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The *"Nobody Knows"* Property: Understanding the Uncertainties of Cultural Consumption

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Introduction

In economics and sociology, there is much literature and research on the strategies adopted by the cultural industries to cope with market uncertainties. Overproduction and differential promotion, portfolio management and product differentiation, formatting, cooptation of mass-media gatekeepers, integration, conglomeration and synergy, internationalization, are some of the strategies employed by these industries to deal with risk and uncertainty. David Hesmondhalgh distinguishes three sources of risk in the business of culture, regardless of whether the goods are packaged (like a book or a CD) or not (like a concert or a theatrical play). The first source is related to the volatility and unpredictability of consumption. The second source is related to the uncertainty of the outcome resulting from the creators. Finally, the third source of uncertainty is related to the fact that the kind of publicity any cultural good gets cannot be quite controlled, even if it is heavily promoted.

There are also other sources of uncertainty, however, and these are related to the environment of the cultural business. Technology developments are a source of uncertainty and potential risk. Legal and normative regulations are a source of uncertainty too, because as instruments for applying policy, they are the resultant of conflicting interests and competition among different players. Competition – of course – both internal and external, is another source of uncertainty. Finally, there are also other – usually unaccounted – sources of uncertainty related to the natural or social environment. For instance, bad weather can cause the cancellation of an outdoor concert or a raise of the income tax (not to mention an economic crisis) may result in lower cultural consumption.

With all these uncertainties, no wonder that one of the basic economic properties of the creative activities organized by the cultural industries is that *"nobody knows"*. This property –

identified by Richard Caves (2000) – means that regardless of past knowledge and accumulated experience, the success of any new cultural product is unpredictable. We'll focus on a particular source of uncertainty, which is widely recognized but has been less analyzed, namely, the volatility and unpredictability of *cultural consumption*. Since cultural consumption refers to the ways in which audiences use or tend to use symbolic goods, the *use-value* of a cultural good is related to its uses resulting in some utility for the audiences exposed to it. Studies on the use-value and the utility of the cultural goods are important to understand this source of uncertainty.

Consumers usually are aware of the utility they gain, even if they may not be always able to express it clearly and precisely. Because the quality of credence goods depends on what other people – peers, family or critics – think, *gratification* is also volatile. For example, consumers may change their mind after discussing a film they liked or after reading about it. Despite this volatility, though, consumers usually can indicate a degree of gratification which may be detected by several indicators.

Based on these considerations, the uses of music were studied, because unlike other cultural goods, music is ubiquitous, represents an integral part of the sound environment of everyday life, it is more easily accessible compared to other cultural goods and there is little chance – if at all – to include non-listeners in any sample, especially among young people. Besides, since the early studies during the 1940s by Lazarsfeld, Field and Mendelsohn, the uses of music and the needs people may gratify through listening to it, have been of concern for media practitioners and there is a growing body of literature and research on the uses of music and the factors that may exert some influence on them.

Research background

The consumption of cultural goods in general is considered to express social and individual differences. Research has shown that music is used to signal social and individual identity, for mood regulation and to express and communicate ingroup and outgroup differentiation. It functions as a means for socialization as it is used to communicate meaningful information about one's self. It has been also found that music is important for the communication between genders. In short, music is used for self-presentation to the others forming an important statement of values and attitudes, and to regulate mood (see Edwards & Singletary, 1989; Zillmann & Bhatia, 1989; Arnett, 1995; Tarrant, North & Hargreaves, 2002; Bakagiannis & Tarrant, 2006; Rentfrow & Gosling, 2006; Chamorro-Premuzic & Furnham, 2007; North &

Hargreaves, 2007; Delsing et al., 2008; Rentfrow, McDonald & Oldmeadow, 2009; Saarikallio, 2011; Gardikiotis & Baltzis, 2012).

Based on these findings, an operationalization of the consumption of music was carried out and then studied in a representative sample of student population in a Greek urban center. A properly adapted list of indicators was then constructed and tested in a pilot study on a similar – but smaller – sample.

To study the relation of social values to the uses of music, an abbreviated version of the Schwartz Value Survey was used. According to this model, there are ten value types[1] that can be organized into four higher-level value types, forming a continuum of related adjacent and opposite, mutually excluded motivations: openness to change, self-transcendence, conservation, and self-enhancement (Schwartz, 1994). To study the relation between individual differences and the uses of music, the Big Five Inventory was employed (Costa & McCrae, 1992). Currently, this model is the dominant approach for studying and representing the traits of personality and it asserts that five basic factors describe most personality traits. Research findings suggest that there is a correlation between music preferences and personality and between the uses of music and personality traits as well (e.g. Chamorro-Premuzic & Furnham, 2007). The factors included in this model are:

- *Neuroticism (N)* that describes a propensity to feel fear, sadness, embarrassment, anger, guilt, and other negative emotions.
- *Extraversion (E)* that describes a propensity to be sociable, talkative, assertive and active.
- *Openness to experience (O)* describes an individual's propensity toward intellectual curiosity, imagination, aesthetic and emotional sensitivity, and originality.
- *Agreeableness (A)* that describes a propensity toward being altruistic, helpful, sympathetic, and empathetic toward others.
- *Conscientiousness (C)* that describes an individual's propensity to be reliable and careful.

Actually, these describe personality dimensions and therefore each individual personality is a unique blend of these dimensions.

Previous research, has also identified three distinct types of uses: *emotional* (when music is used for mood regulation), *cognitive-intellectual, or rational* (when music is listened to in an intellectual manner, analyzing the structure of the composition or parts played by different instruments), and *background or social uses* (when music is listened to while performing other activities like working, studying or socializing).

[1] The ten value types are: self-direction, universalism, benevolence, conformity, tradition, security, power, achievement, hedonism, and stimulation.

Research on student population

Based on the theoretical considerations and the review of previous research, several hypotheses were formulated. The operationalization of the consumption of music may reveal more types of uses (*h1*). The variables that may contribute to predict the uses of music are values (*h2*), personality traits (*h3*), the field or direction of studies (*h4*), and gender (*h5*).

Considering data from the Statistical Service on the student population in the city of Alexandroupoli, the sample size was calculated with 5% margin of error and 95% confidence level. A questionnaire including indicators for the uses of music, a value survey, the BFI, questions on demographic data, and field of studies was distributed to a sample of 400 individuals as seen in *Table 1*. Depending on the field of studies, the sample was divided into two groups, one for the *natural* and one for the *social sciences*.

Table 1. Sample size and composition

School/Department	Males	Females	Total	Field of studies
Medical School	58	49	**107**	Natural sciences (*N*=167)
Molecular Biology	20	40	**60**	
Primary Education	21	99	**120**	Social sciences (*N*=233)
Preschool Education	3	110	**113**	
Total	**102**	**298**	**400**	

The questionnaire, specifically designed for this study, comprised 44 items which were answered on a five point scale. These were indicators for the uses of music (dependent variables). Item selection was determined by the results of a pilot study and a review of the literature. The questionnaire included also 23 single values (independent variables). Participants rated the importance of each value as a guiding principle in their life on a seven point scale. Personality was assessed by using the Big Five Inventory (44 indicators – independent variables). The items involved questions about typical behaviors, and were answered on a five-point scale. Participants completed also a demographic questionnaire including age, gender, and academic unit (independent variables).

Results and discussion

Principal Component Analyses (PCA) and hierarchical regressions yielded a series of results on the uses of music and the factors exerting some influence on them. The analysis revealed five components with the Cronbach's Alpha coefficient well above .70 for all of them.

This analysis confirmed the first hypothesis (*h1*) that there are more uses than those found in the reviewed literature, as can be seen in *Table 2*.

The first component refers to the extent to which individuals use the music to understand themselves, to provoke positive feelings or escape from their problems and difficulties. The second refers to the use of music for regulating mood, e.g. to induce positive or negative emotions that may change an individual's experienced emotionality or enjoy the pleasure induced by experiencing the emotion itself.

Table 2. Results from PCA on the uses of music

Uses of music	Cronbach's Alpha
1. Self-awareness & escapism	.86
2. Mood regulation	.83
3. Background for other activities	.78
4. Cognitive & aesthetic gratification	.80
5. Social interaction	.82

48.54% of variance explained and all loadings were above .34

The third component refers to the use of music as a background for other activities. The fourth component was interpreted as an indicator for the degree to which individuals listen to music focusing on the performance, analyzing the structure of the composition or for the aesthetic enjoyment they get from it. Finally, the fifth component was interpreted as an indicator for the degree to which individuals use music to express their identity – as a mean to present themselves to others and as a medium for socializing and socialization.

The solution chosen for the structure of values revealed four components that coincide with the ones found in the literature, as shown in *Table 3*. *Self-transcendence* expresses acceptance of others as equals and concern for their welfare. *Conservation* expresses submissive self-restriction to preserve the status quo. *Self-enhancement* refers to the pursuit of own success and dominance over the others. *Openness to change* expresses independent thought and action, and favoring change.

Table 3. Results from PCA on social values

Types of social values	Cronbach's Alpha
Self-transcendence	.90
Conservation	.83
Self-enhancement	.79
Openness to change	.84

58.80% of variance explained and all loadings were above .41

The analysis on the personality traits (i.e. on the individual differences) revealed four components labeled following the BFI model. In this analysis extraversion and neuroticism were extracted in the same component, a result which is not unprecedented in the relevant research literature. This component refers to a propensity both to be sociable, talkative, assertive and active and to feel fear, sadness, embarrassment, anger, guilt, and other emotions of negative affect. The Cronbach's Alpha coefficients of this analysis vary from .66 to .75 (see *Table 4*).

Table 4. Results from the PCA on personality traits

Personality traits	Cronbach's Alpha
Openness	.75
Extraversion-Neuroticism	.72
Agreeableness	.67
Conscientiousness	.66

37.59% of variance explained and all loadings were above .35

Hierarchical regression analyses were performed on all five types of the uses of music and a summary of the results is shown in *Table 5*, where the change of R^2 (ΔR^2) is taken into account, to estimate the contribution of each predictor. The gender, the field of studies, the values and the personality traits predict differentially the uses of music.

Table 5. Summary of hierarchical regressions results

	Gender	Field of studies	Social values	Personality
	R^2 (p)		ΔR^2 (p)	
Self-awareness & escapism	.900 (<.001)	.230 (<.01)	.153 (<.001)	.073 (<.001)
Mood regulation	.940 (<.001)	.200 (<.01)	.219 (<.001)	.022 (<.05)
Background for other activities	.121 (<.001)	*.005 (ns)*	.162 (<.001)	.020 (<.05)
Cognitive & aesthetic gratification	.015 (<.05)	*.002 (ns)*	.073 (<.001)	.182 (<.001)
Social interaction	.030 (<.001)	.085 (<.001)	.025 (<.05)	.022 (<.08)

Non-significant changes are designated in italics and "ns" in parentheses

Hierarchical regression analysis on the use of music by the participants for understanding themselves and escaping from their problems (*self-awareness & escapism*) showed that all variables had significant relation to this type of use. Female students tend to use music for self-awareness and escapism more than male students, while students in social sciences tend to use more often music for this purpose compared to their colleagues studying medicine or molecular biology. Individuals who score high on certain social values (self-transcendence and openness to change) tend to use music for self-awareness and escapism to a greater ex-

tent, just like individuals who score high on certain personality traits.

The analyses on the use of music for *mood regulation* showed that values, gender and field of studies are better predictors. Only one personality trait – openness – predicted this type of use. Again, self-transcendence is far the best predictor compared with the others. Female students tend to use music for mood regulation more than their male colleagues and students in social sciences also tend to use music for mood regulation more than their colleagues in medicine and molecular biology.

Gender and self-transcendence were found to be better predictors for the use of music as a *background for other activities*. Female students tend to use more the music as background compared with their male colleagues, and people who score high on agreeableness as a personality trait (i.e. they tend to be compliant, modest and cooperative) tend to use music less as a background to other activities.

Individuals who score high on openness to experience, i.e. with increased intellectual curiosity, open-minded and with increased aesthetic and emotional sensitivity, tend to use music for *cognitive and aesthetic gratification* to a greater extent, unlike individuals who score high on conscientiousness, i.e. individuals who tend to be reliable, organized and scrupulous. For this type of use, personality seems to be a far better predictor compared with values. People who score high on self-transcendence tend to use music for cognitive and aesthetic gratification to a greater extent, unlike people who score high on self-enhancement.

Finally, the analysis showed that the best predictor for the use of music for *social interaction* is the field of studies, although some values and some personality traits are also significantly related to this type of use. The results show that people who score high on openness to change tend to use music for social interaction, unlike people who tend to be organized and scrupulous and score high on conscientiousness.

Table 6. Variation of the uses of music explained by the predictors

Uses of music	R^2
Self-awareness & escapism	.342
Mood regulation	.357
Background for other activities	.311
Cognitive & aesthetic gratification	.276
Social interaction	.165

In broad strokes, most of the factors studied in this research, account for more than one third of the variation of uses in this population, as can be seen in *Table 6*. The fact that the differences between the R^2 and the adjusted R^2 vary from 1.8% to 2.3% suggests that all mod-

els generalize well. Reversing this finding, it might be said that this explanation represents also an estimate for the uncertainty stemming from the volatility of consumption, where uncertainty means that there are still unidentified factors affecting the different uses of cultural goods. Presenting briefly the findings of this research, it might be concluded that the hypotheses made have been confirmed. The operationalization of the consumption of music revealed more types of uses (*h1*). It also revealed an aspect of the uses, i.e. aesthetic gratification, which has not been adequately addressed in the literature reviewed. As hypothesized, values (*h2*), personality traits (*h3*), the field of studies (*h4*) and gender (*h5*) contribute to predict the uses of music. Further analysis might reveal even more types of uses and future validation needs to include other groups of the population as well, although the student population appears to be the most dynamic user of cultural goods, even in times of crisis.

Summary of conclusions & future research

The results of this research and the discussion suggest cultural consumption includes several dimensions which sometimes may be difficult to distinguish. Values, personality, gender, and direction of studies influence differentially the uses of music. Understanding the use-value of cultural goods involves a more detailed study and close examination of each particular type of good, as there are still unidentified factors affecting the uses. Further analysis might reveal even more types of uses and future validation needs to include other groups of the population as well. To unravel the "nobody knows" property, future research should account for other factors as well. The uncertainty of consumption may be viewed as that part of the variability of uses which cannot be predicted (yet).

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