VALUE & IMPACT STUDY

SUPPLEMENTARY RESEARCH

Additional Insights on Donors, Ticket-Buyers & Audiences

Research Background

In 2004, fourteen members of the Major University Presenters (MUP) consortium - without foundation support - commissioned WolfBrown to conduct a two-year study of the values and motivations driving performing arts attendance and donation. The findings of *The Value & Impact Study* are available in three public reports, which are available for free download at www.wolfbrown.com/mup:

- *Assessing the Intrinsic Impacts of Live Performance*
- *A Segmentation Model for Performing Arts Ticket Buyers*
- *A Segmentation Model for Donors to 12 University Presenting Programs*
- *Value & Impact Study Supplemental Research: Additional Insights on Donors, Ticket-Buyers & Audiences*

While the study concluded in 2007, much knowledge remained to be harvested from the substantial data sets that the study produced. Recognizing the opportunity, the Andrew W. Mellon Foundation funded a $50,000 proposal from the MUP consortium to extend the value of the study's two major datasets by commissioning 10 focused research papers.

WolfBrown oversaw a competitive selection process starting in October 2007 and welcomed proposals from faculty, research staff and students from all colleges and universities, and all disciplines. The proposals were evaluated based on the significance and relevance of their topic and research questions, the extent to which the research was likely to yield practical applications for the study partners – particularly in the areas of marketing and fundraising, and overall quality and rigor of the proposal.

The funded proposals went to both faculty members and graduate students; five proposals had faculty members serving as the principal investigator (PI), and five had graduate students as PI. The funded researchers represent a broad range of academic departments – public policy; sociology, tourism, recreation and sports management; arts administration; marketing; and business – and a variety of universities.

On behalf of the MUP consortium, we extend our appreciation to the Mellon Foundation for their foresight in allowing *The Value & Impact Study* to pay additional dividends. We encourage other researchers who would like to examine the original data files to be in touch with us, in the spirit of learning.

Sincerely,

Alan S. Brown, Principal   Jennifer L. Novak, Consultant

Overview of Papers

The supported research papers fall into three general topics: Donors, Ticket-buyers & Demand, and Impact. In addition, three papers cover special areas of interest: the relationship between Howard Gardner's multiple intelligences and ticket-buying, the affect of pre-performance enhancement events on impact, and the relationship between political views and both donation and ticket-buying behavior. Below are brief summaries of each paper, which are followed by more detailed abstracts, organized by general topic.

Donors

1. **The Influence of Marketing Messages and Benefits Received On Attributions of Donation Behavior to Intrinsic and Extrinsic Motivations** - *Jennifer Wiggins Johnson & Bret Ellis.* This paper seeks to better understand what influenced the degree to which donors perceive extrinsic benefits as the motivations for giving.

2. **Study of MUP Donors Motivation, Behavior, and Benefits** - *May Kim, Yong JaeKo & Heather Gibson.* This paper provides a review of theoretical frameworks that guide current perspectives on donor motivation.

Ticket-Buyers & Demand

3. **Preferences and Purchase Behavior: Survey Evidence on the Relationship between Stated Interested in the Performing Arts and Ticket Purchase History** - *Sarah Lee.* This paper examines the relationship between individuals' stated preferences for performances and their actual history of ticket-buying.

4. **Community Contexts of University Presenters and Their Audiences** - *Tanya Koropeckyj-Cox, Charles Gattone, William Jawde, & Deeb-Paul Kitchen.* This paper offers broader sociological perspective to the understanding of audience values and preferences, by considering the larger community contexts of the presenter-audience relationship.

5. **Anticipation: Exploring its Origins and Effects on the Live Arts Experience** - *Jara Kern.* This paper examines the causal factors and relationships underlying high levels of anticipation for performing arts programs.

Impact

6. **How We Feel About Art: Motivation, Satisfaction, and Emotional Experience in Performing Arts Audiences** - *Shelly Gilbride & David Orzechowicz.* This paper explores performing arts audiences' self-reported emotional experiences and how they relate to reasons for attending, expectations for, and satisfaction levels with a performance.

7. **Social Influences on Intrinsic Impacts of Performanc**e - *Trina Rose.* This paper examines the relationships between social and emotional factors and attendance, subscription and post-performance impact.

Special Interest Topics

8. **Analysis of Multiple Intelligences in Understanding the Relationships between Ticket Buyers and Their Participation in Performing Arts Programs** - *Mark Creekmore & Sarah Rush.* This paper examines the validity of using the Values & Impact data to study Howard Gardner's theory of multiple intelligences and investigates relationship between intelligences and preferences for types of performances.

9. **Characterizing Program Enhancement Events** - *Yael Zipporah Silk & Jordan Raphael Fischbach.* This paper profiles the enhancement event audience base, examines the impact of enhancement events on patrons who self-select to attend, and identifies characteristics that are predictive of pre- or post-performance event preferences.

10. **How Beliefs Matter: Views, Motives and their Relation to Buyer and Donor Behavior** - *Ximena Varela.* This paper investigates audiences political beliefs and explores the relationship between political views and both ticket-buyer and donor behavior.

Abstracts

Donors

1. The Influence of Marketing Messages and Benefits Received On Attributions of Donation Behavior to Intrinsic and Extrinsic Motivations
Jennifer Wiggins Johnson & Bret Ellis

Wiggins Johnson and Ellis examine the intrinsic and extrinsic motivations of donors to performing arts organizations using the data from the 1,771 donor respondents from the *Value Study* conducted in October 2006. The authors use the twenty items measuring different motivations to donate from these respondents, along with information on their donations from 2003-2006 and their relationships with the presenters to which they had donated. This paper seeks to better understand what influenced the degree to which respondents would perceive extrinsic benefits as the motivations for their donations. Additional data on the communications messages that respondents were likely to experience and the benefits that they were likely to receive in exchange for their donations is used to establish that the messages and benefits that donors receive can influence their attributions of their donation behavior to intrinsic and extrinsic motivations. This suggests that organizations can deliberately or inadvertently influence donor motivations through their communications.

2. Study of MUP Donors Motivation, Behavior, and Benefits
May Kim, Yong Jae Ko & Heather Gibson

In this paper, the authors offer a review of theoretical frameworks that guide current perspectives on donor motivation and its influence on donor amount or donor benefits. Using this review to structure their analyses, the authors explore donor motivations, the influence of gender and age on donor motivations, the relationship between donor motivations and donor behavior, and the relationship between donor motivations and donor benefits.

In addition, these authors wrote a second paper utilizing the Value & Impact Study data entitled *An examination of factors that influence donor behavior: The case of University art museums in the US*, and is available upon request.

Ticket-Buyers & Demand

3. Preferences and Purchase Behavior: Survey Evidence on the Relationship between Stated Interested in the Performing Arts and Ticket Purchase History
Sarah Lee

In this paper, Lee uses the Major University Presenters' *Value Study* dataset to examine the relationship between individuals' stated preferences for performances across a variety of performance types and their actual history of purchasing tickets to performances of those same types. The author finds that there is a substantial proportion of the arts-going population who

exhibit strong preferences for various types of performances, but whose ticket purchase behavior alone would not reveal those preferences ("high-demand non-purchasers"). Lee then develops a profile of high-demand non-purchasers in each performance type, focusing on the differences between high-demand non-purchasers and purchasers in demographic and background characteristics, cultural attitudes, and motivations. This paper briefly surveys the literature on participation, audience-building, and marketing in the arts; discusses the data used for this analysis; presents simple statistical evidence on the relationship between stated preferences and ticket purchase history; profiles high-demand non-purchasers, and uses these profiles to draw conclusions about potential barriers to attendance among high-demand non-purchasers.

4. Community Contexts of University Presenters and Their Audiences
Tanya Koropeckyj-Cox, Charles Gattone, William Jawde, & Deeb-Paul Kitchen

This paper builds on the original *Value & Impact Study* analyses by adding two important sociological perspectives to the understanding of audience values and preferences, taking into account the larger community contexts of the presenter-audience relationship. First, focusing on social and cultural characteristics, the authors construct an alternative audience segmentation model that draws more specifically on sociological research on social capital and engagement, socioeconomic dimensions of taste, and subculture affinities. The authors examine how an audience segmentation model based on social attributes and cultural affinities can help to elucidate audience preferences and potential attendance. Second, they incorporate data on the specific community contexts of the Major University Presenters (and their potential audiences) to examine the influence of contextual dimensions on the relations of audience characteristics with preferences and attendance. Specifically, the research addresses the following research questions:

1) What kind of audience segmentation results from an explicit emphasis on measures of social engagement, institutional connection, and cultural affinities?
2) How is this socially based segmentation related to socio-demographic characteristics and to particular audience preferences and potential attendance at performances?
3) How does this relationship intersect with characteristics of the larger communities in which the audience members and the University Presenters are located?

The findings offer a nuanced assessment of audience preferences within their particular communities and inform strategies for planning, marketing, and outreach that take into account contextual variations. The findings also help to inform policy and arts development by considering the interrelations of communities, institutions, and audience populations.

5. Anticipation: Exploring its Origins and Effects on the Live Arts Experience
Jara Kern

For almost any presenter of the live performing arts, *captivation, satisfaction*, and *remembered value* are the gold standards of a job well done. Audience members and artists who experience a powerfully positive impact during the event, and remember the moment vividly for years to come, become the favored stories of success among most arts presenters. These remembered experiences provide the catalyst for future attendance and increasing connection to the organization and its work. Yet, despite the core importance of captivation, satisfaction, and remembered value, precious little specific research has explored where these experiences come from, how they work, and how they might be more thoughtfully encouraged. This paper is an effort to encourage such understanding

and strategy. Its particular focus is on the role and influence of anticipation on the perceived satisfaction and remembered value of a live performance experience. This paper suggests and tests a causal model, examines findings from relevant literature, and incorporates interviews with audience members, practitioners, and content experts. The paper aims to provide performing arts practitioners with actionable insights on anticipation, and its central function in fostering satisfaction and remembered value in the live performing arts. This paper focuses on the relationship between cause and effect, or the causal flow, for the creation of high levels of anticipation for cultural content.

Impact

6. How We Feel About Art: Motivation, Satisfaction, and Emotional Experience in Performing Arts Audiences
Shelly Gilbride & David Orzechowicz

Using data collected from the *MUPS Value & Impact Study*, Gilbride and Orzechowicz explore the dimensions of self-reported emotional experiences in performing arts audiences. Specifically, the authors look at how these emotional experiences relate to the reasons people attend productions, the expectations they bring with them, the relevance of the performing arts to their daily lives, and their satisfaction with a show. Gilbride and Orzechowicz conduct the first analyses of the qualitative emotions data available from the study and construct ten broad categories of emotional experiences, with an additional six subcategories to provide a more nuanced understanding. These categories are based on the work of Robert Plutchik's categorization of basic and secondary emotions, as well as other research on emotion typologies. The authors then explore the relationship between these experiences and audience demographics, performance genres, and reported levels of captivation and satisfaction. Much of the analysis focuses on five specific emotional experiences: anger, dissatisfaction, fear, inspiration, and joy. The research reveals that certain emotional experiences often seen as negative in most social situations, such as fear and anger, are associated with higher levels of satisfaction and repeat arts consumers. "Positive" emotions like joy, on the other hand, are associated with lower levels of satisfaction and audience members who were out of their comfort zone. The authors speculate on the meaning of these associations and their relevance to the performing arts community.

7. Social Influences on Intrinsic Impacts of Performance
Trina Rose

There have been a number of studies regarding audiences of cultural arts. Lacking, however, is the knowledge of social and emotional factors of these audience members. What social and emotional factors predict attendance and subscription? For example, is the person or persons one attends a performance with related to their post performance impacts? The author explores this question and other gaps in the literature in more detail. To engage in this investigation, this paper uses cross-sectional data from *The Value & Impact Study* and conducts a series of path analyses to gauge whether these social factors are related with post-performance impacts, and whether these emotional factors are associated with subscription and attendance. Results indicate that patrons' reasons for attending a performance, social factors, and ticket price were significantly related to post-performance impacts. Additionally, post-performance impacts were significantly related to attending live performances and performance discipline.

Special Interest Topics

8. Analysis of Multiple Intelligences in Understanding the Relationships between Ticket Buyers and Their Participation in Performing Arts Programs
Mark Creekmore & Sarah Rush

The concept of multiple intelligences (MI) has been used in educational settings, but it can also be used to differentiate arts' patrons by their different abilities, sensibilities and orientations. The hope is that this knowledge may be used to create more specific communication and marketing tools and identify ways to understand and address the preferences among different kinds of patrons. Using the Values Survey from *The
Value and Impact Study*, nine forms of MI (Linguistic, logical-Mathematical, Bodily-Kinesthetic, Musical, Spatial, Naturalist, Interpersonal, Intrapersonal, Existential) are examined in relation to other patron characteristics, including demographic information, inner-directed values, outer-directed values and performance preferences. A considerable portion of this research focused on validating the nine intelligences, identifying relations with performance preferences and investigating differences across the study sites.

9. Characterizing Program Enhancement Events
Yael Zipporah Silk & Jordan Raphael Fischbach

Offering enhancement events is often viewed as a way to draw in casual audiences, provide them with knowledge they may not already have, and in turn positively impact their future participation. This paper profiles the enhancement event audience base, examines the impact of enhancement events on patrons who self-select to attend, and identifies characteristics that are predictive of pre- or post-performance event preferences. Utilizing data from two patron surveys, the authors analyze mean preference for enhancement events to create profiles of enhancement event attendees. Next, they examine mean outcomes for patrons who attended specific pre-performance events and performed a difference-of-differences analysis taking enhancement event attendance frequency into account and, finally, develop several simple prediction models to identify characteristics associated with preferences for enhancement events. The authors find that enhancement events are primarily serving patrons who are have strong allegiances to presenters, are frequent ticket buyers, and donate. Pre-performance attendance also correlates with a number of intrinsic outcome measures, though the effect appears to be greater for patrons who rarely attend enhancement events. Finally, age, appetite for new works, risk taking, personal creativity, allegiance to presenter, and seeking a connection to artists are all associated with preferences for enhancement events. These results point to an opportunity to deepen performance audiences by broadening and diversifying enhancement event audiences, which could in turn affect future participation decisions.

10. How Beliefs Matter: Views, Motives and their Relation to Buyer and Donor Behavior
Ximena Varela

The connection between beliefs, values and the *production* of art has long been acknowledged. Whether it is the artist's intent to make a political or value statement, or whether art is used as a vehicle for political messages or channel for values, the arts convey ideas, emotions, and elicit thought, feeling, and even action. But what happens on the side of *consumption*? Can the public's value systems and political beliefs be linked to specific patterns of arts attendance or even support for the arts? Put another way; are audiences who self-identify as conservative more likely to attend a particular arts event over another? Do their motivations to provide support for the arts vary from those who are more liberal? Do liberals and conservatives expect different things in return for their support of the arts? What are the implications for arts presenters? The paper begins with an overview of the audiences surveyed for the study in terms of their political beliefs, and provides additional descriptive statistics for age and sex distributions. This is followed by an explanation of the methodology used for the analytical process. The paper then divides into two sections: the first discusses the relationship between political views and ticket buying, while the second focuses on political views and donor behavior. It concludes with a discussion of the implications of these findings for performing arts presenter.

Analysis of Multiple Intelligences in Understanding the Relationships between Ticket Buyers and Their Participation in Performing Arts Programs

Paper #8

Mark Creekmore & Sarah Rush

Abstract

The concept of multiple intelligences (MI) has been used in educational settings, but it can also be used to differentiate arts' patrons by their different abilities, sensibilities and orientations. The hope is that this knowledge may be used to create more specific communication and marketing tools and identify ways to understand and address the preferences among different kinds of patrons. Using the Values Survey from the MUP Value and Impact Study, 9 forms of MI (Linguistic, logical-Mathematical, Bodily-Kinesthetic, Musical, Spatial, Naturalist, Interpersonal, Intrapersonal, Existential) were examined in relation to other patron characteristics, including demographic information, inner-directed values, outer-directed values and performance preferences. A considerable portion of this research focused on validating the 9 intelligences, identifying relations with performance preferences and investigating differences across the study sites.

## I.	Introduction

Multiple intelligence (MI) grew out of a merger between empirical research and artistic sensibility.[1] Gardner set out to develop a "taxonomy of human capacities." The traditional view of intelligence sought to differentiate people through a single hierarchical, stable, general attribute such as general intelligence. Multiple Intelligence theory seeks to differentiate people using several criteria that are contextually malleable. Multiple intelligence represents the capacity of mental systems of individuals regarding 8 or 9 characteristics. These characteristics represent "domains" whereby we can rank individuals relative to their capacities. No one hierarchical measure emerges, but instead a complex combination of capacities that reflect the uniqueness of individuals.

Multiple intelligence is a "pluralistic view of intelligence."[2] It seems to have roots in an appreciation of plural, diversity that is helpful in practical ways to community cultural organizations. Community cultural organizations not only have commercial goals, they also have democratic goals for "cultural products."[3] That is, the University Performing Arts organization seeks both "purchasers" who will buy tickets and subscriptions and "participants" from a diverse cultural community who will educate both the arts organization but also their fellow participants.

As pleasant as this view of intelligence is to our democratic ideals, questions arise about how community arts organizations can use these concepts practically to engage their culturally diverse communities. One suggestion is to apply artificial intelligences in the attempt to differentiate the consumer market into segments. The suggestion goes something like this: if we have some sense that our participating audiences vary according to these multiple intelligences, then we might be able to appeal to various intelligences and attract a larger

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[1] Gardner, 2004, 2.
[2] Gardner, 2004, 4.
[3] Adams, Don and Goldfarb, Arlene (2001), 14.

community to purchase and participate. Not being marketers, we are reluctant to stray too far from our areas of expertise; nonetheless one might market a concert of Baroque music using an understanding of plural intelligences. The appeal to logical-mathematical intelligence might involve reference to Baroque music's abstract, logical and mathematical construction. An appeal to Bodily-Kinesthetic intelligence might involve reference to the Baroque dance forms that typically make up the movements of its secular music.

One problem that we will address in this analysis, therefore, is to determine whether measures of MIs seem to work among the audience participants in our surveys. Do the concepts of MI have traction in these surveys that will help us differentiate the complexity of our audience-participants? If we find some support for MIs, then we can proceed and apply the concepts to marketing experiments. This next step will lead to further research about what marketing strategies work.

We will suggest some ways to pursue these topics. A primary assumption is that MIs will be related in predictable ways to one's expressions, desires, interests or pursuits. For example, one intelligence concerns musical ability, so we should test (and not just assume) how someone who ranks high in this domain will relate to music compared to someone who is high in the Bodily-Kinesthetic domain. "When a person sings, we assume that she is using at least her musical intelligence. When she dances, we assume that she is using at least her bodily and spatial intelligences."[4] We will test these assumptions.

A.   Gardner's Multiple Intelligence

Howard Gardner's Theory of MI challenges the traditional notion of intelligence as a single, general and innate capacity measurable by psychometric tests. MI theory draws on knowledge from the fields of genetics, neurobiology, anthropology and developmental and cognitive psychology to define distinctions in types of intelligence. Gardner's theory of intelligence claims it is a joint product of all these factors and does not involve sets of definitions – e.g. that define the make-up of musical intelligence. The theory of MI suggests that these intelligences exist and are differentially present among all people. In general Gardner defines intelligence as a computational capacity to process a certain kind of information that originates in biology and psychology. The capacity of intelligences to solve problems – and the notion of the problems themselves – varies among cultural settings.

In his view, intelligences may be strengthened through self-motivation and training, among other things. Gardner originally posited 8 intelligences: verbal/linguistic, logical/mathematical, musical, interpersonal, intrapersonal, visual/spatial, bodily/kinesthetic and naturalist. We will discuss these in more detail below. A ninth intelligence, spiritual, has been posited and rejected by Gardner at various times.[5] The Values Survey has labeled this last form of intelligence "existential."

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[4] Gardner, 2004a, 3
[5] Gardner, 2004, 21

Gardner has suggested that these intelligences need not be independent, and he suggests that their relationships may vary from one cultural context to another. (Our analysis will accommodate both of these notions through use of regression analysis that is done separately for each presenter site.) In fact, Gardner has suggested that any given intelligence can be comprised of more fundamental constituent elements such that there may be several musical sub-intelligences, for example. He limits intelligences to 8 or 9 for the sake of "parsimony and usefulness" (Gardner, 2004a, 5). His ultimate criterion is practical utility.

Measuring MIs is difficult, because we cannot observe them directly. Gardner has referred to MIs as "a set of human computational capacities."[6] Since intelligences vary according to the context, we may find that we can observe them better in some contexts than others, especially those contexts that isolate the core intelligence. For example, the act of batting in a baseball game involves several intelligences, including bodily/kinesthetic and logical/mathematical, because it is not mere athleticism that allows batters to anticipate a pitch's type, speed and location. As Gardner states, "We infer the intelligences on the bases of our best guess about the intelligences that are involved, but we cannot know for sure."[7]

The MI measures used in the Values Survey represent summary self-assessments, but surveys are, however, general summaries outside of any particular context, and these questions represent complex self-observations. Gardner himself suggests that self-reports overly represent capacity and success. He recommends corroboration of self-reports from close associates, like family members, colleagues and friends.[8]

We will discuss these difficulties, below. In summary however, we will take a practical approach; we will examine the correlations of these questions with other survey questions to determine the extent to which they are consistent with particular forms of intelligences. As such, this represents one of our research questions: is multiple intelligence a useful way to characterize the 14 sites?

Nonetheless, in the forthcoming sections we will identify some of the aspects of these intelligences – that is we will try to characterize them – so that readers will have some sense for their referents. The most interesting aspect of our study is to determine empirically, from an analysis of the data, what these intelligences mean for the entire sample and to explore whether these intelligences have different meaning among the subsamples of University Presenters. Can we make sense of the site-specific notions of MI that will help the presenters identify the ways they can work better with their audience cultures?

As we indicated above, one goal is to explore the issues around MIs. Our ultimate goal is to provide presenter sites with information about the multiple intelligences (Q27a-l) questions

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[6] Gardner, 2004a, 3.
[7] Gardner, 2004a, 3
[8] Gardner, 2004a, 1.

in the Values Survey that will help them better engage with and approach the respondents of these surveys.

II.   Methodology

A.   Source of data

This study used data from The Values Study; one of two datasets generated from the 2005 *Value and Impact Study* commissioned by the Major University Presenters (MUPS) consortium. The values study collected information from 7,645 ticket buyers on cultural attitudes, inner-directed and outer-directed values, musical preferences, consumer and lifestyle behaviors and characteristics. Research conducted by WolfBrown examined this data in regards to actual purchase and donation information, resulting in the creation of the Performing Arts Ticket Buyer Segmentation Model.[9]

B.   Plan for analysis

The first step in the analysis is to understand some of the basic information about the sites.

Analyses were conducted to address three areas:

- Understanding the Sites and the 9 MI Questions. We will examine the MI questions critically. What are the strengths and weaknesses of the 9 questions that concern MIs? We will also introduce other measures that will help us to understand them. We will seek other measures in the Value Survey that directly relate to each MI question in order to test their validity.
- Understanding MIs in the sample. What can we understand about MIs in this sample? Means tests were used to determine how intelligences differed according to various characteristics like age, gender, occupation, performance preferences and purchasing behavior. We used correlations to examine relationships between the 9 MI measures and both inner-directed and outer-directed values.[10] Gardner admits that intelligences may vary by age, gender and culture.[11] (He asserts this reluctantly

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9 The Values Study and resulting segmentation model are detailed in the forthcoming A Segmentation Model for Performing Arts Ticket Buyers, 2007, commissioned by 14 Major University Presenters, conducted by Alan S. Brown, WolfBrown.

[10] A correlation is a number between -1 and +1 that measures the degree of association between two variables that are measured on an interval scale. A positive correlation coefficient implies a positive association while a negative value implies a negative association. For example, a positive correlation between height and weight means that the taller a person is the more they will weigh. The closer the coefficient is to +/-1, the stronger the relationship.

[11] (Gardner, 2004, p. 13).

because in the past such information has supported a concept of intelligence that justifies discrimination and political oppression.) We expect to find important differences among MIs among the groups in the Consortium based on the demographic make-up of each site. We also examine the relationships between the MI scales and patron inner-directed and outer-directed values, by site.

- The relationships between the MI questions and consumer performance preferences. We use multiple linear regression analysis to determine the relative effects of the 9 MIs on each of the 6 consumer performance preference dimensions (classical, jazz, dance, spoken, popular and ethnic).[12] The regression Beta for each intelligence proclivity is a measure of its relative affect of that intelligence on the consumer preference controlling the effects of the other PTIs.

III.   Analysis Results

A.   Understanding sites and the 9 MI Questions

1.   The sites

The consortium of 14 major university arts presenters (MUP) included six lead partners and 8 associate partners:

Lead Partners
ASU Gammage, Tempe, Arizona (ASU)
Mondavi Center for the Performing Arts, University of California-Davis (UC-Davis)
University of Florida Performing Arts, Gainesville (UFPA)
Clarice Smith Performing Arts Center, University of Maryland (UMD)
University Musical Society, Ann Arbor, Michigan (UMS)
Lied Center for Performing Arts, University of Nebraska-Lincoln (Lied-UN)

Associate Partners
Cal Performances, University of California-Berkeley (Cal Perf)
Hopkins Center for the Arts, Dathmoth College (Hopkins)
Krannert Center for the Performing Arts, University of Illinois (Krannert)
Hancher Auditorium, University of Iowa (Hancher)
Lied Center of Kansas, University of Kansas-Lawrence (Lied-UK)
Annenberg center for the Performing Arts, University of Pennsylvania (Annenberg)
Center for the Performing Arts, The Pennsylvania State University (Penn State)
Stanford Lively Arts, Stanford University (Stanford)

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[12] Multiple linear regression is a statistical technique used to learn more about the relationships between several independent or predictor variables and a single dependent variable. The regression coefficient, estimated for each predictor in the model, represents the expected change in the dependent variable per unit change in the independent variable, holding all other predictors constant.

Overall, there were many similarities, demographically, across the partnering sites. Most of the sample was:

- Female
- Between 35 and 64 years of age
- Working full-time with the majority being involved in education (administration/research), business/administration/ consulting, or enrolled as a full-time student
- Just over a third had one or more children (minor or adult) in the home and a quarter lived with or near their parents
- Respondents were also well networked, belonging to an average of 2 groups or associations.

There were also some notable differences as compared to the entire sample which are summarized below and detailed in Appendix 1. Sites that closely approximate the most frequently observed characteristics of the study population are noted as being "modal" in the following summary. Sites with many respondents who are working with children at home and parents either in the home or nearby can be described as having a "local" orientation. "Cosmopolitan" sites are those with a large proportion of respondents working full-time, with no children or parents in the home or nearby. We offer these summary terms in hopes of making a clearer distinction between characteristics of each site.

- UFPA: modal
- UMD: modal
- ASU: modal, more working full-time, "local"
- UC-Davis: modal
- UMS: modal, student orientation
- Lied-UN: modal, more working full-time, more primary/secondary teachers, more living with or near parents
- Hancher: modal with health care orientation
- Krannert: modal, student orientation
- Lied-UK: modal, more working full-time
- Penn State: modal, student orientation
- Cal Perf: modal, "cosmopolitan"
- Stanford: modal, cosmopolitan
- Hopkins: modal, more retired
- Annenberg: modal, more females

Sites also varied according to consumer performance preferences and performance purchases.

Table 1 shows the percent of respondents in the sites who have purchased tickets in the last 2 seasons. Among all respondents in the sample, the percent who bought tickets was low but fairly stable; for example, the smallest proportion of the sample (3%) bought tickets for

comedy artists, and the largest proportion (28%) bought tickets for world music and dance. (This group was led by four of the west coast schools; UC-Davis, Cal-Perf, Annenberg and Stanford.)

Some partner sites did not offer certain programs; for example no one has purchased Broadway, comedy, or lectures in 9 sites. Apparently Lied UN did not offer any tickets for purchase, and the ASU ticket choices were limited to four categories: ballet, other dance, Broadway, and children's programs.

Table 2 shows the mean level of interest[13] of respondents for a series of 12 types of programs. We also show in Table 2 the groupings created by the factor analysis for 6 performance preferences: classical, jazz, dance, spoken word, popular and ethnic. For the entire sample, respondents rated Broadway musicals (5.6), stage plays (5.5) and classical concerts (5.0) with the highest level of interest. Spoken word concerts (3.6) held the least interest for respondents. It is noteworthy that the difference between purchases and preferences. For example, while Broadway musicals held the most interest, the fewest proportion of respondents actually purchased tickets.

The variation among partner sites was also remarkable, especially among specific preferences, like chamber music, spoken word and Broadway musicals. For example ASU respondents gave Broadway musicals the largest preference score (6.5) among all sites and the lowest preferences for spoken word (2.9) and chamber music (3.5). Penn State, Lied-UN, and Hancher also had large swings in preferences for the same performance choices: classical performance choices like chamber music and opera were low, and popular choices like Broadway musicals were high.

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[13] 1 = "no interest" and 7 = "high interest"

Table 1: Performance Purchases by Partner Site (n=7,645)

Study Partner Site	Purchases (based on purchase data)																	
	Ballet	Modern Dance	Other dance (jazz, tap, hip hop)	World music and dance	Symphonic music	Chamber music	Opera vocal recitals, vocal ensembles	Contemporary music	Jazz or blues	Broadway	Stage plays	Multi-media, multi-discip. or perf. art	Comedy artists and attractions	Lectures or speakers	Family/children's programs	Urban artists	African or African-American	Student ensembles (any discipline)
UFPA	17%	9%	17%	35%	15%	11%	18%	28%	13%	40%	7%	15%	6%	8%	4%	3%	16%	--
UMD	--	14%	--	17%	--	16%	19%	--	16%	--	11%	5%	--	--	3%	--	17%	99%
ASU	9%	--	26%	--	--	--	--	--	--	77%	--	--	--	--	23%	--	--	--
UC-Davis	--	20%	--	50%	14%	10%	32%	10%	28%	--	13%	5%	2%	14%	15%	--	29%	--
UMS	--	16%	3%	37%	46%	17%	39%	--	33%	--	24%	19%	--	--	3%	8%	22%	--
Lied-UN	--	--	--	--	----	--	--	--	--	--	--	--	--	--	--	--	--	--
Hancher	26%	18%	14%	30%	13%	7%	10%	13%	22%	53%	5%	16%	17%	--	48%	15%	30%	3%
Krannert	16%	16%	9%	24%	26%	14%	13%	15%	19%	--	2%	13%	--	--	39%	5%	22%	60%
Lied-UK	10%	12%	--	35%	8%	19%	25%	27%	12%	33%	7%	2%	6%	--	30%	3%	23%	--
Penn State	26%	19%	--	21%	--	8%	11%	4%	16%	59%	11%	--	--	--	38%	--	17%	--
Cal Perf.	28%	51%	--	42%	2%	7%	10%	2%	10%	--	4%	4%	--	13%	12%	--	29%	1%
Stanford	--	48%	--	40%	--	50%	39%	--	21%	--	18%	--	--	8%	--	--	28%	--
Hopkins	--	17%	5%	39%	17%	24%	17%	21%	34%	--	28%	22%	21%	10%	57%	9%	45%	47%
Annenberg	7%	38%	11%	40%	2%	--	--	--	16%	--	24%	2%	--	--	39%	9%	36%	5%
Total Sample	10%	17%	7%	28%	14%	12%	18%	8%	18%	19%	11%	9%	3%	3%	20%	4%	20%	16%

Table 2: Selected Performance Preference Measures by Partner Site (n=7,645)																		
Study Partner Site	**Performance Preference Measures**																	
	Classical			Jazz			Dance			Spoken Word			Popular			Ethnic		
	Classical music concerts (symphonic)	Chamber music concerts (intimate)	Opera (fully staged productions)	Jazz Concerts-New Orleans, Dixieland	Jazz Concerts-Swing or big band	Jazz Concerts-Latin jazz	Ballet	Modern/contemp. dance	Jazz or tap dance	Lectures or current topics by speakers	Spoken word events featuring lit., poetry, etc.	Stage plays—contemp. Drama	Broadway musicals	Performance by comedians or comedy groups	Multi-media theatrical or performance art	World music concerts	Bluegrass or folk	Ethnic or folk dance of diverse cultures
UFPA	4.7	4.1	3.9	4.5	4.5	4.1	4.6	4.9	4.5	4.4	3.5	5.5	5.7	5.3	5.0	4.8	4.3	4.7
UMD	5.4	4.9	4.6	4.2	4.3	4.1	4.4	4.4	3.9	4.2	3.6	5.6	5.2	4.5	4.4	4.7	3.85	4.2
ASU	4.2	3.5	3.6	4.0	4.3	3.7	4.3	4.5	4.4	3.6	2.9	5.5	6.5	5.6	5.2	4.2	3.5	4.2
UC-Davis	5.0	4.4	4.1	4.0	4.4	4.7	4.6	4.8	4.6	4.7	3.7	5.4	5.5	4.9	4.8	5.1	4.2	4.8
UMS	5.6	5.0	4.5	4.4	4.4	4.4	4.7	4.6	4.2	4.5	3.8	5.5	5.4	4.6	4.6	5.0	4.1	4.5
Lied-UN	4.8	4.2	3.8	4.6	4.8	4.1	4.3	4.5	4.5	4.1	3.5	5.5	6.2	5.3	5.1	4.5	4.4	4.4
Hancher	4.6	4.0	3.8	4.2	4.5	4.2	4.5	4.5	4.4	4.2	3.4	5.4	6.1	5.2	4.7	4.5	4.1	4.3
Krannert	5.3	4.8	4.4	4.4	4.5	4.4	4.8	4.7	4.2	4.2	3.7	5.5	5.3	4.8	4.7	5.0	4.3	4.6
Lied-UK	4.9	4.3	4.1	4.4	4.6	4.3	4.3	4.4	4.4	4.9	3.8	5.3	5.7	5.1	4.9	4.9	4.7	4.5
Penn State	4.3	3.7	3.7	4.2	4.5	3.9	4.3	4.5	4.6	4.3	3.3	5.5	6.2	5.3	4.9	4.4	3.9	4.3
Cal Perf.	5.0	4.5	4.5	4.0	4.0	4.5	5.4	5.6	4.4	4.7	4.0	5.5	5.0	4.4	4.6	5.1	3.9	5.0
Stanford	5.5	5.2	4.6	4.4	4.2	4.5	4.6	5.1	4.2	4.9	3.9	5.6	4.9	4.7	4.6	4.9	3.9	4.6
Hopkins	5.2	4.7	5.2	4.5	4.5	4.3	4.6	4.7	4.1	4.7	3.8	5.4	5.4	4.8	4.5	4.9	4.5	4.5
Annenberg	4.7	4.1	3.9	4.3	4.1	4.5	4.9	5.3	4.7	4.7	3.8	5.7	5.4	5.0	5.0	5.1	3.7	4.8
Total Sample	5.0	4.4	4.1	4.3	4.4	4.3	4.6	4.7	4.3	4.4	3.6	5.5	5.6	4.9	4.8	4.8	4.1	4.5

2.   The 9 MI questions.

The Values Survey asked nine questions, one for each intelligence. In Table 3 we compare Gardner's formulations of intelligences with the questions in the Value Survey. Each question asked respondents to assess themselves (from 1, "not at all", to 7, "extremely well"). As we have suggested above, all the measures rely on self-reports which tend to over-represent capacity and success. Our purpose here is to suggest some specific reasons why in our use of these questions we must be cautious of adopting the labels of "intelligences."

Table 3: Comparing Summaries of Gardner's Multiple Intelligences and the Questions in the Value Survey	
Gardner's formulation	Value Survey, Q27 a-i
Verbal-Linguistic: sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals. Authors, journalists, poets, orators and comedians.	Q27a [Linguistic] I'm a language-oriented person and excel naturally at writing and speaking clearly and persuasively.
Logical Mathematical: the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically. Engineers, scientists, economists, accountants, detectives and members of the legal profession.	Q27b [Logical-Mathematical] I excel at logical analysis and mathematical computation.
Bodily-Kinesthetic: the potential of using one's whole body or parts of the body to solve problems. Athletes, dancers, actors, building and construction.	Q27c [Bodily-Kinesthetic] I'm a kinetically-oriented person with excellent coordination and a keen sense of movement.
Musical: skilled in the performance, composition, and appreciation of musical patterns. Musicians, composers, and recording engineers.	Q27d [Musical] I'm a musically-oriented person with a good ear for harmony and melody.
Visual-Spatial: the potential to recognize and use the patterns of wide space and more confined areas. Architects, sculptors, sailors, photographers and strategic planners.	Q27e [Spatial] I'm a visually-oriented person, attuned to color, texture and form, and love to manipulate images in my mind.
Naturalistic: the ability to recognize diverse plants, animals, mountains, or cloud configurations in their ecological niche. Includes visual, auditory or touch perceptions. Recognize instances as members of species.	Q27f [Naturalist] I'm a naturalist, with a strong sense about plants, animals and the elements of nature.
Interpersonal: the capacity to understand the moods, temperaments, intentions, motivations and desires of other people. Good teachers, parents, facilitators, therapists, politicians, religious leaders and sales people.	Q27g [Interpersonal] I'm naturally good at interpersonal relations; I understand what motivates people and am very good at working out "people problems."
Intrapersonal: the capacity to understand oneself, to appreciate one's feelings, fears and motivations. Philosophers, counselors, many peak Performers	Q27h [Intrapersonal] I'm particularly in tune with my own feelings, goals, fears and strengths.
Existential: the intelligence of big questions … to ponder the most fundamental questions of existence…. Issues too big or too small to be perceived by our five principal sensory systems. Philosophers, religious leaders, statesmen.	Q27i [Existential] I'm inclined to ponder the larger questions about life, destiny and the supernatural.
(Gardner 1999: 41-43 and Gardner 2006: 11-29).	

Table 3 provides a side-by-side comparison of Gardner's theoretical formulation and the 9 questions in the Values Survey. Below we examine five specific intelligences and address the differences between the two formulations.

1. Verbal-Linguistic: The Values Survey asks about "writing and speaking clearly and persuasively," but many – for example persons who are hearing impaired – may have a very different orientation to language, syntax and clarity than this question suggests. Furthermore, many people excel either at writing or speaking, but perhaps not both, contrary to the Values Survey. Furthermore, many applications of language are not oriented to persuasion, which is the focus of the question in the Values Survey. In complex questions like this one, it is hard to know which questions respondents were answering.
2. Musical: The question in the Values Survey – in contrast to Gardner's formulation – emphasizes music appreciation rather than performance and neglects other important aspects of musical patterns such as the composition, the structure of music and rhythm.
3. Visual-Spatial: This Values Survey question focuses on conscious manipulation of visual imagery, but many people possess remarkably skilled mechanical capacities to manipulate objects that will not be measured by this question. For example, the capacity to reassemble an object requires a type of three-dimensional thinking that is as much tactile as imagistic. The Values Survey also focuses on the visual over the spatial; for example, people with visual impairments can demonstrate spatial intelligence through touch.[14]
4. Naturalistic: Theories about nature and natural order exist at another level of abstraction in Gardner's formulation compared to the question in the Values Survey which focuses on more specific manifestations such as plants and animals.
5. Existential: Regarding spiritual intelligence, Gardner wrote: "I do not believe that an intelligence should be confounded with an individual's phenomenological experience…. Feelings that one is in touch with a higher being … I do not see them as valid indicators of an intelligence." He hesitates to include existential intelligence because "… of the dearth of evidence that parts of the brain are concerned particularly with these deep issues of existence."[15] The Values Survey – especially with the reference to the supernatural – may tap into the phenomenological experience that Gardner seeks to avoid.

Regarding our use of these questions as measures that represent Gardner's multiple intelligences, we have made the case for caution in both general and specific ways. In general, MI theory suggests that the existence of multiple intelligences in any person requires data from many methods, such as observation and direct measures of capacity. Because the intelligences are complex and contextually defined, the data for these measures need to be gathered in situ rather than by a survey without specific context. Supporting this viewpoint, Gardner has avoided self-reports. Specifically, several of the questions in the Values Survey have multiple referents or ask about the attribute in overly simple ways.

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[14] Gardner, 2004, 14
[15] Gardner, 2004a, 21

Proclivities toward Intelligences (PTIs)

How can we use the questions in the Values Survey regarding multiple intelligences?

Despite the fact that they do not adequately rise to the criteria of Gardner's theory of multiple intelligences, we will test whether the self-assessments in the Values Survey can be used productively as *proclivities* toward these 9 intelligences. That is, we suggest that a question like "I'm a language-oriented person and excel naturally at writing and speaking clearly and persuasively" may measure a proclivity toward verbal-linguistic intelligence, and that such a proclivity can be used productively in comparing the 14 partner sites.

When we refer to proclivity toward intelligence (PTIs), the word 'proclivity' firmly establishes that a few but not all aspects of a multiple intelligence may be addressed, and we avoid using the actual label "intelligence."

In order to test the suggestion that these questions represent proclivities toward multiple intelligences, we will examine how these 9 questions (Q27 a-i) were related to other questions in the survey, especially inner- and outer-directed values (Q 25 and 26, respectively). These correlations will help us "ground" our understanding of these questions within the context of the other questions in the survey.

B.   Understanding PTIs in the sample

1.   Inner-Directed Values (Q25)

The Value Survey asked about 13 inner-directed values (Q25) which are listed in Table 4 below. Table 4 shows the expected relationships between the Proclivities toward Intelligences as expressed in the 9 questions (Q27a-i) and inner-directed values (Q25a-l).

Table 4: Expected Relationships between Inner-directed values (Q25) and Proclivities toward Intelligences (Q27)	
Inner-directed values	Proclivity toward intelligence
1. Supporting environmental causes and conservation efforts. [Q25A Strong relationship with natural world]	Q27f: Naturalist
2. Doing activities that keep you physically active and contribute to your health. [Q25B Health and physical activity]	Q27c: Bodily-Kinesthetic
3. Developing your creativity. [Q25C Development of the creative self]	Q27e: Visual-Spatial
4. Always exploring, discovering, and looking for new experiences. [Q25D exploring, discovering]	Q27i: Existential
5. Keeping up with world events and why things happen. [Q25E Sense-making]	--
6. Sharpening your mind; intellectual pursuits. [Q25F Life of the mind]	Q27a: Linguistic Q27b: Logical-Mathematical
7. Being on the bleeding edge of new art and ideas. [Q25G Thought leader]	--
8. Reflecting upon, and processing, your emotions. [Q25H Emotionally reflective]	Q27h: Intrapersonal
9. Feeling the extremities of emotion through art. [Q25I Emotionally experiential]	Q27h: Intrapersonal
10. Having a spiritual life. [Q25J Spiritual]	Q27i: Existential
11. Rejecting authority and making your own rules. [Q25K Reject social norms]	--
12. Adopting new technologies as quickly as possible [Q25L Embrace technology]	Q27b: Logical-Mathematical
13. Pushing yourself to excel and achieve. [Q25M Achievement]	--

In some cases, the relationships are quite specific and close between the PTIs and inner-values. We expect these close relationships to be reflected by strong and positive correlation coefficients. For example, we anticipate that someone who has a proclivity toward a naturalist intelligence (Q27f "I am a naturalist …") to support environmental causes (Q25a). We expect someone who declares themselves as a "… kinesthetically-oriented person" (Q27e) to value activities that keep them physically active (Q25b). We also expect positive correlations between the proclivity toward intrapersonal intelligence (27h "in tune with my own feelings") and the importance of being emotionally reflective (Q25h "Reflecting upon, and processing, your emotions") and being emotionally experienced (Q25i "Feeling the extremities of emotion through art"). Finally, we expect a strong relationship between the proclivity toward existential intelligence ("I'm inclined to ponder the larger questions … and the supernatural") and the importance of "having a spiritual life" (Q25j).

In other cases, the relationships between the proclivities and the inner values are not direct and depend more on interpretation, because of the specific wording of the question. For example, the question representing visual-spatial intelligence (Q27e) suggests a relationship with creativity (Q25c) by referring to the love "to manipulate images in my mind." We expect higher ratings for this proclivity to also value the importance of "developing your creativity." Similarly, we expect relationships between those who value a "life of the mind" (Q25f) and the intellectual pursuits involved in the proclivity toward linguistic and logical-mathematical intelligences (Qs 27a and b). (In fact, the notion of multiple intelligences is based on the fact that all of them involve "the life of the mind." Linguistic and logical-mathematical proclivities however are more overt, according to this interpretation, in their "intellectualism.") In this case, we expect a correlation between these questions. Finally, we expect a correlation between having a proclivity toward logical-mathematical intelligence (Q27b) and "adopting new technologies" (Q25j), because we can impute a relationship between mathematics, science and technology. In fact we might also expect other intelligences like linguistic, musical, bodily and spatial to also have some (albeit smaller) relationships to technology because of their contributions in sound, visual and textual manipulations. This however seems to require more interpretation on our part based on a particular understanding of electronic technology.

We do not expect relationships between any of the PTIs and the following inner-directed values questions: Q25g (Being on the bleeding edge of new art and ideas), Q25k (Rejecting authority and making your own rules). Q25l: Pushing yourself to excel and achieve.

The existence and strength of such relationships (shown by correlation coefficients between these questions) can provide some corroboration with the validity of intelligence proclivities.

2. Outer-Directed Values

The Values Survey also asked questions about outer-directed values (Q26). Table 3 shows the expected relationships between the Proclivities toward Intelligences as expressed in the 9 questions (Q27a-i) and outer-directed values (Q26a-j).

Table 5: Expected Relationships between Outer-directed values (Q26) and Proclivities toward Intelligences (Q27)	
Outer-directed values	Intelligence Proclivity
1. Strengthening family relationships. [Q26a Family cohesion]	Q27g: Interpersonal
2. Making new friends and expanding your social network. [Q26b Socially gregarious]	Q27fg Interpersonal
3. Being involved in civic affairs and working on behalf of your community. [Q26c Civic engagement]	Q27g: Interpersonal
4. Voicing your political views. [Q26d Inclined toward political expression]	Q27fg Interpersonal Q27a: Linguistic
5. Social justice and equal opportunity. [Q26e Social justice]	--
6. Re-paying society for the opportunities and good fortune that you've had. [Q26f Sense of philanthropic obligation]	Q27i: Existential
7. Working to alleviate other people's suffering. [Q26g Sense of duty to mankind]	Q27h: Intrapersonal
8. Gaining control over your destiny. [Q26h Self-empowered]	Q27h: Intrapersonal
9. Escaping to a make-believe world. [Q26i Fantasy-seeker]	Q27e: Spatial

The questions involving outer-directed values represent contexts that are more overtly interactional with others compared to the questions about inner-directed values.

As with our expectations of inner-directed values, we expect some correlations between outer-directed values and intelligence proclivities to be stronger than others. For example, "Making new friends and expanding…social networks" (Q26b) is close to the proclivity to interpersonal intelligence (Q27g, "I am very good at working out people problems"). Two other outer-directed values are probably less closely related to interpersonal intelligence: Q26a, "strengthening family relations" and Q26c, "being involved in civic affairs." Both of these refer to specific contexts (family relations and civic affairs) that require interpersonal intelligence, but one might not expect all survey respondents to be experienced in – or even acknowledge – both contexts. For example, younger survey respondents might not have as much experience as an older person in family life and civic affairs. This difference highlights the contextual variations in intelligence.

In Table 5 above, we have also suggested that the proclivity to linguistic intelligence might be related to the engagement in civic affairs because of the way the Values Survey has asked the question on linguistic intelligence. It refers to writing and speaking "clearly and persuasively." It is conceivable that some respondents who consider themselves persuasive writers and speakers might also be

involved in civic affairs" and "voicing … political views" (Q26d and e). This illustrates how several intelligences may be involved in a single context.

We do not expected relationships between any of the intelligences and Q26e [social justice] Social justice and equal opportunity.

3.   Testing putative relationships between PTIs, Inner- and Outer-directed Values.

In the prior sections we examined the inner- and outer-directed value measures that we expected to correlate strongly with the 9 questions measuring proclivities toward multiple intelligences. We expected to find 10 correlations with questions describing inner-directed values and 9 correlations with questions describing outer-directed values. In Table 6 we show correlation coefficients between these measures and other measures that are higher than r=0.30; we have also included smaller correlation coefficients with variables where we have posited relationships. The exclusion of other correlation coefficients less than r=0.30 is arbitrary, but ensures that we will examine those relationships that are relatively strong. As we have suggested earlier, with such a large number of respondents, it is not difficult to find statistical significance and relatively small correlation coefficients.

Table 6. Correlations between Intelligence Proclivities and Internal and External Values		
Proclivity toward intelligences (Q 27a-i)	Inner- and Outer-directed values (Q25 and Q26)	Correlation
Logical-Mathematical	Q25f (life of the mind)* Q25l (embrace technology)*	r=0.15 r=0.22
Linguistic	Q25f (life of the mind)** Q26c (Civic engagement)* Q26d (inclined toward political expression)*	r=0.31 r=0.22 r=0.25
Bodily-Kinesthetic	Q25b (health and physical activity)**	r=0.35
Musical[1]		
Spatial	Q25c (development of creative self)** Q25d (exploring, discovering) Q25g (thought leader) Q25i (emotionally experiential through art) Q26i (fantasy seeker)*	r=0.44 r=0.33 r=0.37 r=0.34 r=0.22
Naturalist	Q25a (relationship w/ natural world)**	r=0.46
Interpersonal	Q25h (emotionally reflective) Q26a (family cohesion)* Q26b (socially gregarious)** Q26c Civic Engagement** Q26d (inclined toward political expression)* Q26f: Sense of philanthropic obligation Q26g: Sense of duty to mankind	r=0.35 r=0.28 r=0.34 r=0.30 r=0.19 r=0.29 r=0.34
Intrapersonal	Q25c (development of creative self) Q25h (emotionally reflective)** Q25I (emotionally experiential through art)** Q26g Sense of duty to mankind* Q26h Self-empowered*	r=0.28 r=0.44 r=0.29 r=0.27 r=0.22
Existential	Q25c (development of creative self) Q25d (exploring, discovering)* Q25h (emotionally reflective) Q25Ii (emotionally experiential through art) Q25j (Spiritual)** Q26f Sense of philanthropic obligation*	r=0.31 r=0.28 r=0.41 r=0.35 r=0.34 r=0.24

[1]No clear value-related items were identified for validity testing.

* Relationship predicted but below r=0.30

** Relationship predicted and above r=0.30

Table 6 shows 30 correlations, and all are statistically significant, minimally at the p = 0.05 level; 12 represent relationships that we had predicted in Tables 4 and 5, but they are low, below the r=0.30 standard. These are identified by *. Eight of the 33 are predicted and strong – above r=0.30; these are designated by **. Three of these correlations were quite high, above r=0.40:

- Proclivity to spatial intelligence (Q27e) was highly related to the importance of developing creativity (Q25c), r=0.44
- Proclivity to naturalist intelligence (Q27f) was highly related to the importance of supporting

environmental causes (Q25a), r=0.46
- Proclivity to intrapersonal intelligence (Q27i) was highly related to the importance of reflecting upon emotions (Q25h), r=0.44.

The logical-mathematical and musical proclivities had no correlations above the criterion level, while the proclivity to linguistic, bodily-kinesthetic and naturalist intelligences had only one correlation. The remaining proclivities (intrapersonal, spatial, interpersonal and existential) had 3, 4 or 5 correlations at the criterion level. This may result from the survey which included more questions among inner- and outer-directed values that related to these intelligences.

While the correlations were not as strong as we would have liked, our predictions were supported. In addition, we found 10 additional, strong (above r= 0.30) relationships to the proclivities in Q27 which we did not expect. This suggests that the wording of specific PTI measures introduced some variability (some "noise") in our measures of multiple intelligences. Another explanation may be that MIs are much more complex than can be revealed using simple bivariate correlations.

In conclusion, we suggest that these measures are useful to differentiate PTIs even though much more work to clarify them needs to be done.

4.   Analysis of PTIs using demographic attributes

In this section we examine how the intelligence proclivities varied among 5 demographic attributes: gender, age, occupation, employment status and group affiliation. We expect that some variation in intelligence proclivities may be the result of the attributes of individuals.

Table 7 presents the average (mean) intelligence scores for selected demographic characteristics. Statistical significance between groups is identified by a single or double asterisk next to the mean intelligence for the first group. These patterns emerged:

- Gender: Women were more likely to report higher Intrapersonal and Interpersonal scores, and men were more likely to report high Logical-Mathematical scores, as reported by WolfBrown.
- Age and employment status: Retired respondents on average had lower scores over all intelligence proclivities than students and those working full- or part-time – except for the proclivities toward Naturalist and Logical-Mathematical Intelligence. Similarly the oldest respondents rated their intelligences lower than the youngest respondents.
- Occupation: Engineers/technologists had the highest scores on Logical-Mathematical proclivities and the lowest on Interpersonal proclivities, as expected.
- Group affiliation: Engaged respondents – in groups or associations – had higher scores for interpersonal and intrapersonal intelligence.

Table 7. Average Intelligence Score by PTI Type and Respondent Characteristic

Respondent Characteristic	Multiple Intelligence Type								
	Logical-Mathematical	Linguistic	Bodily-Kinesthetic	Musical	Spatial	Naturalist	Interpersonal	Intrapersonal	Existential
Gender									
Female	4.1**	5.1**	4.1**	4.8**	5.0**	4.5**	5.3**	5.6*	4.8**
Male	5.1	5.0	4.2	5.0	4.7	4.4	4.8	5.2	4.9
Age									
18-34	4.8**	5.1**	4.4**	4.9**	4.9**	4.2**	5.3**	5.5*	5.0**
35-44	4.4	5.0	4.2	4.7	4.8	4.3	5.1	5.4	4.8
45-54	4.2	5.1	4.1	5.0	5.0	4.6	5.1	5.5	4.9
55-64	4.3	5.2	4.1	4.9	4.9	4.7	5.2	5.5	4.8
65 and older	4.3	4.9	3.8	4.8	4.7	4.5	4.8	5.4	4.3
Occupational Status									
Working full-time	4.4**	5.2**	4.2**	4.9**	4.9**	4.5**	5.2**	5.5	4.9**
Working part-time	4.1	5.2	4.2	5.0	5.1	4.7	5.2	5.5	4.9
Retired	4.2	4.9	3.8	4.7	4.7	4.5	4.9	5.4	4.4
Full-time student	4.9	5.0	4.3	5.0	4.9	4.2	5.2	5.5	5.0
Occupation									
Business/ Admin/consult	4.6**	4.9**	4.2**	4.7**	4.9**	4.2**	5.2**	5.4**	4.7**
Education-admin/research	4.3	5.4	4.0	4.7	4.9	4.6	5.3	5.5	4.9
Health Care	4.3	4.8	4.2	4.9	4.8	4.7	5.3	5.5	4.9
Other	4.1	5.0	4.2	4.9	5.0	4.7	5.1	5.5	4.8
Teaching (college, grad)	4.6	5.6	4.0	4.9	4.9	4.5	5.1	5.5	5.0
Engineering or Tech	5.8	4.6	4.1	4.8	4.7	4.3	4.5	5.1	4.7
Student	4.9	5.0	4.3	5.0	4.9	4.1	5.1	5.5	5.0
Teaching (primary, secondary)	3.7	5.2	4.2	5.0	5.0	4.5	5.4	5.6	4.8
Groups and Associations									
None or One	4.5*	4.9**	4.0*	4.8	4.9	4.3**	4.8**	5.3**	4.6**
Two or More	4.4	5.1	4.2	4.9	4.9	4.5	5.3	5.5	4.9

** p < 0.01; * p < 0.05

These findings confirm our expectations about the differences between women and men, some occupations and those who are affiliated with groups or associations.

It is puzzling why older, retired respondents scored themselves lower than students, except for the proclivity to a Naturalist intelligence. We expect some intelligences to increase and some to decrease with age and experience, but these scores were consistently lower. Age, itself, does not seem to play a major role, since the change occurred only in oldest group (65 and older), not in the four other age-groups. Perhaps the differences were related to being a full-time student. Perhaps students tend to overestimate their capabilities.

C.   The relationships between PTIs and consumer performance preferences

Our analysis of intelligence proclivities focuses on consumer preferences. WolfBrown has described how performance preference data can capture both the active (i.e. actual purchase) and latent (i.e. level of interest) demand for a given performance type. Preference data reflects those who purchase tickets as well as those who are interested in buying. Purchase data does not uncover potential growth areas.

Our factor analysis of consumer performance preferences found the same six factors as WolfBrown.[16] The six factors are:

> 1. Classical art forms based in western tradition, primarily classical music
>
>   [Classical]
>
> 2. Jazz
>
> 3. Dance/visual [Dance]
>
> 4. Narrative-based [Spoken]
>
> 5. Broadway/entertainment [Popular]
>
> 6. Folk or ethnic-based [Ethnic]

We examine correlations between PTIs and these six factors of consumer performance preference. The explanations of the relationships between the PTIs and the preferences are important, because they suggest another way for presenters to understand their potential audiences.

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[16] These dimensions were identified by performing Principal component analysis on 27 questions from Q21a-l, Q22a-c, Q23a-e and Q24a-g. This work is further detailed on pages 14-16 of the forthcoming A Segmentation Model for Performing Arts Ticket Buyers, 2007, commissioned by 14 Major University Presenters, conducted by Alan S. Brown, WolfBrown.

Table 8 shows the correlations between the 9 PTIs and 6 Consumer Preference dimensions for the entire population surveyed. It will be helpful to see the patterns here before we examine them in detail at the sites. We have summarized the findings below:

- The more the proclivity toward Linguistic and Existential Intelligence the more the preference for spoken performances (r=0.24, r=0.24)
- The more the proclivity toward Bodily-Kinesthetic and Spatial intelligence the more the preference for dance performances (r=0.25, r=0.24)
- The more the proclivity toward Musical Intelligence the more the preference for classical performances (r=0.29)
- The more the proclivity toward Naturalist intelligence the more the preference for ethnic-related performances (r=0.20)

Table 8. Correlations between Intelligence Proclivities and Consumer Preferences							
Proclivities toward Intelligences	n	Consumer Preference Type Dimensions[†]					
		Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	6,340	0.09**	0.07**	-0.04**	0.01	0.03	-0.00**
Linguistic	6,347	0.17**	0.03*	0.08**	**0.24****	-0.01	0.05**
Bodily-Kinesthetic	6,333	0.01	0.15**	**0.25****	0.08**	0.05**	0.04**
Musical	6,347	**0.29****	0.13**	0.03**	-0.02	-0.01	0.07**
Spatial	6,338	0.08**	0.13**	**0.24****	0.18**	0.03**	0.05**
Naturalist	6,339	0.14**	0.06*	0.13**	0.14**	-0.05**	**0.20****
Interpersonal	6,342	0.04**	0.12**	0.18**	0.18**	0.16**	0.07**
Intrapersonal	6,333	0.06**	0.08**	0.17**	0.13**	0.10**	0.07**
Existential	6,323	0.11**	0.08**	0.11**	**0.24****	-0.01	0.13**
** Significant at the 0.01 level (2-tailed)							
* Significant at the 0.05 level (2-tailed)							

Several of the intelligence proclivities lacked strong (high) correlations to consumer preferences. The proclivities for Logical-Mathematical intelligence had consistently low correlations – all the correlations were below r=0.10. The pattern of correlations for the other proclivities consisted of one or two moderately strong correlations among other smaller correlations, like Linguistic, Bodily-Kinesthetic, Musical, and Spatial intelligences; most of these proclivities had three very weak correlations – below r=0.05.

1. Multiple Linear Regression Analysis of PTIs on Consumer Preferences by Site

In this section we discuss the multiple linear regressions that were done for each site. For each partner site, we performed 6 regression equations, one for each consumer preference.

We address three issues:
- What were the intelligence proclivities that were important for each consumer preference. See table 9 below. We examine the consistency among the use of PTIs to explain consumer preferences. Consistency of PTIs will support the notion that PTIs are a valid set of variables which merit further use.
- What were the size and valence (direction) of the relationship between each intelligence proclivity and each consumer preference. This will tell us which PTIs are important in explaining consumer preferences.
- How much variation did the intelligence proclivities explain for each consumer preference. One of the outcomes of multiple linear regression is a calculated number called the R^2 which tells us the percentage of variation in the consumer preferences that is explained by the PTIs in the regression.

a. The consistency of PTIs to explain consumer preferences

Table 9 shows the PTIs that were statistically significant according to whether the Beta was positive or negative.[17]

For each consumer preference we examine the consistency and the variation among sites in the PTIs that were statistically significant:

Classical Performance Preferences
Consistency exists among sites in some of the PTIs that are related to Classical Performance Preferences. For example:
- In all sites the proclivity to Musical intelligence is significant
- in 4 sites the proclivity to Logical-Mathematical intelligence is significant
- in 6 sites the proclivity to Naturalist intelligence is significant
- in 3 sites the proclivity to Linguistic intelligence is significant, but in 2 sites the Beta is positively related while in 1 site it is negatively related
- in 3 sites the proclivity to Existential intelligence is significant, but in 2 sites the Beta is positively related while in 1 site it is negatively related
- in 6 sites the proclivity to Bodily-Kinetic intelligence is significant, but it is negatively related.

The meaning for the proclivity to Naturalist intelligence is unclear. In the next section we will examine the size of the relationship.

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[17] For example, for University of Florida Performing Arts (UFPA) three PTIs had a statistically significant relationship to the preference for classical music presentations (+ Classical): Logical-Mathematical (LM), Musical (M) and Existential (E). All these variables were positively related to classical music preferences, so that the more a respondent was LM, M or E the more they preferred classical music. No PTIs were negatively related to the Classical preference. The University of Maryland site (UMD) had three PTIs that were statistically significant, two of which were the same as UFPA: LM, M and Naturalist (N). Their respondents were also relative positively to the preference for classical music, but UMD also had another PTI, Bodily-Kinetic (BK) Intelligence, which was negatively related. The less respondents at UMD were kinetically oriented, the more they preferred classical music performances.

Jazz Performance Preferences
The regressions for jazz performance preferences share some of the characteristics of classical performance preferences, but overall, there is much more variation among the sites regarding jazz preferences.

- In 7 sites the proclivity to Musical intelligence is significant
- In 6 sites the proclivity to Bodily-Kinetic intelligence is significant, but unlike classical preferences the Beta is positive
- In 6 sites the proclivity to Interpersonal intelligence is significant
- In 4 sites the proclivity to Spatial intelligence is significant
- In most sites less than 3 PTIs are related to jazz performance preferences, but in 2 sites (UMD and UMS) there are 4 and 7 PTIs that are significant,

Dance Performance Preferences
Across the sites a consistent set of PTIs are related to Dance performance preferences. These PTIs and valences (positive and negative) for Dance contrast with the ones related to Classical performance preferences.

- In 12 of 14 sites the proclivity to Bodily-Kinetic intelligence is significant. (In contrast, BK is negatively related to Classical performance preferences.)
- In 10 sites the proclivity to Spatial intelligence is significant
- In 5 sites the proclivity to Interpersonal intelligence is significant
- In 6 sites the proclivity to Intrapersonal intelligence is significant
- In several sites, the PTIs that were positively related to Classical performance preferences were negatively related to Dance performance preferences:
    - In 5 sites the proclivity to Logical-Mathematical intelligence is significant and negative
    - In 4 sites the proclivity to Musical intelligence is significant and negative

Spoken Word Performance Preferences
The PTIs related to Spoken word performance preferences are also very consistent and stand in contrast to Classical performance preferences.

- In 11 sites the proclivity to Linguistic intelligence is significant
- In 10 sites the proclivity to Existential intelligence is significant
- In 7 sites the proclivity to Spatial intelligence is significant
- In 4 sites the proclivity to Interpersonal intelligence is significant
- In 10 sites the proclivity to Musical intelligence is significant and negative

Popular Performance Preferences
The PTIs related to Popular performance preferences are consistent, but less so than the others

- In 10 sites the proclivity to Interpersonal intelligence is significant
- In 5 sites the proclivity to Naturalist intelligence is significant and negative

Ethnic Performance Preferences
Ethnic performance preferences have the fewest statistically significant relationships with PTIs. In 10 sites the proclivity to Naturalistic intelligence is significant. One designation for Ethnic musical performance preferences is "roots music" which is a metaphor for simpler and more ascriptive social forms. The differentiation between these forms and other, more refined and elaborated forms is comparable to the differences between the notions of craft and art. The relationship of Ethnic performance preferences to the Naturalistic PTI, therefore, draws on its closeness to nature which seems appropriate

In terms of the patterns that have emerged from the regression Beta values among PTIs that are statistically significant, we found considerable consistency across sites regarding the proclivities toward intelligences. Similar PTIs were significant between only two consumer preferences, Classical and Jazz.   Among the other preferences, different PTIs were important or the valence of the relationships was reversed, as with the valence of the Betas for Musical proclivity for the Spoken Word preferences compared which was negative compared to the positive valence of Musical Intelligence for Classical and Jazz performance preferences.

It appears that these PTIs can be a useful variable in describing various performance preferences.

Table 9. Consumer Performance Preference Dimensions and PTIs by Partner Site											
	+ Classical	- Classical	+ Jazz	- Jazz	Dance	- Dance	Spoken	- Spoken	Popular	- Popular	+ Ethnic	- Ethnic
UFPA	LM, M, E		N	BK	BK,S, IE	LM, L	L, S, N, E	M	IE,IA	N,E	N	
UMD	LM, M, N	BK	LM, BK, M, IE				L	M	IE	L, BK		
ASU	LM, M, N		BK, S	L	BK, S, IA	LM	L, N, IE,E	M		N		
UC-Davis	LM, M, N, IA	BK	LM, IA		BK, IE, IA	LM	E	M	LM,I E			
UMS	M,N	L	LM, L, BK, M, S, IE, E		BK, S, IE, IA	M	S,E	M	IE			N, IE
Lied-UN	M,S,N		M,IE		BK,S, IA	M	L,S,IE ,E	BK,M ,IA	L,IE	N	N	
Hancher	M,E		BK,S, IE		BK,S	LM,I A	L,S,N, E	M	IE,E		N	
Krannert	M	BK	M,IE		BK,S, IE,IA	M	L,S,IE ,E		BK,IE		N	
Lied-UK	M	BK	M,IE		BK		L	N	LM,B K,IE	L,N,E		
Penn State	M	BK	M,N		BK,S, IA	LM	L,IE, E	M	IE	N	N	
Cal Perf.	L.M				BK	M	L,S,E	M			N	
Stanford	L,M	BK	LM,B K		BK,S, IE	L				L,M	N	
Hopkins	M,N	E	S,IE		BK,S		L,S,E	M	IE	L	N,E	
Annenberg	M		BK,M		S		L				N	

LM = Logical-Mathematical, L = Linguistic, BK = Bodily Kinesthetic, M = Musical, S = Spatial, N = Naturalist, IE = Interpersonal, IA = Intrapersonal, E = Existential

b. The size and valence (direction) of the relationship between each PTI and each consumer preference

The table below shows the regression beta scores for the PTIs for all the sites for the Classical performance preference. The betas for the proclivity to Musical intelligence scores have been bolded. The size of these scores relative to the betas for the other PTIs shows that are consistently more important than other PTIs. The betas for two sites are quite large: UMD (.36) and Cal Perf (.39). The explanation for the strength of these betas may perhaps lie with greater knowledge from the site. Why do respondents at these sites show a stronger relationship between their musical capacities and their preferences for classical performances? Perhaps there are other activities at UMD and Cal Perf that create respondents who are both more skilled and more passionate about their preferences for classical musical forms.

Table 10. Comparison of Regression Betas on Classical Performance Preferences for PTIs									
	Proclivities toward Intelligences								
Classical Word Performance Preference	Logical-Mathematical	Linguistic	Bodily-Kinesthetic	Musical	Spatial	Naturalist	Interpersonal	Intrapersonal	Existential
UFPA	0.09*	0.08	-0.08	**0.10***	0.07	0.01	0.06	-0.04	0.09*
UMD	**0.14****	0.08	**-0.16****	**0.36****	0.02	0.02**	-0.15	-0.02	-0.03
ASU	0.10*	0.04	-0.06	**0.24****	-0.01	**0.20****	0.00	-0.00	0.08
UC-Davis	**0.13****	-0.01	**-0.16****	**0.23****	-0.02	**0.17****	-0.06	**0.12***	0.05
UMS	0.02	0.07*	-0.02	**0.25****	-0.06	0.07*	-0.00	0.01	0.01
Lied-UN	0.04	0.03	0.00	**0.20****	**0.10***	**0.11***	-0.07	0.01	0.07
Hancher	0.05	0.09	-0.01	**0.30****	-0.06	0.06	-0.06	0.01	**0.14****
Krannert	0.05	0.04	-0.09*	**0.28****	-0.06	0.01	-0.03	-0.06	0.02
Lied-UK	0.12	0.11	-0.10*	**0.26****	-0.01	0.10	-0.01	-0.07	0.05
Penn State	-0.00	0.15	-0.05*	**0.28****	-0.02	0.09	-0.09	0.08	0.07
Cal Perf.	0.08	**0.11***	-0.07	**0.39****	0.05	0.03	-0.01	-0.07	-0.06
Stanford	0.07	**0.14***	**-0.27****	**0.28****	0.02	0.05	-0.02	-0.02	0.02
Hopkins	0.08	0.14	0.08	**0.24****	0.04	**0.16****	0.05	-0.08	**-0.15****
Annenberg	-0.00	0.05	-0.13	**0.26****	-0.09	0.10	-0.07	0.13	0.07

Table 11 shows a much different picture for Jazz compared to Classical performance preferences. The size of the betas is much smaller. We have bolded betas that are statistically significant; the number of betas that are small size and the distribution of statistically significant betas over a number of PTIs suggests that Jazz compared to Classical performance preferences are much more variable. This conforms to our general sense about the richness and diversity of jazz performance. The same picture is seen for all the sites.

Table 11. Comparison of Regression Betas on Jazz Performance Preferences for PTIs									
	Proclivities toward Intelligences								
Jazz Performance Preference	Logical-Mathematical	Linguistic	Bodily-Kinesthetic	Musical	Spatial	Naturalist	Interpersonal	Intrapersonal	Existential
UFPA	0.00	-0.06	**-0.10***	0.03	0.07	**0.09***	0.06	-0.04	-0.01
UMD	**0.10***	0.03	**0.16****	**0.05***	0.09	-0.15	**0.12***	-0.07	-0.02
ASU	0.06	**-0.10***	**0.15****	0.04	**0.16****	-0.03	0.07	-0.03	0.01
UC-Davis	**0.17****	-0.01	0.10	-0.01	0.02	0.04	**0.10***	0.10	-0.02
UMS	**0.09****	**-0.15****	**0.12****	**0.10****	**0.08***	-0.06	**0.08***	-0.06	**0.09****
Lied-UN	0.05	-0.07	0.01	**0.10***	0.06	-0.04	**0.14****	0.03	0.05
Hancher	-0.00	-0.04	**0.15****	0.06	**0.11***	-0.01	**0.13***	0.04	-0.07
Krannert	0.04	-0.02	0.07	**0.11****	0.06	-0.03	**0.10***	0.07	0.07
Lied-UK	0.02	-0.17	0.13	**0.12****	0.06	0.00	**0.13***	-0.15	0.11
Penn State	-0.04	0.00	0.03	**0.17***	-0.03	**0.14****	-0.03	0.02	-0.05
Cal Perf.	0.00	-0.04	0.06	0.05	0.04	-0.03	-0.05	-0.021	-0.00
Stanford	**0.14***	0.00	**0.15***	-0.02	0.10	-0.04	0.10	-0.03	-0.05
Hopkins	0.05	-0.03	0.05	0.01	**0.13***	-0.03	**0.13***	-0.11	0.02
Annenberg	-0.02	-0.01	0.02	**0.20***	-0.03	-0.03	0.10	-0.03	0.04

Like the Classical Performance Preferences, Dance Preferences seem to be uniform in the importance of the proclivity to Bodily-Kinetic Intelligence. The same is true but to a lesser extent for the proclivity to Spatial Intelligence. The negative betas for Logical-Mathematical and Music are equivalent in size.

Table 12. Comparison of Regression Betas on Dance Performance Preferences for PTIs									
	Proclivities toward Intelligences								
Dance Performance Preference	Logical-Mathematical	Linguistic	Bodily-Kinesthetic	Musical	Spatial	Naturalist	Interpersonal	Intrapersonal	Existential
UFPA	**-0.09***	**-0.14****	**0.15****	0.02	**0.19****	-0.02	**0.18****	-0.01	0.04
UMD	-0.10	-0.07	**0.17**	-0.11	0.21	0.09	0.07	-0.07	0.04
ASU	**-0.12****	-0.04	**0.18****	0.04	**0.12***	0.09	-0.07	**0.14****	-0.00
UC-Davis	**-0.12***	0.01	**0.20****	-0.09	0.08	-0.02	0.03*	0.02*	0.03
UMS	-0.01	0.04	**0.15****	**-0.11****	**0.12****	0.04	0.09*	0.09*	-0.01
Lied-UN	-0.06	-0.03	**0.17****	**-0.10***	**0.26****	0.02	-0.04	**0.13****	0.02
Hancher	**-0.14****	0.10	**0.23****	-0.06	**0.14****	0.06	-0.05	-0.01*	0.03
Krannert	-0.03	-0.04	**0.19****	**-0.12****	**0.15****	0.04	**0.10***	0.09*	-0.05
Lied-UK	0.02	0.04	**0.14***	-0.00	0.11	0.04	0.07	0.06	-0.07
Penn State	**-0.12***	-0.01	**0.23****	0.00	**0.27****	0.01	0.00	0.03*	0.02
Cal Perf.	0.04	-0.04	**0.20****	**-0.13***	0.07	0.06	0.07	0.09	0.03
Stanford	-0.06	-0.02*	**0.19****	-0.06	**0.13***	0.04	**0.22****	0.01	0.02
Hopkins	-0.07	-0.01	**0.17****	0.05	**0.19****	0.02	0.10	0.05	-0.04
Annenberg	-0.07	-0.01	**0.17****	0.05	**0.19****	0.02	0.10	0.05	-0.04

Among the sites, the Betas for Spoken Word performance preferences (shown in Table 13) are relatively large and clustered in patterns around the proclivity to:
- Linguistic intelligences which have the largest betas,
- Musical intelligences where the betas are smaller but consistent in their moderate size
- Existential intelligences which have comparably sized betas

The variation in the size of betas for the PTIs that are statistically significant is not large.

Table 13. Comparison of Regression Betas on Spoken Word Performance Preferences for PTIs									
	Proclivities toward Intelligences								
Spoken Word Performance Preference	Logical-Mathematical	Linguistic	Bodily-Kinesthetic	Musical	Spatial	Naturalist	Interpersonal	Intrapersonal	Existential
UFPA	0.04	**0.18****	0.01	**-0.11****	**0.14****	**0.13****	0.06	-0.05	**0.16****
UMD	0.03	**0.17****	-0.03	**-0.25****	0.09	0.10	0.04	0.06	0.10
ASU	0.04	**0.15****	-0.03	**-0.13****	0.03	**0.10***	**0.14****	-0.04	**0.21****
UC-Davis	-0.05	-0.06	-0.05	**-0.10***	0.03	0.09	0.03	0.10	**0.19****
UMS	0.01	**0.19****	-0.01	**-0.15****	**0.17****	-0.01	0.07	-0.05	**0.14****
Lied-UN	0.00	**0.23****	**-0.09***	**-0.15****	**0.18****	0.05	**0.10***	**-0.13****	**0.19****
Hancher	0.06	**0.23****	0.02	**-0.20****	**0.14****	**0.13****	0.01	-0.04	**0.13****
Krannert	-0.04	**0.24****	-0.03	**-0.16****	**0.11****	0.07	**0.11****	-0.05	**0.11****
Lied-UK	0.07	**0.25****	-0.07	**-0.13***	0.08	**0.23****	0.01	-0.05	0.04
Penn State	0.01	**0.22****	-0.04	**-0.12***	0.03	-0.02	**0.15***	-0.07	**0.14****
Cal Perf.	-0.07	**0.22****	-0.02	**-0.13***	**0.15****	0.05	0.02	0.02	0.11*
Stanford	-0.09	0.04	-0.07	-0.06	0.01	0.11	0.10	0.02	0.08
Hopkins	-0.01	**0.14****	0.01	**-0.14****	**0.19****	-0.04	0.11	-0.06	**0.18****
Annenberg	0.07	**0.22****	0.08	-0.05	0.12	-0.02	-0.01	0.00	0.13

Beta coefficients for the Popular Performance Preferences are clustered somewhat around the proclivity to Interpersonal intelligence. Many other, smaller betas are scattered among the other PTIs.

Table 14. Comparison of Regression Betas on Popular Performance Preferences for PTIs									
Popular Performance Preference	Proclivities toward Intelligences								
	Logical-Mathematical	Linguistic	Bodily-Kinesthetic	Musical	Spatial	Naturalist	Interpersonal	Intrapersonal	Existential
UFPA	0.07	-0.05	-0.01	0.02	-0.01	**-0.12****	**0.20****	**0.11***	**-0.15****
UMD	0.07	**-0.16****	**-0.11***	-0.08	0.09	-0.07	**0.21****	-0.03	-0.01
ASU	-0.05	0.01	0.01	0.00	0.10	**-0.19****	0.03	0.08	-0.05
UC-Davis	**0.12***	-0.05	-0.05	-0.01	0.05	-0.06	**0.16****	0.01	0.01
UMS	0.04	0.06	-0.01	-0.02	0.04	-0.04	**0.12****	0.03	-0.05
Lied-UN	0.07	-0.08	-0.00	-0.09	-0.01	-0.08	**0.21****	0.07	**-0.17****
Hancher	0.08	**-0.13****	0.04	-0.04	-0.05	**-0.12***	**0.22****	0.07	-0.09
Krannert	-0.02	-0.04	**0.11***	-0.03	0.02	-0.08	**0.10***	0.03	0.01
Lied-UK	**0.14****	**-0.19***	**0.16***	0.10	-0.07	**-0.13***	**0.25****	0.11	**-0.14***
Penn State	0.04	0.02	0.04	-0.04	0.03	**-0.12***	**0.26****	0.02	-0.07
Cal Perf.	0.07	-0.03	0.06	0.02	-0.00	-0.05	0.11	0.01	0.04
Stanford	0.03	**-0.14***	0.13	**-0.13***	-0.06	-0.06	0.10	0.14	0.01
Hopkins	0.04	**-0.15***	0.00	0.07	-0.07	-0.05	**0.14***	0.06	-0.04
Annenberg	0.03	0.13	-0.02	-0.14	-0.00	0.08	-0.07	0.13	-0.05

Statistically significant Betas for the Ethnic Performance Preferences cluster around the proclivity to Naturalist intelligence. Only a few of the betas from other PTIs are statistically significant.

Table 16. Comparison of Regression Betas on Ethnic Performance Preferences for PTIs									
	Proclivities toward Intelligences								
Ethnic Performance Preference	Logical-Mathematical	Linguistic	Bodily-Kinesthetic	Musical	Spatial	Naturalist	Interpersonal	Intrapersonal	Existential
UFPA	-0.04	-0.01	0.05	-0.03	-0.07	**0.17****	0.02	0.01	**0.12***
UMD	-0.01	0.02	-0.05	0.05	0.07	0.16	0.09	-0.04	0.06
ASU	-0.01	-0.02	0.01	0.08	-0.07	**-0.14****	0.06	-0.06	**0.16****
UC-Davis	-0.03	0.05	0.01	-0.08	-0.03	**0.26****	**0.06****	-0.06	0.07
UMS	-0.02	0.02	-0.05	0.03	-0.05	**0.12****	**0.14****	0.04	0.02
Lied-UN	0.06	0.06	-0.03	0.09	-0.15	**0.18****	-0.07	0.05	-0.07
Hancher	-0.01	-0.04	**-0.10***	0.06	-0.05	**0.22****	0.05	-0.05	0.06
Krannert	-0.05	-0.03	0.02	**0.10***	-0.07	**0.19****	0.04	-0.07	**0.11****
Lied-UK	0.03	0.04	-0.03	-0.03	0.06	0.07	0.03	0.04	0.11
Penn State	-0.01	-0.00	-0.09	0.02	-0.04	**0.24****	0.01	-0.01	0.08
Cal Perf.	-0.01	-0.05	-0.01	0.03	-0.03	**0.15****	-0.01	0.06	**0.13***
Stanford	-0.06	-0.03	0.06	-0.05	-0.06	**0.21****	-0.12	-0.02	0.06
Hopkins	-0.06	0.05	-0.02	-0.08	-0.10	**0.18****	-0.06	0.04	**0.15****
Annenberg	-0.03	-0.00	-0.03	-0.01	0.12	**0.30****	-0.13	0.01	0.14

3. The amount of variation explained

Table 17 shows the amount of variation explained at each site by the regressions on consumer preferences. For example, for UMD all the intelligence proclivities explain 20% of all the variance for Classical performance preferences, which is the largest among all the University presenters. In contrast at UFPA, the intelligence proclivities explain the least (6%) amount of variance for Classical performance preferences. Consequently, for Classical preferences, the PTIs are less than half as useful for UFPA than for UMD or less than half. Similarly, for Lied-UK all the intelligence proclivities explain 19% of all the variance for Popular performance preferences.

Performance Sites	Consumer Preference Type Dimensions					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
UFPA	6%	4%	13%	15%	9%	5%
UMD	20%	8%	12%	14%	7%	6%
ASU	15%	8%	12%	15%	4%	6%
UC-Davis	13%	8%	7%	10%	4%	9%
UMS	8%	8%	11%	12%	3%	5%
Lied-UN	15%	9%	12%	17%	8%	5%
Hancher	10%	5%	15%	17%	8%	6%
Krannert	9%	8%	13%	15%	4%	6%
Lied-UK	12%	8%	9%	14%	19%	4%
Penn State	15%	5%	17%	10%	9%	8%
Cal Perf.	18%	1%	11%	12%	3%	6%
Stanford	13%	7%	14%	6%	7%	8%
Hopkins	13%	4%	13%	18%	7%	7%
Annenberg	10%	5%	13%	12%	4%	16%

Table 17. Amount of variation explained at each site by the regressions of PTIs on consumer preferences

IV.   Summary, Conclusions and Recommendations

Our ambitions for multiple intelligences were not met in some respects. For example, we sought to understand the diversity of our respondent samples, especially among the partner sites (p. 5, above), but we found remarkable uniformity among the proclivities toward intelligences. From this introductory research it appears that MIs were not a useful way to characterize sites. For example, the large variations among sites for performance preferences that we found in Table 2 were not matched by corresponding differences among PTIs. However, our assumption that MIs would be related in predictable ways to preferences was fulfilled. For example, we found that Musical PTI was positively related to Classical preferences and negatively related to Spoken word preferences.

We did find that the proclivities toward intelligences seemed to be validated by inner- and outer-directed values. Furthermore, the use of multiple regression analysis revealed that the PTIs clustered in relatively stable and predictable patterns across the partner sites among the consumer performance preferences. For example, the PTIs for classical preferences were different from the other preferences, jazz, dance, spoken word, popular and ethnic preferences. The size of the beta coefficients, from the regression analyses, however did vary among the partner sites.

In any actual application, many MIs may be brought to bear. Our research, however, has found that performance preferences focus only on one or two PTIs. This suggests that preference behavior may not actually involve many PTIs. If true, this is good news, because it simplified the marketing and communication tasks.

Three conclusions emerge from these regression analyses:

- The questions based on Gardner's multiple intelligences while incomplete and flawed in some respects nonetheless showed consistent patterns among many of the University Presenter sites. These proclivities seem to exist in stable and differentiated patterns between the attributes of the sample and the performance preferences. The tendency of PTIs to cluster in stable patterns may encourage MUP partners to appeal to these markets in focused ways.
- Stable patterns emerge among the preferences especially for some of the performance preferences, such as Classical, Dance and Spoken Word. We have a sense that some preferences per se are more coherent and well defined by our respondents, which will probably make the problems of marketing relatively easy.
- Some of the patterns in the relationships between PTIs and performance preferences existed across all sites; that is, the similarities among sites suggests that sites may be able to collaborate and learn from each other regarding ways to appeal to their target audiences.

A. Suggestions for Presenters

To some extent we have given a profile for each presenting organization for each of the six performance preferences of the PTIs . Using this information, we want to suggest that presenting organizations experiment with a multi-faceted marketing approach to these audiences.

Several reasons exist to suggest a multi-faceted experimental approach. First, we have discussed the ways that these intelligences were measured; an experimental approach is warranted to explore the various meanings of these proclivities to intelligences. The intelligences are not only complex, but the performance preferences are complex. This is the second reason to be experimental. Any of these 6 genres of performance obviously consist of many sub-genres, so an appeal that works at one time may not work as well the next. Finally, the audiences themselves are constantly changing and learning. In this milieu, it makes more sense to make marketing participatory and to think of our suggestions as ways of communicating with the audience.

An interactive approach should be used as much as possible. After all, the essence of Gardner's theory is that intelligences can change and be developed, which suggests that marketing and education be merged as much as possible. Each presenter should also examine audience change seriously; this research focuses on the existing audience. The choices are three: to keep the existing audience, to move the existing audience "along" or to seek a new audience group. Thus, the suggestions that we will provide have been developed not as absolute answers but as a way to open discussions about the relationship between intelligences. In this regard, everyone, including the audiences themselves, have something to offer.

Using information shown in Tables 10-16 we will begin with the performance preferences that showed the most uniformity: popular, ethnic and dance performance preferences.

Popular performance preferences. The beta coefficients for Popular performance preferences were uniformly related to an interpersonal PTI. This may suggest focusing on ways to maximize the interpersonal nature of the experience either "horizontally" among friendship or work groups or

"vertically" through family groups. It is possible that the presenters may seek ways to deepen interpersonal bonds through these works rather than to rely on merely their entertainment value which may recede over time. Recognition of different groups may suggest different strategies. For example, friendship groups, family groups and work groups may need different frames through which to experience the works. For example, *Oklahoma!* may provide a way to explore ethnic and personal differences – as some theorists has suggested from Rogers and Hammerstein's own struggles for ethnic inclusion. Beyond these suggestions, presenters may look at the other PTIs where beta coefficients were significant. For example, at UFPA negative relations between this performance preference and a naturalist PTI and an existential PTI may suggest avoiding global interpretive engagements with the current audiences.

Ethnic performance preferences. Ethnic performance preferences were uniformly related to a naturalist PTI. The naturalist PTI seems to have two components: the categorical order of the natural world and the legacy and functions of slow evolution, using the metaphor from the natural world. Ethnic performances are compatible to the extent that they rely on tradition and can be classified by stylistic qualities. Perhaps the challenge among this audience group is to deepen their appreciation between and within ethnic genres. Several examples exist, such as the adventurous cross over work of Yehudi Menuhin and Yoyo Ma, where genres have been linked directly. Other links among traditional ethnic methods also exist, such as the rhythmic similarities between polka and reggae or ska. Furthermore, one might suggest ways to deepen the cultural understandings among audiences of the meanings of traditional ethnic forms.

Dance performance preferences. Dance performance preferences have strong relations between bodily-kinesthetic and spatial PTIs. Marketing to this group seems relatively straightforward through appeals to the physicality and spatial – visual references. According to the way it was measured, these include color, texture and form.

The other four performance preferences require a more diversified approach.

Classical performance preferences. In some organizations the classical performance preference has links to PTIs other than a musical PTI. This suggests some intelligences that all presenters may want to explore following the notion that there are ways to build existing and expand new audiences.

- The naturalist PTI, following our discussion earlier, may reflect the importance of categorical order of the natural world and the legacy and functions of slow evolution, using the metaphor from the natural world. The traditional linear interpretation of western musical genres seems to be consistent with the naturalist PTI.

- The logical-mathematical link seems straightforward to interpret through the structure of music, the identification of repeating patterns and phrases. For example, the structural characteristics of baroque music suggest obvious ways to engage this logical-mathematical proclivity. The capacity of the internet, its access to soundclips and visual aids, allows presenters to illustrate inverted musical lines and contrapuntal designs easily.

- The negative relationship to the bodily-kinesthetic PTI may signal a contemplative group that defines itself in opposition to physical action.[18]

- The positive beta coefficents among some organizations with a liniguistic PTI suggests that some obvious links between text and music, including opera, song and choral music and beyond into the relationship between the voice as one instrument among others. The use of the metaphor of voice and its similarity in music and narrative may provide other links between the linguistic and musical genres.

These perspectives on classical musical preferences provide at least four marketing approaches to this audience. Experimentation should reveal whether they work and whether they work equally well with all classical musical genres.

Jazz performance preferences. Jazz performance preferences seem to involve the most diverse combinations of PTIs. We suggest several reasons for this. First, is that improvisation is an essential aspect of jazz, making it among the most democratic of the performance arts. So, it is not surprising that jazz should appeal to many intelligences. Secondly, there is the variation among jazz sub-genres which is quite extensive, although the same may be said for classical sub-genres.

- The importance of interpersonal PTIs may be related to the small venues where jazz is performed. In many performance organizations a small venue is not a viable option. Therefore, overcoming either the appearance of size or the loss of intimacy in large venues might be important marketing points.

- The importance of musical proclivity to jazz is so obvious we wondered why it was not more important. These data suggest that the musicality of jazz, as defined by the survey measure, may not be the most important aspect; recall, however, that musical intelligence was defined by melody and harmony, while the importance of the rhythm section – drums, base, guitar and piano – plays a much different role in jazz than other forms of music. We may salvage some insights about difference in marketing jazz from this weakness in our data.

- The importance of a bodily-kinesthetic PTI supports the importance of rhythm in jazz, but certainly not all sub-genres of jazz like bebop and hard bop. In the past, jazz styles have varied by region, so we suggest that presenters experiment to determine the importance of this to their audiences.

- The importance of a logical-mathematical PTI may lie in the abstract patterns found in jazz, similar to those in baroque music. (The similarities between jazz – especially early jazz – and baroque music have been frequently discussed.) The presence of our data (the significant beta coefficients) here may suggest a common market for both types of music.

Spoken word performance preferences. Spoken word performance preferences rely on three factors as we have discussed: linguistic, non-musical as defined – i.e. non-rhythmically – and existential PTIs. We have observed that this market has a strong and loyal audience. The challenge

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[18] We are not implying that an oppositional relationship between contemplation and action, but rather a perception of that may exist in this group.

is to expand the market. To make this accessible to a larger audience, one might market spoken word by emphasizing these components explicitly.

B.   Final Thoughts

We are left with our original question, somewhat enlightened, but without clear answers: How can this site-specific knowledge be used to further assist in consumer-directed marketing tools? This initial analysis has revealed stable patterns for PTIs across sites, but much more complex analysis remains to be done.

Our initial regression analyses proved robust by substantiating patterns across sites. This suggests that more research using the existing data is warranted. The effects of demographic characteristics like age, gender and social position (especially some of the differences between students and retired respondents) have shown to differentiate the respondents.   The addition of these demographics will help marketing efforts by presenting a more complete picture of our respondents. There is ample reason to think that they will have a differentiating effect on the capacities that underlie multiple intelligences.

Appendix 1: Respondent Characteristics by Study Partner Site

Demographic Characteristics	Total Sample	Study Partner Sites													
		UFPA	UMD	ASU	UC–Davis	UMS	Lied-UN	Hancher	Krannert	Lied-UK	Penn State	Cal Perf.	Stanford	Hopkins	Annenberg
Gender															
Female (%)	66.0	66.2	58.1	68.8	61.9	63.8	72.8	65.6	63.9	64.0	66.5	67.4	64.0	61.3	75.2
Male (%)	34.0	33.8	41.9	31.2	38.1	36.2	27.2	34.4	36.1	36.0	33.5	32.6	36.0	38.7	24.8
Age Cohort															
18-34	27.8	26.2	21.1	20.3	17.3	35.6	22.5	17.8	41.1	17.4	48.1	27.0	25.7	12.8	30.6
35-44	18.2	18.3	8.5	27.1	20.4	16.8	17.7	17.7	15.4	23.7	13.6	18.2	18.6	17.0	23.0
45-54	25.8	25.1	30.7	27.1	27.9	23.4	32.3	25.5	22.6	31.0	20.4	23.3	23.2	27.5	21.4
55-64	19.3	18.9	24.1	18.9	23.9	17.4	22.2	24.0	13.8	21.8	12.7	21.6	19.9	23.4	17.3
65+	9.0	11.7	15.6	6.5	10.6	6.8	5.3	15.1	6.8	6.0	5.2	9.9	12.5	19.3	7.7
Children in Home															
Age 0-6	7.8	6.8	3.8	15.5	6.2	7.1	8.2	6.5	7.6	7.6	6.1	8.0	4.8	7.7	9.6
Age 7-12	12.6	12.2	5.6	19.7	13.7	9.9	12.9	14.0	8.8	13.6	13.0	10.9	10.2	17.0	18.8
Age 13-17	12.8	13.2	13.2	18.7	15.4	10.0	15.4	13.1	10.2	14.5	13.7	9.3	10.8	12.4	8.4
18 or Older	12.0	10.3	19.6	13.4	10.6	9.0	13.3	10.6	11.7	12.9	16.6	10.7	9.2	11.3	10.4
Any Child (%)	34.6	33.0	35.4	52.3	35.1	27.9	36.2	32.2	30.5	37.2	32.0	27.2	27.3	39.1	36.8
Parents Live in Same Household or Close by															
"Yes"	25.1	25.8	24.7	33.8	22.0	22.4	32.7	22.6	21.1	29.1	26.9	21.6	15.4	20.3	24.8
Occupational Status															
Working full-time	57.7	56.8	54.4	63.0	61.3	56.4	70.1	61.7	49.9	65.9	44.1	61.1	53.1	52.1	56.9
Working part-time	10.8	9.8	13.4	10.2	12.8	9.4	9.7	12.1	8.9	11.0	7.9	14.6	10.3	13.5	10.5
Retired	12.2	14.6	17.4	13.2	16.1	8.8	8.2	8.8	9.9	8.8	9.7	12.3	17.0	22.0	8.1
Full-time student	14.8	14.7	11.1	3.3	4.2	21.8	7.0	13.5	28.4	7.9	34.7	8.2	15.4	7.1	18.1
Top 8 Occupations															
Business/ AdPTIn/consult	9.7	10.7	12.0	3.5	7.2	10.7	7.2	10.3	13.2	10.8	8.7	9.2	13.5	10.6	12.1
Education-adPTIn/research	9.6	8.8	8.0	15.2	9.7	8.0	12.7	9.4	5.7	8.9	5.7	13.5	10.0	10.1	10.5
Health Care	9.3	8.9	5.9	2.1	1.7	13.8	4.3	9.0	18.1	5.7	25.3	4.7	9.0	3.4	10.9
Other	9.1	12.3	5.5	10.5	8.4	11.1	6.4	16.4	4.0	8.5	5.1	7.7	8.0	11.5	8.9
Teaching (college, grad)	9.1	6.4	12.0	9.0	11.2	8.8	5.4	4.9	11.2	7.6	9.7	12.0	18.0	8.7	5.3
Engineering or Tech	9.0	9.1	11.9	10.1	11.4	7.9	11.1	8.3	8.4	4.1	5.1	10.3	6.8	9.4	12.1
Student	8.4	12.5	7.1	2.4	4.8	11.3	3.0	10.1	15.5	7.9	9.9	4.9	7.4	7.8	3.6
Teaching (primary, secondary)	7.4	9.1	7.1	8.5	9.7	6.3	14.7	6.8	5.0	9.8	7.6	3.9	4.8	8.0	6.9
Groups and Associations															
Avg. Number	1.9	1.9	2.0	1.9	2.1	1.8	2.3	1.9	1.8	2.1	1.8	1.7	1.7	2.1	2.0

Appendix 2: By-Site Regression Summary Tables between the PTIs and Consumer Preference Dimensions

UFPA: Multiple Intelligence as a predictor of Performance Preference						
Proclivities toward Intelligences	**Consumer Preference Type Dimensions**					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	0.09*	0.00	-0.09*	0.04	0.07	-0.04
Linguistic	0.08	-0.06	-0.14**	0.18**	-0.05	-0.01
Bodily-Kinesthetic	-0.08	-0.10*	0.15**	0.01	-0.01	0.05
Musical	0.10*	0.03	0.02	-0.11**	0.02	-0.03
Spatial	0.07	0.07	0.19**	0.14**	-0.01	-0.07
Naturalist	0.01	0.09*	-0.02	0.13**	-0.12**	0.17**
Interpersonal	0.06	0.06	0.18**	0.06	0.20**	0.02
Intrapersonal	-0.04	-0.04	-0.01	-0.05	0.11*	0.01
Existential	0.09*	-0.01	0.04	0.16**	-0.15**	0.12*
R^2	6%	4%	13%	15%	9%	5%

** Significant at the 0.01 level (2-tailed)
* Significant at the 0.05 level (2-tailed)

UMD: Multiple Intelligence as a predictor of Performance Preference						
Proclivities toward Intelligences	**Consumer Preference Type Dimensions**					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	0.14**	0.10*	-0.10	0.03	0.07	-0.01
Linguistic	0.08	0.03	-0.07	0.17**	-0.16**	0.02
Bodily-Kinesthetic	-0.16**	0.16**	0.17	-0.03	-0.11*	-0.05
Musical	0.36**	0.05*	-0.11	-0.25**	-0.08	0.05
Spatial	0.02	0.09	0.21	0.09	0.09	0.07
Naturalist	0.02**	-0.15	0.09	0.10	-0.07	0.16
Interpersonal	-0.15	0.12*	0.07	0.04	0.21**	0.09
Intrapersonal	-0.02	-0.07	-0.07	0.06	-0.03	-0.04
Existential	-0.03	-0.02	0.04	0.10	-0.01	0.06
R^2	20%	8%	12%	14%	7%	6%

** Significant at the 0.01 level (2-tailed)
* Significant at the 0.05 level (2-tailed)

ASU: Multiple Intelligence as a predictor of Performance Preference

Proclivities toward Intelligences	Consumer Preference Type Dimensions					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	0.10*	0.06	-0.12**	0.04	-0.05	-0.01
Linguistic	0.04	-0.10*	-0.04	0.15**	0.01	-0.02
Bodily-Kinesthetic	-0.06	0.15**	0.18**	-0.03	0.01	0.01
Musical	0.24**	0.04	0.04	-0.13**	0.00	0.08
Spatial	-0.01	0.16**	0.12*	0.03	0.10	-0.07
Naturalist	0.20**	-0.03	0.09	0.10*	-0.19**	0.14**
Interpersonal	0.00	0.07	-0.07	0.14**	0.03	0.06
Intrapersonal	-0.00	-0.03	0.14**	-0.04	0.08	-0.06
Existential	0.08	0.01	-0.00	0.21**	-0.05	0.16**
R^2	15%	8%	12%	15%	4%	6%

** Significant at the 0.01 level (2-tailed)
* Significant at the 0.05 level (2-tailed)

UC-Davis: Multiple Intelligence as a predictor of Performance Preference

Proclivities toward Intelligences	Consumer Preference Type Dimensions					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	0.13**	0.17**	-0.12*	-0.05	0.12*	-0.03
Linguistic	-0.01	-0.01	0.01	-0.06	-0.05	0.05
Bodily-Kinesthetic	-0.16**	0.10	0.20**	-0.05	-0.05	0.01
Musical	0.23**	-0.01	-0.09	-0.10*	-0.01	-0.08
Spatial	-0.02	0.02	0.08	0.03	0.05	-0.03
Naturalist	0.17**	0.04	-0.02	0.09	-0.06	0.26**
Interpersonal	-0.06	0.10*	0.03*	0.03	0.16**	0.06**
Intrapersonal	0.12*	0.10	0.02*	0.10	0.01	-0.06
Existential	0.05	-0.02	0.03	0.19**	0.01	0.07
R^2	13%	8%	7%	10%	4%	9%

** Significant at the 0.01 level (2-tailed)
* Significant at the 0.05 level (2-tailed)

UMS: Multiple Intelligence as a predictor of Performance Preference

Proclivities toward Intelligences	Consumer Preference Type Dimensions					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	0.02	0.09**	-0.01	0.01	0.04	-0.02
Linguistic	0.07*	-0.15**	0.04	0.19**	0.06	0.02
Bodily-Kinesthetic	-0.02	0.12**	0.15**	-0.01	-0.01	-0.05
Musical	0.25**	0.10**	-0.11**	-0.15**	-0.02	0.03
Spatial	-0.06	0.08*	0.12**	0.17**	0.04	-0.05
Naturalist	0.07*	-0.06	0.04	-0.01	-0.04	0.12**
Interpersonal	-0.00	0.08*	0.09*	0.07	0.12**	0.14**
Intrapersonal	0.01	-0.06	0.09*	-0.05	0.03	0.04
Existential	0.01	0.09**	-0.01	0.14**	-0.05	0.02
R^2	8%	8%	11%	12%	3%	5%

** Significant at the 0.01 level (2-tailed)
 * Significant at the 0.05 level (2-tailed)

Lied-UN: Multiple Intelligence as a predictor of Performance Preference

Proclivities toward Intelligences	Consumer Preference Type Dimensions					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	0.04	0.05	-0.06	0.00	0.07	0.06
Linguistic	0.03	-0.07	-0.03	0.23**	-0.08	0.06
Bodily-Kinesthetic	0.00	0.01	0.17**	-0.09*	-0.00	-0.03
Musical	0.20**	0.10*	-0.10*	-0.15**	-0.09	0.08
Spatial	0.10*	0.06	0.26**	0.18**	-0.01	-0.01
Naturalist	0.11*	-0.04	0.02	0.05	-0.08	0.18**
Interpersonal	-0.07	0.14**	-0.04	0.10*	0.21**	-0.07
Intrapersonal	0.01	0.03	0.13**	-0.13**	0.07	0.05
Existential	0.07	0.05	0.02	0.19**	-0.17**	-0.07
R^2	15%	9%	12%	17%	8%	5%

** Significant at the 0.01 level (2-tailed)
 * Significant at the 0.05 level (2-tailed)

Hancher: Multiple Intelligence as a predictor of Performance Preference						
Proclivities toward Intelligences	**Consumer Preference Type Dimensions**					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	0.05	-0.00	-0.14**	0.06	0.08	-0.01
Linguistic	0.09	-0.04	0.1	0.23**	-0.13	-0.04
Bodily-Kinesthetic	-0.01	0.15**	0.23**	0.02	0.04	-0.10*
Musical	0.30**	0.06	-0.06	-0.20**	-0.04	0.06
Spatial	-0.06	0.11*	0.14**	0.14**	-0.05	-0.05
Naturalist	0.06	-0.01	0.06	0.13**	-0.12	0.22**
Interpersonal	-0.06	0.13*	-0.05	0.01	0.22**	0.05
Intrapersonal	0.01	0.04	-0.01*	-0.04	0.07	-0.05
Existential	0.14**	-0.07	0.03	0.13**	-0.09**	0.06
R^2	10%	5%	15%	17%	8%	6%

** Significant at the 0.01 level (2-tailed)

* Significant at the 0.05 level (2-tailed)

Krannert: Multiple Intelligence as a predictor of Performance Preference						
Proclivities toward Intelligences	**Consumer Preference Type Dimensions**					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	0.05	0.04	-0.03	-0.04	-0.02	-0.05
Linguistic	0.04	-0.02	-0.04	0.24**	-0.04	-0.03
Bodily-Kinesthetic	-0.09*	0.07	0.19**	-0.03	0.11*	0.02
Musical	0.28**	0.11**	-0.12**	-0.16**	-0.03	0.10*
Spatial	-0.06	0.06	0.15**	0.11**	0.02	-0.07
Naturalist	0.01	-0.03	0.04	0.07	-0.08	0.19**
Interpersonal	-0.03	0.10*	0.10*	0.11**	0.10*	0.04
Intrapersonal	-0.06	0.07	0.09*	-0.05	0.03	-0.07
Existential	0.02	0.07	-0.05	0.11**	0.01	0.11**
R^2	9%	8%	13%	15%	4%	6%

** Significant at the 0.01 level (2-tailed)

* Significant at the 0.05 level (2-tailed)

Lied-UK: Multiple Intelligence as a predictor of Performance Preference

Proclivities toward Intelligences	Consumer Preference Type Dimensions					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	0.12	0.02	0.02	0.07	0.14**	0.03
Linguistic	0.11	-0.17	0.04	0.25**	-0.19*	0.04
Bodily-Kinesthetic	-0.10*	0.13	0.14*	-0.07	0.16*	-0.03
Musical	0.26**	0.12**	-0.00	-0.13*	0.10	-0.03
Spatial	-0.01	0.06	0.11	0.08	-0.07	0.06
Naturalist	0.10	0.00	0.04	0.23**	-0.13*	0.07
Interpersonal	-0.01	0.13*	0.07	0.01	0.25**	0.03
Intrapersonal	-0.07	-0.15	0.06	-0.05	0.11	0.04
Existential	0.05	0.11	-0.07	0.04	-0.14*	0.11
R^2	12%	8%	9%	14%	19%	4%

** Significant at the 0.01 level (2-tailed)
 * Significant at the 0.05 level (2-tailed)

Penn State: Multiple Intelligence as a predictor of Performance Preference

Proclivities toward Intelligences	Consumer Preference Type Dimensions					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	-0.00	-0.04	-0.12*	0.01	0.04	-0.01
Linguistic	0.15	0.00	-0.01	0.22**	0.02	-0.00
Bodily-Kinesthetic	-0.05*	0.03	0.23**	-0.04	0.04	-0.09
Musical	0.28**	0.17*	0.00	-0.12*	-0.04	0.02
Spatial	-0.02	-0.03	0.27**	0.03	0.03	-0.04
Naturalist	0.09	0.14**	0.01	-0.02	-0.12*	0.24**
Interpersonal	-0.09	-0.03	0.00	0.15*	0.26**	0.01
Intrapersonal	0.08	0.02	0.03*	-0.07	0.02	-0.01
Existential	0.07	-0.05	0.02	0.14**	-0.07	0.08
R^2	15%	5%	17%	10%	9%	8%

** Significant at the 0.01 level (2-tailed)
 * Significant at the 0.05 level (2-tailed)

Cal Perf: Multiple Intelligence as a predictor of Performance Preference

Proclivities toward Intelligences	Consumer Preference Type Dimensions					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	0.08	0.00	0.04	-0.07	0.07	-0.01
Linguistic	0.11*	-0.04	-0.04	0.22**	-0.03	-0.05
Bodily-Kinesthetic	-0.07	0.06	0.20**	-0.02	0.06	-0.01
Musical	0.39**	0.05	-0.13*	-0.13*	0.02	0.03
Spatial	0.05	0.04	0.07	0.15**	-0.00	-0.03
Naturalist	0.03	-0.03	0.06	0.05	-0.05	0.15**
Interpersonal	-0.01	-0.05	0.07	0.02	0.11	-0.01
Intrapersonal	-0.07	-0.02	0.09	0.02	0.01	0.06
Existential	-0.06	-0.00	0.03	0.11*	0.04	0.13*
R^2	18%	1%	11%	12%	3%	6%

** Significant at the 0.01 level (2-tailed)
* Significant at the 0.05 level (2-tailed)

Stanford: Multiple Intelligence as a predictor of Performance Preference

Proclivities toward Intelligences	Consumer Preference Type Dimensions					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	0.07	0.14*	-0.06	-0.09	0.03	-0.06
Linguistic	0.14*	0.00	-0.02*	0.04	-0.14*	-0.03
Bodily-Kinesthetic	-0.27**	0.15*	0.19**	-0.07	0.13	0.06
Musical	0.28**	-0.02	-0.06	-0.06	-0.13*	-0.05
Spatial	0.02	0.10	0.13*	0.01	-0.06	-0.06
Naturalist	0.05	-0.04	0.04	0.11	0.06	0.21**
Interpersonal	-0.02	0.10	0.22**	0.10	0.10	-0.12
Intrapersonal	-0.02	-0.03	0.01	0.02	0.14	-0.02
Existential	0.02	-0.05	0.02	0.08	0.01	0.06
R^2	13%	7%	14%	6%	7%	8%

** Significant at the 0.01 level (2-tailed)
* Significant at the 0.05 level (2-tailed)

Hopkins: Multiple Intelligence as a predictor of Performance Preference						
Proclivities toward Intelligences	**Consumer Preference Type Dimensions**					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	0.08	0.05	-0.07	-0.01	0.04	-0.06
Linguistic	0.14	-0.03	-0.01	0.14**	-0.15*	0.05
Bodily-Kinesthetic	0.08	0.05	0.17**	0.01	0.00	-0.02
Musical	0.24**	0.01	0.05	-0.14**	0.07	-0.08
Spatial	0.04	0.13*	0.19**	0.19**	-0.07	-0.10
Naturalist	0.16**	-0.03	0.02	-0.04	-0.05	0.18**
Interpersonal	0.05	0.13*	0.10	0.11	0.14*	-0.06
Intrapersonal	-0.08	-0.11	0.05	-0.06	0.06	0.04
Existential	-0.15**	0.02	-0.04	0.18**	-0.04	0.15**
R^2	13%	4%	13%	18%	7%	7%

** Significant at the 0.01 level (2-tailed)
* Significant at the 0.05 level (2-tailed)

Annenberg: Multiple Intelligence as a predictor of Performance Preference						
Proclivities toward Intelligences	**Consumer Preference Type Dimensions**					
	Classical	Jazz	Dance	Spoken	Popular	Ethnic
Logical-Mathematical	-0.00	-0.02	-0.07	0.07	0.03	-0.03
Linguistic	0.05	-0.01	-0.01	0.22**	0.13	-0.00
Bodily-Kinesthetic	-0.13	0.02	0.17**	0.08	-0.02	-0.03
Musical	0.26**	0.20*	0.05	-0.05	-0.14	-0.01
Spatial	-0.09	-0.03	0.19**	0.12	-0.00	0.12
Naturalist	0.10	-0.03	0.02	-0.02	0.08	0.30**
Interpersonal	-0.07	0.10	0.10	-0.01	-0.07	-0.13
Intrapersonal	0.13	-0.03	0.05	0.00	0.13	0.01
Existential	0.07	0.04	-0.04	0.13	-0.05	0.14
R^2	10%	5%	13%	12%	4%	16%

** Significant at the 0.01 level (2-tailed)
* Significant at the 0.05 level (2-tailed)

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