based on the combined recommendations of the translation teams and pretest responses. For example, the currencies used to comprise income categories were converted to the appropriate nationality. Titles and groupings of racial categories were modified to reflect the local constitution.

The survey instrument followed the suggestions of Babbie (1990), including a brief introduction and the required instructions for the specific scales. Since all the scales are well tested, only the specified, pretested instructions were used, to avoid additional bias. The final questionnaire was printed on high quality, plain white paper to avoid any cultural distinction. The ordering of questions was restricted by attitude questions preceding behavior questions. Questions were maintained within their original scale format and order. Babbie (1990) suggests against a complete randomization of questions which might confuse the subject. Additionally, the study's block design, whereby differing scale formats are employed, prohibited the use of complete randomization. Demographics were presented as the last section.

TRANSLATION

The instrument was translated into Mexican/Spanish and French using the combination of iterative back-translation (Brislin 1970, 1976; Brislin, Lonner and Thorndike 1973) and a limited use of decentering (Werner and Cambell 1970). Emphasis was placed on the consistent transfer of meaning across language form (Larson, 1984). The process is as follows:

88

1) The instrument was translated by a bilingual (American/English served as the base language) team of translators. All translators were fully bilingual, certified, experienced professionals and have worked extensively in linguistic instruction in the specified countries. Each has years of experience in governmental, business and academic translation. Importantly, all have maintained residence in the specific cultural/linguistic area in which the instrument will be administered. Literal translations were approached, however, some modification was required when the translator perceived that the intended meaning would be corrupted by the literal translation. Concessions were made to adhere to the local linguistic structure. Matching of lexical equivalent items was maintained. Clarifications were provided when transactions increased stimulus ambiguity.

2) This translation was back-translated by separate bilingual translators. These back-translators were also fully bilingual, local residents, but, whose 'mother-tongue' was the opposite of the primary translator. When discrepancies were noted between translations, a discussion amongst the panel of translators ensued, to the point of agreement.

3) If these discrepancies were not able to be resolved, an unaffiliated bilingual language instructor was to serve as arbitrator for the decision. In no cases was it necessary to involve the arbitrator.

4) The translators then formed a panel to assess the final instrument. The panel was assigned one goal: "make the translation as accurate, clear and natural as possible" (Larson 1984, p.489). Translations were tested in the following ways: (1) comparisons with the source text, (2) back-translation into the source language, (3) comprehension checks, (4) naturalness and readability testing , and (5) consistency checks (Larson 1984, p.489).

5) The translated instrument was reviewed by a group of native speaking persons. These groups included students, businesspersons, teachers and government employees. Discussions on the instrument were conducted in the native tongue. Recommendations for modifications of translation and form were followed.

6) The instrument was then pretested on a representative sample of students, to ensure a commonality of understanding. If problems were detected, the items were returned to the panel for scrutiny.

The goal of the translations was to provide the most accurate rendering of the translated instruments while maintaining the intended meaning of the original instrument. Attempts were made to maintain the reading difficulties of the items at the original level. For example, when multiple translation alternatives arose, the words with corresponding reading difficulty levels were selected. When required, changes were made to make demographic items compatible to the country of administration. The goals of the translation were: (1) to remove language indications that the translation originated in American-English; (2) maintain equivalent difficulty of items; (3) maintain the literal and conceptual integrity of the original items.

English versions of the instrument were also 'translated' from American into the compatible cultural/linguistic scope. This process mirrored a back-translation process whereby pretest instruments were supplied to a current, in-country, native-speaking judge to render its applicability. The goal was to create an instrument appropriate for use in the native culture. Modifications were made to remove original language indications. For example, slang and colloquial terms were modified to the native country model.

SAMPLE

The data in this study were obtained from anonymous, in-class responses to a questionnaire, composed of the measures discussed above, among undergraduate business students at four universities during the spring and summer of 1995.

Subjects responses were marked directly on the questionnaire and later recoded by researchers for analysis. No compensation for participation was offered. Subjects were allowed to self-register ethnic origin, religion and income based on designations developed by the U.S. Census bureau. Ethnic groups were selected based on cultural relevance and proximity, since "more robust results are likely to emerge when cultures selected for investigation share some relevant attributes" (Samiee and Jeong 1994, p. 214).

Cultural Grouping

This study used countries as cultural proxies. Sample groups originated from: Australia, France, Mexico, and the United States. The specific countries selected can be considered culturally distinct based on Hofstede's cultural dimensions. Hofstede's Value Survey Module of culture identifies" the fundamental differences in the way people in various countries perceive and interpret their worlds" (Randell 1993). Hofstede (1984) explains:

> "People carry 'mental programs' which are developed in the family in early childhood and reinforced in schools and organizations, and these mental programs contain a component of national culture. They are most clearly expressed in the different values that predominate among people from different countries. ... countries on the basis of their scores on the four dimensions can be divided into culture areas and in some cases is able to point to historical reasons that are likely to have led to the cultural differentiation between the areas." (p.11)

The four cultural dimensions: power distance, individualism, masculinity and uncertainty

avoidance provide a well-researched dimension of cultural constitution. Hofstede's work has

been cited over 1,000 times and replicated 61 times since is publication in 1980 (Søndergaard

1994). Randall (1993) cited Hostede's Value Survey Module as one of the most popular

measures of cultural values and should be used as a guide in the development of any

framework in cross-cultural comparisons.

> "Hofstede's typology of culture is one of the more important and
> popular theories of culture type. ... In addition to the relevance of the
> framework, *Culture's Consequences* was based on a rigorous research
> design, a systematic data collection and a coherent theory to explain
> national variations. This is precisely what reviewers of cross-cultural
> comparative research had been asking for" (Søndergaard 1994,
> p.448-9).

The availability of validated national scores, on each of the cultural dimensions, made it an

appropriate instrument for the exploration of culture.

> "Because of the basic nature of the underlying problems, Hofstede's
> dimensions should be conceptually linkable to many variables
> measured in other cross-cultural studies. Therefore, and because of
> the large number of countries covered, it can serve as a useful
> anchoring framework for showing synergy among cross-cultural
> studies" (Hofstede and Bond 1984, p.420).

Country scores for Hofstede's Value survey are listed below. Index scores are reported from the HERMES data set analyzed in *Culture' Consequences*.

COUNTRY	POWER DISTANCE	INDIVIDUALISM	MASCULINITY	UNCERTAINTY AVOIDANCE
Australia	36	90	61	51
France	68	71	43	86
Mexico	81	30	69	82
United States	40	91	62	46
Hofstede's Index Score	51	51	51	64

Power distance was characterized as "the extent to which the less powerful members of institutions and organizations accept that power is distributed unequally" (Hofstede 1980, p.45). Countries with high scores accept social inequality, paternalism and an established order of rank and authority of one person over another. The countries represented in this study are distributed across the power distance spectrum: Mexico score is amongst the highest reported and Australia amongst the lowest.

Uncertainty avoidance was defined by Hofstede (1980) as "the extent to which people feel threatened by ambiguous situations, and have created beliefs and institutions to try to avoid these situations" (p.45). In countries with high scores, people feel threatened by uncertain situations and tend to develop rules of behavior for each situation. Creativity is not accepted. These cultures believe in an absolute truth. Amongst the countries of the world, France's score is amongst the highest, while the US falls in the bottom quartile.

Individualism "implies a loosely knit social framework in which people are supposed to look after themselves and their immediate family only" (Hofstede 1980, p.45). The flip side is collectivism, whereby the group becomes the greater entity. In societies of great collectivism harmony is more important than individual gain. The US and Australia are the two highest scoring countries in the world while Mexico is amongst the most collective of all societies.

Masculinity was defined by Hostede and Bond (1984) as "a situation in which the dominant values in society are success, money, and things" (p.419-420). Masculine societies value financial success, whereas feminine societies value relationships, cooperation and security. Amongst the world countries, Mexico is in the most masculine quartile and France is in the most feminine quartile.

MATCHED SAMPLE

In a general sense, the characteristics of university students make them superior subjects for a wide variety of cross-cultural research (Williams and Best 1990). More specific to this research, a student sample was selected as the population of interest to assure homogeneity. Students facilitate a consistent sampling frame on educational level, age and income; all variables identified as contributing factors in ERS (Greenleaf 1992b). Blocking for these variables ensured a focus on cultural differences. Also, Netermeyer, Durvasula and Lichtenstein (1991) used students of various nations to validate the CETSCALE. They contended that students provide a superior sample group for cultural comparisons. The authors explained:

"Students are citizens of their respective countries and are expected
to have variation in their feelings of ethnocentrism. Therefore,
students are a relevant sample for purposes of our study." (p.323).

The CETSCALE, being the primary consumer scale of the study, was expressly validated

through a student sample, consequently making students the appropriate sampling frame for

the study's context.

Although student samples cannot be viewed as representative of the nation, they

constitute comparable cross-cultural populations, meeting the primary requirement of

matched-groups for cross-cultural measures (Douglas and Craig 1983; Parameswaran and

Yaprak 1987). Hostede and Bond (1988) explain how matched samples are appropriate for

studies of culture:

"For this type of measurement, we should have access to *matched*
samples of respondents from a number of different countries ...
'Matching samples' means that the respondents should be people who
are as similar as possible in all aspects of their lives except for
nationality. ... It is not necessary to have representative samples from
the whole national populations such as public opinion polls, although
these, too, can be used." (p.9).

As such, given that this study is an exploratory look at country-specific

response styles and their determinants, matched-group samples will limit sources of variation

to cultural differences. Osgood, May and Miron (1975) argued that cross-cultural studies

should seek to maximize the equivalence of sampling groups, at the expense of

representativeness, to decrease the alternative variables affecting results. Lonner and Berry

(1986) concluded that "unless one is involved with a public opinion poll

or some sort of national or community survey, random or representative samples in cross-cultural research are inappropriate..." (p.101).

The samples consist of undergraduate business students at the following locations.

Country	University
Australia	Griffith University
France	University of Lyon II and Centre D'Etudes Franco Americain De Management
Mexico	Instituto Technologico Y De Estudios Superiores De Monterrey
United States	Old Dominion University

The questionnaire was administered in a supervised class situation, during class time and required approximately 15 minutes to complete.

STATISTICAL ANALYSIS

The study was blocked on two independent variables: cultural group (country designation) and ERS response scale format (3,4,5,6,7,8,9,10 point). Formats were selected based on Cox's (1980) recommendation of a "reasonable range" with the 3 and 10 formats suggested from ERS specific studies (Hui & Triandis 1989). Response scale formats were randomly assigned among subjects. Following prior research, respondents' ERS scores were counted as the number of times of selecting the most extreme single positive or negative positions on the index (Bachman & O'Malley 1984a, b; Greenleaf 1992; Hui & Triandis

1989). Goldsamt (1971) found the "single extreme category" scoring method to be "computationally simpler and slightly more reliable than other methods" (p.iii). Using this definition, a single respondent's maximum score to the summated measure was sixteen. Summated response formats were compared between cultural groupings of respondents using an independent sample test of differences between proportions. In addition, ANOVA proportional tests were administered within groups. Absolute inter-item correlations, summated across response formats were reported.

Analysis of variance was used to investigate the main effects of both culture and response style. Correlational analysis was used to measure the associations between values, culture and ERS.

The statistical adjustment required for signal and noise analysis used the CETSCALE and the response set correction technique described by Greenleaf (1992b). Correction of the scores "removes the bias but retains the attitude information in standard deviation" (p. 183). The method computes an adjusted score (A**) based on a weighted combination of observed and adjusted scores. The formula is:

$$A_{ij}** = w_i A_{ij} + w_2 \frac{(A_{ij} - M_i + M_i)}{S_i/S_{med}}$$

S_{med} is the median value of standard deviation in the sample
A_{ij} is i's observed score for attitude item j
M_i is i's extreme score, expressed as the average across the ERS measure
S_i is i's standard deviation score, measured as the standard deviation of i's responses across the same set of items to estimate M_i
$A_{ij}**$ is the corrected attitude score
$w_i + w_2 = 1$, are weights for the standard deviation's bias and the attitude information component

"An appropriate method to identify optimal values for w_i and w_2, then, is to estimate attitude-behavior models using corrected attitude scores, and examine how the additional behavioral variance explained by the interaction term changes with w_i and w_2 . The most appropriate weights are those where the interaction term explains the least additional variance" (Greenleaf 1992b, p.183).

The model for these estimations is as follows:

$$B_{ik} = \gamma_0 + \gamma_i A_{ij}^{**} + \gamma_2(S_i - S_{med}) + \gamma_3(S_i - S_{med})(A_{ij}^{**} - M_j) + \epsilon_{ik}$$

B_{ik} is the predicted frequency for respondent i on behavioral item k

This model will help to determine the minimal additional variance, and thereby the estimate of the optimal weights. But, this technique does not answer the fundamental question of attitude and bias information. If ERS contains a bias element, γ_i and γ_3 will have opposite signs. If it only contains attitude information, the signs will be the same. Greenleaf (1992b) explains:

"If standard deviation contains bias, and an attitude and behavior are positively correlated (γ_1 is positive), higher values of standard deviation are predicted to lead to higher (lower) values of expected behavioral frequency when a respondent answers the attitude item below (above) his or her mean response" (p.179).

Once corrected attitude scores were established, a comparison of results between the original CETSCALE outcomes and the corrected outcome illustrated the possible effects of ERS bias.

Chapter III explained the proposed methodology of this study. The following chapters will look at the outcome of these procedures in an attempt to develop a better understanding of cultural ERS on marketing research.

CHAPTER IV: RESULTS

INTRODUCTION

The purpose of this chapter is to describe the results and address the issues related to

the data analysis. The chapter is divided into two sections. The first section will discuss the

gathering of data and psychometric properties of the scales. The second section will delineate

the findings of the study. Discussion will be centered on the hypotheses developed in

Chapter 1.

DATA COLLECTION

The methodology described in Chapter II was followed for data collection purposes.

1,080 questionnaires were administered to students in Australia, France, Mexico and the

United States between April and September of 1995.

Students were administered the questionnaire during class-time. No time constraint

was emplaced on the respondents. Most respondents completed the questionnaire in 15 to 20

minutes. Questionnaires were collected by the administrator as the respondents completed the

assignment. No interaction amongst participants was allowed during the administration of the

questionnaire.

Sixty-two respondents indicated they did not consider themselves as natives of the

country and were excluded from the analysis. An additional 9 questionnaires were excluded

because of incomplete or pattern data. No attempt was made to follow-up incomplete questionnaires. Overall, 1,009 usable questionnaires were obtained. Table 4.1 shows the sample by country (with each countries sample size as a percent of the total).

Table 4.1
SAMPLE SIZE

Country	Sample Size
Australia	241 (23.89%)
France	266 (26.36%)
Mexico	245 (24.28%)
United States	257 (25.47%)

Total: 1009

It is useful to look at the nature of the sample prior to a complete analysis. The typical respondent was a white, Catholic male between the ages of 21 and 24 with a reported annual income of between $5,000 and $9,999 (expressed as US dollars equivalent). The profile differentiates between the comprehensive sample and the specific countries represented as shown in Table 4.2.

Table 4.2
SAMPLE PROFILE

	Total	Australia	France	Mexico	United States
Age[a]	21-24	21-24	21-24	21-24	21-24
Gender[b]					
Male	50.5	47.3	54.1	50.2	50.2
Female	49.5	52.7	45.9	49.8	49.8
Religion[c]	Catholic	Catholic	Catholic	Catholic	Protestant
Race[d]	White	White	White	Hispanic	White
Income[e]	$5,000 to 9,999	$10,000 to 19,999	$10,000 to 19,999	under $5,000	$20,000 to 39,999

a. Median age category.
b. Percent of males and females in the sample.
c. Mode of religion category.
d. Mode of race category.
e. Median income category (expressed in US$ equivalent).

The low Mexican student income can be partially explained by general economic conditions and the recent devaluation of the Mexican peso. Yet, the comparatively low income is not out of line with a matched sample, since Greenleaf (1992a) reported that it would require a $60,000 difference in income to result in a .026 change in ERS. Applying Greenleaf's income coefficient to this sample, the maximal ERS change between countries attributable to income variations would be less than .009. With this student sample providing similar levels of age and education between groups, it was concluded that the general sample provides a matched grouping of the relevant variables for ERS study.

PSYCHOMETRIC ASSESSMENT OF MEASUREMENT SCALES

For a scale to be considered a reliable reflection of the construct of interest, it should possess a reasonable degree of internal consistency. Two fundamental methods exist, the split-half and coefficient alpha, both based on the scale inter-item correlations (Nunnally 1967). To assess the reliability of the survey items for ERS, agreement, social desirability, values, consumer ethnocentrism and attitude/behavior, inter-item correlation coefficients, Cronbach's alpha and split-half reliabilities were calculated. The specific reliability test computed for this study was selected to match the form presented in prior research. Results were compared with the reliability tests reported with prior applications of the scale. For all scales, alphas were compared for improvements when scale variables were eliminated. In no case were significant improvements in alpha observed.

ERS

The primary criteria for assessing an ERS measure is low inter-item correlations (Greenleaf 1992a). Table 4.3 shows the inter-item correlation for the sample, controlling for the varying response forms inherent in the research design. The correlation matrix shows a consistent low correlation between scale items, denoting that items are not measuring a single construct. For many scales this would be considered an undesirable trait. However, the ERS measure is reflecting a pattern of response rather than a single underlying construct, making the low inter-item correlations germane (Greenleaf 1992a).

Table 4.3
ERS MEASURE
Correlation Matrix

	ERS1	ERS2	ERS3	ERS4	ERS5	ERS6	ERS7	ERS8	ERS9	ERS10	ERS11	ERS12	ERS13	ERS14	ERS15
ERS 2	.0839														
ERS 3	-.0061	.3021													
ERS 4	.0446	.0438	.1468												
ERS 5	.1201	-.0266	-.0360	-.0592											
ERS 6	-.0277	.0154	-.0687	-.0590	.0877										
ERS 7	.0409	.0205	.0686	.0981	-.0630	.0630									
ERS 8	.0986	.1788	.0987	.1137	.0160	.0032	.1152								
ERS 9	.1032	.1512	-.0236	-.0056	.1558	.1602	.0525	.1020							
ERS 10	.1102	.1305	.1066	.0805	.0575	-.0349	.0658	.1807	.1074						
ERS 11	.0154	.1528	.1619	.0119	.0702	.0431	.0122	.0177	.0411	.0826					
ERS 12	.1599	-.0274	-.0906	.0482	.0662	-.0069	.0354	.1014	.0466	.1132	-.0458				
ERS 13	.1810	.0601	.0024	-.0163	.2029	.0667	-.0407	-.0090	.1241	.1824	.0764	.1155			
ERS 14	.1460	-.0434	.0140	.0954	.0189	-.1086	.0894	.1448	-.0563	.1404	.0079	.2447	.1332		
ERS 15	.0767	.0807	.0121	-.0651	.1670	-.0032	-.0518	.0995	.1006	.1287	.0009	.0755	.2459	.1615	
ERS 16	-.0113	.0809	.0368	.1143	-.0449	-.0806	.0764	.0527	.0312	-.0066	.0012	.0091	-.1184	-.0149	-.0078

The absolute average inter-item correlation for the sample was .0780. This compares favorably with the .071 in the original reporting of the measure (Greenleaf 1992a). Table 4.4 contains the means and standard deviations of the summated score for the ERS measure for each sample group. Consistent alphas across the subpopulations provide evidence that the ERS measure may be appropriate for cross-cultural research.

It is interesting to note the strong alphas for the scale even though the average absolute inter-item correlations are small. This can be attributed to the large number of items employed in the scale. The small changes between the alpha and standardized alpha signifies fairly comparable variances between scale items. The findings manifest the scale's reliability.

Table 4.4
ERS MEASURE

Sample	Mean	Std. Dev.	Alpha	Standardized item alpha
Total	65.3889	22.6930	.9066	.9049
Australia	63.4689	20.9944	.9012	.8990
France	62.3208	22.4065	.8967	.8937
Mexico	69.6980	24.2505	.9187	.9176
United States	66.2451	22.4163	.9137	.9122

General comparisons of alphas adhered to the benchmark established by Churchill (1979) of .60 as desirable and .90 being excellent.

Agreement

The first investigation of the agreement response scale looked at the inter-item correlations. The scale attempts to measure the inner dynamics of the agreeing personality syndrome (Couch and Keniston 1960). Thus, the scale items should possess strong correlations moving in the same direction. Table 4.5 illustrates the correlation matrix for the overall sample. The results show all items moving in the same direction with a range between .2119 and .6672. All correlations are found significant (p=.0000).

Table 4.5
AGREEMENT MEASURE
Correlation Matrix

	AGR1	AGR2	AGR3	AGR4	AGR5	AGR6	AGR7	AGR8	AGR9	AGR10	AGR11	AGR12	AGR13	AGR14
AGR2	.6672													
AGR3	.4431	.5067												
AGR4	.3159	.4045	.5120											
AGR5	.5442	.6133	.4986	.4205										
AGR6	.4686	.5231	.3829	.4036	.5472									
AGR7	.4210	.4880	.3694	.3826	.4435	.3927								
AGR8	.3347	.3876	.3523	.3234	.3820	.3552	.3948							
AGR9	.3301	.4843	.4066	.4197	.4450	.4122	.4336	.4133						
AGR10	.4216	.4704	.4166	.4379	.5001	.4924	.4280	.4021	.4929					
AGR11	.4477	.5250	.3617	.3507	.4334	.4368	.4983	.3093	.3496	.3780				
AGR12	.3757	.3478	.3201	.2470	.4048	.3371	.3499	.2758	.3098	.3848	.3855			
AGR13	.4694	.4911	.4138	.3149	.5058	.4256	.3521	.3202	.2944	.4025	.3456	.3444		
AGR14	.2945	.3233	.3069	.3403	.2962	.3014	.2977	.2996	.2704	.3004	.2365	.2119	.2967	
AGR15	.3988	.4348	.3697	.3297	.3779	.3479	.4046	.3814	.3786	.3861	.3700	.4506	.3571	.2991

The absolute average iter-item correlation for the sample was .3929. Table 4.6 shows the means and standard deviations of the summated score for the agreement scale for each sample group.

Table 4.6
AGREEMENT MEASURE

Sample		Mean	Std.Dev.	Split half	Alpha
Total		60.0687	21.9882	.8948	.9068
	Australia	62.2958	22.2214	.9246	.9281
	France	60.2302	22.4196	.9155	.9022
	Mexico	57.9590	21.1642	.8700	.8875
	United States	59.8242	22.0122	.9108	.9237

Split-halves are reported for comparison with Couch and Keniston's (1960) split-half reliability of .85. This study's findings consistently exceed the original benchmark.

Correspondingly, the alphas for each group are excellent. Overall, the results provide evidence, for this sample group, that the agreement response scale is reliable.

Social Desirability

Due to the cross-cultural nature of the study and overall length of the questionnaire, this study used the Smith (1967) 4-item adaptation of the Crowne and Marlowe (1964) social desirability measure. Prior research reported alphas of .6 could be found in domestic applications. Table 4.7 indicates the results of the SD measure for this study.

Table 4.7
SOCIAL DESIRABILITY MEASURE

Sample	Mean	Std. Dev.	Alpha	Standardized item alpha
Total	5.1328	1.0551	.5261	.5249
Australia	4.7552	.8674	.4587	.4592
France	5.4248	1.0297	.4040	.4054
Mexico	5.4245	1.1592	.6702	.6686
United States	4.9066	.9718	.5782	.5731

The overall alpha score is slightly below the alphas reported in prior research. Yet, on closer examination it becomes apparent that the SD measure performed as expected in the domestic setting and under achieved in Australia and France. These results may indicate that the 4-items which are consistently isolated in domestic SD investigations may not be the best measures for certain cross-cultural applications. More and/or different items may be recommended for future research.

List of Values

Values were measured through the List of Values. The 9-item, 9-response format of the list of values is reported to encompass 3 dimensions. Homer and Kahle (1988) reported alphas for each subscale of: internal .69, external .68 and interpersonal of .58. In order to allow a comparison of this sample with prior research, alphas were computed on each subscale. Table 4.8 shows the results for each sample.

Table 4.8
LIST OF VALUES
Alphas for value factors

Sample	Internal	External	Interpersonal
Total	.6964	.6136	.5975
Australia	.7410	.7272	.6093
France	.5309	.4729	.4183
Mexico	.6926	.5831	.6541
United States	.7592	.6976	.6691

While some individual results are below the benchmark, the overall sample scores approach those of Homer and Kahle (1988). Lower scores in some countries might indicate that the LOV, which was developed with US values, may have some limitations in particular cross-cultural applications. However, since Churchill (1979) contends that minimum alphas of .60 are desirable for exploratory research, the overall sample's performance, and comparison with prior reporting, demonstrate the overall LOV factor score to be reasonably consistent.

Regardless, these alphas do not adversely impact this study since it operationalizes LOV through the singular value, reported by the respondent as having primary significance

in daily life. Therefore, factor congruency or reliability for LOV is not integral to this research. This table simply serves as an indication of the cross-cultural performance of the scale.

CETSCALE

To measure consumer ethnocentrism the study used the 10-item CETSCALE. Table 4.9 contains the means and standard deviations of the summated score for the CETSCALE measure for each sample group.

Table 4.9
CETSCALE

Sample	Mean	Std. Dev.	Alpha	Standardized item alpha
Total	30.5635	13.2313	.9146	.9169
Australia	32.8423	12.5638	.9187	.9204
France	28.0827	14.1496	.9281	.9309
Mexico	35.3648	12.6450	.8819	.8841
United States	26.4358	11.4577	.9045	.9081

The alphas are comparable with the reliability estimates reported by Shimp and Sharma (1987) of .94 to .96 in their original scale development. Interestingly, the alphas reported above match closely with a cross-national assessment of the CETSCALE (Netemeyer, Durvasula and Lichtenstein 1991) that found alphas ranging from .91 to .95. The small changes between the alpha and standardized alpha signifies fairly comparable variances between scale items.

Attitude/Behavior

To correct for ERS bias, pairs of attitude and behavior questions needed to be

established. Suitable pairs would exhibit strong correlations between the hypothesized

pairings and low correlations with all others (Greenleaf 1992a). The specific attitude and

behavior questions are outlined in the prior chapter. To assess the sample of attitude and

behavior items, Pearson's correlations were computed between all possible pairings. For

clarity of presentation, Table 4.10 is used to illustrate the correlations between all of the

attitude and behavior items. Pairs hypothesized to have a strong relationship, through the

DDB Needham Worldwide/Consumer Mail Panel are underlined.

Table 4.10
ATTITUDE/BEHAVIOR ITEMS
Correlation Matrix

	BEH1	BEH2	BEH3	BEH4	BEH5	BEH6	BEH7
ATT1	.2803	-.1076	-.0953	-.0501	-.0164	.0680	.0394
ATT2	.0287	.1036	.1335	.5868	.0383	.2507	.0475
ATT3	.0151	-.0510	-.0209	-.0493	-.1842	-.0410	-.0898
ATT4	-.0011	-.1399	.3410	-.0596	.0987	.0305	.1497
ATT5	.0419	.0110	.1308	.4209	.0711	.3026	.1022
ATT6	.0579	.2776	.0246	.0490	.0842	-.0175	.1064
ATT7	.6348	-.0044	.0282	-.0141	.0723	.0379	.1247
ATT8	.0022	.0035	.0991	.0006	.0888	.0292	.3615
ATT9	.0751	-.0373	.0324	.0857	.2670	.0852	.2009

Each hypothesized attitude/behavior pair demonstrated the strongest relationship amongst all

other possible pairings. All relationships were found significant, with 95% confidence, using

a two-tailed Student's t test. Absolute average inter-item correlation is .3552, which is well

above the .22 cutoff criteria employed by Greenleaf (1992b) for correcting response styles.

Each pair met the correlation criterion.

RESULTS OF THE HYPOTHESIS TESTS

Tests of the Hypotheses

This study was designed to increase the understanding of the relationship between ERS and culture, response formats and other response styles. The constructs investigated were ERS as measured by the Greenleaf ERS Scale (1992b), Agreement as measured by the Couch and Kenniston (1960) Agreement Response Scale, social desirability as measured by Smith's (1967) form of Crowne and Marlowe's (1964) Social Desirability Scale, values as measured by the List of Values (Kahle 1983), and consumer ethnocentrism as measured by the CETSCALE developed by Shimp and Sharma (1987).

Correlational analysis and ANOVA were chosen as the primary analytical techniques for this study. Correlational analysis is widely used in behavior research for measures of association without causality (Cohen 1988). ANOVA has widespread usage in behavioral science and is appropriate for the comparison of differences between two or more means (Kirk 1968). Where F ratios were found significant, t-tests between group mean scores were computed. Tests were conducted to insure compliance with model assumptions and no abnormalities or violations were found.
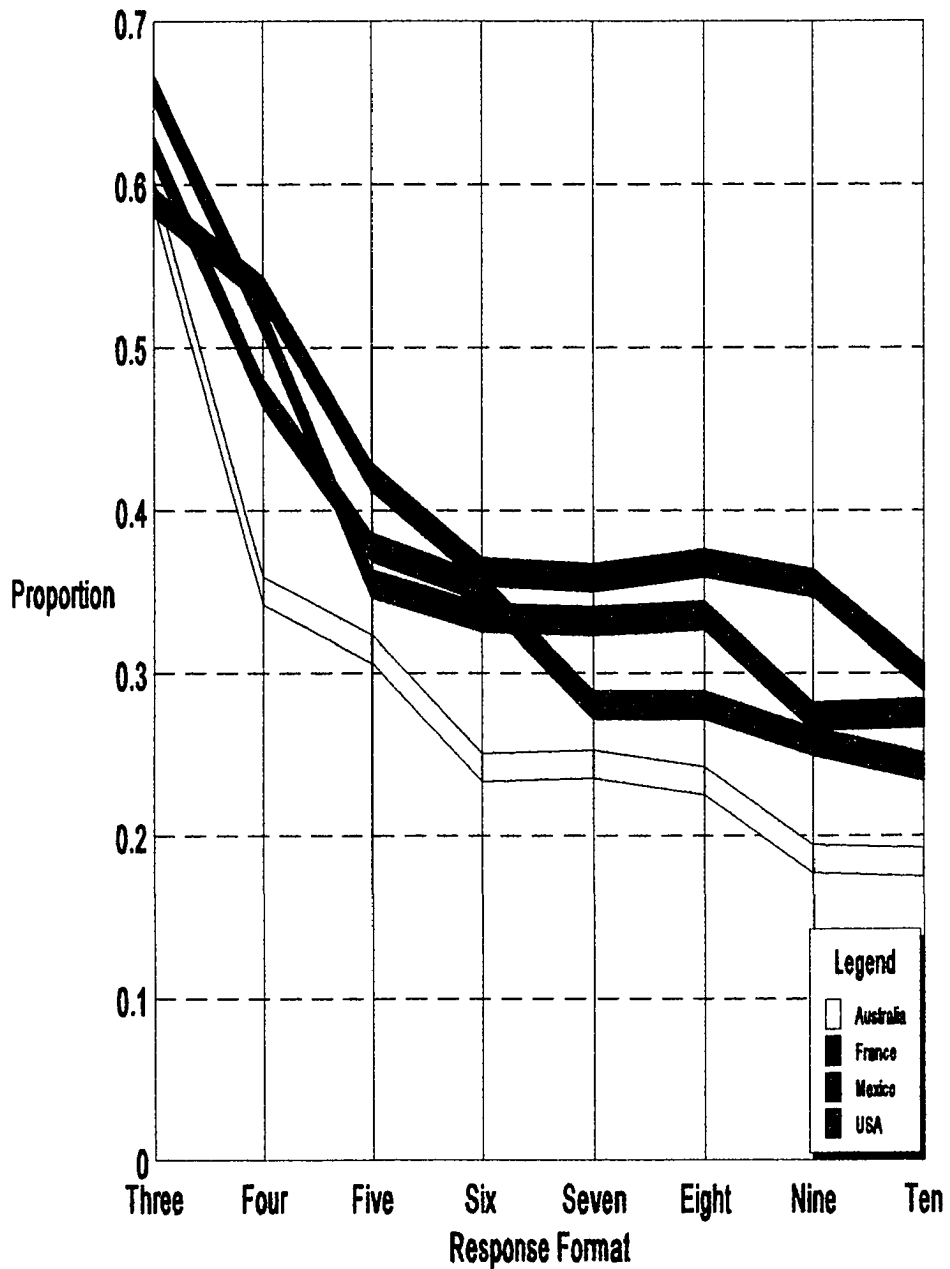
Hypothesis One (a): Countries

The first research hypothesis states that culturally distinct countries will have different levels of ERS. For this hypothesis, the sample was divided into 4 cultural groups based on the country location in which the sample was gathered. ERS scores were computed as a summated score of the ERS measure. Figure 2 illustrates the country ERS scores. Oneway ANOVA produced an F of 14.2800 with a corresponding F probability of .0000. This result supports hypothesis 1a that culturally distinct counties will have different levels of ERS.

Table 4.11
COUNTRY DIFFERENCE
Analysis of Variance

Source	DF	Sum of Squares	Mean Squares	F	Significance
Between groups	3	474.7168	158.2389	14.2800	.0000
Within groups	1005	11136.5974	11.0812		
Total	1008	11611.3142			

Figure 2: Extreme Response Style

To further this hypothesis, Multiple Range tests were computed to identify specific

countries differences. Although Sheffé may be the most appropriate, Bonferroni, Student-

Newman-Keuls, Duncan and Tukey tests all produced identical results at a significance level

of .05. Table 4.12 shows where difference were indicated.

Table 4.12
COUNTRY DIFFERENCE

France				
Mexico				
US	*			
Australia	*	*	*	
	France	Mexico	US	Australia

* denote significant differences

Australia showed statistically significant differences on ERS from France, Mexico and the US.

The US showed statistically significant difference from France. Thus, for this sample, H1a is

supported.

Hypothesis One (b): Cultural Value

The second cultural research hypothesis addressed the relationship between values and

ERS. The hypothesis states that ERS differs on the level of cultural value. Specifically,

individuals with high levels of ERS are posited to have different values than those with lower

scores. For this hypothesis, the entire sample was tested as one group. Cultural value was

indicated by the respondent as the single most important value from the LOV. This primary

value was compared to the summated ERS score through oneway ANOVA. The statistical

analysis produced an F ratio of 1.7478 and a corresponding F probability of .0837. These

results indicate a 91% confidence level for the hypothesis that ERS differs on cultural value.

While this confidence level is below the norm of 95%, it is sufficient to merit deliberation and

justify subsequent analysis.

Table 4.13
CULTURAL VALUE
Analysis of Variance

Source	DF	Sum of Squares	Mean Squares	F	Significance
Between Groups	8	159.9352	19.9919	1.7478	.0837
Within Groups	968	11072.5028	11.4385		
Total	976	11232.4381			

To further the investigation, the full complement of Multiple Range tests were

employed to identify which cultural values are associated with significantly different ERS

scores. These tests indicate that respondents which selected *sense of belonging* as their

primary value to have statistically significantly lower ERS scores from those who selected

values of: *excitement, warm relations with others, self-fulfillment, being well respected,* and

fun and enjoyment in life. Hence, respondents with a strong *sense of belonging* have a

significantly lower ERS. Thus, evidence is provided to support H1b, whereby ERS scores

may differ by cultural value.

114

Hypothesis Two (a): Agreement Response Style

The second group of hypotheses proposes that ERS does not operate in isolation from other response styles. Rather, ERS is postulated to increase as ARS increases. Hypothesis 2a states that ERS increases with the acquiescence response style. To test this hypothesis, the full sample scores of the summated ERS measure were examined relative to the summated ARS scores. Correlational analyses were performed to determine the association between the response styles of ERS and ARS. Based on the review of the literature, the hypothesized direction is positive, indicating that a one-tailed test is appropriate.

There was a significant positive correlation between ERS and ARS. The correlation coefficient was .1898 with $p=.000$. This indicates that a small positive relationship exists between ARS and ERS. The p score indicates that the probability that a correlation coefficient of at least 0.1898 in absolute value is obtainable when there is not a linear relationship between ERS and ARS is less than .000. Therefore, it is now concluded that a positive association exists between ERS and ARS. The evidence supports hypothesis H2a of ERS increasing with ARS.

Hypothesis Two (b): Social Desirability

As shown in the literature review, ERS differs from SD as a response style. But, individuals that are susceptible to one style may be influenced by the other. Therefore, hypothesis 2b proposes that ERS differs with the social desirability response style. For this test, the summated ERS score was compared to the summated SD score for the total sample. To test that ERS differs across SD scores, ANOVA were performed. ANOVA produced an

F of .478 and a significance of F of .752. This test of the hypothesis failed to provide evidence

for the proposed relationship.

Table 4.14
SOCIAL DESIRABILITY
Analysis of Variance

Source	DF	Sum of Squares	Mean Squares	F	Significance
Main Effects	4	22.060	5.515	.478	.752
Residual	1004	11589.254	11.543		
Total	1008	11611.314	11.519		

Additionally, correlation coefficients were produced to investigate the association

between the variables. The correlation coefficient was .0337 with p=.285. the results do not

support the hypothesized relationship between ERS and SD.

Hypothesis Three (a): Number of Response Categories

The third set of hypotheses focus on the effects of altering the number of available

response intervals to the respondents, and the corresponding effect these changes will evoke

on ERS. The first hypothesis in this area proposes that ERS differs, within cultural groups,

with the number of the response categories. Initially, all study respondents were pooled and

ANOVA was performed for the summated ERS score by response format and country. A

main effect was found (F= 49.474 , p=.000) with a significant effect for country (F=20.637,

p=.000) and for response format (F=61.986, p=.000). No two-way interaction was discovered

for response format and location (F= .898, p=.5994).

Table 4.15
RESPONSE CATEGORIES
Analysis of Variance

Source	DF	Sum of Squares	Mean Squares	F	Significance
Main Effects	10	3861.344	386.134	49.474	.000
Form	7	3386.478	483.783	61.986	.000
Location	3	483 208	161.069	20.637	.000
2-way interactions	21	147.253	7.012	.898	.594
Explained	31	3986.079	128.583	16.475	.000
Residual	977	7625.236	7.805		
Total	1008	11611.314	11.519		

Further examination was performed by dividing the sample by country and examining

differences in ERS scores across the 8 response formats. The results are as follows:

	F Ratio	F Probability
Australia	17.7291	.0000
France	9.9910	.0000
Mexico	20.3533	.0000
US	17.3596	.0000

analysis indicates that there is evidence to support the statement that odd and even point

scales differ in level of ERS.

Table 4.16
ODD/EVEN
Analysis of Variance

Source	DF	Sum of Squares	Mean Squares	F	Significance
Between Groups	1	171.8606	171.8606	15.1287	.0001
Within Groups	1007	11439.4536	11.3599		

Hypothesis Three (c): Higher Number of Response Intervals

The final hypothesis of this group tests to see if increasing the number of response

intervals will cause the country differences to decimate. Hypothesis 3c states that differences

in ERS between cultural groups will converge with a higher number of response intervals.

Initially, the sum of the absolute between country differences, at each response interval, were

computed and plotted in Figure 3. Figure 3 shows a rapid decrease in the between country

differences in ERS at a 5-point format, with a slow increase in the differences thereafter. The

low relative ERS difference at the 3-point response format may be attributed to the study's

operational definition of ERS.

To test the hypothesis, the sum of the absolute differences between countries were

analyzed through curve estimation in regression forecasting. If the trend of the estimated

model is zero or positive, no convergence is indicated. If the trend is negative, the hypothesis

is supported. Although only the results of a linear model are graphed, regression curve

estimation models of: linear, logarithmic, quadratic, cubic, power, compound. logistic, growth

and exponential were computed, yielding a similar positive slope coefficient as the linear

model.

Models	Slope Coefficient
Linear	.0116
Logarithmic	.0798
Quadratic	.0776
Cubic	.2269
Compound	1.0428
Power	.2865
Growth	.0419
Exponential	.0419
Logistic	.9589

Since the linear model uniquely offers a consistent slope estimation across all response

formats, and to provide clarity in presentation, it was deemed singularly proper for this

hypothesis. Overall, evidence was not found to support the hypothesis that between culture

differences will converge as more response alternatives are made available.

Figure 3

ERS Convergence

Response Format
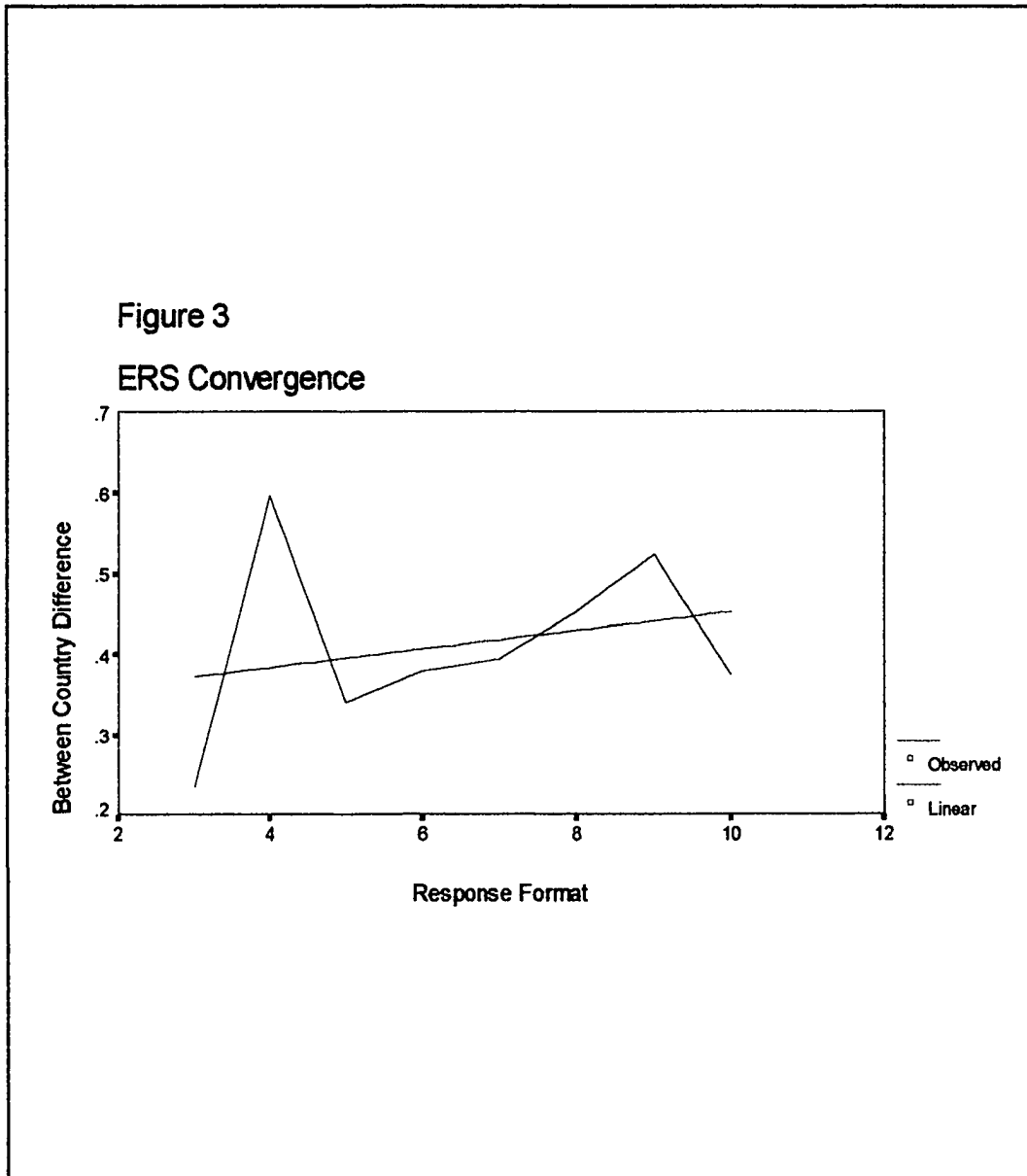
Hypothesis Four: CETSCALE Bias

The final hypothesis looks at the bias element in ERS. It is proposed that ERS possess both a "signal" and "noise" element that could contaminate the results of cross-cultural marketing research. To test this hypothesis the CETSCALE was used as a generalizable cross-cultural marketing scale. Hypothesis 4 states that ERS biases the measure of the construct for the CETSCALE. First, ANOVA was performed on the CETSCALE, without accounting for ERS, between countries to investigate whether the four countries involved in this study differ in their level of ethnocentrism. Results show an $F= 26.4044$ with an F probability of .0000. These results show differences in ethnocentrism. To isolate the express distinctions, Multiple Range tests were run which exhibit Mexico as having significantly higher ethnocentrism than Australia, France and the US. Analysis shows Australia to be significantly more ethnocentric than France and the US. The rank order of consumer ethnocentrism is: Mexico, Australia, France and US.

Upon evoking the Greenleaf (1992) response set adjustment, based on the attitude/behavior pairs adjustment model described in chapter 3, the results transformed. Initial ANOVA results still indicated differences between the countries on the CETSCALE ($F= 27.2518$, F probability of .0000). Following the same procedures to segregate country distinctions, Multiple Range tests were performed. The results, after making ERS corrections, portray Australians as significantly more ethnocentric than all other countries.

122

Mexico is significantly higher than France and the US. The rank order of consumer

ethnocentrism is: Australia, Mexico, US and France.

Since the between-country difference in consumer ethnocentrism vary when ERS bias

is removed, these findings provide evidence in support of H4 that the bias in ERS can

contaminate the results of the CETSCALE.

Summary of Findings

This study finds that ERS varies between counties and across altered response

formats. ERS is found to be associated with ARS but not to vary with SD. Increasing the

number of response formats will reduce the within level of ERS, but, will not decrease the

between group differences. ERS bias is sufficient to alter the outcomes of a cross-cultural

comparison of the CETSCALE.

A good overall view of the findings of this study are provided in Figure 2. Figure 2

illustrates the differences in ERS between cultures while showing overall ERS to decline as

response intervals are added.

123

CHAPTER V: CONCLUSIONS AND RECOMMENDATIONS

INTRODUCTION

This study was undertaken to enhance the knowledge base of cultural ERS. The study proposed that ERS would vary with culture, response formats and would bias cross-cultural research efforts. A questionnaire was developed and administered to students in four culturally distinct-countries. The data were then tested using ANOVA and correlational analysis. The following section will discuss these findings and explain the contributions made to international marketing research. As with most empirical studies, the discoveries of this study provide direction for future research.

SUMMARY OF FINDINGS

Overall, the findings support the early cultural ERS research findings which suggested that culturally-distinct groups will exhibit dissimilar levels of ERS on Likert-type scales (Chun, Cambell and Yoo 1974; Gordon and Kikuchi 1970; Hui and Triandis 1985, 1989). The prevailing point of view that ERS varies between ethnic and cultural groups is supported by the evidence of this study. As such, considering the effects on inferential statistical analysis,

124

marketers are advised to consider ERS and its consequences in the reporting of cross-cultural examinations.

Certainly the most arresting result is that statistically significant differences can be found in a cross-cultural comparison solely from ERS. That is, market researchers may find meaningful distinctions between groups founded on the response set variations. Hence, extremeness in response is not the insignificant variation suggested by Peabody (1962) in cross-cultural comparisons. It is possible to find differences between cultural groups based entirely on ERS. The implications of this finding are that researchers may be reporting statistically significant differences between cultural groups, on a particular construct of interest, which may actually reflect differences in ERS bias displayed by the groups using that response format. The differences found in this study are robust enough to cause the reported effects attributed to a genuine construct. For example, market researchers may be erroneously reporting differences in product preferences, consumer attitudes or perceptions, between Australian, French, Mexican and the US consumers that are wholly or partially attributable to ERS.

The findings of this study confirm that the level of ERS varies between culturally-distinct countries. The cultural differences affect the manner of response. One method of explanation of the country-specific results is to utilize Hofstede's Value survey. Using this approach, it becomes evident that Australia had a statistically significantly lower ERS score and relatively low scores on Hofstede's cultural values of *uncertainty avoidance* and *power distance*. In contrast, France, which showed the highest ERS, obtains high scores on

uncertainty avoidance and *power distance*. Perhaps Hofstede's cultural value schema can be applied to future research to expand understanding of ERS cultural determinants.

While LOV did not conclusively explain the cultural ERS differences, the LOV cultural value of *sense of belonging* was found to be related to low ERS scores. *Sense of belonging* is classified as an external dimension value factor (Kahle 1983). Thus, it is possible to deduce that individuals wishing to show group aspiration are unwilling to make extreme evaluations. Market researchers examining culturally-distinct groups with strong group objectives should be cautioned against making strong inferences in the absence of ERS information.

ERS was found to be related to ARS and to not differ across SD levels. This finding is consistent with O'Neill's (1967) observation that SD is actually a response set and ERS and ARS are response styles, because they are different behavioral patterns. SD is an attempt to misrepresent the truth, while ARS and ERS are merely a method of expressing the actual beliefs. Respondents who are misleading marketing researchers are not likely to follow typical response styles since they are focused on finding the politically correct answer. Respondents who are expressing their true feelings may rely upon ARS and ERS as their preferred mode of expression.

It appears possible to vary both the level and the group differences in ERS by varying the response formats. Response sets of 5, 6 and 7 seem to achieve a meaningful reduction in overall ERS scores. Figure 2 shows that additions beyond 7 do not meaningfully decrease overall ERS. Group differences actually appear to increase as response formats are added beyond 7. Figure 3 illustrates that scales with more categories did not result in a meaningful

between-groups reduction of ERS. Cox (1980), in a succinct review of the literature, portrayed scales as having decreasing reliability, with only small gains in information content, as the number of categories increases. From these studies it is possible to deduce, for cross-cultural marketing research, the addition of response categories may further compound problems in group comparisons while achieving only minimal gains in information. Researchers may be better served by pursuing limited subjective categories as cross-cultural ERS norms are established.

The smallest between group differences in ERS are found with the use of a 3-point scale. This finding conflicts with Hui and Triandis (1989) who claim that extremeness can be reduced between groups by using 10-point scales. However, the results support the early works of Cronbach (1946; 1950) suggesting that fewer response points reduce the opportunity for cross-group bias. It would appear that a 3-point scale has equal levels of ERS for all four countries, albeit at higher levels than alternate formats. Higher levels may be attributed to the study's operational definition of ERS, whereby, on the 3-point scale, all non-neutral responses were treated as extreme.

The findings also imply that subjects have limits on how far they will stretch their subjective space. For the samples of this study, the limits appear to be between 5 and 7 points. Any space beyond 7-point achieves only small gains in ERS reduction.

Overall, the use of even numbered scales is inconsequential on the level of ERS. This conclusion may appear novel since this study finds statistical difference between odd and even numbered scales. However, analysis indicates that the statistical result may be the repercussion of the 3 response format consistently producing higher levels of ERS. When the

high scoring 3 format is excluded from the analysis, no difference is observed between the odd and even numbered scales. The definitional criteria of ERS employed by this study may have coerced the statistical conclusion. Forcing choice does not appear to create a greater amount of extreme responses.

Finally, the bias element in ERS is sufficient to alter statistical analysis in cross-cultural research. Changes in the CETSCALE analysis occur when the bias is deleted, illustrating the liability in ignoring ERS in cross-cultural research. Importantly, this study shows the potential for removing ERS bias through simple attitude/behavior questions to obtain bias free cross-cultural comparisons. Failure to correct the bias can lead to erroneous conclusions.

CONTRIBUTIONS OF THE STUDY

Theoretical Contributions

This study has attempted to examine ERS in cross-cultural research. Previous literature has taken a fragmented approach, thereby, leaving researchers with many doubts of the significance of the response style. Methodological theory is advanced by empirically demonstrating the consequences of ignoring ERS in cross-cultural marketing research.

Perhaps the most important contribution of this study is its ability to demonstrate that cultures differ in their aggregate levels of extreme response style. ERS can no longer be assumed to be equal across cultures. Differences can be severe enough to create erroneous statistical analysis and alter the conclusions based on quantitative analysis. Cross-cultural

marketing researchers interested in obtaining accurate between-group comparisons are shown the failure inherent in ignoring the response style.

Cultural ERS is shown to be related to the values of *sense of belonging* and the response style of ARS. These findings advance the overall ERS theory by providing a foundation of greater cognizance of its occurrence. As culture is a expansive concept, which can be viewed from a manifold of perspectives, perhaps the relationships demonstrated in this study will emerge as a catalyst for more theoretical research into response styles. Relating ERS to cultural schema provides validation and advances the exploration for the fundamental dimensions of cultural ERS (Hofstede and Bond 1984).

This study's finding, that levels of ERS vary with response formats, will aid market researchers in their desire to pursue other areas of theory. Cross-cultural market researchers can now develop superior research designs that minimize the contamination of ERS, thereby, allowing them greater access to the true construct. General research into response sets is advanced as ERS is shown to relate to ARS and not to differ with SD. Response sets may not be as stable as originally thought since the magnitude appears to be dependent upon the response format.

Practical Contributions

The most obvious practical contribution is that by removing ERS bias from cross-cultural marketing research the statistical results may vary from non-adjusted analysis. This could lead to a different set of conclusions based on the same original data set. The bias element in ERS is strong enough to alter the statistical tests employed. Cross-cultural market

researchers must now maintain an awareness of the possibility of ERS bias contaminating and altering their research.

Statistical differences are found for Australians and French solely form ERS. Researchers interested in comparison of these countries with the US or Mexico should be cognizant of this dramatic difference. Researchers using student samples in these countries can use this study as a foundation for adjustment criteria and research designs which minimize ERS.

The Greenleaf correction factor for response sets is demonstrated as a viable correction factor for cross-cultural ERS bias. Future cross-cultural methodologists may wish to consider the possibility of including attitude and behavior pairs in their research to facilitate the usage of this technique.

ERS differences between groups can also be manipulated by varying the number of response formats in Likert-type scales. But, the addition need only be to a five or six item scale, as additions beyond this point did not demonstrate a concrete reduction in between-group differences. For cross-cultural research, increasing to a five or six-point scale appears to achieve the ERS improvements attributable to response formats. Finally, the possibility exists for matching cultural groups at equivalent ERS levels. For example, Mexican/ US student comparisons could use either five, six or nine point formats and maintain equivalence of ERS between countries. On the other hand, Mexican /French student comparisons may be better served by four, six or ten point scales. This finding only reinforces the idea that cross-cultural methodology should always be adapted to its target culture. This study offers guidance for future methodological adaptations.

LIMITATIONS OF THE STUDY

Certainly, translations inherently invoke limitations on comparisons between groups. Since exact translations are not always possible, the measures may be contaminated by the translation process. For example, terms like *very unimportant* in the LOV do not have a literal translation into Mexican/Spanish. Using the best available alterative may not invoke the same response affect as the original. Comparisons between the groups could be altered by the limits of language itself.

Additionally, all of the measures employed in this study are based on scale items originated for an American domestic study. The approach of placing scales developed in one culture into alternative cultures may not provide the best representation of the constructs. It is questionable if these scales truly identify the construct in different cultures. However, until pan-cultural measures are developed, this limitation will apply to nearly all cross-cultural marketing research. The continued usage and refinement of these scales, in studies such as this one, will help to advance our multi-cultural understanding of the constructs.

Another limitation can be found in the sampling frame of this study. Since the sample groups were limited to undergraduate students, age, income and level of education were similar for participants. All three demographic characteristics have proven to influence ERS. While these characteristics of the sample group were deemed desirable for this paper's cultural tenor, to adjust future research solely based on these results would ignore the possibility of interaction effects of these variables. It would prove erroneous for marketing researchers to use the adjustment parameters established in this study as a blanket adjustment for an entire

country. Thus, caution is advised in the extrapolation of the results of this study beyond the established parameters.

A further limitation can be found in the application of the Greenleaf 16-item ERS measure. The instrument was designed to be used uniquely as a 6-item measure (Greenleaf, 1992b). Altering the response scale formats may influence the reliability of the instrument and additional validation of the measure using the various response formats discussed above is warranted. While this study does indicate potential for altering formats, its exploratory nature prescribes further investigation into the correlations and equal extreme response proportions, prior to using the Greenleaf 16-item measure with other than a six-interval response format.

RECOMMENDATIONS FOR FUTURE RESEARCH

Initially, the continuous identification, through empirical methods designed for this purpose, of cultural ERS would enhance the scholarly work in this field. As ERS has been shown to have profound potential consequences on statistical analysis, and cultural groups display varying levels of bias, cross-cultural marketing researchers should routinely report ERS information as they would any other statistical measure. The continuous reporting of the response style bias would facilitate the establishment of cultural ERS norms. Future cross-cultural research would benefit from the enhanced knowledge of the degree of bias in the statistical analysis. Cross-cultural knowledge is enriched, as more recent studies build on the foundation of prior research to achieve a higher level of methodological sophistication (Aulakh and Kotabe 1993; Nasif et al. 1991; Robert and Boyacigiller 1986; Sekaran 1983). As there is no flawless cross-cultural research, the formation of cultural ERS norms could

guide future researchers in the development of culture-appropriate research designs and analysis techniques. Since this study has shown it is possible to find significant differences between cultural groups solely through ERS bias, the routine reporting of ERS would prohibit researchers from making claims of significant differences between groups based on research constructs, when the differences may be attributable to divergent cultural ERS bias.

Further replication, in different cultural settings would expand the theoretical understanding of ERS. As more cultures are studied, a greater knowledge base will develop that should enhance our understanding. Future research efforts could be focused on Asian and African cultures which were not represented in this study. Research is also possible within the subcultures of U.S. Hispanics, African-Americans, Native Americans and Asian Americans are likely to exhibit various ERS levels. Clarke, Stanton and Rao (1996) have found that African-Americans possess significantly higher ERS levels across all formats. Acculturation levels of new arrivals to this country may also prove to be a fruitful area of research. Finally, future studies can expand the sampling frame beyond student populations.

Another research possibility would be to investigate ERS as a situational variable. As individuals are placed in differing environmental situations their reliance upon response style may be altered. Individuals are taught, through their culture, the acceptable behavior for various situations. ERS may be higher in conditions where culture is more reticent. Accounting for antecedent conditions would augment ERS knowledge.

Future research can also focus on varying response formats across new cultures. This study was limited to Likert-type response formats. The literature review indicates that there may be appropriate investigations into other response formats like semantic differentials,

Stapel scales, graphic rating scales, itemized rating scales, comparative rating scales or Thurstone scales. An interesting approach would be to compare the levels of ERS evoked as the scale format changes.

Future investigation is not limited to ERS. In this study, the measurement of Social Desirability across cultures using the shortened Crowne-Marlowe SD scale displayed low reliability scores. One unique recommendation of this study would be to employ the full Crowne and Marlowe SD scale in future cross-cultural research. This study submits that the 4-item measure may not be the best measure across cultures. Cross-cultural researchers would benefit from having a more reliable, universal measure of this response style.

While this study finds ERS differences between the groups studied, it does not address the issue of explaining why these differences exist. While prior research has suggested that ERS differences may be attributed to "... subcultural differences in language use or style" (Backman and O'Malley 1984a, p.503), certainly, more study is justified, in various cultural settings to discern the exact cultural determinants of ERS. A base for future research in this area may be found in the 'personality characteristic' literature or in a cross-cultural explication like Hofstede (1980). Any technique for explaining "why" these differences exist would allow researchers greater ability in adjusting or avoiding the bias elements of the response style. Enhanced knowledge of how cross-cultural subjects stretch their subjective categories to meet the available response categories would improve marketing research efforts.

Understanding could also be enhanced by investigating ERS with other cultural schema. Since this study was unable to establish a definitive relationship between ERS and cultural values, alternative value and cultural schema exist that could be related to ERS. The

134

findings of this study may be explained by the difficulties of using LOV. Other cultural schema

may provide a clearer look at culture and discover the relationship with ERS.

Finally, cross-cultural researchers are not likely to be solely satisfied with the

identification of ERS in their data sets. Control of the bias element inherent in the response

style would be of special interest to marketers. Further reporting of ERS scores in cross-

cultural research of all types would provide researchers with the knowledge necessary for *a*

priori matching of ERS equivalent response formats between cultures. The findings could

offer researchers a methodological design option to eliminate ERS disparities between cultural

groups.

Since studies will not always be afforded the opportunity to vary the methodological

design of the study, a comparison of the *post hoc* ERS correction alternatives could prove

useful as well. Ipsative rescaling (Cunningham, Cunningham and Green 1977; Gurwitz 1987),

Greenleaf's (1992) correction factor, correlational analysis or even cultural norms are options

for comparisons. The review of the literature displayed that each technique has specific

weaknesses and may be only situationally fitting. The choice of approach is likely to be

determined by the specific research constraints. One future research area would be to

compare these techniques and provide marketing practitioners guidelines for application.

SUMMARY

ERS varies between cultures and is a purposeful methodological consideration in

cross-cultural marketing research. This study illustrates that significant differences in ERS can

exist across cultures. ERS can be related to cultural values and other response styles.

135

Marketing researchers can minimize cross-group differences in ERS by selecting the appropriate number of response items for particular cross-cultural comparisons or employ a *post hoc* adjustment, based upon attitude and behavior questions, to remove the bias. Regardless of the corrective procedure, one aspect is certain: disregarding the effect of ERS on cross-cultural marketing research could have a notable influence on the validity of research findings.

Simply ignoring ERS in cross-cultural research is not advised. Cross-cultural marketing researchers could easily draw erroneous conclusions, based on ERS effects, if the bias is invariably considered negligible. Therefore, extreme prudence is recommended in the fitting of ERS equivalent measures in cross-cultural investigations. Market researchers making cross-cultural inferences should exercise extreme caution in the absence of ERS information. Yet, appropriate methodologies can assist in the identification and control the bias and are strongly recommended for cross-cultural marketing research.

BIBLIOGRAPHY

Albaum, Gerald and Brian D. Murphy (1988), "Extreme Response On A Likert Scale," *Psychology Reports*, 63, 501-2.

Albaum, Gerald and Linda Golden, Brian Murphy, and J. Strandskov (1987), "Likert Scale and Semantic Differential: Issues Relevant to Cross-Cultural Research," in *Proceedings of the Second Symposium on Cross-Cultural Consumer and Business Studies*, C.F. Keown and A.G. Woodside, eds., 113-6.

Arthur, Artur Z. (1966), "Response Bias in the Semantic Differential," *British Journal of Social and Clinical Psychology*, 5, 103-7.

Arthur, Artur Z. and Anna Freemantle (1966), "Extreme Response Bias and Associative Commonality," *Psychonomic Science*, 6, 399.

Aulakh, Preet S. and Masaaki Kotabe (1993), "An Assessment of Theoretical and Methodological Development in International Marketing: 1980-1990," *Journal of International Marketing*, 1 (2), 5-28.

Babbie, Earl (1990), <u>Survey Research Methods</u>, Belmont, CA: Wadsworth Publishing Company.

Bachman, Jerald G. and Patrick M. O'Malley (1984a), "Yea-Saying, Nay-Saying, and Going to Extremes: Black-White Differences in Response Styles," *Public Opinion Quarterly*, 48 (Summer), 491-509.

_____ (1984b), "Black-White Differences in Self-Esteem: Are They Affected by Response Styles?," *American Journal of Sociology*, 90 (3), 624-39.

Ballard, Rebecca (1992), "Short Forms of the Marlowe-Crowne Social Desirability Scale," *Psychological Reports*, 71, 1155-1160.

Ballard, Rebecca, Michael D. Crino and Stephen Rubenfeld (1988), "Social Desirability Response Bias and the Marlowe-Crowne Social Desirability Scale," *Psychological Reports*, 63, 227-37.

137

Banta, T.J. (1961), "Social Attitudes and Response Styles," *Educational and Psychological Measurement*, 21, 543-57.

Barnes, E.H. (1955), "The Relationship of Biased Test Responses to Psychopathology," *Journal of Abnormal and Social Psychopathology*, 51, 286-90.

Beatty, Sharon E., Lynn R. Kahle, Pamela Homer and Shekhar Misra (1985), "Alternative Measurement Approaches to Consumer Values: The List of Values and the Rokeach Value Survey," *Psychology and Marketing*, 2 (3), 181-200.

Bendig, A.W. (1954), "Reliability and the Number of Rating Scale Catagories," *The Journal of Applied Psychology*, 38 (1), 38-40.

_____ (1953), "The Reliability of Self-Ratings as a Function of the Amount of Verbal Anchoring and the Number of Categories on the Scale," *The Journal of Applied Psychology*, 37 (1), 38-41.

Bendig, A.W. and J.B. Hughes II (1953), "Effect of Amount of Verbal Anchoring and Number of Rating-Scale Categories Upon Transmitting Information," *Journal of Experimental Psychology*, 46 (2), 87-90.

Benson, Purnell H. (1971), "How Many Scales and How Many Categories Shall We Use in Consumer Research? - A Comment," *Journal of Marketing*, 35 (4), 59-62.

Berg, Irwin A. and Joanne S. Collier (1953), "Personality and Group Differences in Extreme Response Sets," *Educational and Psychological Measurement*, 13, 164-9.

Biggs, J.B. and J.P. Das (1973), "Extreme Response Set, Internality-Externality and Performance," *British Journal of Clinical Psychology*, 12, 199-210.

Bocker, Franz (1988), "Scale Forms and Their Impact on Ratings' Reliability and Validity," *Journal of Business Research*, 17, 15-26.

Borgatta, Edgar F. and David C. Glass (1961), "Personality Concommitants of Extreme Response Sets," *Journal of Social Psychology*, 55, 213-21.

Brengelmann, J.C. (1960), "Extreme Response Set, Drive Level, and Abnormality in Questionnaire Rigidity," *Journal of Mental Science*, 106, 171-86.

_____ (1959), "Differences in Questionnaire Responses Between English and German Nationals," *Acta Psychologica*, 16, 339-55.

_____ (1958), "The Effects of Exposure Time in Immediate Recall on Abnormal and Questionnaire Criteria of Personality," *Journal of Mental Science*, 104, 665-80.

Brim, O.G., Jr., and D.B. Hoff (1957), "Individual and Situational Differences in Desire for Certainty," *Journal of Abnormal and Social Psychology*, 54, 225-9.

Brislin, Richard W. (1976), TRANSLATION: Applications and Research, New York: Gardner Press Inc.

_____ (1970), "Back-Translation for Cross-cultural Research," *Journal of Cross-Cultural Psychology*, 1, 185-216.

Brislin, Richard W., W.J. Lonner and R.M. Thorndike (1973), Cross-Cultural Research Methods, New York: John Wile and Sons.

Brown, E.G. (1964), "The Effects of Content Ambiguity on Response Sets in Two Populations," Unpublished Master's Thesis, University of Richmond.

Cantril, H. (1946), "The Intensity of an Attitude," *Journal of Abnormal and Social Psychology*, 41, 129-35.

Cateora, Philip R. (1993), International Marketing, Eighth Edition, Burr Ridge, Illinois: Richard D. Irwin Inc.

Champney, Horace and Helen Marshall (1939), "Optimal Refinement of the Rating Scale," *Journal of Applied Psychology*, 23, June, 323-31.

Cheron, Emmanual J., Thomas C. Padgett and Walter A. Woods (1987), "A Method for Cross-Cultural Comparisons for Global Strategies," *Journal of Global Marketing*, Winter, 45.

Chun, Ki-Taek, John B. Campbell and Jong Hae Yoo (1974), "Extreme Response Style In Cross-Cultural Research: A Reminder," *Journal of Cross-Cultural Psychology*, 5 (December), 465-80.

Churchhill, Gilbert A. (1979), "Paradigm for Developing Better Measures of Marketing Constructs," *Journal of Marketing Research*, 16 (February), 64-73.

Clark, Terry (1990), "International Marketing and National Character: A Review and Proposal for an Integrative Theory," *Journal of Marketing*, 54 (October), 66-79.

Clarke, Irvine, Wilbur Stanton, C.P. Rao (1996), " The Effects of Extreme Response Style on a Likert Response Format in Cross-Cultural Research," *Marketing Issues in a New Era*, 1996 Winter Marketing Educators' Conference Proceedings, February 3-6.

Cohen, Jacob (1988), Statistical Power Analysis for the Behavioral Sciences, Second Edition, New York: Academic Press.

Couch, A. and Keniston K. (1960), "Yea-sayers and Naysayers: Agreeing Response Set as a Personality Variable," *Journal of Abnormal and Social Psychology*, 60, 151-174.

Cox, Eli P. (1980), "The Optimal Number of Response Alternatives for a Scale: A Review," *Journal of Marketing Research*, (November), 407-22.

Crandell, James E. (1982), "Social Interest, Extreme Response Style, and Implications for Adjustment," *Journal of Research in Personality*, 16, 82-9.

_____ (1973), "Sex Differences in Extreme Response Style: Differences in Frequency of Use of Extreme Positive and Negative Ratings," *Journal of Social Psychology*, 89, 281-93.

_____ (1965), "Some Relationship Among Sex, Anxiety, and Conservatism of Judgement," *Journal of Personality*, 33, 99-107.

Cronbach, Lee J. (1950), "Further Evidence on Response Sets and Test Design," *Educational and Psychological Measurement*, 10, 3-31.

_____ (1946), "Response Sets and Test Design," *Educational and Psychological Measurement*, 6, 475-94.

Crowne, Douglas P. and David Marlowe (1964), The Approval Motive, New York: Wiley.

Cruse, D. (1966), "Some Relations Between Minimal Content, Acquiescent-Dissentient, and Social Desirability Scales," *Journal of Personality and Social Psychology*, 3, 112-9.

Cundiff, Edward and Mary Tharp Hilger (1988), Marketing in the International Environment, 2nd ed., Englewood Cliffs, N.J.: Prentice-Hall, Inc.

Cunningham, William H., Isabella C.M. Cunningham, and Robert T. Green (1977), "The Ipsative Process to Reduce Response Set Bias," *Public Opinion Quarterly*, 41, 379-84.

140

Damarin, F. and S. Messick (1965), "Response Styles as Personality Variables: A
    Theoretical Integration of Multivariate Research," Research Bulletin Number RB-
    65-10, Princeton, N.J.: Educational Testing Service.

Das, J.P. and Tapati Dutta (1969), "Some Correlates of Extreme Response Set," *Acta
    Psychologica*, 29, 85-92.

DeVellis, Robert F. (1991), Scale Development: Theory and Applications, Applied Social
    Research Methods Series, 26, Newbury Park: Sage Publications.

Douglas, Susan and C. Samual Craig (1983), International Marketing Research,
    Englewood Cliffs: NJ: Prentice-Hall, Inc.

Eiduson, Bernice (1962), Scientists: Their Psychological World, New York: Basic Books.

Emmerich, Walter (1971), "Cognitive Mediation of Development Trends in Extreme
    Response Choice," *Developmental Psychology*, 5 (3), 540.

Feather, Norman T. (1975), Values in Education and Society, New York: Free Press.

Ferguson, L.W. (1941), "A Study of the Likert Technique of Attitude Scale
    Construction," *Journal of Social Psychology*, 13, 51-7.

Ford, John B. and Earl D. Honeycutt, Jr. (1992), "Japanese National Culture as a Basis for
    Understanding Japanese Business Practices," *Business Horizons*, 35 (6), 27-33.

Franke, Richard H., Geert Hofstede and Michael H. Bond (1991), "Cultural Roots of
    Economic Performance: A Research Note," *Strategic Management Journal*, 12,
    Summer, 165-73.

Frenkel-Brunswik, Else (1949), "Intolerance Toward Ambiguity as an Emotional and
    Perceptual Varible," *Journal of Personality*, 18, 108-43.

Garner, W.R. (1960), "Rating Scales, Discriminability, and Information Transmission,"
    The Psychological Review, 67 (6), 343-352.

Ghiselli, E. E. (1939), "All or None versus Graded Response Questionnaires," *Journal of
    Applied Psychology*, 23, 405-13.

Gold, Bertram (1975a), "Reply to Art Shulman," *Public Opinion Quarterly*, 39, 126-7.

_____ (1975b), "A Comment on Shulman's 'Comparison of Two Scales on
    Extremity Response Bias'," *Public Opinion Quarterly*, 37, 123-4.

Goldsamt, Milton Robert (1971), Effects of Scoring Method and Rating Scale Length in Extreme Response Style Measurement, Unpublished dissertation, University of Maryland.

Gordon, Leonard V. (1971), "Are There Two Extremeness Response Sets?," *Educational and Psychological Measurement*, 31, 867-73.

Gordon, Leonard and Akio Kikuchi (1970), "Response Sets of Japanese and American Students," *The Journal of Social Psychology*, 82, 143-8.

Gove, Walter R. and Michael R. Geerken (1976), "Response Bias in Surveys of Mental Health: An Empirical Investigation," *American Journal of Sociology*, 82 (6), 1289-1317.

Green, Paul E. and Phillip D. White (1976), "Methodological Considerations in Cross-National Consumer Research," *Journal of International Business Studies*, 7, 81-7.

Green, Paul E. and Vithala R. Rao (1971), "A Rejoinder to 'How Many Scales and How Many Catagories Shall We Use in Consumer Research? - A Comment?'," *Journal of Marketing*, 35 (4), 61.

_____ (1970), "Rating Scales and Information Recovery - How Many Scales and Response Catagories to Use," *Journal of Marketing*, 34 (July), 33-9.

Greenleaf, Eric A. (1992a), "Improving Rating Scale Measures by Detecting and Correcting Bias Components in Some Response Styles," *Journal of Marketing Research*, 29 (May), 176-88.

_____ (1992b), "Measuring Extreme Response Style," *Public Opinion Quarterly*, 56, 328-51.

Gurwitz, Paul M. (1987), "Ipsative Rescaling: An Answer to the Response Set Problem in Segmentation Analysis," *Journal of Advertising Research*, (June/July), 37-42.

Hamilton, David L. (1968)), "Personality Attributes Associated With Extreme Response Style," *Psychological Bulletin*, 69 (3), 192-203.

Harvey, O.J., D. E. Hunt and H.M. Schroder (1961), Conceptual Systems and Personality Organization, New York: Wiley.

Hawrysh, Brian Mark and Judith Lynne Zaichkowsky (1990), "Cultural Approaches to Negotiations: Understanding the Japanese," *International Marketing Review*, 7 (2), 28-42.

Heide, Morten and Kjell Gronhaug (1992), "The Impact of Response Styles in Surveys: A Simulation Study," *Journal of Market Research Society*, 34 (3), 215-30.

Herche, Joel (1992), "A Note on the Predictive Validity of the CETSCALE," *Journal of the Academy of Marketing Science*, 20 (Summer), 261-4.

Herzog, A.R. and W.L. Rodgers (1988), "Interviewing Older Adults: Mode Comparison Using Data from Face-to Face Survey and a Telephone Re-survey," *Public Opinion Quarterly*, 52, 84-99.

Hesterly, S.O. (1963), "Deviant Response Patterns as a Function of Chronological Age," *Journal of Consulting Psychology*, 27, 210-4.

Hippler, H.J., N. Schwarz and S. Sudman (1987), Social Information Processing and Survey Methodology, New York: Springer-Verlag.

Hoebel, Adamson (1960), Man, Culture and Society, New York: Oxford University Press.

Hofstede, Geert (1980a), Culture's Consequences: International Differences in Work Related-Values, Newbury Park, CA: Sage Publications.

_____ (1980b), "Motivation, Leadership, and Organization: Do American Theories Apply Abroad?," *Organizational Dynamics*, Summer, 42-63.

Hofstede, Geert and Michael H. Bond (1988), "The Confucius Connection: From Cultural Roots to Economic Growth," *Organizational Dynamics*, 16 (4), Spring, 4-21.

_____ (1984), "Hofstede's Culture Dimensions: An Independent Validation Using Rokeach's Value Survey," *Journal of Cross-Cultural Psychology*, 15 (4), December, 417-33.

Hovland, C.I. and M. Sherif (1952), "Judgemental Phenomena and Scales of Attitude Measurement: Item Displacement in Thurstone Scales," *Journal of Abnormal and Social Psychology*, 47, 822-32.

Hui, C. Harry and Harry C. Triandis (1989), "Effects of Culture And Response Format on Extreme Response Style," *Journal of Cross-Cultural Psychology*, 20 (September), 296-309.

_____ (1985), "The Instability of Response Sets," *Public Opinion Quarterly*, 49 (Summer), 253-60.

Hulbert, James (1975), "Information Processing Capacity and Attitude Measurement," *Journal of Marketing Research*, 12, February, 104-106.

Hunt, Shelby D. and Scott Vitell (1986), "A General Theory of Marketing Ethics," *Journal of Macromarketing*, 8 (Spring), 5-16.

Innes, John M. (1977), "Extremity and 'Don't Know' Sets in Questionnaire Response," *British Journal of Social and Clinical Psychology*, 16, 9-12.

Iwawaki, Saburo and Melvin Zax (1969), "Personality Dimensions and Extreme Response Tendency," *Psychological Reports*, 25, 31-4.

Jacoby, Jacob and Michael S. Mattell (1971), "Three-Point Likert Scales Are Good Enough," *Journal of Marketing Research*, 12, November, 495-500.

Jahoda, M., M. Deutsh and S.W. Cook (1951), Research Methods in Social Relations, New York: Dryden Press.

Jain, Subhash C. (1989), "Standardization of International Marketing Strategy: Some Research Hypotheses," *Journal of Marketing*, 53 (January), 70-9.

Jenkins, Sheila A. (1992), An Investigation of the Reliability and Validity of the Encouragement Scale (General Form) with a Clinical Population, Unpublished Dissertation: University of Georgia.

Jones A. (1956), "Distributions of the Current Q-sort Methodology," *Journal of Abnormal and Social Psychology*, 53, 90-5.

Jones, Richard R. and Leonard G. Rorer (1973), "Response Biases and Trait Descriptive Adjectives," *Multivariate Behavioral Research*, 8 (July), 313-30.

Jordan, L.A., A.C. Marcus and L.G. Reeder (1980), "Response Styles in Telephone and Household Intervieing: A Field Experiment," *Public Opinion Quarterly*, 44, 210-22.

Kahle, Lynn R. (1986), "The Nine Nations of North America and the Values Basis of Geographic Segmentation," *Journal of Marketing*, 50 (April), 37-47.

_____ (1985), "Social Values in the Eighties: A Special Issue," *Psychology & Marketing*, 2 (Winter), 231-7.

_____ (1983), Social Values and Social Change: Adaptation to Life in America, New York: Praeger Publishers.

Kahle, Lynn and Patrica Kennedy (1988), "Using the List of Values (LOV) to Understand Consumers," *The Journal of Services Marketing*, 2 (Fall), 49-56.

Kahle, Lynn, Sharon E. Beatty and Pamela Homer (1986), "Alternative Measurement Approaches to Consumer Values: The List of Values (LOV) and Values and Lifestyles (VALS)," *Journal of Consumer Research*, 13 (December), 405-9.

Kahle, Lynn, Basil Poulos and Ajay Sukhdial (1988), "Changes in Social Values in the United States During the Past Decade," *Journal of Advertising Research*, 28 (February/March), 35-41.

Kahle, Lynn, Ruiming Liu and Harry Watkins (1992), "Psychographic Variation Across United States Geographic Regions," in *Advances in Consumer Research*, Vol. 18, John F. Sherry and Brian Sternthal (eds), Provo, UT: The Association for Consumer Research, 19, 346-52.

Kassarjian, Harold H. and Masao Nakanishi (1967), "A Study of Selected Opinion Measurement Techniques," *Journal of Marketing Research*, 4, May, 148-53.

Kerrick, J. S. (1954), "The Effects of Intelligence and Manifest Anxiety on Attitude Change Through Communications," Unpublished Doctoral Dissertation, University of Illinois.

Kirk, Roger E. (1968), Experimental Design: Procedures for the Behavioral Sciences, Belmont, CA: Brooks/Cole.

Komorita, S.S. (1963), "Attitude Content, Intensity, and the Neutral Point on a Likert Scale," *The Journal of Social Psychology*, 61, 327-334.

Komorita, S.S. and William K. Graham (1965), "Number of Scale Points and the Reliability of Scales," *Educational and Psychological Measurement*, 25 (4), 987-95.

Larson, Mildred L. (1984), MEANING BASED TRANSLATION: A Guide to Cross-language Equivalence, New York: University Press of America.

Lehman, Donald R. and James Hulbert (1972), "Are Three-Point Scales Always Good Enough?," *Journal of Marketing Research*, 9, November, 444-6.

Leung, Kwok and Michael Harris Bond (1989), "On The Empirical Identification of Dimensions for Cross-Cultural Comparisons," *Journal of Cross-Cultural Psychology*, 20 (2), 133-51.

Lewis, N.A. and J.A. Taylor (1955), "Anxiety and Extreme Response Preferences," *Psychological Reports*, 15, 111-6.

Light, Carole S., Melvin Zax and Dwight H. Gardiner (1965), "Relationship of Age, Sex, and Intelligence Level to Extreme Response Style," *Journal of Personality and Social Psychology*, 2, 907-9.

Lissitz, Robert W. and Samuel B. Green (1975), "Effect of the Number of Scale Points on Reliability: A Monte Carlo Approach," *Journal of Applied Psychology*, 60 (1), 10-3.

Littrell, Roland (1971), "Effects of Extreme Response Style and Stimulus Word Attributes on Free Association," *ERIC*, 1-14.

Lonner, Walter J. and John W. Berry (1986), Field Methods in Cross-Cultural Research, Cross-Cultural Research and Methodology Series, 8, Beverly Hills: Sage Publications.

Lorge, I. (1937), "Gen-like: Halo or Reality," *Psychological Bulletin*, 34, 545-6.

Lorr, Maurice, Douglas M. McNair and Seymour Fisher (1982), "Evidence for Bipolar Mood States," *Journal of Personality Assessment*, 46 (August), 432-6.

Lorr, Maurice and Richard A. Wunderlich (1980), "Mood States and Acquiescence," *Psychological Reports*, 46, 191-5.

Luria, Z. (1959), "A Semantic Analysis of a Normal and a Neurotic Theropy Group," *Journal of Abnormal and Social Psychology*, 58, 216-20.

Marin, Gerardo, Raymond J. Gamba and Barbara V. Marin (1992), "Extreme Response Style and Acquiescence Among Hispanics: The Role of Acculturation and Education," *Journal of Cross-Cultural Psychology*, 23 (December), 498-509.

Martin, Warren S., Benjamin Fruchter and William J. Mathis (1974), "An Investigation of the Effect of the Number of Scale Intervals on Principal Components Factor Analysis," *Educational and Psychological Measurement*, 34, 537-45.

Maslow, Abraham H. (1954), Motivation and Personality, New York: Harper.

Matell, M.S. and J. Jacoby (1972), "Is There an Optimal Number of Alternatives for Likert-Scale Items? Effects of Testing Time and Scale Properties," *Journal of Applied Psychology*, 56 (6), 506-9.

_____ (1971), "Is There an Optimal Number of Alternatives for Likert Scale Items? Study I: Reliability and Validity," *Educational and Psychological Measurement*, 31, 657-674.

McKelvie, S.J. (1978), "Graphic Rating Scale: How Many Catagories?," *British Journal of Psychology*, 69, 185-202.

Merrens, Matthew R. (1971), "Personality Correlates of Extreme Response Style: A Function of Method of Assessment," *Journal of Social Psychology*, 85, 313-4.

_____ (1970), "Generality and Stability of Extreme Response Style," *Psychological Reports*, 27, 802.

Miller, George A. (1953), "The Magical Number Seven, Plus or Minus Two: Some Limits of Our Capacity for Processing Information," *ThePsychological Review*, 63 (March), 81-97.

Mitzel, Harold E. and Loenard M. Ostreicher (1956), "The Effects of Response Sets on the Validity of the Minnesota Teacher Attitude Inventory," *Educational and Psychological Measurement*, 16, 501-15.

Mogar, R.E. (1960), "Three Versions of the F Scale and Performance on the Semantic Differential," *Journal of Abnormal and Social Psychology*, 60, 262-5.

Munson, J. Micheal and Shelby H. McIntyre (1979), "Developing Practical Procedures for the Measurement of Personal Values in Cross-Cultural Marketing," *Journal of Marketing Research*, 16 (February), 48-52.

Nasif, Ercan G., Hamad Al-Daeaj, Bahman Ebrahimi and Mary S. Thibodeaux (1991), "Methodological Problems in Cross-Cultural Research: An Updated Review," *Management International Review*, 3 (1), 79-91.

Netemeyer, Richard G., Srinivas Durvasula and Donald Lichtenstein (1991), "A Cross-National Assessment of the Reliability and Validity of the CETSCALE," *Journal of Marketing Research*, 28 (August), 320-7.

Neuringer, C. (1961), "Dichotomous Evaluations in Suicidal Individuals," *Journal of Consulting Psychology*, 25, 445-9.

Norman, Russell P. (1969), "Extreme Response Tendency as a Function of Emotional Adjustment and Stimulus Ambiguity," *Journal of Consulting and Clinical Psychology*, 33(4), 406-10.

Nunnally, Jum C. (1967), Psychometric Theory, New York: McGraw-Hill.

O'Donovan, Denis (1965), "Rating Extremity: Pathology or Meaningfulness?," *Psychological Review*, 72(5), 358-72.

O'Neill, Harry W. (1967), "Response Style Influence in Public Opinion Surveys," *The Public Opinion Quarterly*, 31 (1), Spring, 95-102.

Osgood, C.E. (1941), "Ease of Individual Judgement-Processes in Relation to Poarization of Attitudes in the Culture," *Journal of Social Psychology*, 14. 403-18.

Osgood, C.E., W.H. May and M.S. Miron (1975), Cross-Cultural Universals of Affective Meaning, Urbanna, IL: University of Illinois Press.

Osgood, C.E., G.J. Succi and P.H. Tannenbaum (1957), The Measurement of Meaning, Urbanna, Il.: University of Illinois Press.

Oskamp, S. (1977), Attitudes and Opinions, Englewood Cliffs, N.J.: Prentice-Hall.

Ottati, V.C., E.J. Riggle, R.S. Wyer, N. Schwarz and J. Kuklunski (1989), "Cognitive and Affective Bases of Opinion Survey Responses," *Journal of Personality and Social Psychology*, 57 (3), 404-15.

Parameswaran, Ravi and A. Yaprak (1987), "A Cross-National Comparison of Consumer Research Measures," *Journal of International Business Studies*, 18 (Spring), 35-49.

Peabody, Dean (1962), "Two Components in Bipolar Scales: Direction and Extremeness," *Psychology Review*, 69, 65-73.

Peak, H., B. Muney and M. Clay (1960), "Opposites, Structures, Defenses, and Attitudes," *Psychological Monographs*, 74, 8.

Pemberton, H. Earl (1933), "A Technique for Determining the Optimum Rating Scale for Opinion Measures," *Sociology and Social Research*, 17, May-June, 470-2.

Ralston, David A., David J. Gustafson, Fanny M. Cheung and Robert H. Terpstra (1993), "Differences in Managerial Values: A Study of U.S., Hong Kong and PRC Managers," *Journal of International Business Studies*, Second Quarter, 249-75.

Randall, Donna M. (1993), "Cross-Cultural Research on Organizational Commitment: A Review and Application of Hofstede's Value Survey Module," *Journal of Business Research*, 26, 91-110.

Ray, John J. (1984), "The Reliability of Short Social Desirability Scales," *The Journal of Social Psychology*, 123, 133-4.

Reynolds, William M. (1982), "Development of Reliable and Valid Short Forms of the Marlowe-Crowne Social Desirability Scale," *Journal of Clinical Psychology*, 38 (1),119-25.

Roberts, K.H. and N.A. Boyacigiller (1986), "Cross-National Organizational Research: The Grasp of the Blind Men," *Research in Organizational Behavior*, 6, 423-75.

Rokeach, Milton J. (1973), The Nature of Human Values, New York: Free Press.

Rorer, L.G. (1965), "The Great Response-Style Myth," *Psychological Bulletin*, 63, 129-56.

Rundquist, Edward A. (1950), "Response Sets: A Note on Consistency on Taking Extreme Positions," *Educational and Psychological Measurement*, 10, 97-9.

Samiee, Saeed and Insik Jeong (1994), "Cross-cultural Research in Advertising: An Assessment of Methodologies," *Journal of the Academy of Marketing Science*, 22 (3), 205-17.

Schmitt, N. and D.M. Stults (1985), "Factors Defined by Negatively Keyed Items: The Result of Careless Respondents?," *Applied Psychological Measurement*, 9, 367-373.

Schopphoven, Iris (1991), "Values and Consumption Patterns: A Comparison between Rural and Urban Consumers in Western Germany," *European Journal of Marketing*, 25 (12), 20-35.

Schutz, Richard E. and Robert J. Foster (1963), "A Factor Analytic Study of Acquiescent and Extreme Response Set," *Educational and Psychological Measurement*, 23, 435-47.

Schwarz, Norbert, Hans J. Hippler, Brigitte Deutsch and Fritz Strack (1985), "Response Scales: Effects of Category Range on Reported Behavior and Comparative Judgements," *Public Opinion Quarterly*, 49 (Fall), 388-95.

Segal, Madhav N., Uma a Segal and Mary Ann Palmer Niemczycki (1993), "Value Network for Cross-National Marketing Management: A Framework for Analysis and Application," *Journal of Business Research*, 27, 65-83.

Sekaran, U. (1983), "Methodological and Theoretical Issues and Advancements in Cross-Cultural Research," *Journal of International Business*, Fall, 61-73.

Shapiro, Alvin H., Lorne Rosenblood, Geoffrey M. Berlyne and John Finberg (1976), "The Relationship of Test Familiarity to Extreme Response Styles in Bedouin and Moroccan Boys," *Journal of Cross-Cultural Psychology*, 7 (3), 357-64.

Sharma, Subhash, Terence A. Shimp and Jeongshin Shin (1995), "Consumer Ethnocentrism: A Test of Antecedents and Moderators," *Journal of the Academy of Marketing Science*, 23 (1), 26-37.

Shimp, Terence A. and Subhash Sharma (1987), "Consumer Ethnocentrism: Construction and Validation of the CETSCALE," *Journal of Marketing Research*, 24 (August), 280-89.

Shulman, Art (1975), "Reply to Bertram Gold," *Public Opinion Quarterly*, 37, 125.

_____ (1973), "Comparison of Two Scales on Extremity response Bias," *Public Opinion Quarterly*, Fall.

Smith, David Horton (1967), "Correcting for Social Desirability Response Sets in Opinion-Attitude Survey Research," *Public Opinion Quarterly*, 31 (1), 87-94.

Søndergaard, Mikael (1994), "Research Note: Hofstede's Consequences: A Study of Reviews, Citations and Replications," *Organization Studies*, 15 (3), 447-56.

Soueif, M.I. (1968), "Extremeness, Indifference and Moderation Response Sets: A Cross-Cultural Study," *Acta Psychologica*, 28, 63-75.

_____ (1965) "Response Sets, Neuroticism and Extraversion: A Factorial Study," *Acta Psychology*, 24, 29-40.

_____ (1958), "Extreme Response Sets as a Measure of Intolerance of Ambiguity," *British Journal of Psychology*, 49, 329-34.

Stening, B.W. and J.E. Everett (1984a), "Attributions for Promotion and Demotion in the U.S.and India," *Journal of Social Psychology*, 122, 151-6.

_____ (1984b), "Response Styles in a Cross-Cultural Managerial Study," *Journal of Social Psychology*, 122, 151-6.

Stevens, S.S. (1966), "Mathematics, Measurement, and Psychophysics," Handbook of Experimental Psychology, S.S. Stevens, ed., New York: John Wiley and Sons.

Strahan, Robert and Kathleen C. Gerbasi (1972), "Short, Homogeneous Versions of the Marlow-Crowne Social Desirability Scale," *Journal of Clinical Psychology*, 28, 191-3.

Symonds, Percival M. (1924), "On the Loss of Reliability in Ratings Due to Coarseness of the Scale," *Journal of Experimental Psychology*, 7, 456-61.

Terpstra, Vern (1983), International Marketing, Chicago: The Dryden Press.

Tourangeau, R. and K.A. Rasinski (1988), "Cognitive Processes Inderlying Context Effects in Attitude Measurement," *Psychological Bulletin*, 103, 299-314.

Triandis, H. C. (1984), "A Theoretical Framework for the More Efficient Construction of Cultural Assimilators," *International Journal of Intercultural Relations*, 8, 301-30.

_____ (1972), The Analysis of Subjective Culture, New York: John Wiley.

Triandis, H.C. and L.M. Triandis (1962), "A Cross-Cultural Study of Social Distance," *Psychological Monographs*, 76, 21.

Triandis, H.C., Robert Bontempo, Marcelo J. Virrareal, Masaaki Asai and Nydia Lucca (1988), "Individualism and Collectivism: Cross-Cultural Perspectives on Self-Ingroup Relationships, *Journal of Personality and Social Psychology*, 54 (2), 323-38.

Tse, David K., Russell W. Belk and Nann Zhou (1989), "Becoming a Consumer Society: A Longitudinal and Cross-Cultural Content Analysis of Print Ads from Hong Kong, the People's Republic of China, and Taiwan," *Journal of Consumer Research*, 15 (March), 457-72.

Valencia, Humberto (1989), "Hispanic Values and Subcultural Research", *Journal of the Academy of Marketing Science*, 17 (1), 23-8.

Van der Kloot, William A., Pieter M. Kroonenberg and Dini Bakker (1985), "Implicit Theories of Personality: Further Evidence of Extreme Response Style," *Multivariate Behavioral Research*, 20, 369-87.

Wallendorf, Melanie and Michael D. Reilly (1983), "Ethnic Migration, Assimilation, and Consumption," *Journal of Consumer Research*, 10 (December), 292-302.

Warr, Peter B. and Thomas C. Coffman (1970), "Personality, Involvement and Extremity of Judgement," *British Journal of Social and Clinical Psychology*, 9, 108-21.

Webster, H. (1958), "Correcting Personality Scales for Response Sets or Suppression Effects," *Psychological Bulletin*, 55, 62-4.

Wells, W.D. (1963), "How Chronic Overclaimers Distort Survey Findings," *Journal of Advertising Research*, 3 (2), 8-18.

_____ (1961), "The Influence of Yeasaying Response Style," *Journal of Advertising Research*, 1 (4), 1-12.

Werner, O. and D. Campbell (1970), "Translating, Working through Interpreters, and the Problem of Decentering," In R. Naroll and R. Cohen (Eds.), <u>A Handbook of Method in Cultural Anthropology</u>, New York: Natural History Press, 398-410.

Wertheimer, R. and F. A. McKinney (1952), "A Case History Blank as a Projective Technique," *Journal of Consulting Psychology*, 16, 49-60.

White, B.J. and O.J. Harvey (1965), "Effects of Personality and Own Stand on Judgement and Production of Staements About a Central Issue," *Journal of Experimental Social Psychology*, 1, 334-47.

Wilcox, J.B., R.D. Howell and S.C. Hora (1986), "Identifying the Careless Respondent: A Canonical Residuals Approach," Unpublished Manuscript, Texas Tech University.

Williams, John E. and Deborah L. Best (1990), <u>Measuring Sex Stereotypes: A Multination Study</u>, Newbury Park: Sage Publications.

Wright, G.N., L.D. Phillips, P.C. Whalley, G.T. Choo, K.O. Ng, I. Tan and A. Wisudha (1978), "Cultural Differences in Probabilistic Thinking," *Journal of Cross-Cultural Psychology*, 9, 285-99.

Wyer, Robert S., Jr. (1969), "The Effects of General Response Style on Measurement of Own Attitude and the Interpretation of Attitude-Relevant Messages," *British Journal of Social and Clinical Psychology*, 8, 105-15.

Yu, Julie H., Charles F. Keown, Laurence W. Jacobs and Kyung-Il Ghymn (1990), "Cross-Cultural Considerations in Attitude Scale Methodology," *Proceedings of the Third Symposium on Cross-Cultural Consumer and Business Studies*, 293-301.

Zax, M., E.L. Cowen and S.M. Peter (1963), "A Comparative Study of Novice Nuns and College Females Using the Research Set Approach, " *Journal of Abnormal and Social Psychology*, 66, 369-75.

Zax, Melvin, Dwight H. Gardiner and David G. Lowy (1964), "Extreme Response Tendency as a Function of Emotional Adjustment," *Journal of Abnormal and Social Psychology*, 69 (6), 654-7.

Zax, Melvin and Shigeo Takahashi (1967), "Cultural Influences on Response Style: Comparisons of Japanese and American College Students," *Journal of Social Psychology*, 71, 3-10.

Zuckerman, M.J. and J. Norton (1961), "Response Set and Content Factors in the California F Scale and the Parental Attitude Research Instrument," *Journal of Social Psychology*, 53, 199-210.

Zuckerman, M., J. Norton and D.S. Sprague (1958), "Acquiescence and Extreme Sets and Their Role in Tests of Authoritarianism and Parental Attitudes," *Psychiatric Research Reports*, 10, 28-45.

APPENDICES

CONSUMER SURVEY

Thank-you for agreeing to participate in this survey. The information that you provide will be kept strictly confidential. I would like you to indicate how much you agree that each statement describes how you feel -- of course there are no right or wrong answers, we are only interested in your opinion. As you read each statement, please circle the number that best indicates how much you agree the statement describes how you feel.

	Definitely Disagree									Definitely Agree
When I see a full ashtray or wastebasket, I want it emptied immediately.	1	2	3	4	5	6	7	8	9	10
I am a homebody.	1	2	3	4	5	6	7	8	9	10
Television is my primary form of entertainment.	1	2	3	4	5	6	7	8	9	10
No matter how fast our income goes up, we never seem to get ahead.	1	2	3	4	5	6	7	8	9	10
I try to avoid foods that are high in cholesterol.	1	2	3	4	5	6	7	8	9	10
Advertising insults my intelligence.	1	2	3	4	5	6	7	8	9	10
Investing in the stock market is too risky for most families.	1	2	3	4	5	6	7	8	9	10
Everyone should use a mouthwash to help control bad breath.	1	2	3	4	5	6	7	8	9	10
TV commercials place too much emphasis on sex.	1	2	3	4	5	6	7	8	9	10
A college education is very important for success in today's world.	1	2	3	4	5	6	7	8	9	10
My days seem to follow a definite routine - eating meals at the same time each day, etc.	1	2	3	4	5	6	7	8	9	10
I like to visit places that are totally different from my home.	1	2	3	4	5	6	7	8	9	10
I work very hard most of the time.	1	2	3	4	5	6	7	8	9	10
I like to feel attractive to members of the opposite sex.	1	2	3	4	5	6	7	8	9	10
I will probably have more money to spend next year than I have now.	1	2	3	4	5	6	7	8	9	10
I eat more than I should.	1	2	3	4	5	6	7	8	9	10

	Strongly Disagree									Strongly Agree

Novelty has a great appeal to me   .   1 2 3 4 5 6 7 8 9 10

I crave excitement.   1 2 3 4 5 6 7 8 9 10

It's a wonderful feeling to sit
surrounded by your possessions.   1 2 3 4 5 6 7 8 9 10

There are few things more satisfying
than really to splurge on something
--- books, clothes, furniture, etc.   1 2 3 4 5 6 7 8 9 10

Only the desire to achieve great things
will bring a man's mind into full activity.   1 2 3 4 5 6 7 8 9 10

Nothing is worse than an offensive odor.   1 2 3 4 5 6 7 8 9 10

In most conversations, I tend to
bounce from topic to topic.   1 2 3 4 5 6 7 8 9 10

I really envy the man who can walk
up to anybody and tell him off to
his face.   1 2 3 4 5 6 7 8 9 10

I could really shock people if I said
all of the dirty things I think.   1 2 3 4 5 6 7 8 9 10

There are few more miserable experiences
than going to bed night after night
knowing you are so upset that worry
will not let you sleep.   1 2 3 4 5 6 7 8 9 10

I tend to make decisions on the spur
of the moment.   1 2 3 4 5 6 7 8 9 10

Little things upset me.   1 2 3 4 5 6 7 8 9 10

Drop reminders of yourself wherever
you go and your life's trail will be
remembered.   1 2 3 4 5 6 7 8 9 10

I like nothing better than having
breakfast in bed.   1 2 3 4 5 6 7 8 9 10

My mood is easily influenced by
the people around me.   1 2 3 4 5 6 7 8 9 10

156

	Strongly Disagree						Strongly Agree
Only those products that are unavailable in the U.S. should be imported.	1	2	3	4	5	6	7
American products, first, last and foremost.	1	2	3	4	5	6	7
It is important to me to have really nice things.	1	2	3	4	5	6	7
Purchasing foreign-made products is un-American.	1	2	3	4	5	6	7
It is not right to purchase foreign products.	1	2	3	4	5	6	7
It's really true that money can buy happiness.	1	2	3	4	5	6	7
A real American should always buy American-made products.	1	2	3	4	5	6	7
We should purchase products manufactured in America instead of letting other countries get rich off us.	1	2	3	4	5	6	7
It sometimes bothers me quite a bit that I can't afford to buy all the things I want.	1	2	3	4	5	6	7
Americans should not buy foreign products, because this hurts American business and causes unemployment.	1	2	3	4	5	6	7
It may cost me in the long run but I prefer to support American products.	1	2	3	4	5	6	7
I'd be happier if I could afford to buy more things.	1	2	3	4	5	6	7
We should buy from foreign countries only those products that we cannot obtain within our own country.	1	2	3	4	5	6	7
People place too much emphasis on material things.	1	2	3	4	5	6	7
American consumers who purchase products made in other countries are responsible for putting their fellow Americans out of work.	1	2	3	4	5	6	7
I would like to be rich enough to buy anything I want.	1	2	3	4	5	6	7

For each statement, please circle the number that best describes your feelings about that statement. Be sure to circle one number for each statement.

	Definitely Disagree					Definitely Agree
There is too much emphasis on sex today.	1	2	3	4	5	6
I like to bake.	1	2	3	4	5	6
I have a lot of spare time.	1	2	3	4	5	6
I am good at fixing mechanical things.	1	2	3	4	5	6
I like to cook.	1	2	3	4	5	6
I have more stylish clothes than most of my friends.	1	2	3	4	5	6
Religion is an important part of my life.	1	2	3	4	5	6
Staying physically fit is important to me.	1	2	3	4	5	6
I work very hard most of the time.	1	2	3	4	5	6

The following is a list of things that some people look for or want out of life. This section contains TWO parts, be sure to answer both parts. **PART A:** Please study the list carefully and then rate each thing on how important it is in your daily life, where 1 = very unimportant, and 9 = very important.

	Very Unimportant								Very Important
Sense of belonging	1	2	3	4	5	6	7	8	9
Excitement	1	2	3	4	5	6	7	8	9
Warm relationships with others	1	2	3	4	5	6	7	8	9
Self-fulfillment	1	2	3	4	5	6	7	8	9
Being well respected	1	2	3	4	5	6	7	8	9
Fun and enjoyment of life	1	2	3	4	5	6	7	8	9
Security	1	2	3	4	5	6	7	8	9
Self-respect	1	2	3	4	5	6	7	8	9
A sense of accomplishment	1	2	3	4	5	6	7	8	9

PART B: Now reread the items and *circle the one thing that is most important to you in your daily life.*

158

I have listed below some activities that you, yourself, may or may not have engaged in. For each activity listed, please place an "X" in the appropriate box to indicate how often during the past 12 months you, yourself, have engaged in this activity. Please make sure that you answer each activity, and that you "X" only one box for each activity.

<u>NUMBER OF TIMES PARTICIPATED IN PAST 12 MONTHS:</u>

	None in past year	1-4 times	5-8 times	9-11 times	12-24 times	25-51 times	52 or more
Attended church	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Went shopping for clothes.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Worked on a do-it-yourself project around the house.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Made baked goods from scratch.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Stayed late at work.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Made homemade soup (not from a can or package).	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Did exercises at home (not a class).	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Please indicate your feeling about the following statements:

Do you like everyone you know?	Yes	No
Have you envied the good luck of others at times?	Yes	No
Have you taken advantage of someone at times?	Yes	No
Have you ever felt you were being punished without justification?	Yes	No

Finally, we would like some information about you. Again this information is confidential and will only be used for research purposes.

What is your gender?
_____ Male   _____ Female

Which of the following best describes your race?
_____ White   _____ Black/African
_____ Hispanic   _____ Oriental/Asian
_____ Native American   _____ Other (please specify _____)

Do you consider this your native country?
_____ Yes   _____ No   (if "No", please specify _____)

What is your religious preference?
_____ Catholic
_____ Protestant
_____ Jewish
_____ Muslim
_____ Buddhist
_____ Other (please specify _____)
_____ No religion

Which of these best represent your age group?
_____ under 16
_____ 16, 17
_____ 18-20
_____ 21-24
_____ 25-29
_____ 30-39
_____ 40-49
_____ 50-59
_____ 60-69
_____ 70 or older

In general terms, was your household income for last year:
_____ under $5,000
_____ $5,000 - 9,999
_____ $10,000 - 19,999
_____ $20,000 - 39,999
_____ $40,000 - 59,999
_____ $60,000 - 79,999
_____ $80,000 - 99,999
_____ $100,000 +

THANK YOU VERY MUCH FOR YOUR HELP!

160

ENQUETE CONSOMMATION

Merci pour votre participation à ce sondage. Les informations données resteront strictement confidentielles. Indiquez pour chaque phrase le nombre qui vous correspond le plus - bien entendu il n'y a pas de bonnes ou de mauvaises réponses, c'est simplement votre opinion qui nous intéresse. Après avoir lu chaque phrase, entourez le nombre qui correspond le mieux à votre façon d'être.

	ABSOLUMENT PAS D'ACCCORD									TOTALEMENT D'ACCORD

Quand je vois un cendrier ou une poubelle pleins, je veux qu'ils soient vidés tout de suite. 1 2 3 4 5 6 7 8 9 10

Je suis pantouflard(e). 1 2 3 4 5 6 7 8 9 10

La télévision est ma distraction favorite. 1 2 3 4 5 6 7 8 9 10

Quels que soient nos revenus, ils sont toujours insuffisants. 1 2 3 4 5 6 7 8 9 10

J'essaie d'éviter les nourritures riches en cholestérol. 1 2 3 4 5 6 7 8 9 10

La publicité est une insulte à mon intelligence. 1 2 3 4 5 6 7 8 9 10

Investir en bourse est trop risqué pour la plupart des familles. 1 2 3 4 5 6 7 8 9 10

Tout le monde devrait sucer des pastilles aromatisées pour contrôler son haleine. 1 2 3 4 5 6 7 8 9 10

La publicité télévisée insiste trop sur le sexe. 1 2 3 4 5 6 7 8 9 10

Les études supérieures sont très importantes pour réussir dans le monde d'aujourd'hui. 1 2 3 4 5 6 7 8 9 10

Mes journées semblent suivre une routine immuable - repas à la même heure chaque jour, etc. 1 2 3 4 5 6 7 8 9 10

J'aime visiter des endroits totalement différents de celui où je vis. 1 2 3 4 5 6 7 8 9 10

Je travaille très dur la plupart du temps. 1 2 3 4 5 6 7 8 9 10

J'aime plaire aux personnes du sexe opposé. 1 2 3 4 5 6 7 8 9 10

J'aurai probablement plus d'argent à dépenser l'année prochaine qu'actuellement. 1 2 3 4 5 6 7 8 9 10

Je mange plus que je ne devrais. 1 2 3 4 5 6 7 8 9 10

	PAS DU TOUT D'ACCORD									TOUT A FAIT D'ACCORD

Les innovations m'attirent beaucoup.	1	2	3	4	5	6	7	8	9	10
J'ai soif de sensations fortes.	1	2	3	4	5	6	7	8	9	10
C'est un sentiment merveilleux d'être assis au milieu de ses possessions.	1	2	3	4	5	6	7	8	9	10
Il y a peu de choses qui donnent plus de satisfaction que de faire des dépenses extravagantes - vêtements, meubles, livres, etc.	1	2	3	4	5	6	7	8	9	10
Seul le désir de réaliser de grandes choses permet à l'homme de tirer pleinement parti de son potentiel cérébral.	1	2	3	4	5	6	7	8	9	10
Rien n'est pire qu'une mauvaise odeur.	1	2	3	4	5	6	7	8	9	10
Dans la plupart des discussions, j'ai tendance à sauter d'un sujet à l'autre.	1	2	3	4	5	6	7	8	9	10
J'envie vraiment un homme qui arrive à dire à un autre ce qu'il pense de lui.	1	2	3	4	5	6	7	8	9	10
Je pourrais vraiment choquer les gens si je disais toutes les choses salaces qui me passent par la tête.	1	2	3	4	5	6	7	8	9	10
Il y a peu d'expériences plus désagréables que celle de se coucher tous les soirs en sachant que l'inquiétude nous empêchera de fermer l'oeil.	1	2	3	4	5	6	7	8	9	10
J'ai tendance à prendre des décisions sans réfléchir.	1	2	3	4	5	6	7	8	9	10
Les choses sans importance me dérangent.	1	2	3	4	5	6	7	8	9	10
Laissez des souvenirs de vous-même partout où vous allez et le chemin de votre vie restera en mémoire.	1	2	3	4	5	6	7	8	9	10
Il n'y a rien de mieux que de prendre le petit déjeuner au lit.	1	2	3	4	5	6	7	8	9	10
Mes humeurs sont facilement influencées par les gens qui m'entourent.	1	2	3	4	5	6	7	8	9	10

162

	PAS DU TOUT D'ACCORD						TOUT A FAIT D'ACCORD

Seule l'importation des produits indisponibles
en France devrait être autorisée.

1 2 3 4 5 6 7

Les produits français partout et toujours.

1 2 3 4 5 6 7

La possession de belles choses a beaucoup
d'importance pour moi.

1 2 3 4 5 6 7

L'achat des produits étrangers est anti-français.

1 2 3 4 5 6 7

Ce n'est pas normal d'acheter des produits
étrangers.

1 2 3 4 5 6 7

C'est vrai que l'argent fait le bonheur.

1 2 3 4 5 6 7

Un vrai français devrait toujours acheter
des produits fabriqués en France.

1 2 3 4 5 6 7

Nous devrions acheter des produits fabriqués
en France plutôt que de laisser les autres pays
s'enrichir sur notre dos.

1 2 3 4 5 6 7

Ça m'ennuie parfois beaucoup de ne pas
pouvoir acheter tout ce que je veux.

1 2 3 4 5 6 7

Les français ne devraient pas acheter des
produits étrangers parce que cela pénalise
l'économie française et crée du chômage.

1 2 3 4 5 6 7

Même si ça me coûte plus cher à long terme
je préfére soutenir les produits français.

1 2 3 4 5 6 7

Je serais plus heureux(se) si je pouvais
acheter plus de choses.

1 2 3 4 5 6 7

Nos achats de produits étrangers devraient
se limiter aux produits qui n'existent pas sur
le marché français.

1 2 3 4 5 6 7

Les gens insistent trop sur l'importance
des choses matérielles.

1 2 3 4 5 6 7

Les consommateurs français qui achètent des
produits fabriqués à l'étranger sont responsables
des licenciements de leurs compatriotes.

1 2 3 4 5 6 7

J'aimerais être assez riche pour acheter tout ce
que je veux.

1 2 3 4 5 6 7

Après avoir lu chaque phrase, entourez le nombre qui correspond le mieux à votre façon d'être. Entourez un nombre pour chaque phrase.

	PAS DU TOUT D'ACCORD				TOUT A FAIT D'ACCORD	
Aujourd'hui, on insiste trop sur le sexe.	1	2	3	4	5	6
J'aime faire de la pâtisserie.	1	2	3	4	5	6
J'ai beaucoup de temps libre.	1	2	3	4	5	6
Je suis doué(e) pour tout ce qui concerne les réparations mécaniques.	1	2	3	4	5	6
J'aime faire la cuisine.	1	2	3	4	5	6
J'ai plus de vêtements à la mode que la plupart de mes amis.	1	2	3	4	5	6
La réligion joue un rôle important dans ma vie.	1	2	3	4	5	6
Rester en forme physique est important pour moi.	1	2	3	4	5	6
Je travaille très dur la plupart du temps.	1	2	3	4	5	6

La liste suivante regroupe des choses que certaines personnes peuvent rechercher dans la vie. Cette section comprend 2 parties - répondez aux deux. 1ère PARTIE: Après avoir lu attentivement la liste, évaluez l'importance de chaque chose dans votre vie quotidienne, sachant que 1 = sans aucune importance et 9 = très important.

	SANS AUCUNE IMPORTANCE								TRES IMPORTANT
Sentiment d'appartenance	1	2	3	4	5	6	7	8	9
Sensations fortes	1	2	3	4	5	6	7	8	9
Rapports chaleureux avec les autres	1	2	3	4	5	6	7	8	9
Sentiment de réussite	1	2	3	4	5	6	7	8	9
Etre respecté(e)	1	2	3	4	5	6	7	8	9
Amusement et plaisir dans la vie	1	2	3	4	5	6	7	8	9
Sécurité	1	2	3	4	5	6	7	8	9
Respect de soi	1	2	3	4	5	6	7	8	9
Sentiment d'accomplissement	1	2	3	4	5	6	7	8	9

2ème PARTIE: *Relisez la liste et entourez la chose la plus importante dans votre vie quotidienne.*

Ci-dessous sont listées des activités que vous avez pu ou non pratiquer. Pour chacune, placez un "X" dans la case appropriée pour indiquer combien de fois vous l'avez pratiquée au cours des 12 derniers mois. Donnez une et une seule réponse pour chaque activité.

VOUS AVEZ PRACTIQUE CETTE ACTIVITE AU COURS DES 12 DERNIERS MOIS:

	Pas dans l'année écoulée	1-4 fois	5-8 fois	9-11 fois	12-24 fois	25-51 fois	52 fois et plus
Aller à l'église	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Faire les boutiques de vêtements	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Bricoler à la maison	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Faire de la vraie pâtisserie	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Rester tard au travail	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Faire de la vraie soupe (ni sachet, ni boîte, ni brique)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Faire de la gym à la maison (pas dans un cours)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Indiquez votre réaction aux questions suivantes :

Aimez-vous bien toutes les personnes que vous connaissez?	Oui	Non
Avez-vous déja envié la chance des autres?	Oui	Non
Avez-vous déja profité de quelqu'un?	Oui	Non
Avez-vous déja eu l'impresssion d'être puni(e) sans raison?	Oui	Non

Pour finir, nous souhaiterions quelques renseignements sur vous. Précisons encore une fois que ces informations sont confidentielles et seront utilisées uniquement dans un but de recherche.

Quel est votre sexe?

_____ Masculin   _____ Féminin

De quelle race êtes-vous?

_____ Blanc   _____ Arabe
_____ Noir/African   _____ Asiatique
                               _____ Autre (veuillez préciser _____)

Considérez-vous la France comme votre patrie?

_____ oui   _____ non   (si "non", veuillez préciser _____)

Quelle est votre religion?

_____ Catholique   _____ Protestante
_____ Juive   _____ Musulmane
_____ Bouddhiste   _____ Sans religion
                               _____ Autre (veuillez préciser _____)

Indiquez votre tranche d'âge.

_____ moins de 16 ans
_____ 16-17 ans
_____ 18-20 ans
_____ 21-24 ans
_____ 25-29 ans
_____ 30-39 ans
_____ 40-49 ans
_____ 50-59 ans
_____ 60-69 ans
_____ 70 ans et plus

Quels ont été les revenus annuels de votre foyer pour l'année dernière:

_____ moins de 25.000 F
_____ de 25.000 à 49.999 F
_____ de 50.000 à 99.999 F
_____ de 100.000 à 199.999 F
_____ de 200.000 à 299.999 F
_____ de 300.000 à 399.999 F
_____ de 400.000 à 499.999 F
_____ 500.000 F et plus

MERCI BEAUCOUP DE VOTRE PARTICIPATION

ENCUESTA PARA EL CONSUMIDOR

Le agradecemos su disposición de participar en esta encuesta. La información que usted proporcione será estrictamente confidencial. Nos gustaría que indicara el grado en el que usted está de acuerdo con lo que se dice en cada enunciado (No se califica si usted está bien o mal en las respuetas, simplemente nos interesa conocer su opinión). Por favor lea cada enunciado cuidadosamente y después indique su nivel de conformidad o de inconformidad con lo leído, circulando el número que mejor represente su opinión.

	Completamente en desacuerdo	Completamente de acuerdo
Cuando veo un cenicero o un bote de basura lleno, me dan ganas de vaciarlo inmediatamente.	1 2 3 4 5 6 7 8 9 10	
Soy una persona hogareña.	1 2 3 4 5 6 7 8 9 10	
La televisión es mi medio principal de entretenimiento.	1 2 3 4 5 6 7 8 9 10	
No importa qué tan rápido se incremente nuestro salario, parece ser que nunca mejoramos.	1 2 3 4 5 6 7 8 9 10	
Trato de no comer comida que contenga un alto nivel de colesterol.	1 2 3 4 5 6 7 8 9 10	
La publicidad insulta a mi inteligencia.	1 2 3 4 5 6 7 8 9 10	
Invertir en la bolsa de valores es muy peligroso para la mayoría de las familias.	1 2 3 4 5 6 7 8 9 10	
Todas las personas deberían de usar enjuague bucal para evitar el mal aliento.	1 2 3 4 5 6 7 8 9 10	
Los anuncios de televisión hacen demasiado énfasis en el sexo.	1 2 3 4 5 6 7 8 9 10	
En la actualidad, una educación universiataria es muy importante para triunfar.	1 2 3 4 5 6 7 8 9 10	
Parece como si todos los días de mi vida siguieran la misma rutina (como el comer todos los días a la misma hora, etc.).	1 2 3 4 5 6 7 8 9 10	
Me gusta visitar lugares que son totalmente diferentes al lugar en donde vivo.	1 2 3 4 5 6 7 8 9 10	
Trabajo muy duro la mayor parte del tiempo.	1 2 3 4 5 6 7 8 9 10	
Me gusta sentirme atractivo a los miembros del sexo opuesto.	1 2 3 4 5 6 7 8 9 10	
Probablemente tenga más dinero para gastar el próximo año de lo que tengo ahora.	1 2 3 4 5 6 7 8 9 10	
Como más de lo que debería.	1 2 3 4 5 6 7 8 9 10	

	Completamente en desacuerdo									Completamente de acuerdo

Me atraen bastante las cosas novedosas.

1 2 3 4 5 6 7 8 9 10

Soy adicto a las emociones.

1 2 3 4 5 6 7 8 9 10

Es un sentimiento maravilloso el estar sentado rodeado de mis pertenencias.

1 2 3 4 5 6 7 8 9 10

Existen pocas cosas más satisfactorias que presumir de las cosas (libros, ropa, muebles,etc.).

1 2 3 4 5 6 7 8 9 10

Solamente el deseo de lograr cosas grandiosas produce que la mente de una persona esté en actividad completa.

1 2 3 4 5 6 7 8 9 10

No hay nada peor que un mal olor.

1 2 3 4 5 6 7 8 9 10

En la mayoría de las conversaciones, tiendo a saltar de tema en tema.

1 2 3 4 5 6 7 8 9 10

Envidio a las personas que pueden decirles en su cara a las demás que se vayan al diablo.

1 2 3 4 5 6 7 8 9 10

Podría espantar a la gente si les dijera todas las cosas sucias en las que pienso.

1 2 3 4 5 6 7 8 9 10

Existen pocas experiencias más desagradables queel irse a la cama noche a noche sabiendo que estás tan molesto que esta preocupación no tedejará dormir.

1 2 3 4 5 6 7 8 9 10

Tiendo a tomar decisiones impulsivas.

1 2 3 4 5 6 7 8 9 10

Me molesto por pequeños detalles.

1 2 3 4 5 6 7 8 9 10

El dejar recuerdos de mí mismo en cada lugar al que voy hará que mi paso por la vida sea recordado.

1 2 3 4 5 6 7 8 9 10

Me gusta mucho tomar el desayuno en la cama.

1 2 3 4 5 6 7 8 9 10

Mi estado de ánimo es influenciado fácilmente por las personas que están a mi alrededor.

1 2 3 4 5 6 7 8 9 10

	Completamente en desacuerdo						Completamente de acuerdo

Solemente se deberían de importar los productos que no están disponibles en México.	1 2 3 4 5 6 7
Hay que consumir productos mexicanos todo el tiempo.	1 2 3 4 5 6 7
Es muy importante para mí el tener cosas bonitas.	1 2 3 4 5 6 7
El comprar productos que sean hechos en el extranjero es anti-patriótico.	1 2 3 4 5 6 7
No está bien el comprar productos extranjeros.	1 2 3 4 5 6 7
Es muy cierto que el dinero puede comprar la felicidad.	1 2 3 4 5 6 7
Un mexicano de verdad debe de comprar siempre productos hechos en México.	1 2 3 4 5 6 7
Deberíamos comprar productos hechos en México en vez de dejar que otors países se hagan ricos a costa nuestra.	1 2 3 4 5 6 7
A veces me molesta mucho el no poder tener dinero para comprar todas las cosas que quiero.	1 2 3 4 5 6 7
Los mexicanos no deben comprar productos extranjeros porque ésto daña a los negocios mexicanos y causa desempleo.	1 2 3 4 5 6 7
Puede ser que a largo plazo me cueste més caro, pero prefiero dar apoyo a los productos mexicanos.	1 2 3 4 5 6 7
Sería más feliz si pudiera tener el dinero para comprar más cosas.	1 2 3 4 5 6 7
Debemos comprar a los demás países solo aquellos productos que no podemos obtener dentro de nuestro propio país.	1 2 3 4 5 6 7
La gente pone mucho énfasis en las cosas materiales.	1 2 3 4 5 6 7
Los consumidores mexicanos que compran productos hechos en otros países son responsables de que otros mexicanos se queden sin trabajo.	1 2 3 4 5 6 7
Me gustaría ser los suficientemente rico como para comprar cualquier cosa que yo quisiera.	1 2 3 4 5 6 7

Por favor marque, para cada enunciado, el número que describe mejor sus sentimientos. Asegúrese de circular un número para cada enunciado.

	Completamente en desacuerdo				Completamente de acuerdo	
Hoy en día hay mucho énfasis en el sexo.	1	2	3	4	5	6
Me gusta hornear.	1	2	3	4	5	6
Tengo mucho tiempo libre.	1	2	3	4	5	6
Soy bueno arreglando cosas mecánicas.	1	2	3	4	5	6
Me gusta cocinar.	1	2	3	4	5	6
Mi ropa está más a la moda que la de la mayoría de mis amigos.	1	2	3	4	5	6
La religión es una parte importante de mi vida.	1	2	3	4	5	6
Es importante para mí el mantenerme físicamente en forma.	1	2	3	4	5	6
Trabajo mucho la mayor parte del tiempo.	1	2	3	4	5	6

A continuación se encuentra una lista de cosas que algunas personas buscan o desean obtener en la vida. Esta sección está compuesta de dos partes, asegúrese, por favor, de contestar ambas partes. **Parte A**: Estudie la siguiente lista cuidadosamente y después califique cada enunciado en cuanto a la importancia que tiene en su vida diaria. 1 = no es importante , 9 = es muy importante.

	No es Importante							Es muy Importante	
Sentido de pertenencia. (Ser acpetado por los demás)	1	2	3	4	5	6	7	8	9
Sentirse emocionado.	1	2	3	4	5	6	7	8	9
Relaciones cálidas con otras persoans.	1	2	3	4	5	6	7	8	9
Autorrealización.	1	2	3	4	5	6	7	8	9
Ser bien respetado.	1	2	3	4	5	6	7	8	9
Diversión y goce de la vida.	1	2	3	4	5	6	7	8	9
Seguridad	1	2	3	4	5	6	7	8	9
Respeto hacia sí mismo.	1	2	3	4	5	6	7	8	9
Sentido de logro.	1	2	3	4	5	6	7	8	9

Parte B: *Ahora vuelva a leer los enunciados y circule la descripción que es más importante para usted en su vida diaria.*

Se presenta a continuación una lista que menciona algunas acitividades en las cuales puede usted estar o no involucrado. Para cada una de las actividades listadas marque, por favor, una "x" en el cuadro más apropiado que indique que tán seguido ha realizado esta actividad en los últimos 12 meses. Por favor, asegúrese de contestar cada actividad y de marcar solo una "x" por actividad.

NUMERO DE VECES QUE HE PARTICIPADO EN ESTA ACTIVIDAD EN LOS ULTIMOS 12 MESES

	ninguna vez en el último año	1-4 veces	5-8 veces	9-11 veces	12-24 veces	25-51 veces	52 ó más
Fui a misa.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Fui a comprar ropa.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Hice un proyecto del tipo "hágalo ud. mismo"en la casa.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Horneé pan.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Me quedé tarde en el trabajo.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Hice sopa (no de lata ni de empaque).	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Hice ejercicio en la casa.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Por favor indique sus sentimientos ante los siguientes enunciados.

Le caen bien todas las personas que conoce?	Si	No
Algunas veces le da envidia la buena suerte de algunas personas?	Si	No
Se ha aprovechado de alguien una que otra vez?	Si	No
Ha sentido alguna vez que ha sido castigado sin justificación?	Si	No

Por último, deseamos información sobre usted. Una vez más, esta información es confidencial y solamente será utilizada para propósitos de investigación.

Sexo: Masculino _____   Femenino _____

¿Considera usted a éste su país nativo?

                         Si _____   No ____
                                               (Si no, especifique cuál _____)

¿Cúal es su religión?

                         Católica   _____
                         Protestante   _____
                         Judia   _____

Edad: _____

Ingreso familiar por mes en Nuevos Pesos:

Menos de 999   _____   7,000-8,999   _____   Más de 15,000 _____
1,000-2,999   _____   9,000-10,999   _____
3,000-4,999   _____   11,000-12.999 _____
5,000-6999   _____   13,000-14,999 _____

MUCHAS GRACIAS POR SU AYUDA!