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PRIMARY EMOTIONS AND SOCIAL RELATIONS: A FIRST REPORT

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ABSTRACT

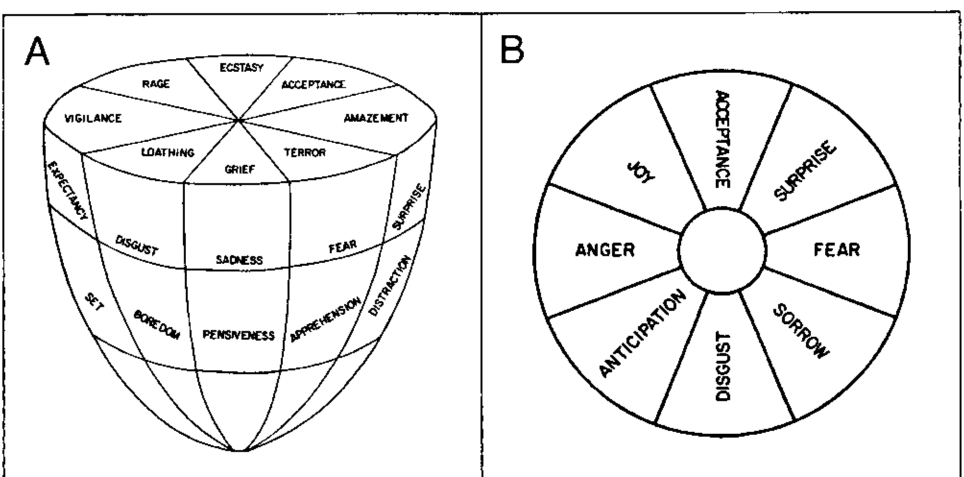
Affect-spectrum theory provides a model for predicting eight primary emotions, 28 secondary emotions (pairs of primaries) and up to 56 tertiary emotions (triples of primaries). Using a content-analytic methodology and a corpus of life-historical interviews of Euro-Australians and Australian-Aborigines for a cross-cultural comparison, it was found that eight basic emotions could be effectively predicted from the positive and negative experiences of four kinds of social relations. Fifteen of 16 predictions were satisfied, and the relation between surprise and the negative experience of territoriality/market-based relations was predictive only after measuring this socio-relational variable differently in the two cultures.

INTRODUCTION

This research report describes, and studies empirically, a conceptual model linking eight primary emotions to eight social relations variables. Ever since Darwin (1872), evolution-oriented theorists of emotions have viewed emotions as adaptive reactions to problems posed by the environment employed by members of various species to increase their inclusive fitness and chance of survival and reproduction. Several theorists have proposed the existence of some small set of emotions that are basic, primary, fundamental, or elementary. An emotion can be considered primary if: i) it can be found in a wide range of human cultures, suggesting it is universal for humans; ii) it also exists in other animal species; iii) it has a distinctive neuromuscular-expressive pattern manifested in facial expression, posture, or gesture; iv) it has a specific, innately determined biological basis in brain organization (see Panskepp 1998; Rolls 2001); v) it develops very early in life; and vi) it is not interpretable as a combination of two or more other emotions.

Plutchik's (1962) model of primary emotions comes with a compelling rationale. He proposes that there are exactly four fundamental problems of life, shared by all species of animals — identity, temporality (reproduction), hierarchy, and territoriality. These eight primary emotions are seen as the prototypical adaptive reactions to positive and negative experiences of four existential situations. Plutchik argued that acceptance and

Figure 1.



Panel **A**. Plutchik's 'top', representing varying levels of intensity for the eight primary emotions. Panel **B**. Plutchik's 'wheel', a circumplex for emotions based on a cross-section of the multidimensional model of Plutchik 1962 wheel. (Plutchik 1962 111)

Table 1: Basic Concepts of Plutchik's Model of the Primary Emotions

Problem of Life Valence	Primary Emotion (most generic subjective term(s))	Behavioral Process
Hierarchy		
positive	destruction (anger)	moving toward
negative	protection (fear)	moving away from
Territory		
positive	exploration, interest* (anticipation)	opening a boundary
negative	orientation (surprise)	closing a boundary
Identity		
positive	incorporation (acceptance)	taking in
negative	rejection (disgust)	expelling
Temporality		
positive	reproduction (joy, happiness)	gaining
negative	reintegretion (sadness, grief, loneliness)	losing

*The inclusion of interest, which is seen as synonymous with exploration, is a contribution not of Plutchik but of Tomkins (1962 Chapter 10), who sees interest-excitement as a first positive emotion expressed by a newborn human baby.

disgust are the adaptive reactions to the positive and negative experiences of identity; happiness and sadness, to temporality; anger and fear, to hierarchy; and anticipation and surprise, to territoriality.

The primary emotions thus come in pairs of opposites, and also vary in their degree of similarity to each other: this postulate is embodied in Plutchik's 1962 "wheel," in which the four dimensions, corresponding to the four problems of life, are shown as lines with a common midpoint, arranged as a circle, technically a circumplex, as shown in Figure 1.

Plutchik's model is summarized in Table 1. The leftmost column lists the four problems of life. The second column shows the functions of the eight emotions, and, in parentheses, the most common subjective terms for these emotions. For the existential problem of hierarchy, for example, the functions are destruction and protection, known by the terms anger and fear. The third column shows that the behavior of anger is 'moving toward' while fear is 'moving away from'. The valences of anger and fear are positive and negative, respectively.

EMOTIONS AND SOCIAL RELATIONS

There is no question that social relations are prime instigators of emotions (Kemper 1978; de Rivera & Grinkis 1986). Emotions are responsive to environmental events and for the human the environment is above all else social. The object of emotions is most apt to be other persons, small groups of persons, and categories of persons. When asked to describe situations in which they experience certain emotions, people almost invariably report contexts involving social relations. Yet, while there is a consensus on the importance of social relations to the experience of specific emotions, there is little agreement on how social relations can best be conceptualized. In this report, social relations are described — as they have been by numerous classical and contemporary social scientists — in a way that serves as a corrective to the sociological emptiness of Plutchik's model. The model used here is consistent with Durkheim (1893/1960), Scheler (1926), and Fiske (1991), and uses Fiske's terminology (see also TenHouten 2004a, 2005).

Identity in Plutchik's sense can be generalized into what Fiske calls the social relationship of equality matching (EM), which exists on the level of turn taking in temporal sequences consistent with latent social norms; as in-kind reciprocity, in which each person gives and gets back what they view as substantially the 'same' thing; and as distributive justice in which an even distribution of valuable objects and things so that each person receives roughly an equal share: to each the same, regardless of needs or usefulness.

The positive pole of temporality, reproduction, contains a key idea of communal sharing (CS). This is a relationship based on duties and sentiments generating kindness and generosity among people in informal communities. The basis of CS is sexual reproduction, birth, and begetting, institutionalized as the family and kinship system. In CS, people have a sense of solidarity, unity, belonging, and social cohesion, and act in the interests of community rather than the self.

Hierarchy is a fundamental problem of social life. There is virtually no conceptual distance between Plutchik's hierarchy and Fiske's authority ranking (AR), which is an asymmetrical relationship of inequality.

Territoriality is an organizing concept in ethology describing natural behavior oriented to the control of, possession of, use of, and defense of a claimed space deemed necessary for survival. It is the basis of behavior directed to boundary creation (anticipation) and boundary defense (surprise). The complex and multi-level spaces and places that we occupy are closely linked to social relations pertaining to with resources and valued objects and situations. The notion of human territoriality must, for purposes at hand, be further broadened to include: all forms of market pricing (MP) relations, including possessions, physical and symbolic capital and crystallized energy in the form of money. In MP relationships people denominate value by a universal metric of money and also of linear, clock- and calendar-based time (TenHouten 2005).

THE STUDY

The propositions of the study are: i) acceptance and disgust are the adaptive reactions to the positive and negative experience of equality-matched social relations, respectively; ii) joy and sadness, to communal sharing relations; iii) anger and fear, to authority-ranked relations; and iv), anticipation and surprise, to market-based social relations.

These eight propositions will be tested empirically using as a dataset complete transcripts of a corpus of 658 life-historical interviews obtained and processed over the last decade. These interviews were obtained during the author's fieldwork in Australia and represent two radically different cultures, the indigenous Australian Aborigines and Euro-Australians.

Method

The method used for the present analysis is a lexical-level content analysis of text comprising the words produced by the informant in a life-historical interview. To this end, Roget's (1977) *International Thesaurus* was used, which provides a hierarchical classification of the English language. Roget developed an inventory of 1,042 "broad classes of words" (folk-concepts), many of which were selected as manifest indicators of the eight variables measuring the positive and negative experiences of equality matching (EM+, EM–), communal sharing (CS+, CS–), authority ranking (AR+, AR–), and market pricing (MP+, MP–). In making a word list from the folk concepts, subcategories with meanings tangential to the overall concept were deleted at the outset, and then all possible forms of every word under the key word were considered for inclusion. The primary denotation of every word was used as the criterion for classification and for deciding where to place words that were assigned to two or more folk concepts by Roget.

Data

The dataset for this study consists of edited transcripts from a corpus of 658 life-historical interviews, with 383 Aborigines (204 males and 179 females) and 275 Euro-Australians (155 males and 120 females). These interviews were obtained throughout Australia and are roughly representative of the two subpopulations. Australia is a multicultural society by any measure, but the non-Aboriginal, Euro-Australian interviews were restricted to Australian citizens who trace their ancestry primarily to the British Isles and Northern Europe, in an effort to reduce within-sample variation. The Aboriginal interviews ranged from traditional, tribal-living persons to urbanites highly assimilated to modern Australia and its market economy. Many of the interviews were obtained by the author, in collaboration with Aborigines from the New South Wales Aboriginal Family Education Centres Federation, while others were obtained from institutes, libraries, private collections, and publications.

Measurement and Analysis

To be confident that the words indicating folk concepts are not measuring different concepts, for each candidate folk concept an item analysis based on the method of summated ratings (Edwards 1957 149-57) was carried out for all of the selected words assigned to every Roget folk concept; t-tests of the mean difference between upper and lower fourths of scores for all words were calculated for each word, and words were next selected only if their t-ratios have values of +1.0 or greater.

The variable Culture was coded Aborigines 1 and Euro-Australians 0; Sex, males 1

Table 2: Indicators of the Eight Social Relations Variables and the Five Most Used Words for Each, Showing the Relative Frequencies of Each Word. For Each Social Relational Variable , Tucker-Lewis(TL) Reliabilities are Shown, and for Each Indicator, Factor Pattern Scores (FP) are Shown.

Social Relations	Indicators	FP	Five Most Frequently Used Words
Equality Matching	Identity	0.30	agreement 277, identity 213, identify 131, indistinct 59, fuse 40
Positive TL = 0.63	Affirmation	0.02	statement 123, announce 87, statements 71, stated 64, assured 61
	Accord	0.44	respect 676, respected 248, like-mindedness 40, accordance 27, symphony 27
	Justice	0.06	fairly 1175, fair 1059, sporting 246, justice 232, rightly 92
	Equality	0.61	even 636, level 552, equality 109, fifty-fifty 81, equivalent 61
Communal Sharing	Welcome*		visit 962, visited 371, visiting 368, hey 226, hail 94
Positive TL = 0.99	Friendship	0.99	fellow 1737, fellows 671, friendly 479, likes 171, fellowship 103
	Friends	0.93	friends 2205, friend 136, neighbors 79, intimate 43, colleagues 49
	Lovemaking	0.11	dear 647, philander 145, darling 141, breast 111, kiss 70
	Kindness	0.11	indulgent 2078, amiable 193, good-natured 184, generous 129, goodwill 126
Authority Ranking	Demand	0.29	asked 3038, ask 1945, asking 667, direction 389, claim 231
Positive TL = 0.87	Opposition	0.18	confronted 49, confrontation 30, confront 21, opponent 18, opposed 13
	Disobedience	0.36	rebelled 26, rebellious 23, mutiny 21, rebellion 16, recalcitrant 14
	Defiance	0.13	cheeky 141, dare 113, dared 38, bold 38, daring 24
	Disapproval	0.61	criticism 129, critical 90, rejected 53, reject 44, appalling 33
Market Pricing	Spaciousness	0.25	everywhere 716, field 620, extent 480, desert 339, acres 435
Positive TL = 0.92	Possessor	0.17	owner 920, landlord 413, owns 412, ownership 397, occupants 236
	Possession	0.29	owned 731, having 312, keeper 62, possession 46, occupy 36
	Acquisition	0.77	obtain 140, profit 138, acquired 122, gain 120, gained 111
	Wealth	0.12	afford 432, fortune 103, wealthy 74, wealth 63, luxury 41
	Receive	0.16	loan 97, inherited 81, lend 76, loans 50, banker 24
Equality Matching	Difference	0.13	different 5688, difference 873, otherwise 612, odd 398, differences 106
Negative TL = 0.92	Disrepute	0.09	fowl 65, begged 46, notorious 34, disgrace 33, begging 30
	Injustice	0.84	wrong 1898, unfair 55, wrongly 40, injustice 32, wronged 23
	Inequality	-0.03	disparity 41, overbalance 11, overbalancing 6, inequality 3, unequal 3
Communal Sharing	Selfish	0.41	petty 67, greedy 53, greed 30, selfish 27, loner 17
Negative TL = 0.58	Seclusive	0.42	retires 600, private 545, secret 251, retirement 105
	Death	0.20	died 3751, deadly 1345, death 821, dying 265, drowned 132
	Discourtesy	0.11	crude 87, coarse 24, rude 82, crusty 8, vulgar 8
	Dislike	0.30	dislike 46, dislikes 27, unpopular 14, repel 9, nausea 8

Table 2: Indicators of the Eight Social Relations Variables continued

Social Relations	Indicators	FP	Five Most Frequently Used Words
Authority Ranking	Lack of		
Negative TL = 0.93	Influence	0.22	weak 127, weakness 25, ineffective 6, ineffectual 6, powerless 3
	Confined	0.23	prison 1175, hell 624, prisoners 645, jail 329, prisons 209
	Obedience	0.28	obedient 155, loyally 55, loyalty 54, faithful 21, allegiance 11
	Prohibited	-0.02	prevent 96, ban 49, banned 49, refused 26, don't 20
	Condemnation	0.53	damn 108, damned 83, convicted 49, sentenced 32, conviction 26
	Inferiority	0.15	inferior 46, inadequate 26, inferiority 23, deficiency 11, deficiencies 11
Market Pricing	Expensiveness		expensive 146, invaluable 32, costly 26, richly 6, exorbitant 3
Negaitve	Loss	0.58	loss 198, losing 187, lost 179, expenses 108, expense 71
	Ejection		discharge 90, evict 67, dismiss 58, ejecting 39, ejection 39
	Relinquish	0.28	borrow 124, borrows 100, disposal 38, hocking 38, disposed 30
	Dislocation	0.45	shifted 405, shifting 96, shifts 58, shift 37, displace 23
	Circumscribed	0.20	fixed 322, qualified 225, edges 50, specify 24, definition 24

*In order to obtain a maximum-likelihood factor analysis solution (communalities not > 1.0), it was necessary to construct a variable that is the sum of scores for Welcome and Friendship, which does not influence the final summated ratings for CS+.

and females 0. Roget also categorized emotions, and his classification was helpful in constructing wordlists for emotions, which required some combining and splitting of categories and the supplementary use of several dictionaries. Table 2 shows the 16 most frequently used words for each of the eight primary emotions. A study of the univariate distributions of the eight emotions variables indicated that all of them were heavily skewed to the right. To approximately normalize these eight distributions, square-root transformations were carried out prior to regression analysis.

The several indicators for every social relations variable were subjected to maximum-likelihood factor analysis and Tucker-Lewis (TL) inter-indicator reliability coefficients were calculated, except for MP–, for which a solution could not be obtained. The results of these analyses are shown in table 3. For the eight measures of primary emotions, the final measure was the total number of words used from the list of folk-concept indicators, divided by the total words produced in the whole interview; this quotient was then multiplied by 104, to sweep away distracting zeros.

Results

Eight multiple-regression analyses were carried out, regressing each of the eight primary emotions on the same set of eight social relations variables and cofactors Sex and Culture. The results of the separate analyses for Aborigines and Euro-Australians are shown in Table 4, panes A and B, respectively. All of the non-significant (ns) cofactors were returned to residual status before the final analyses were carried out.

For all eight emotions and all eight socio-relational variables, the sum of the total number of usages of the words assigned to each variable was divided by the total number of words spoken by the informant, with this proportion then weighted by 104. For the independent variables, small sets of folk-concepts were used as indicators. For example, the proposed direct cause of acceptance, EM+, was measured by words representing five Roget folk-concepts.

The predicted results for the socio-relations variables as predictors of emotions are shown, in boldface type, along the main diagonals of the first eight rows of the two panels. The probability values associated with

Table 3: The Sixteen Most Frequently Used Words for Each of the Eight Primary Emotions, Where Relative Frequency is the Proportion of the Word to Total Words Produced by the Informant in the Entire Interview, Weighted by 10^6

Acceptance Incorporation		Happiness, Joy Reproduction		Anger Destruction		Anticipation Exploration	
invites	366	enjoyed	764	angry	284	question	745
popular	305	enjoy	432	annoyed	90	study	605
regard	216	glad	345	anger	85	expected	401
admits	176	joy	199	annoy	81	attend	368
favour	155	enjoying	70	temper	70	opinion	360
invited	97	celebratory	70	furious	68	attention	302
admitted	96	celebration	70	annoyed	38	inspection	220
ovation	84	celebrates	34	short-tempered	29	studied	203
invitation	78	hilarious	33	irritated	21	studying	195
admired	67	guffaw	26	nettled	21	examination	150
approval	62	vim	18	nettling	21	expecting	117
advocate	59	rejoicing	17	irritated	21	inquiry	105
clapping	46	gladly	14	irateness	17	attending	100
acknowledge	38	rejoice	13	wrath	15	observed	88
honourable	38	gusto	12	lividness	12	attendance	76
clapped	33	cheers	11	irascibly	12	guidance	74
Disgust Rejection		**Sadness, Grief Reintegration**		**Fear Protection**		**Surprise Orientation**	
criticism	129	sad	586	frightened	846	surprised	243
critical	90	crying	418	fear	543	surprise	201
dismissed	58	cry	363	afraid	489	surprising	65
rejected	53	joyless	150	scared	274	astounded	18
reject	44	sadness	74	fright	117	astonishment	18
disgusted	24	long-faced	65	frightening	88	unexpectedly	14
criticized	20	grim	55	terror	79	surprises	12
displeasing	20	sorrow	49	fearful	65	surprisingly	10
evacuation	18	howling	49	coward	56	dumfounded	8
excluded	14	wails	40	panic-stricken	47	unexpectedness	8
rejection	12	wailing	30	terrifying	45	improbably	8
detract	12	sadly	26	scare	41	unexpected	4
dismiss	11	wailed	24	eerie	27	aback	3
smearing	10	cried	24	scary	23	astonished	3
slur	9	mope-eyed	22	scaring	15	astounds	3
deplorable	8	unhappiness	220	eerily	11	stupefied	3

these coefficients are based on one-tailed tests, as all of these coefficients were predicted to be positive in sign. All coefficients off the main diagonals, for which predictions were not made, have two-tailed probabilities associated with them. Because these off-diagonal results were not predicted, and are available for inspection, they will not be discussed.

For the Aborigines, the ^{2} values were all positive and significant. For the Euro-Australians, the results were in the predicted direction for all eight emotions, and statistically significant for seven, but the result for Surprise only directionally supported the theory (^{2} = 0.55).

It is not surprising that Surprise would not be effectively predicted by the negative experience of MP, for there were measurement problems with both variables: i) MP– was measured poorly relative to the other socio-relational independent variables, as a reliability estimate for these six indicators could not be obtained; ii) Surprise was measured by words used more rarely than the words representing the other seven emotions, as can be seen in table 2; iii) the sample sizes are not large, only 275 for the Euro-Australians; and iv) a follow-up analysis of the six folk-concept indicators of MP– revealed that the approximate interchangeability of indicators that held, albeit roughly, for the other seven socio-relational variables did not hold for Surprise. It was found that these six indicators of MP– were of two kinds, and their effects radically differed for members of the two cultures.

For the Aborigines, Surprise was predict

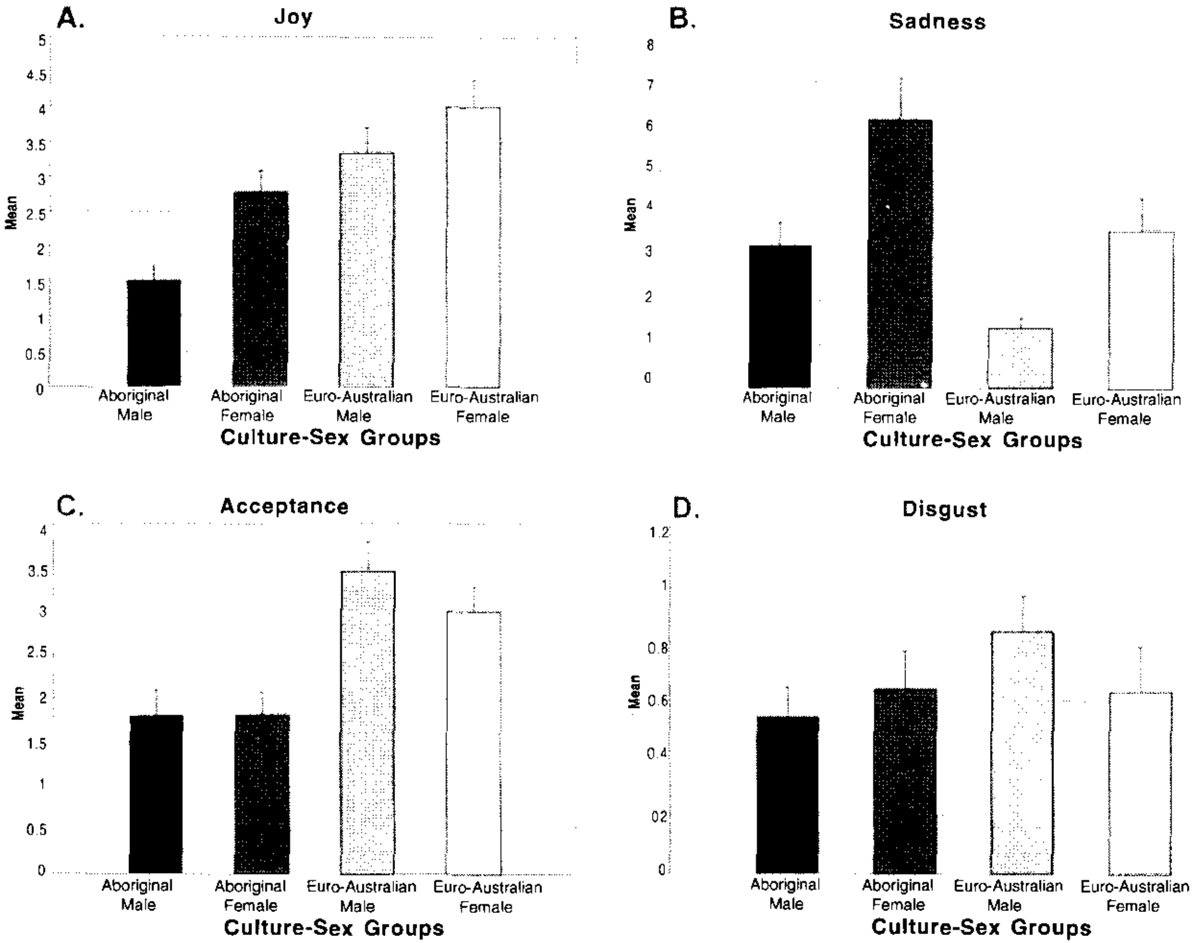
Table 4: Eight Multiple-Regression Analyses, Separately Regressing the Eight Primary Emotions on the Eight Elementary Social Relations Variables, Culture, Sex, and the Culture-by-Sex Interaction. Values shown in the body of the table are standardized partial regression coefficients.

Samples		Primary Emotions, The Dependent Variables							
Independent Variables		Acceptance	Happiness	Anger	Anticipation	Disgust	Sadness	Fear	Surprise
A. Aborigines									
Equality Matching	positive	**3.97*****	1.34	-0.04	6.35***	2.01*	-0.58	-0.97	1.24
Communal Sharing	positive	0.61	3.01**	2.24*	-0.13	0.34	3.77***	1.62	1.31
Authority Ranking	positive	6.52***	2.86**	**3.30*****	6.22***	4.82***	-0.03	0.30	1.59
Market Pricing	positive	1.49	2.57*	1.50	**5.66*****	1.06	-0.42	-0.15	1.15
Equality Matching	negative	3.89***	-0.91	0.86	-1.88	**2.65****	1.43	1.28	1.06
Communal Sharing	negative	0.63	-1.69	1.26	-2.25*	0.69	**3.42*****	1.59	2.24**
Authority Ranking	negative	-1.53	-0.66	-1.16	-0.32	-0.41	-0.76	**2.67****	-0.92
Market Pricing	negative	-1.74	0.71	3.82***	1.19	2.63**	-0.87	-0.08	**1.89***
Sex			-3.67				-2.59**		
(R^2_{adj})		(0.22)	(0.15)	(0.09)	(0.28)	(0.12)	(0.07)	(0.02)	(0.05)
B. Euro-Australians									
Equality Matching	positive	**2.51****	2.22*	1.59	0.11	3.10	2.83**	1.28	1.04
Communal Sharing	positive	2.79**	**3.69*****	2.91**	-1.37	1.73	2.14*	3.42***	1.19
Authority Ranking	positive	5.09***	1.07	**5.15*****	4.68***	8.74***	2.27*	3.14**	3.02**
Market Pricing	positive	3.25***	0.63	-1.45	**8.30*****	1.49	-1.75	-0.39	0.36
Equality Matching	negative	1.69	0.58	0.71	1.27*	**3.14*****	4.21***	0.45	0.77
Communal Sharing	negative	-2.71**	-2.17	-0.38	-1.85	-1.08	**6.98*****	-0.89	-1.22
Authority Ranking	negative	-1.98*	1.25	1.62	-0.73	0.67	-1.05	**3.62*****	-1.76
Market Pricing	negative	-0.30	-2.15*	-0.44	1.52	0.87	-1.16	-1.13	**0.55**
Sex					2.46*		-4.72***	-2.15*	
(R^2_{adj})		(0.27)	(0.10)	(0.17)	(0.43)	(0.38)	(0.36)	(0.18)	(0.04)

*p<0.05; **p<0.01; ***p<0.0001

Note—All non-significant effects of Sex, Culture, and the Sex-by-Culture interaction were returned to residual status before carrying out the final analyses. Predictions positive regression coefficients are shown in boldface along the main diagonals of each of the three panels and have one-tailed probabilities, all other beta values having two-tailed probabilities.

Figure 2. The Emotions of Informal, Hedonic Community, by Culture and Sex.



Panels A& B: Mean levels of the opposite emotions Joy and Sadness; Panels C & D: Mean levels of the opposite emotions Acceptance and Disgust. Error bars are +1 standard effort of the mean (SEM).

ed by the four of the six indicators of MP-, as the results of regressions using indicators as independent variables (controlling for other seven socio-relational variables) were Ejection $^2 = 3.01$, $p < 0.01$; Relinquishment $^2 = 3.64$, $p < 0.001$; Dislocation $^2 = 2.34$, $p < 0.01$; and Circumscription $^2 = 2.16$, $p = 0.015$. All four of these variables can be viewed as involving negative experiences of collective access to territory. While Aborigines have to some extent, and fully for many in urban and suburban areas, been incorporated into the market economy of modern Australia, the other two indicator variables, which reflect individual or family economic difficulties, were for Aborigines not even directionally predictive of Surprise: for Expensiveness, $^2 = -0.04$, ns; for Loss, $^2 = -1.34$, ns.

The results for Euro-Australians were nearly opposite. For them, indicators of collective loss of territory were not predictive of Surprise: for Ejection, $^2 = 1.03$, ns; for Relinquishment, $^2 = -0.36$, ns; for Dislocation, $^2 = -0.50$, ns; and for Circumscription, $^2 = -1.80$, ns. The indicators of negative personal economic circumstances, in contrast, were predictive of Surprise: directionally for Expensiveness, $^2 = 1.21$, $p = 0.11$; and significantly for Loss, $^2 = 2.74$, $p < 0.03$.

As a final, extra step in data analysis, ratings for these subsets of indicators of MP– were constructed and then Surprise was regressed on them and the other seven socio-relational variables separately for the two groups. The variables defined for this analysis were MPC = Ejection + Relinquishment + Dislocation + Circumscription and MPI = Expensiveness + Loss. The results using MPC and MPI were for Aborigines $^2 = 4.13$ ($p < 0.001$) and $^2 = -1.34$ (ns) and for Euro-Australians $^2 = -0.12$ (ns) and $^2 = 2.22$ ($p = 0.01$). In the above detailed analyses predicting Surprise from MP indicators, no significant Sex differences were found.

Culture and Sex Differences

Figure 2, panels A and B, shows the mean levels (and standard error bars) of the two pairs of emotions associated with informal, hedonic society — Acceptance and Disgust, which are associated with EM, and Happiness and Sadness, associated with CS. The results for the opposite emotions Acceptance and Disgust are remarkably similar. Based on analysis of the combined samples (results not shown), there was for both emotions a highly significant Culture-by-Sex interaction: for Aborigines, the females were slightly higher than the males; but for Euro-Australians, the males were significantly higher for both Acceptance and Disgust. If the interaction term had been suppressed, there would have emerged a significant effect of Culture, and these figures show that Euro-Australians are much higher for both emotions.

For the opposite emotions Happiness and Sadness, the results differed for the two cultures: The Aborigines expressed less Happiness but more Sadness than Euro-Australians. Within the cultures, there was a common Sex difference, as both Aboriginal and Euro-Australian females were more verbally expressive of both emotions than were males.

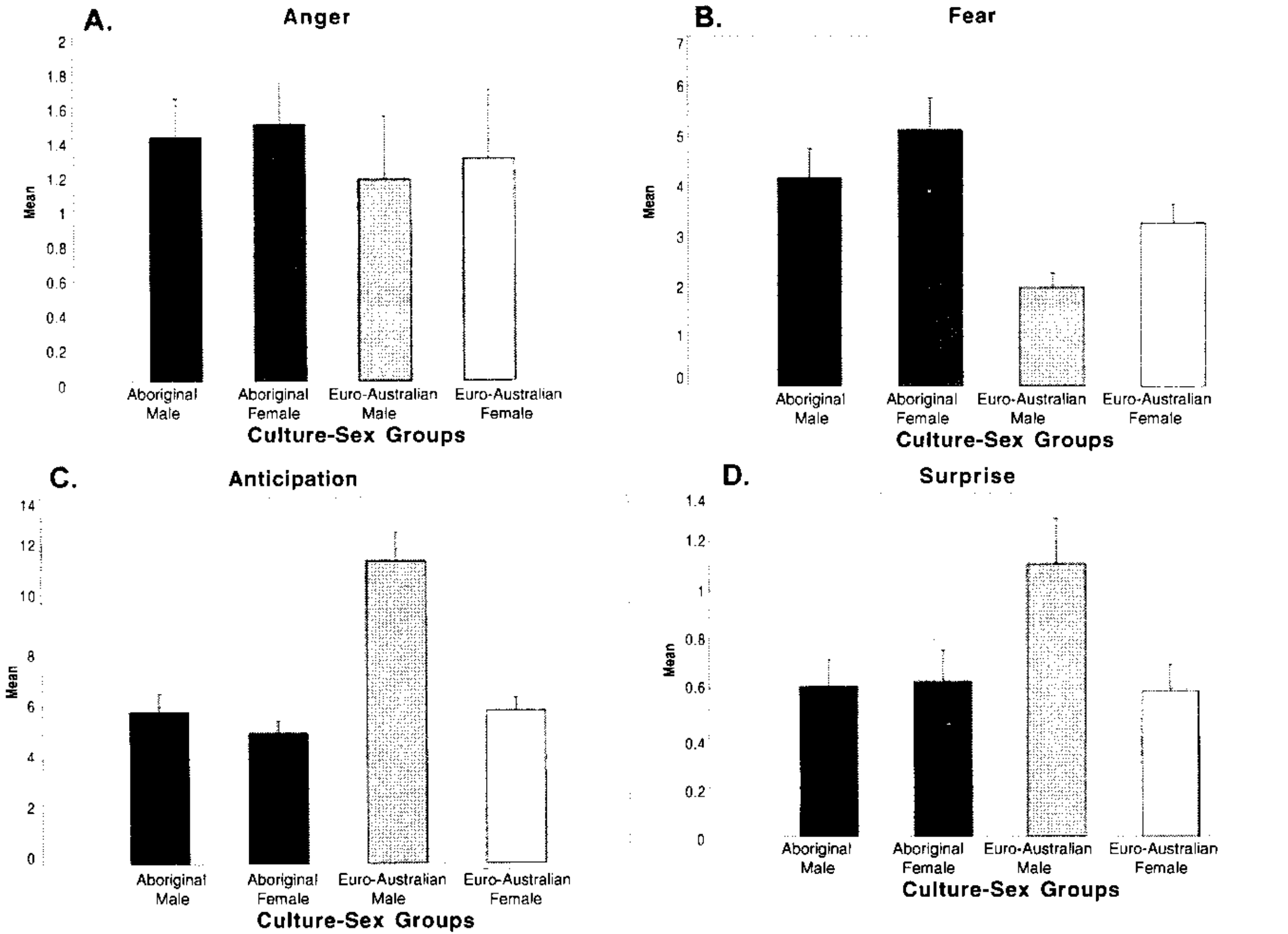
Figure 3 shows the mean levels of the four emotions of formal, agonic society, based on AR and MP, on political economy. For the opposed emotions Anger and Fear (panel A), the distributions of means are, as for Acceptance and Disgust, remarkably similar. Aborigines were more expressive of both Anger and Fear, and within both cultures, females were more expressive of these emotions than were males. These Culture and Sex differences reached significance for Fear but fall short for Anger. Given that Aborigines experience high levels of in contemporary Australia and high levels of pathology in their families and communities, these results are hardly surprising.

For the opposites Anticipation and Surprise, which are associated with territoriality and market pricing social relationships, outcomes differ from the results for Happiness and Sadness. For both of these emotions, Aborigines are lower than Euro-Australians: within the cultures, there is a trend for males to be higher for Anticipation, especially Euro-Australians. This difference is consistent with an ethological literature that shows males, for humans and mammals in general, are more oriented to spatial cognition, exploration, and defense of territory (Ecuyer-Dab & Robert 2004).

DISCUSSION

The results of the study are strongly supportive of theory with one problematic result: the negative experience of market-pricing social relationships predicted surprise significantly for Aborigines, but only directionally

Figure 3. The Emotions of Formal, Agonic Society, by Culture and Sex.



Panels A & B: Mean levels of the opposite emotions Anger and Fear; Panels C & D: Means levels of the opposite emotions Anticipation and Surprise. Error bars are +1 SEM.

for Euro-Australians. The impossibility of estimating inter-indicator reliability for the six measures of *MP–* suggest it might not be a unitary concept, and in fact it was determined that its six items are of two different kinds. Four of the items — measures of ejection, relinquishment, dislocation, and circumscription — probe the shared cultural experience of Aborigines, who have historically been collectively conquered and disposed; forcibly taken off their lands, rounded up, and placed in reserves, mission, other institutions, and private homes; ejected from their sacred lands thereby losing their nomadic way of life with its hunting-and-gathering mode of economic production; experiencing their families broken up and their children taken away; and in countless ways having had their lives and identities circumscribed (Hughes 1987; Milliss 1994).

This loss of land, territory, and way of life was found predictive of surprise for Aborigines. But for Euro-Australians, spared such experiences, these four indicators of territory/exchange-based social relations were unrelated to surprise. For them, individual and family-level problems of economic scarcity in the cash economy predicted surprise – particularly the market-based variables indicating expensiveness and financial loss, *Expensiveness* and *Loss.* Market-pricing social relations are a sociological generalization of territoriality, but when one concept generalizes another, there remains a difference between them, and the difference can make a difference. While territoriality/market-pricing predicted surprise for both groups, it did so in such dissimilar ways that entirely different measures are required for the two cultures. This is exactly the result that compels the extension of a positivistic theory to an inclusion of culture, and thereby to an open form of social constructionism.

After accounting for culture and measuring the negative experience of territoriality/market-pricing differently for Aboriginal and Western Australians, all sixteen hypotheses receive statistically significant support. The fact that the specific emotions identified as these adaptive reactions could be predicted suggests that the interpretations of these reactions as emotions are likely correct.

It should be noted that in an earlier paper appearing in this journal, it was shown that the positive experiences of these four social relations variables predicted four elementary times of time-consciousness (TenHouten 2004b), which contributes predictive validity to these concepts. In this analysis, the negative experiences of these social relations variables did not predict time orientation, but here both the positive and negative experiences of these four kinds of social relations each predict a specific emotion, which provides additional predictive validity to the positive variables, and a first level of predictive validity for the negative variables.

An obvious further step in the development of affect-spectrum theory (TenHouten Forthcoming) is to empirically examine the secondary emotions and test the propositions that have been developed (TenHouten 1996, 1999, Forthcoming) to explain them on the basis of pairs of these eight socio-relational variables. For example, pride is defined as an angry joy, and insofar as anger results from the positive experience of authority-ranking social relations (AR+), and joy/happiness results from the positive experience of communal-sharing relations (CS+), it follows that pride can be predicted to result from the joint occurrence of AR– and CS+, using a multiplicative or exponential models. Beyond that, tertiary emotions can be similarly modeled as functions of three of the eight social relations variables.

Bruner (1986) refers to two ways of conceptualizing reality: the "paradigmatic" model seeks truth in terms of logic, scientific methodology, and empirical verification; the "narrative" model rather emphasizes the construction of stories which offer coherence, expressive meaning, and context-dependent empathy (Howard 1991; Gonçalves 1994 119). Over the last few decades, the social constructionist movement (Berger & Luckmann 1966; Gergen 1985), often in cooperation with symbolic interactionism, has asserted itself in the sociology of emotions (Kemper 1981; Harré 1986; Averill 1980, 1986; MacKinnon 1994 123-27; Nunley & Averill 1994; Reddy 1997; Elfinbein & Ambady 2003). Social constructionists are prone to either gloss over the biological and evolutionary aspects of emotion, or deny their very existence (Rosen 1994). Indeed recent ethnographies contend that there is no limit to the extent to which personal feelings are locally, socially, and culturally constructed on the basis of cultural norms (Grima 1992). Abu-Lughod (1991) argues that local, particular constructions fully determine identity and experience. She endorses Rosaldo's (1984 147) claim that individual emotional life is "overwhelmingly shaped by culture," which means that the individual, disconnected from biological constraint, is culturally malleable and plastic (Shott 1979; Abu-Lughod 1990). This strong constructionism embodies an

> adamant refusal to allow for any physiological, psychological, or other universal determinants or influences in emotional life. (Reddy 1997 329)

Reddy observes that

> [e]thnographers who concentrate on the subject of affect often insist...that there is nothing to emotion beyond the local discursive structures through which it is figured and practices. (1997 327)

while acknowledging that other historical ethnographers (e.g., Myers 1986 105; Schieffelin 1985 169) remain agnostic on this issue, viewing the question of the 'real' Shott (1979) and other constructionists have pointed to a psychophysiological formulation holding that underlying neurophysiological processes are the same for different emotions. But this experimental research, by Schacter and Singer (1962; also see Nisbett & Schacter 1966), has not been successfully replicated (Maslach 1979; Marshall & Zimbardo 1979), has been misconstrued by constructionists (see Kemper 1981 339-41), and is contradicted by an enormous body of neuroscientific evidence (e.g., LeDoux 1996; Damasio 2003). Some (Solomon 1984; Harré 1986) have flatly excluded the biological dimension, and with it evolutionary considerations, arguing that

> an emotion is not a feeling...but an interpretation... [and] a system of concepts, attitudes, and desires, virtually all of which are context-bound, historically developed, and culture specific. (Solomon 1984 248-49)

From this strong constructionist standpoint, efforts to link emotion to neurophysiological processes is, according to Harré (1986 4), no more than the pursuit of an "ontological illusion" and to Nunley and Averill (1994 227), merely a "myth."

In spite of these protestations, emotions have a neurophysiological basis in brain structure and brain function, a position strongly reinforced by astounding, even revolutionary, advances in the study of brain mechanisms underlying the most elementary emotions (LeDoux 1996; Rolls 2001) and more complex emotions such as pride and shame (Weisfeld 2002). Without doubt the most basic emotions involve biological processes. Controversy remains, however, regarding which emotions are primary. It is widely conceded, among affective neuroscientists, that six emotions — anger, fear, joy, sadness, surprise, and disgust — are primary. These emotions have been found to be widely identifiable across several cultures and in a wide variety of nonhuman animal species as well (Ekman 1992). Most neurobiological knowledge about the emotions comes from the study of these six emotions (Panksepp 1998; LeDoux 1996; Rolls 2001; Adolphs 2002). It is argued here, based on an insistence on Darwin's (1872) principle of antithesis, that there are eight, as acceptance is the opposite of disgust/rejection and anticipation is the opposite of surprise.

There is less consensus about the higher-order emotions. Combinations of two primary emotions are called "secondary" emotions by Plutchik (1962, 1980), and "tertiary" combinations of three primaries are proposed by TenHouten (in press). All combinations of the six primary emotions are called the "social" emotions by Damasio (2003). Here, however, it is shown that the proposed eight primaries are also social, as they are predictable by specific kinds of social relations. Many fundamental questions remain: 1) Are there other kinds of emotions, in addition to primary, secondary, and tertiary emotions? Damasio (2003 45) suggests that there also exist "background" emotions (such as discouragement and enthusiasm) which he claims are the consequences of combinations of simpler regulatory reactions (e.g., basic homeostatic processes, pain and pleasure, appetite and desire). 2) Which higher-order or social emotions have a clear-cut biological infrastructure? There is no doubt that dominance, submissiveness, pridefulness, and shame have a biological basis, but what of the other secondary emotions, and what of tertiary emotions such as jealousy, envy, and confidence? 3) To what extent are the primary emotions also social? Certainly fear can be triggered by nonsocial stimuli (the surprising appearance of a spider). This report provides very preliminary evidence that all of the primary emotions typically involve social circumstances, and specifies these circumstances as valence, elementary social relations. 4) What social circumstances are emotionally competent stimuli? Addressing this question is a fundamental challenge, and a great opportunity, for the sociology of emotions. The present theory, extended, provides one frame-of-reference for addressing this question. Consider pride, an angry joy. Because anger results from powerlessness (a negative experience of authority-based social relations [AR–]) and joy results from a positive experience of communal social relations [CS+], it follows that pride results from the joint occurrence of AR– and CS+. 4) To what extent are the primary emotions also social?

The answers to these questions, and others, demand the development of a neurocognitive sociology of the emotions. This perspective will bring the social world into our understanding of the emotions. Emotions and even higher-order feelings (e.g., of wellbeing or distress), as affective neuroscientist Damasio puts it, "play a decisive role in social behavior" (2003 140). Sociology, as a field, has a choice: it can either put its collective head under the sand, which will turn out to be the dust-heap of science past, or accept Damasio's conclusion, which is also an invitation and a challenge. Research carried out by Damasio and his colleagues, and by other teams of affective neuroscientists, point sociology in the right direction. They have discovered that when previously normal persons sustain damage to brain regions necessary for the experience of certain emotions and feelings, their ability to govern their social lives is compromised, social contracts break down, marriages dissolve, parent-child relations are ruined, and careers are ended. The sociology of emotions thus faces a daunting task that can potentially lead the entire discipline back to its root problem, the relationship between mind and society. It is abundantly clear that the mind is in large measure a representation of the state of the body, and that the mind is as much affective in its functioning and structure as it is cognitive and rational.

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EXAMINING THE X-FILES: AN INTEGRATIVE CONFLICT MODEL ADAPTATION FOR CONTEMPORARY PARANORMAL THOUGHT

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ABSTRACT

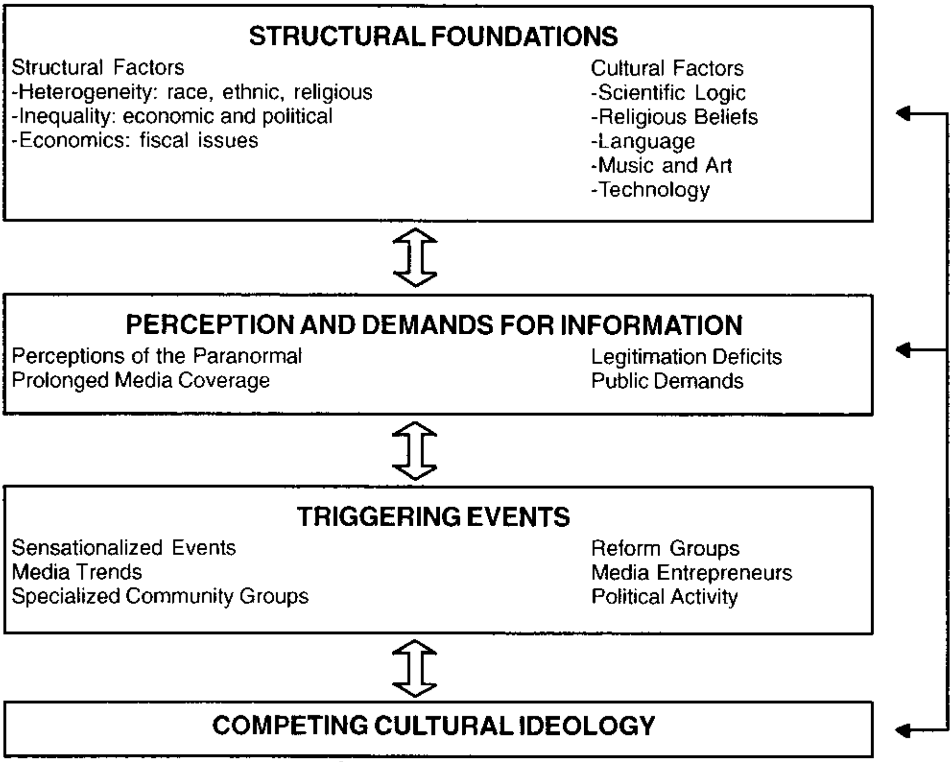
This is a study of perceptions of the television program the X-Files. Using a review of literary sources, descriptive statistics, and qualitative comments from on-line communities, it focuses on what makes the show popular and what people see as deeper meanings behind episodes. With the X-Files as a backdrop, it also applies an adaptation of the integrative conflict model to examine the increased presence of paranormal thought currently shaping public consciousness and influencing contested cultural ideologies. It builds on previous research using the integrative conflict model and studies of the X-Files as a cultural phenomenon.

In a recent *Rolling Stone* article on pork-barrel politics and homeland security, the authors discuss government funding as "stuff right out of the X-Files" (Klinenberg & Frank 2005). The quote indicates the embedded nature of the X-Files in our cultural consciousness. The article does not give background information on the show. The quote only exists as a cognitive reference point for the reader. The article assumes we all know what the X-Files concerned. It is probably on target. The X-Files, a show following the work of government agents investigating conspiracies and the paranormal, still appears on television. The X-Files, which premiered on the Fox network in 1993, was cancelled in 2002. The show remains in syndication on cable networks such as WGN, TNT, and the Sci-Fi Channel (Randles 2000; Wikipedia 2006). Some attribute the success of the X-Files to its two stars - David Duchovny and Gillian Anderson. Duchovny plays Agent Fox Mulder. He is on a quest to unearth government conspiracies covering up paranormal events and extraterrestrial life. Anderson plays agent Dana Scully. With a background in physics and medicine, she pulls her explanations of the unknown from the realms of science and rationality. While the show is not a documentary, its producers indicate they based episodes on true-life accounts. Skeptics believe episodes are too fantastical for most people to interpret as fact. Nonetheless, the show continues to have millions of viewers interested in paranormal phenomena (Kurland 1999; Randles 2000; Goode 2002; Wikipedia 2006).

In relation to the cultural impact of paranormal thought, various researchers have examined the impact of supernatural ideologies, popular culture, and the media. Jung's work (1958) notes increased discourse on the reality of UFOs and extraterrestrial beings and represents a political, social, philosophical, and religious conflict of unprecedented proportions splitting the consciousness of our age. It implies that an emerging cultural divide started in the 1950s involving scientific validity and the paranormal. Specifically, the idea exists that Western culture is currently experiencing a struggle between scientific logic and paranormal thought with Jung's work being an early acknowledgment of the trend. Shklovskii and Sagan's research (1966) extends Jung's work showing the belief of UFO myths represent a compromise between the need to believe in a traditional God and contemporary pressures to accept declarations of science. Recent works apply these ideas to the X-Files. From a biochemical perspective, Simon (1999) analyzes the scientific validity of X-File concepts. Goode (2000, 2002) examines the allure of the show at the crossroads of paranormal belief, conspiratorial thinking, and the public's struggle against the ruling elite. Peterson (2002) reviews the show in terms of religious connotations. Carter (2003) examines the influence of episodes on the mood and feeling of viewers.

Though previous work focuses on important issues, it leaves us with several questions. Years after television executives pulled the X-Files from primetime, what do people think leads to the initial and continued success of the show? Moreover, does the X-Files extend beyond mere entertainment? Do people perceive a deeper meaning to it? Does the show, along with the ideological conflict between the lead characters, represent a wider cultural struggle between religious and scientific belief discussed by pre-

Figure 1: The Integrative Conflict Model



Note: Figure adapted from McGarrell and Castellano (1991).

vious researchers? If so, has it acted as a base of knowledge in a wider paradigm shift leading to the increased acceptance of cultural ideologies contesting traditional scientific logic? Using an integrative conflict theory, this work examines these issues.

THE INTEGRATIVE CONFLICT MODEL

Multiple factors form the integrative conflict model. Originally formed to explain the sociological formation of law, it is modified slightly in this research to apply to cultural ideologies. Figure 1 indicates that the model operates on three basic levels. They include structural foundations, perception and public demands for information, and triggering events. To generate social change, it is not necessary that the levels occur in a sequential order, just that all are present (McGarrell & Castellano 1991).

Structural foundations include structural and cultural factors. Structural factors have an effect on cultural ideologies in numerous ways. High levels of heterogeneity, inequality, and declining economic conditions influence social conflict. The most powerful actors determine the dominant ideology. In relation to cultural factors, conceptual assumptions influence perceptions of social phenomena. This concerns trends in scientific evolution, religious beliefs, language, music, art, and technological advances. In this study, all of these things shape values of a culture. They also help to promote perceptions of the paranormal. If the values indicate that a certain behavior is unexplainable, the public will demand information from those in power. This is especially true if they believe knowledge is being restricted. If values indicate issues surrounding the activity are explainable, people will tolerate the behavior and official positions held by society's elite (for adaptations of this perspective see Scheingold 1984; McGarrell & Castellano 1991; Ulsperger 2003).

In terms of perceptions of the paranormal, media exposure of a paranormal event (i.e. UFO sighting, alien contact, conspiracy) creates an elevated sense of public awareness. This leads to public outcries for information from those in power, which creates a dilemma. If a dominant cultural ideology, such as scientific reason, explains a phenomenon and few contradictory frames exist, the demand for information will be minimal. If a contradictory frame is salient, the demand for information will be greater, and it is more likely that the validity of those in power will be open to question.

Triggering events produce an intense demand for information and lead to the gaining popularity of an alternative ideology. Triggering events, which can occur simultaneously, include information dissemination by specialized community groups, the actions of media entrepreneurs, the general influence of media trends, and political activity. They also involve sensationalized media events. Whereas media exposure sets the stage for action, triggering events set the rise of a competing ideology into motion (for related adaptations see Galliher & Cross 1983; Cross 1991; McGarrell & Castellano 1991; Ulsperger 2003).

Analysts have neglected to focus on any concept similar to the integrative conflict model to examine the increasing influence of paranormal thought. As indicated in this research, this model provides an understanding of how media presentations of the paranormal, such as the X-Files, are part of a larger scheme shaping public consciousness and influencing the development of contested cultural ideologies.

METHODOLOGY

This research uses a combination of a literary ethnography, a survey, and a qualitative analysis of comments from on-line science fiction communities. The literary ethnography provided us with a base understanding of paranormal thought and its depiction in the media. It also put the X-Files into historical context with the existing conflict between scientific and supernatural ideologies. The survey allowed us to develop an idea of the public's perceptions of the X-Files. The qualitative analysis of comments from on-line science fiction communities gave us the opportunity to obtain thick descriptions pertaining to themes coded from the survey data.

A literary ethnography has six steps (Van De Poel-Knottnerus & Knottnerus 1994). In the first, the author develops a scope of literary sources. We examined sources by various authors from 1900 to the present. This included 25 works dealing with paranormal ideologies and cultural perception. We considered hundreds of sources, but the ones selected dealt most adequately with the topic at hand. Several of the 25 sources selected for in-depth analysis specifically concerned the X-Files. The documents included scientific studies, autobiographies, biographies, magazine articles, newspaper accounts, interviews, and books focusing on religion. The second stage of a literary ethnography involves the reading and interpretation of literature selected. We read our selected literature and gained a better understanding of paranormal media presentations on cultural ideology. This helped us to gain an awareness of subtle nuances, repeated informal phrases, and technical jargon in this field of study.

The third step of a literary ethnography involves the identification of textual themes. In this work, these themes included issues on a wide range of topics. They dealt with epistemology creation, worldviews, publishing, media perspectives, culture, religion, and science. The fourth stage concerns the classification of thematic elements. We categorized and labeled specific patterns emerging from the textual themes. These concerned general references to the supernatural (including ghosts and psychics), the extraterrestrial, conspiracy theories, sexual themes, entertainment, science, religion, and art (Van De Poel-Knottnerus & Knottnerus 1994).

The fifth step involves applying an analytic construct. To increase the validity to the categorization developed in the previous stage, it is necessary to introduce and apply a previously developed theoretical model. We chose integrative conflict theory to enhance our analysis. The last stage of a literary ethnography deals with contextual confirmation. We went back and read all of the literature with our classifications and integrative conflict theory in mind. This helped us to decide if the documents correctly related to the final coding scheme. The rereading confirmed the categories and constructs accurately represented the major themes identified. By each author rereading selections from the documents, we established a

Table 1: References to the Popularity of the X-Files

Issue	Number	Percentage
Supernatural Elements	85	40.0
Extraterrestrial Topics	46	22.0
Conspiracy Theories	42	20.0
Sexual Icons	21	9.0
Entertainment Value	8	4.0
Scientific Substance	6	3.5
Religious Themes	2	1.0
Music / Art	1	0.5
Totals	211	100.0

Note: Numbers based on rounding methods.

level of intercoder reliability (Van De Poel-Knottnerus & Knottnerus 1994).

A literary ethnography can be a stand-alone methodology. However, in this research it was only an initial phase used to enhance our understanding of the topic and aide in our analysis of our research questions. Its main purpose was to provide us with a framework to apply to our survey and qualitative analysis. We administered the survey to 146 college students from universities in Oklahoma and Arkansas. Respondent ages provided us with data from younger students just entering college to non-traditional students in their forties. There was an evenly split gender division. The interview tool involved three basic open-ended questions: 1) What do you think of when you hear the word X-Files? 2) Why do you feel the X-Files is so popular? 3) Do you think there is an expression of deeper meaning in episodes that goes beyond entertainment?

Following data collection, we coded comments and applied them to our previously devised categories. We finally turned to individuals in sci-fi chat rooms to gain in-depth perspective from individuals dedicated to shows such as the X-Files. We interacted with 16 individuals. They provided us with thick descriptions on the meaning of X-Files. They also gave us insight into where the X-Files fits in the wider cultural landscape.

FINDINGS

This section reviews our findings. First, it discusses general descriptive statistics from the survey. The focus concerns perceived reasons for the popularity of the X-Files. Second, it analyzes qualitative comments from the on-line community members. They concern the deeper meanings portrayed by the X-Files. Finally, emphasizing the X-Files, it synthesizes our data into a brief integrated conflict analysis of the increasing influence of paranormal thought.

Survey Results

In terms of the question, "What do you think of when you hear the word X-Files?" responses dealt with viewing and show familiarity. Of the 146 respondents, all were familiar with the show. All mentioned the ***as*** the main thought initially coming to them when hearing the word "X-Files." However, not all had viewed it. The results indicate 109 respondents (75%) view the show while only 37 respondents (25%) rarely or never watch the X-Files. Those who rarely watch indicated that they knew about the show through conversation with family or friends. This indicates the possibility that avid watchers discussed the show with others knowing nothing about the series. Respondents who never or rarely watch noted they had read about or heard about the show on television.

In relation to the question, "Why do you feel the X-Files is so popular?" we received a variety of responses. As Table 1 indicates, we coded the responses according to the categories formulated in the literary ethnography. The data contain 211 coded responses. This number is larger than 146, the number of respondents. The reason is due to the open-ended nature of the question. Sometimes a respondent would put an extensive answer containing more than one theme. In these instances, we would split a comment and separately place each part in the appropriate category. In other words, one response might contain a variety of references, or reasons, for the popularity of the show.

References to the show's general supernatural elements (including ghosts and psychic experiences) appeared the most – 85 times (40%). The second highest category concerned the show's focus on extraterrestrial topics. References to this category appeared 46 times (22%). The show's orientation toward government conspiracy appeared as the third most prevalent reason for popularity. This category generated 42 references (20%). Phrases such as "new myths" and "new realities" presented themselves in this category. The fourth category, sexual icons, produced 21 responses (9%). Here respondents frequently indicated the sexual attractiveness of the show's lead characters. Phrases such as "Scully is hot," " Mulder is a real ladies man," and "Mulder is a hunk" appeared. Female responses implied the sexual tension and possible spark of love between Agents Mulder and Scully drew them into certain episodes.

As Table 1 shows, the remaining categories, entertainment value, scientific substance, religious themes, and music/art, each generated under 5 percent of the total sample. Given the literature previously discussed, this finding is quite surprising. It contradicted our belief going into the research that the public (in this case, college students) would blatantly depict the show as a symbolic conflict between the realities of science and the supernatural.

On-line Qualitative Comments

Mining for thick descriptions on the deeper meaning of the X-Files, we turned to on-line communities more attuned to the show. Members provided us with in-depth responses on themes emphasized in the previous research stage. The comments focus on areas dealing with feelings of distrust, human relationships, character credibility, and the underlying simplicity of story lines.

Issues of trust discussed revolve around conspiracies. Respondents indicated the viewers of the X-Files predominately do not trust "scientific" experts. Moreover, the government is not honest with its assessments of paranormal issues. Comments imply that the show provides them with what they consider a more honest and realistic way of dealing with supernatural phenomena as the media pushes them to the forefront. This lack of trust goes both ways. Respondents indicated that the scientific community and the government fail to acknowledge any validity in the paranormal community. Interestingly, this plays out on the show. Mulder, the FBI agent on a quest to unearth government conspiracies covering up paranormal events and extraterrestrial life, is delegated an office in the basement. Some believe this marginalization to be the show's symbolic representation of the government's stance on the relevance of the paranormal.

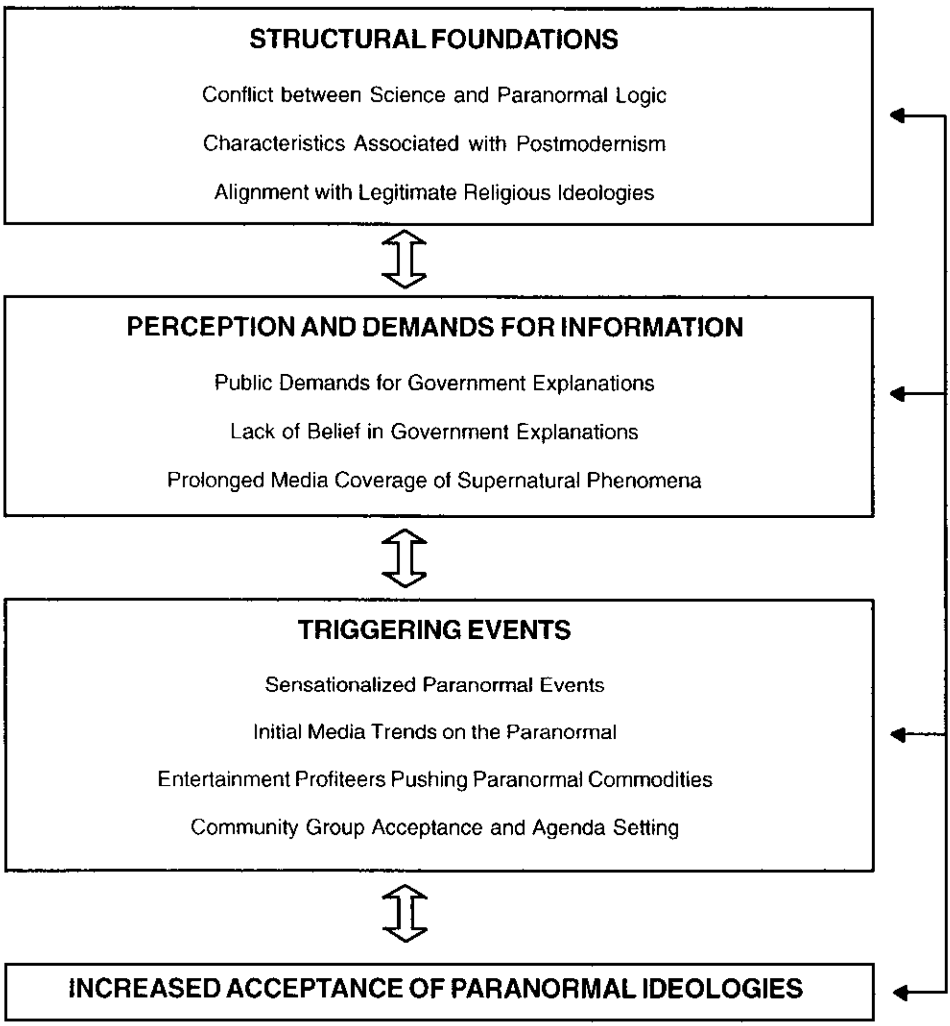
In terms of the focus on human relationships, chat room members took the sexual icon theme previously discussed to a greater distance. They find episodes less about sexual tension between characters and more about bonds of trust. One respondent noted, when thinking of the deeper meanings behind the X-Files:

> I think of friendship, dedication, self-denial, mysteries, and horror. (It became popular) because it was intelligently written, scary and interesting. It required more than passive watching. We had to think too. Not only did it show horrible things and the worst side of people, it also showed beautiful things about people (It showed) what a true friend is - what loyalty is.

Again, the respondent goes beyond the aesthetics of main characters, which the survey of college students emphasized. Rich social bonds between the main characters was key for the respondent because, as noted, active watching and thinking about the show was a requirement. This is not surprising because most people in an on-line sci-fi community dedicate themselves to finding deeper meanings to shows like the X-Files. However, we would expect them to focus on paranormal themes of the supernatural. They did not. In contrast, this theme of emotional connection repeated itself. As another respondent noted:

> When I hear the term X-files I think provocatively intriguing, undeniable intellectuality, and passion. I think the relationship that Mulder and Scully have with one another is something that is indescribable with simple terms. There was so much depth between the characters built into their affiliation with one another and the bond was indeed unbreakable. The loyalty amongst the two is somewhat of a rarity that we don't normally associate ourselves with, but we all long to see. Not only was the characters' camaraderie incredible, but also the story lines were astounding as well.

Figure 2: Applying the Integrative Conflict Model to Popularity of Paranormal Thought



Along with an emphasis on the human relationship factor, this respondent notes the wondrous story lines of the show. Others made note of this, and in fact questioned the credibility of the story lines. As Goode (2002) notes, the shows may be a bit too fantastical. Surprisingly, some sci-fi chat room respondents agree. Acknowledging the power of story lines while being a critic of their extreme positions, one indicated:

> People were so enthralled in the story because the topics that they brought up were controversial and almost horrifying. Those two factors are very intimidating to people and make them want to know more... (However) I think the theories and philosophies that were presented on the X-files were so absurd, that no one would believe such things.

The respondent did go on to state that the lead actors, with a high level of credibility, did a convincing job of making the viewer perceive the episodes as reality. The respondent later noted:

> Mulder made it seem so plausible (and also considering his theories were the ones that usually seemed to end up being fact) and

> Scully's scientific theories actually were the ones that rationalized the situation that everything fit into a perfect puzzle. I believe that was amazing to the audience. It sure was for me.

In a similar vain, another respondent stated, "the series portrayed themes in a way which they could be seen as true." These sorts of comments suggest that the people that watch and are loyal to the X-Files perceived a "possible reality" behind the episodes. This is consistent with the perspective of other research indicating X-Files stories are presented and perceived as the truth (Kurland 1999). However, the degree to which dedicated sci-fi viewers and the public feel that the X-Files is truly an ontological possibility is beyond the scope of this research. Regardless, our data leads us to believe that for many the X-Files compares to other paranormal parables existing throughout culture – similar to the historical belief in stories of fairies, vampires, or goblins.

The belief in the show's supernatural stories and characters are interpreted at whatever perspective the individual desires. Moreover, though many may feel the possibility of an X-File story line being true, the dominant scientific cultural ideology may keep them from admitting it. One cognitive frame that typically correlates with paranormal plot lines throughout history that respondents did not deny is the simplistic portrayal of good versus evil. One respondent indicated,

> Everyone had a role in the battles against good and evil, and sometimes those lines weren't black and white but you could tell who wanted to be good and who wanted to be evil.

Many others provided similar comments. Their comments imply that the good versus evil themes provide deeper meanings that make unbelievable plots familiar. They parallel a line of thought represented in religious ideology that what is fair and just is always competing with what is wrong and immoral, all with an undertone involving the unexplainable.

An Integrative Conflict Model Adaptation of Paranormal Ideologies

As previously discussed, Western culture is experiencing a struggle between scientific logic and paranormal thought. The X-Files represents this struggle. With its prolonged media coverage of the supernatural, the show is also part of a wider scheme increasing support of perceptions related to paranormal belief.

The integrated conflict model provides us with a better understanding of this process. This work uses the core components of the theory in modified form. This includes structural foundations, perception and demands for information, and triggering events that lead to ideological shifts. To generate social change, it is not necessary that the levels occur in a sequential order, just that all are present. Figure 2 outlines our modified version of the theory (see for elaboration McGarrell & Castellano 1991).

Structural Foundations

In terms of structural foundations, it is important to discuss Western culture's recent alteration. Scholars argue that the quality of it changed considerably over the last few decades. In this new phase, what some discuss as postmodernism, cultural products such as art, movies, and architecture follow a different path than those of the modern era. These emerged in the 1960s, around the same time that Jung (1958) proposed the divide between scientific logic and paranormal thought. The heart of the change involves irrationality, multiple realities, a blurred line between what is real and what is simulated, the consumerism of image, and the rejection of authority all brought on by the rapid rise of technological innovation. Some argue this line of thought is a fad. Whether it is or not, there is little argument that shows like the X-Files occur in the setting of a society with these "postmodern" characteristics (Baudrillard 1973, 1983; Jameson 1984; Kellner 1989). Consider comments by respondents indicating that the X-Files is somewhere between what is real and what is fiction. Think of previously discussed quotes indicating the show euphorically pulls viewers into stories. Consider the salience of themes in the survey and on-line chat analysis acknowledging or agreeing with government conspiracy theories and the questioning of the dominant scientific logic.

With art being a part of a wider postmodern shift, it is not surprising artistic characteristics of the show's episodes reflect postmodern characteristics, but also influence contemporary art. Literature points out the show's use of light and shadow, dreams, hallucinations, meditation, and narratives trigger associations that stir the human imagination. They discredit past views of reality and promote new ways of viewing the world. It is reported that some artistic viewers, consequently, alter their creative direction (Carter 2003).

Aside from art, another cultural foundation that relates to the X-Files and its promotion of the paranormal concerns religious belief. It appears an increase in the acceptance of paranormal thought is the result of a frame alignment with religious ideologies. Literature implies that religious thought is another aspect of socially constructed paranormal thought (Berger 1967). However, religion maintains a high degree of credibility in the Western world, especially Judeo-Christian beliefs. Hence, the alignment of religious belief and paranormal thought is a logical occurrence. In fact, recent research indicates people in careers related to the paranormal intentionally link their occupations to religious beliefs to enhance their credibility (Hodges & Ulsperger 2005). Ironically, religious topics presented on television enflame some social groups, but networks are successfully producing shows related to the paranormal with little anger resulting (Miles 1997). Aware of this and emphasizing the show's connection to religious, faith based ideologies, the executive producer of the X-Files notes:

> To me, the idea of faith is really the backbone of the entire series—faith in your own beliefs, ideas about truth, and so it has religious overtones always. It is a more sensitive area on television because you run the risk of pissing certain people off, but I think we handled it in such a way as to make it about miracle belief, or lack of belief - and we set it against the paranormal. (This) is why Mulder can believe in things that go bump in the night, and when Scully believes in a miracle, he shuts her down. (Lowery 1996 138-139)

Interestingly, several denominations have made remarks about the X-Files series through their respective newsletters and magazines. Allen (1997) states in the *National Catholic Review* that the series resonates with their readers because it involves a demand for justice, sympathy for marginal people in society, and a will to believe despite feelings of doubt. He goes so far as to state these are the same themes constantly appearing in the *National Catholic Review*. He also implies agent Mulder exhibits priest-like qualities such as a willingness to listen to neglected voices, compassion, loyalty to friends, and determination to find the truth. Wilson (2002), of *Christianity Today*, finds two constants in the series. One, in relation to the findings in our survey and on-line analysis, involves the relationship of Mulder and Scully. The other involves the way episodes wrestle with faith and skepticism and question secular rationalism. Jensen (2003), of the Anglican Media, sees the show playing to basic human fears under a veil of paranoia. The fears he identifies include loneliness, a sense of confusion, claustrophobia, lack of conclusion, and death. Similar to responses from on-line community members noting the good versus evil themes in the show, he points out conquering evil is an ongoing task with the X-Files. He believes the Bible offers similar themes, but without the paranoia.

So in relation to structural foundations increasing the validity of paranormal thought, a conflict between science and supernatural belief has been occurring for decades. A show like the X-Files reflects this conflict and cultural trends related to postmodernism. This makes the show a facilitator in the promotion of paranormal thought, with the best example being its alignment with religious ideologies to enhance its credibility.

Perception and Demands for Information

In terms of perception and demands for information, it is relevant to note that trends of government skepticism emerged in the 1960s alongside the emergence of increased paranormal thought. Against the backdrop of conflict between science and paranormal thought, people started demanding answers for the failures of the government and their lack of adequate disclosure of information. Lyndon Johnson's war on poverty quickly became a failure by what was supposed to be a rational, scientifically based program. Vietnam became a lost cause promoted by government hawks into the 1970s. Even into the 1990s, the Reagan administration failed to implement effective policies to deal with issues such as drug use. Some even started to argue the government has a conspiracy to intentionally allow illegal drugs into the country for economic advantage and social control (Ritzer 1996; Fenster 2001; Bracken 2002). Perhaps the most popular conspiracy associated with the government directly relating to the paranormal involves Area 51, the facility in Nevada rumored to be involved in extraterrestrial contact and also discussed in numerous X-Files episodes (Picard 1999; Books 2005). Based on our literary ethnography, it seems now, more than ever, a large quantity of published books, magazine articles, television shows, and feature films dedicate their content to conspiracies and the paranormal. As we have indicated with the X-Files, this increased media exposure of supernatural phenomena is influencing the way people think about the paranormal. Even if it is not changing their view on the validity of paranormal thought, it is exposing them to alternative ways of thinking and increasing the popularity of ideologies competing with rational, scientific thought. This corresponds with comments previously discussed by on-line sci-fi community members.

Therefore, media coverage of a conspiracy or paranormal event creates an elevated sense of public awareness. With the segments of the public being skeptical of the governments official position on many other issues, the public cries out for information from those in power. When people do not get it, a shift toward competing ideologies slowly starts alongside of elevated media coverage including fictional shows and non-fiction news reports. With skeptics questioning scientific reason and past actions of the government based on rational logic, the increased acceptance of competing, paranormal ideologies emerges giving them greater validity.

Triggering Events

With triggering events, it is important to discuss sensationalized paranormal events, resulting publicity, advances in technology leading to specialized community groups, increased access to information, and actions of media entrepreneurs. In terms of sensationalized paranormal events, Randles (2000) argues that specific circumstances involving individuals and supernatural phenomena activated the increasing belief in paranormal thought. Situations cited include, but are not limited to, Whitley Strieber's perceived alien abduction and the Bud Hopkins UFO sighting.

Strieber says extraterrestrial beings abducted him in upstate New York in the winter of 1985. He details the event in his book *Communion* (1987). Its popularity with the public led to three subsequent books and a feature film based on his experience. Considered an icon in the alien research community, Bud Hopkins was involved in a UFO sighting in 1964. He also published a book on his experiences called *Missing Time* (1981). Pushed by the publics demand for more information on his past, he engaged in subsequent research on extraterrestrial life and human contact. He continues to disseminate information through publications and lectures. Information detailing his experiences appears in publications such as *Time, The Washington Post, The New York Times, and People.* Along with appearances on National Public Radio, he has been a guest on television shows such as *Oprah Winfrey, Good Morning America, 48 Hours,* and *Unsolved Mysteries* (Intruders 2005). The publicity resulting from the stories of these men, and similar situations with others involved with the paranormal, laid the foundation for supernatural books, television miniseries, documentaries, and shows like the X-Files. Analysts believe shows based in the supernatural, like the X-Files, streamlined a variety of paranormal stories, and pushed forward lines of thought associated with the unknown in recent decades. The argument is that the X-Files:

> ...turned into a global phenomena that feeds off of and in turn enthuses the UFO (and paranormal) community. UFOlogy's myths and trends are skillfully incorporated, from Area 51 to abductions, and the governmental conspiracy oozes out of every episode. Of course what the series has done is transcend fiction and become accepted almost as fact by many viewers... The excesses created by the "X-files" has waned somewhat created by the ballyhoo in 1997 around the 50th anniversary of the birth of the modern UFO mystery. But this is no bad thing as the people with unrealistic expectation are fading from the scene and the hard core of longstanding researchers still remain. The growth of the Internet has triggered a fantastic arena for instant debate and analysis

> of evidence. UFOs remain the second most popular subject to be discussed on there, with thousands of sites. (Randles 2000 393-395)

As indicated by this comment, an important component also triggering the rise of paranormal thought in recent years involves technology. Outlets like the Internet allow people ostracized for beliefs in paranormal phenomena to come together - much like the sci-fi communities studied in this research. This allows for a mobilization of believers dedicated to pushing a paranormal agenda (Intuition Network 2000; Hodges & Ulsperger 2005). It is also relevant to note that with the increase in the acceptance of paranormal ideologies, entrepreneurs have invested and profited. Commercialism resulting from interest in paranormal triggering events, media coverage, and thought increased considerably over the past few years. Some critics even argue that some individuals claiming to have paranormal experience do so with only profit motives in mind (Randles 2000; Evans, Forsyth, & Forman 2003; Hodges & Ulsperger 2005). This is a neglected area in this field and warrants further exploration (for more see Camp 1997).

CONCLUSION

In December of 2005, CNN's *Larry King Live* aired a primetime episode entitled "Are Psychics for Real?" Guests on the paranormal side included clairvoyant James Van Praagh, self-proclaimed psychic Sylvia Browne, and spiritual intuitive Char Margolis. Showing some media bias on the issue, only one member of the skeptical, scientific community appeared – Dr. Brian Farha. Farha teaches a course at Oklahoma City University called "Science and Pseudo-science." The religious representative was co-author of the book *The Psychic and the Rabbi* (2001) - Dr. Shmuley Boteach. When first speaking, Boteach stated,

> I have yet to find a single psychic medium who can offer any information of any public utility or real personal usefulness. For example, where's Osama bin Laden?

Acknowledging the link between the paranormal and religion, Van Praagh responded, "Hasn't God told you yet?" At a later point, Farha attacked Browne, noting that he tracked her predictions for 2005 and found her to have a 25-30 percent accuracy rate. The problem was that he gave the same topics she predicted for to a fourth grade class. They had a 50 percent accuracy rate. Van Praagh stepped in and defended her stating "How can we apply three-dimensional laws to information that's a fourth or fifth dimension?" Regardless of who was right and who was wrong, the show crystallized the positions of competing paranormal and scientific ideologies while including religious perspectives. Interestingly, few callers telephoned into the show supporting the scientific paradigm (see King 2005).

Using an adaptation of McGarrell and Castellano's (1991) integrative conflict theory, it becomes apparent that a larger cultural shift is leading to an increased acceptance of paranormal ideologies. The backdrop of structural foundations relating to the conflict between science and paranormal logic, characteristics associated with postmodernism, and an alignment with legitimate religious ideologies created a climate for this occurrence. It helped to facilitate demands for official knowledge from a government making mistakes based on rational, scientific logic. It helped to generate prolonged media coverage of the paranormal and the crafting of competing perceptions of reality. With the stage set, triggering events such as individual experiences, media trends, the coming together of communities in cyberspace, and profit motives pushed the acceptance of paranormal ideologies to a new level. Playing a part in all of this is the X-Files. Many people are familiar with the show. Moreover, casual viewers of the X-Files acknowledge its important themes on supernatural elements, extraterrestrial beings, and conspiracy theories. This implies the show is a success in exposing and normalizing the public to paranormal themes. Interestingly, on-line sci-fi fans indicate trust and the importance of social bonds represented through the show's lead actors gave them a connection with the characters and increased their perception of legitimacy of the show's topics.

As this research implies, there is little doubt that a show like the X-Files is playing a part in the increased acceptance of paranormal ideologies. Whether these ideologies will replace the scientific paradigm remains to be seen. One thing we do know, is that if they do, they end up being as useless as paranormal proponents claim science currently is. As Dr. Boteach stated on *Larry King Live*,

> A year ago this week, Larry, 300,000 people were killed in a tsunami. James Van Praagh says to us that he feels energies... not a single psychic felt that?

Van Praagh responded by saying,

> Just because things cannot be proven scientifically in the scientific method or the way you choose it to be in your paradigm, your way of thinking, it doesn't mean it doesn't exist.

His comment sounded "just like stuff right out the X-Files."

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ROMANCE NOVELS AND FEMALE SEXUALITY: VICARIOUS PARTICIPATION?*

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ABSTRACT

This study explores the association between time spent reading romance novels and female sexuality. The respondents were 436 white female college students, age 18–47. Several variables of interest are used to indicate sexuality: 1) age when thoughts of sex first occurred, 2) age at first intercourse, 3) strength of sex drive, 4) sex addiction, 5) number of orgasms, 6) number of sex partners, and 7) femininity. Our results show that readers of romance novels self-reported greater sex addiction, greater sex drive, and greater number of orgasms required for sexual satisfaction than non-readers. However, readers had fewer sex partners, and were older when they had their first thoughts about sex and had their first sexual intercourse. This pattern fits the *Harlequin* romance stereotype of nourishing a satisfying sex life in the context of romantic monogamous fidelity while at the same time vicariously fulfilling desires through fictitious characters.

INTRODUCTION

Gender differences in sexual attitudes and behaviors are well-documented (DeLamater & MacCorquodale 1979; Louderback & Whitley 1997; Parameswaran 2002; Walsh & Walsh 2002). Males are more likely to have sexual fantasies and to masturbate while doing so (Ellis & Symons 1990; Knoth, Boyd & Singer 1988; Oliver & Hyde 1993). In general, females tend to fantasize about themselves as *passive* receivers of the sexual advances of powerful men while males fantasize about themselves as initiators and "conquerors." While sexual fantasies are personal affairs, they are strongly influenced by the biology of sex and the social construction of gender (Giddens 1992).

Gender-typical responses to erotic literature have recently generated scholarly interest (Rabine 1985; Radway 1984 & 1987). Oliver and Hyde (1993) conducted a meta-analysis of 177 studies and found substantial gender differences in respondents' interest in pornography, frequency of masturbation, and frequency of casual sex. It has been found that from the earliest days of life, males are "visualizers" or "objectifiers" which later in life make them susceptible to the kinds of visual impersonal sexual stimuli represented in pornography (Geary 2000; Baumeister 2000). On the other hand, females prefer symbolic meanings of sexual identity and a relationship, are unenthusiastic and negative about pornography, and prefer romance novels (Lottes, Weinberg & Weller 1993). Thus an interest in pornography is often considered an almost exclusive male interest (Christensen 1990) and reading romance novels is considered an almost exclusive female interest (Itzin 1992).

However, some females do show an interest in pornography. Walsh (1999) found substantial differences between female readers and non-readers of pornography in several indicators of female sexuality, such as sex addiction, number of coital sex partners, and number of orgasms per month required for sexual satisfaction. In fact, female readers of pornography were closer to males on all indicators of sexuality than to female non-readers. Much of the previous research on this topic has centered on the impact of pornography on the sexuality of male audiences and reports such findings as rapists and child molesters are significantly greater consumers of pornography than males in general (Bauserman 1996; Carr & VanDeusen 2004).

Empirical research on the association between reading romance novels and female sexuality for readers and non-readers is scant. Do readers reflect the female stereotype depicted in such novels in both their desires and their actual behavior, or does reading them represent only vicarious participation? The only empirical work addressing this question found that pregnant high school girls (a palpable indicator of expressed sexuality) judged that the content of romantic novels epitomized their own sexual desires and behaviors more strongly than did never-pregnant high school girls (Muram, Rosenthal, Tolley & Peeler 1992).

Romance novels are a major money-maker for publishers. A 2003 report showed that an astounding 55 percent of all paperback fiction sold in the United States between 1999 and 2002 were romance novels and that they generating more than $1.63 billion in sales in 2002 (Romance Industry Statistics 2003). Although about 60 percent of all U.S. households purchase no books, over 51 million individuals reported that they read at least one romance novel in 2002. Of those readers, about 71 percent were women between the ages of 20 and 54, and 63 percent of that group had either a college degree or some college education (Romance Industry Statistics 2003). Given the great popularity of romance novels among women it would be surprising if readership did not reflect something about sexual self-images and if readers did not differ from non-readers on this variable.

THEORETICAL BACKGROUND

According to evolutionary theory, gender differences in sexuality result from the natural selection for sex-specific solutions to adaptative problems each sex faced in ancestral times (Vandermassen 2004). Given that a woman's parental investment is obligatorily enormous and a male's obligatory investment is limited only to contributing sperm, it would be surprising indeed if the sexual strategies of the two genders did not differ in a number of ways. Males gain more in terms of reproductive success following a strategy of mating with multiple partners while the increased probability of female reproductive success lies mainly in securing resources from a male to assist her in raising offspring. There are no fitness benefits for females to mate with multiple partners, indeed, the opposite is true, and thus evolutionary logic implies that they will be choosier in her mating habits and come to prefer carefully selected males that are devoted and committed to a long-term intimate relationship (Baumeister 2004; Geary 2000; Malamuth 1996).

This does not imply a simplistic "men are from Mars; women are from Venus" view of gender differences in sexuality. As Schmitt (2004 4) has put it: "women possess all the hallmarks of having evolved a short-term mating strategy" but it is "a strategy based on selectively desiring men of high status, dominance, and genetic quality." This description of desirable males, of course, is exactly the description of the heroes desired by the heroines in romance novels. Male short-term sexual strategy, on the other hand, is far more indiscriminate and emphasizes quantity over quality (Baumeister 2000), and this is the content of male fantasies that are fueled by pornography. In short, male sexual fantasies are prompted by the natural male tendency to *visualize* sexual images of unfamiliar women that reflects their short-term male mating strategy, while female fantasies are driven by the natural tendency of females to respond to auditory, contextual, or symbolic contents of erotica that communicates a desire and passion for familiar persons, all of which signify the long-term elements of female mating patterns (Malamuth 1996; Taylor 2005).

From a symbolic interactionist perspective, romance novels can be regarded as a form of text-reader interaction, a system of values and languages, an evolution of cultural ideals embedded in social institutions and structured by regularity and rules. From a Goffmanian perspective (1983), different cultural and social groups may instill diverse forms of sexuality with particular cultural meanings embedded in religious beliefs and/or moral values. Individuals may vigorously construct and reconstruct their sexual practices and experiences over their life cycle and, consequently, creating their identities as sexual beings. These structured ways of constructing sexual identity and the self are understood as an "interpretive representation," facilitating people to "locate, perceive, identify, and label" episodes within their life and the social world at large (Goffman 1974 21).

Goffman was referring to what modern psychologists call *erotic plasticity* (Baumeister 2004). A cascade of evidence from around the world indicates that females evidence far more erotic plasticity than males and this plasticity is a function of female sexuality being less tied to biology and more to culture than male sexuality (Baumeister 2000, 2004; Schmitt 2003). In other words, a less intensive motivation to engage in sex driven by a less powerful sex drive allows female sexuality to be more flexible and more prone to socialization influences. Among these influences are romance novels, a medium that provides readers opportunities to create sexual fantasies the acting out of which is denied to them in the real world. As Giddens (1992 123) has put it

> Sexual fantasies, when consciously employed, can create a counter-order, a kind of subversion, and a little space into which

Table 1: Comparisons Between Female Readers and Non-Readers of Romance Novels on Means of Seven Indices of Sexuality

Variable	Mean	t	Sig. t
Age when first thought about sex			
Reader	14.65	-3.72	<.001**
Non-reader	13.63		
Age at first intercourse			
Reader	17.56	-2.19	<.05*
Non-reader	16.92		
Strength of sex drive			
Reader	72.10	-7.32	<.001***
Non-reader	59.00		
Degree to which addicted to sex			
Reader	45.20	-4.26	<.001***
Non-reader	19.01		
Number of orgasms desired per month			
Reader	12.10	-3.71	<.001***
Non-reader	5.81		
Number of sex partners			
Reader	5.20	2.26	<.05*
Non-reader	7.00		
Femininity score			
Reader	64.51	-3.14	<.01**
Non-reader	73.10		

*p<.05; **p<.01; ***p<.001

> we can escape, especially when they scramble all those neat and oppressive distinctions between active and passive, masculine and feminine, dominant and submissive.

Feminist views are less positive about the function of romance novels. They make the obvious point that the relationships described by romance novels and in the subsequent sexual fantasies that they generate rarely exist in the ordinary world. They add that the real world favors the values of male hegemonic power. Social reality is deeply rooted in gender stereotypes and these male-favoring stereotypes are reinforced in romance novels. In addition, romance novels are a form of commodity based on selling fantasies to women that emphasize the kinds of fidelity and love that echo the ideologies of consumerism and capitalism.

Through text-reader interactions, female readers become the "willing surrenderers" to the system of gender oppression that supports and reinforces females' social subordination. A recent ethnographic research partially confirmed the influence of Western romance novels and female sexuality in India (Parameswaran 2002). The author argued that reading Western romance novels reflects the deeply-rooted patriarchal discourses of feminine ethics that controls Indian women's sexuality. Parameswaran (2002 832) argued that in India:

> young women are fascinated by the commodities of Western material culture in imported romance fiction is located in their desire to experience their identities as cosmopolitan, global consumers. In negotiating the boundaries of tradition, Indian women readers construct romance fiction as modern manuals on sexuality that afford them escape from the burdens of preserving the honor of family and community.

Given the preceding, we hypothesize that readers of romance novels would have higher levels of interest in sexuality (at least in the abstract) than non-readers. If the assertion is true that such novels are a major source of socialization relating to the "proper" behavior of women, however, sexual abstractions may not necessarily translate into sexual behavior.

METHODS AND DATA

This is a descriptive analysis which attempts to assess the degree to which a single variable (readership of romance novels) is associated with a variety of indicators of sexuality. Subjects are 436 white female college students ranging in age from 18 to 47 who participated in the study for extra credit points. Subjects were asked the percentage of their reading time that they devote to romantic novels: those who indicated any percentage that was greater than 1 were classified as readers (n=308, 70.6%), while those who indicated zero percentage were classified as non-readers (n=128, 29.4%).

The variables of major interest were: 1) age when thoughts of sex first occurred; 2) age at first intercourse; 3) strength of sex drive; 4) degree to which they feel addicted to sex; 5) femininity score; 6) the number of orgasms monthly required for sexual satisfaction, and 7) number of lifetime sex partners. Self-assessed items 3, 4, 5, and 6 asked respondents to assess themselves on a scale ranging from zero to 100 on each item (e.g., "To what degree do you fell you are addicted to sex?"). Items 1, 2, and 7 simply asked for the values or numbers. Various demographic variables such as age, marital status, and socioeconomic status were also included.

RESULTS

Readers did not differ significantly from non-readers on any of the demographic measures but did on all measured indices of sexuality. With respect to the self-assessed indices of sexuality, Table 1 shows that there are considerable group differences on femininity, strength of sex drive, degree of feelings of sex addiction, and number of orgasms for sexual satisfaction with readers scoring higher than non-readers on all variables. These findings indicate a strong self-assessed interest in sexual activity *in the abstract* among readers of romance novels, relative to non-readers. In terms of overt behavioral differences, however, we find a somewhat different situation. The average age when readers first thought about sex was 14.65 compared to the average age of 13.63 for non-readers (t = -3.72, p < .001). Readers and non-readers differed in terms of the age at which they experienced their first sexual intercourse, with readers first experiencing it at 17.56 and non-readers at 16.9 (t = -2.19, p < .05). Readers also had fewer sex partners (M = 5.2) than non-readers (M = 7.0) (t = 2.26, p < .05). In terms of palpable indicators of sexuality, then, readers turn out to be less "sexual" than non-readers.

DISCUSSION AND CONCLUSION

Our results reveal that female readers self-reported greater sex addiction, greater sex drive and greater number of orgasms required for sexual satisfaction than non-readers. This would lead us to suspect that readers would have a varied sex life and sexual activities with more partners than non-readers, and that they would have thought about and commenced sexual activity at a younger age. Contrary to expectations, readers of romance novels had fewer sex partners, a lower level of self-assessed femininity than non-readers, and were older when they had their first thoughts about sex and had their first sexual intercourse.

These findings are not so unusual when viewed in the light of a large number of studies that have shown a much greater inconsistency between attitudes and behavior among females than among males when it comes to sex (reviewed in Baumeister 2000). This attitude/behavior inconsistency coheres with the view of greater erotic plasticity in females than in males. Male sexuality is widely considered to be more tightly bound by biology and thus more rigid and less open to modification by sociocultural factors. The greater degree of female sexual plasticity allows them to more readily adapt to changing circumstances and thus to be more malleable to socialization. We argue that the content of romance novels is at least a modestly powerful molder of the sexuality of those who read them. From a feminist standpoint, by imagining being a heroine in a romantic fantasy, readers find an escape from the burdens of preserving female subordinated status. The content of most romance novels reflects the profoundly embedded patriarchal discourses of female constraints; so reading romance novels plays a role in shaping the meaning of the self, sexual identity and attitudes and behavior relative to this patriarchy. Thus the overall results of this study suggest that the general attitude/behavior pattern of readers of romance novels fits the *Harlequin* stereotype of nourishing a satisfying sex life in the context of romantic monogamous fidelity while at the same time vicariously fulfilling sexual desires through fictitious characters in romance novels.

Several limitations of this study are acknowledged. Because of sampling limitations and the non-experimental nature of the study, no cause/effect statements can be made; that is, are the attitude/behavior inconsistencies noted among romance novel readers the result of the socialization influences of the novels or do people with such inconsistencies gravitate toward such novels? Further, the sexuality-related items were not defined for respondents, thus allowing them to place their own subjective definitions and idiosyncratic interpretations on them. Nevertheless, the overall pattern of findings is in the direction predicted by the erotic plasticity hypothesis. The results presented here do provide intriguing possibilities for future research into the role of romance novel reading in the sexual lives of those who read them.

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TOWARD DEVELOPING A PROFILE OF SUICIDE TERRORISTS: A SOCIOLOGICAL ANALYSIS*

Raghu N. Singh and Amir Abbassi
Texas A&M University-Commerce

ABSTRACT

Our major objective in this paper is to report findings of a small scale study aimed at developing an initial and general profile of suicide terrorists in the contemporary world. We employed Delphi procedures for listing characteristics and behaviors of suicide terrorists at psychological, demographic, economic, and sociopolitical levels of analysis. We first based their initial listing on the existing literature and media reports, which was then handed over to a panel of 73 'experts' in personal interviews conducted in two rounds. Our respondents finalized a list of 48 characteristics of suicide terrorists grouped under three major headings. Our research was guided by the sociological perspective and appears to have a suggestive role for future studies by providing several useful ideas on the subject of suicide terrorism.

PROBLEM STATEMENT

The phenomenon of terrorism has, particularly during the past few decades, added a unique and probably one of the most dangerous styles of violence against the humanity in the form of the so called 'suicide terrorism.' Individuals engaged in this form of killing are "true believers" (Hoffer 1951 1-3), whose only reality is a blind faith in their 'just cause,' often legitimized in an apparent sense of desperation without the use of scientific logic for vested interests of their own collective body or group beyond which nothing seem to matter. They generally tend to lose sight of own personal meaning of life and become seriously committed to conversion of the world into their fantasies by turning into the so called human bombs. Studies have reported an increasing trend in suicide missions for achieving terrorist goals (Lutz & Lutz 2004).

Suicide terrorism has become a viable source of violence in the contemporary world because it is cost effective (for example, Al Quaidas used American resources and perhaps little funding of their own to cause one of the most deadly forms of destruction in history on September 11, 2001), relatively easier and quicker to execute, extremely difficult to detect, and very unpredictable as to when, where, how, or why it takes place. Examples of suicide missions are on the rise in various parts of the world despite of desperate efforts to detect them even in very contained locations such as Kashmir, Iraq, Israel, and Sri Lanka. It seems that we currently lack theoretical and methodological capability in almost all disciplines to be able to adequately understand or comprehend all dimensions of this complex process of violence in human society. We do, however, find in the literature numerous anecdotal and historical narratives of incidents and political movements involving suicide terrorists. We particularly find all sorts of interpretations and sometimes even emotionally charged articles on the subject on the web and in other popular media, often focusing on particular political and "religious" groups propagating justifications suicide terrorists have. Many of these analyses perhaps distort facts and usually provide limited knowledge of multiple causes and correlates of suicide terrorism and its impacts on lives of people across the globe. Available data on suicide terrorists are often sketchy, sensationalized, or classified under the jurisdiction of various countries. We need systematic research in natural and social sciences for effectively investigating forms and correlates of suicide terrorism in order to deal with this serious problem. We find the sociological perspective as a meaningful approach to study and interpret issues related to the problem. It is a broader perspective that incorporates analyses at various levels (individual, social, cultural, ecological, and so forth).

Objective

The major objective of the study we are reporting here is to use the sociological perspective toward identifying selected characteristics of suicide terrorists. In that regard, suicide terrorism is considered to be a social or a collectivity related phenomenon though it incorporates psychological or other possible components. The sociological perspective would also view suicide terrorism as a process involving multiple and interacting circumstances and factors involved.

Our specific objectives include the development of ideas for 1) testing the accuracy as well as conceptual relevance of a particular method for profiling, screening or detecting suicide terrorists, and 2) outlining an actual profile of suicide terrorists in terms of an initial list of their probable individual, demographic, economic, cultural, political, and social characteristics. We view our study as an intellectual exercise in attempting to build a tentative and general profile of suicide terrorists and its sociological interpretations. In doing so, we did not attempt to target any particular nation, ethnic, religious, separatist or political groups as such.

Rationale

This study should have implications for improving the accuracy of identifying or detecting suicide terrorists. Studies like this may help, hopefully in the long run, in reducing economic and social costs associated with threats and occurrences of suicide terrorism in various parts of the world. It may also have implications for improving methodology of profiling suicide terrorists in a scientific manner rather than in arbitrary, labeling, or other simplistic methods often used by law enforcement agencies in various countries.

A few studies have demonstrated that profiling is emerging as a "legitimate adjunct" to criminal investigation (Turvey 1999). We have come a long way from the Italian physician, Lombrosos (1835-1909), and his limited and crude efforts toward biological profiling of criminals to more recent systematic efforts in that regard made by forensic pathologists and Federal Bureau of Investigation agents. However, criminologists have generally been concerned about profilers not publishing their analyses due to information sensitivity and there has been a lack of non-partisan professional organizations working on ethics and standards for developing and using criminal profiles. A few investigators have gone ahead by providing individual profiles of specific terrorists (Whittaker 2004: 62-73) rather than working on general profiles applicable to such criminals. Serious efforts are needed to improve upon both deductive and inductive methods of criminal profiling, including those who have been or are likely to be engaged in terrorist activities. It is possible that even minor attempts in conducting research using a profiling method, such as the one we are reporting in this paper, might help toward eventual refinement of investigative techniques in the field.

METHODOLOGY

In the search for better methods of profiling suicide terrorists, we selected the Delphi technique to develop at least an initial draft of a profile of suicide terrorists. This "intuitive technique" has methodological potentials for utilizing the knowledge of experts in a particular area of investigation (Singh & Webb 1979). The technique has relevance to what C. Wright Mills (1959) called "sociological imagination" as it connects to both history as well as biography of individuals being profiled.

Delphi Procedures

In general, the Delphi procedures for developing a profile of suicide terrorists consisted of the following steps.

First, we developed an initial profile of suicide terrorists based on the existing knowledge in the literature. The major step toward accomplishing that objective was to prepare an initial list of characteristics or behaviors of suicide terrorists that could be handed over to experts or judges who would rank them in terms of degree of importance and then could add to that list whatever they considered relevant and important. To achieve that goal, we consulted scientific literature, on-line materials as well as popular magazines and newspaper reports relevant to suicidology, terrorism in general, and suicide terrorism in particular. For example, the literature helped us in identifying the characteristics of people engaged in suicidal behaviors (Douglas 1967; Dublin 1963; Maltsberger & Buie 1980; Maris 1991; Maris, Berman, & Silverman 2000); those who have been notorious as terrorists in general (Kupperman & Trent 1999; Kushner 1998; Lutz & Lutz 2004; Simonsen & Spindlove 2004; Whittaker 2004); and ones who have been known to have participated in incidents of suicide terrorism (Cooley 2000; Kaarthikeyan & Radhavinod 2004; Sivan 1985; Swami 2003). We also looked into at least theoretically relevant causes and correlates of the characteristics of suicide terrorists in order to understand their background. Some of these correlates included variables connected to psychological, ecological, demographic, social and cultural contexts.

Second, we selected a "panel of experts" consisting of professionals and community leaders who were assumed to be somewhat knowledgeable of the suicide terrorism area of study, or were capable of using realistic logic in helping us understand it. Professionals included scholars, researchers, and practitioners having a background in several disciplines, such as anthropology, criminology, jurisprudence, education, psychology, forensics, biology, business, history, religion, political science, economics, social work, and sociology at three state universities located in a metropolitan area in the southwestern United States. The community leaders included residents of that area who had a reputation of being leading actors and were immigrants from India, Pakistan, Egypt and Iran. These 'leaders' were conveniently accessible to us and we expected them to be somewhat knowledgeable about regions of the world which have been impacted by terrorist activities during the past few decades. Professionals and leaders were selected through a snow-balling or chain-referral technique based upon their reputation. Thus, we gave each respondent a list of our potential expert or knowledgeable persons in their category of expertise and then asked them to add names of influential people in various categories of the list, when possible. We identified 108 names of these professionals and leaders through that chain-referral technique and collected our data from 73 of them. The non-random sample in our exploratory study consisted of 18 faculty members (teachers/ researchers) in sciences and technology, 21 in social sciences, and 15 in colleges of education. In addition, 19 community leaders participated in the study.

Third, we contacted and personally interviewed 73 respondents through a questionnaire consisting of profile items presented through an open-ended design to elicit a broad range of responses. We understand that many users of the Delphi technique employ mailed questionnaires for data collection. Interviewing respondents appeared to be a necessity for us because of the sensitive nature of our topic of study and because of the types of respondents involved. In addition, interviewing respondents ensured a satisfactory response rate (despite an initial loss of 35 potential respondents) and we took notes on their candid reactions to profile items and their comments helped us in evaluating their responses.

Fourth, we statistically analyzed responses from the first round of interviews to determine the degree of consensus among respondents on each item of the profile. Then, in a second round, we provided them with their average responses (mean, standard deviation, and interquartile range) on each item from the first round and asked them to reconsider their earlier responses if considered necessary by them. The standard deviation on an item represented a degree of consensus among respondents, while a mean response on the scale was an indicator of the degree of an item's importance in relation to other items. We assumed that in cases where a person's response is outside the group interquartile range, justification for the extreme response should be clearly stated. Of all respondents, we found the community leaders to be the most cooperative in the interview process. It took us five months to complete interviews in both rounds, though the second round of interviews went much faster than the first one. We asked our respondents in the second round to help us reassess former responses and finalize the ranking of various characteristics of suicide terrorists. We also asked them to help us group those characteristics into as many categories as possible. The grouping of characteristics enabled us and our respondents to conceptually relate them with each other and be able to interpret them and their ranking process. Six respondents could not be re-interviewed during the second round.

Usefulness of the Delphi Technique

The Delphi approach has been used in studies concerning several kinds of problem areas especially as a tool for forecasting. It has proved to be a valuable technique for planning and forecasting the long-term future (Singh & Webb 1979). A large number of studies sponsored by the Rand Corporation have employed Delphi procedures in developing criteria for decision making and policy formulation, including those in higher education (Custer, Scarcella & Stewart 1999).

A number of scholars have discussed the merits of the Delphi approach. We are summarizing a few advantages of using this approach as follows: 1) The Delphi approach relies on the rationality of group judgment, or "n-heads are better than one." It is a process of eliciting and refining the opinions of a group of individuals. The individuals remain anonymous to each other; their opinions are continually refined and reiterated; and feedback to participants is controlled. 2) The Delphi approach is a variant of the panel or committee approach for arriving at a consensus of majority opinions. Its design eliminates or prevents face-to-face confrontation, specious persuasion, and the bandwagon effect of a majority agreement. It replaces direct discussion with a series of carefully controlled questionnaires that report back edited and new information to the participants, where they act in privacy and react to the successive inputs. 3) The Delphi approach uses some form of statistical index as a representative of the group opinion. Thus, there is no particular attempt to arrive at unanimity among the respondents, and a spread of opinions on the final round is the normal outcome. 4) The Delphi approach is very useful in such areas as profiles of terrorists where objective and valid measures are not easily accessible. 5) The Delphi approach provides flexibility for the research in various ways. There is no "cut and dried" set of steps to follow and it provides variations of possibilities during each phase of inquiry.

FINDINGS

The Delphi procedures facilitated the final selection and ranking of psychological, demographic/economic, and sociopolitical characteristics of people who were considered to be engaging in acts of suicide terrorism around the globe on the basis of consensus among professionals and community leaders as experts. Selected findings related to that are summarized below.

Characteristics of Suicide Terrorists

As stated earlier, we started with a rather long list of possible personality, social, cultural, economic, demographic, and political profiles of individuals and groups involved in suicide terrorism on the basis of literature. The respondents, based on consensus and rankings of traits, arrived at the following three categories of characteristics of suicide terrorists. These characteristics are listed under three subheadings in a rank order of average importance (from highly important to less important) as assigned by our respondents. We grouped some of the ranked characteristics in various categories through a consensus among respondents during the second round of interviews.

1) The psychological and personality profile of individuals/groups:

- being emotionally charged for militancy against particular govt./authority; dependent, particularly on some specific person(s) of authority or charisma; having a conviction that violence is the only way to defend self, family, community, or nation from the perceived aggressions or invasions by others;
- having low self esteem but a false/irrational sense of courage/confidence; a lack of specific goals and direction in life; having a sense of desperation; being depressed; pessimistic outlook; sense of having experienced significant loss/deprivation; having a nomadic (unsettled) lifestyle; loner and egocentric;
- being obsessive/compulsive; having anxiety disorder; serious temper/anger control problems; being rash/erratic, authoritarian and controlling; focused on blaming someone/something particular or general for own problems;
- being inflexible/rigid, resisting change; having persistence/perseverance in perusing same cause and behaviors over time; having experienced a dramatic change in the recent past;
- tend to label people/cultures/nations without giving it a second thought;
- individuals having a history of a certain degree of mental illness, emotional disturbance or psychopathology; a history of overt/covert suicidal tendencies; phobic/hateful of law enforcement and military people; substance abuser; fatalistic.

2) Demographic and economic characteristics of individuals/groups:

- largely young, single males recruited at tender age (though there is a recent trend of recruitment of females of all ages among some terrorist groups such as Tamil Tigers);
- none/unstable employment history; relatively lower socioeconomic status, including low or a conditioned/highly regulated/programmed educational

Table 1: Correlation Matrixes in Terms of Spearman's Rank Order Correlation (RHO) Coefficients Showing Interrelationships Among Four Sets of Sample in Profiling the Suicide Terrorists

	Total N (N=73)	Scientists (N=18)	Social Scientists (N=21)	Educationists (N=15)
Degree of consensus in ranking profile items				
Scientists	0.61*			
Social Scientists	0.42	0.29		
Educationists	0.59*	0.41	0.64*	
Community Leaders	0.38	0.26	0.57*	0.49*
Degree of importance assigned to profile items				
Scientists	0.73*			
Social Scientists	0.54*	0.43		
Educationists	0.44	0.33	0.55*	
Community Leaders	0.48*	0.40	0.49*	0.36

*Related t-test values significant at .05 or less.

background; a low rate of intergenerational/intragenerational mobility
- likely to belong to particular ethnic/nationality/religious background (which may vary from place to place and from time to time).

3) Sociopolitical background of individuals/groups:
- having expectation of or received viable publicity for a cause through mass media;
- a vocal lack of trust in legal recourses such as negotiations/collaborations/conflict resolutions and in organizations that provide help in those at international level;
- having been recipient of financial and emotional support from a terrorist group/individual(s); having access to a training facility for terrorism;
- having a commitment to the fanatic/radical interpretation of a particular religion;
- having been oversocialized and controlled from childhood; strong belief in familism/kinship ties and being suspicious of bureaucratic organizations;
- strongly committed to a separatist political ideology; tend to be highly involved in a particular cause/movement; having a tendency to support a dictatorial orientation in government; having been affiliated to a group that has a history of violence;
- having own or close family or friends' criminal and/or suicide history; having been a victim of violence/abuse; had a family member/friend who has been a victim of terror;
- ethnocentric and has a racial/religious prejudicial orientation toward select groups.

Interrelationship among Four Sets of Respondents

Data presented in Table 1 show the interrelationship among the four groups of respondents in terms of the degree to which they had consensus ranking items to profile suicide terrorists and the way they assigned importance to those items. Spearman rank order correlation (RHO) coefficients presented in the table indicate that several significant differences existed among the four sets of respondents in their levels of consensus over the profiling items as well as varying degrees of importance given by them to items. Data indicate that scientists and educationists had the strongest correlation to the total N in having consensus over selecting characteristics of suicide terrorists. On the other hand, while the social scientists and community leaders were in agreement with each other, they did not have significant consensus with others in the group the way the profiling items were ranked. However, social scientists and scientists did agree with each other in assigning importance to various profiling characteristics. The social scientists and educationists also agreed with each other in assigning importance to items.

Contribution of the Second Round

A second round of interviews with re-

Table 2: The RHO Coefficients for Responses in Round 1 and Round 2

In Terms of Degrees of Consensus	Scientists	Social Scientists	Educationists	Community Leaders
Personality Profile	0.97*	0.78*	0.81*	0.92*
Demographic Characteristics	0.99*	0.83*	0.93*	0.89*
Sociopolitical Profile	0.88*	0.70*	0.86*	0.79*

*Related t-test values significant at .001 level or less.

spondents was expected to improve levels of consensus on profile items that possibly had initially lacked in the first round. The RHO coefficients presented in Table 2, however, indicate that consensus over items was strongly correlated during both rounds and, therefore, did not significantly improve in the second round. However, several respondents did make contributions in helping us add new profile items and gave us additional help in ranking, grouping, and interpreting various profiling characteristics during the second round.

DISCUSSION AND IMPLICATIONS

We realize that our effort to profile suicide terrorists may be considered by some to be rather tentative. We also do not know whether our listing of characteristics and behaviors of such terrorists is literally reliable and valid. Scientific data on profiles of suicide terrorists are not openly available in the literature, except in selected books and articles that talk about unique historical and individual characteristics of certain terrorist groups or persons. It is difficult to check on the validity of our list by comparing it with specific terrorist individuals or groups. We do, however, feel a sense of accomplishment in being able to develop an initial profile of suicide terrorists with the help of literature as well as of seemingly interested university teachers, researchers, and community leaders who spent considerable amounts of time in selecting, ranking and grouping profile characteristics through common sense, conceptual thought and rational logic. We are confident that the Delphi procedures enabled us meaningfully to become better organized and systematic in developing the profile.

The study reported here was rather exploratory and thus has a suggestive role for explanatory and relatively more conclusive research in the future. It seems that we have probably made a start in developing a profile of suicide terrorists and are hopeful that it will build into a more comprehensive and accurate profile through continued research and application efforts in the long run. We, in the meantime, urge that our profile should be used cautiously by avoiding efforts toward overgeneralization and reductionism. Of course, we can draw implications from our findings for thought and ideas for drawing future research hypotheses. For example, it is interesting to note that our respondents considered the usage of suicide in terrorist activity as unique or at least different from what has been traditionally considered as normal suicidal behaviors. Thus, they ranked psychopathology and mental illness as being of lower importance for suicide terrorism than what had been done earlier by many suicidologists for suicide in general (Dublin 1963; Maris 1991). Other characteristics of suicide terrorists help us realize that we need to be careful before we apply concepts, such as Durkheim's (1951) 'altruistic suicide,' to interpret their behaviors as terrorism is generally a self or group centered task and may not seem to have any relevance for altruism as such. Studies (Pescosolido & Georgianna 1989) recognize that the role of religion or altruism has to be carefully interpreted in light of factors such as the degree of religious fanaticism caused by certain political factors and other aspects of social integration operating in particular religious groups or situations.

As one of the implications of this study for future research, we need to use a larger sample using the Delphi methodology. We will need to expand the scope of our sample and include in it the law enforcement agents and scholars from those countries that have been exposed to suicide terror. We will particularly need to add to the sample those individuals who have had experience in handling cases in the field and thus can use an empirical logic in addition to the conceptual or theoretical logic in developing profiles of suicide terrorists.

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DOES MONEY BUY HAPPINESS? A LOOK AT GEN Y COLLEGE STUDENT BELIEFS

Deborah A. Abowitz, Bucknell University

ABSTRACT

This paper examines what college students today aspire to achieve after graduation and what goals and job characteristics they believe are associated with happiness. A random sample of 154 undergraduates from a mid-Atlantic liberal arts university voluntarily completed a confidential 140-item questionnaire, including a ranking of post-graduation life goals and preferred job characteristics. Analyses revealed that college students overall do not associate financial security, material things, or a job with high salary and benefits with happiness. Instead, having an "interesting" or "challenging" job is positively related to being happy. Significant differences by gender and between members of fraternities/sororities and "independents" are noted. Conclusions and implications of these data are discussed.

"What kind of job do you want after college?" "What is most important to you about a job – how much it pays or whether it is interesting work?" "Does money buy happiness?" These are questions with which all college students wrestle as they look to the future. They are important questions whose answers are embedded in the larger context of American values, culture, and generational change. The study of American values, culture, and character has a long history, from Alexis de Tocqueville in the 1830s, to Lloyd Warner's (1963) richly detailed study of Yankee City in the 1930s, to Bellah, et al.'s (1985) best-selling analyses of our "habits of the heart." Studies of American culture help us understand individuals' goals and aspirations, the changing nature of community, and, most especially, the ever-changing shape of the American Dream. Within this larger cultural milieu, each generation shapes their own ideas of success and happiness – what it means to "make it" in America.

By examining the extent to which students' ideas of happiness today are (or are not) tied to aspirations of financial security and material wealth, we can assess the extent to which the traditional ideas of the American Dream persist in the rising generation. What job characteristics do college students today value most? Do they emphasize economic and material success or personal happiness? Do they define one in terms of the other, that is, do they believe money buys happiness, and if so, do they prefer jobs that have high salary and benefits over those that are more interesting and personally challenging? The answers to these questions provide important insights into the values and character of Gen Y, the emerging post-Gen X generation.

When we look at the now well-studied Gen X, generally considered those born between 1965 and 1977, the answers to these questions seem fairly clear. Financial success is important to them and they want jobs that pay well. They are caught between the skyrocketing costs of supporting an aging society and those required to educate their children (Reynolds 2004). This cohort places great importance on employment choices, long-term financial planning, and accumulating money for retirement, perhaps more than any other generation (Lach 1999). They were and are economic achievers (Maguire 1998), despite public perceptions of them as a cynical generation of alienated slackers. When interviewed, researchers have found that young Gen Xers are quite optimistic about their own futures, individually, however pessimistic they are about the overall chances for their generation (Arnett 2000).

But the successors to Gen X, that is, the members of Gen Y or the Millennials as they are sometimes called (Howe & Strauss 2000; Paul 2001a), may be somewhat different. Some consider today's undergraduates to be a part of Gen X, but they are actually the older members of Gen Y, those born between 1977 and 1994. They have been socialized by different demographic and historical events than those which shaped the true Xers and the Baby Boomers before them. This cohort has been socialized by Columbine, MTV, talk shows and reality tv, as well as celebrity scandals rising as high as the White House (Paul 2001b). When interviewed, Gen Y appears to be both pragmatic and positive about their lives after college. Having come of age in the golden days of the new economy of the 1990s, the older members of this cohort certainly view the economy more optimistically than those who came out of college in the 1980s (Nayyar 2001). When it comes to the job market, anecdotal evidence has shown us that they look for things beyond just salary and benefits. Although fair compensation is important, they also want training and most importantly, they want a "positive company culture" – they will trade higher pay for a supportive and stimulating work environment (Gardyn 2000). Politically, Gen Y is also reported to be more optimistic than Gen X – seemingly "untroubled by simultaneous expressions of open-mindedness and traditionalism" (Greenberg 2003 A5).

Today's undergraduates, as members of Gen Y, are expected to have a more all-encompassing definition of success than Gen Xers' focus on financial security. For today's students, happiness after college means having relationships – friends and family take priority over financial goals (Abowitz & Knox 2003b). These priorities are seen by some as a reflection of changing values and ideas about how to attain the good life, resulting from the emerging ideals of the new market economy and from changing popular culture (Karabell 2001). To others, they are seen as the result of the emergence among Baby Boomer and Gen X parents of a class of bourgeois-bohemian educated elites (Brooks 2002). Gen Y college students are the sociological (and in many cases, biological) children of this class. Their aspirations for happiness and the job market reflect this cultural heritage and the changing cultural context.

"GEN Y" AND THE AMERICAN DREAM

The most well-known version of the American Dream emerged out of the utopian vision of economic expansion which dominated the period following the end of the Civil War (Karabell 2001). This era gave us robber barons like Rockefeller, Vanderbilt, and Carnegie; it also gave us Horatio Alger, Jr., a cultural icon of the American Dream. Well into the 20th century, Alger's novels for young adults promulgated a particular utopian vision of America – one in which hard work, honesty, thrift, good moral character, education and a little bit of luck were all that you needed to move up in life (Bode 1985). Alger spoke to something uniquely American in thought and character, then and now. Public schools continue to emphasize this achievement ideology regardless of structural barriers to mobility (MacLeod 1995) and the American Dream remains an essential part of our national ideology (Hochschild 1995).

Public opinion poll data, both contemporary and historic, show that most Americans really do believe that hard work and individual effort are what matter most for success in America (Ladd & Bowman 1998). The idea of a socially fluid, middle class society, is cultivated as

> almost every aspect of politics and popular culture, with help from the media, reinforces the idea that 'middle class' is the typical and usual status of Americans. (Zweig 2000 39)

Despite increasing disparities in real wealth and income among Americans over the past several decades (Levy 2001; Wolff 2001), evidence of rising inequality (Glennerster 2002; Gringeri 2001), the decline in middle-income high-skill workers (Bernstein 2003; Edmonson 1998; Ehrenreich 2001), and the likelihood that half of all Americans will experience poverty during their adult life span (Rank & Hirschl 2001), *people believe in the Dream.* Upward mobility today, however, is increasingly predicated upon having a college degree (Dominitz & Manski 1996), which is most likely for those whose parents already have money or education (Gittleman & Joyce 1999).

College-educated professionals from both the Baby Boom and Gen X seem to fit less easily today into the traditional mold of the financially driven, white-collar, corporate professionals of earlier eras. According to Brooks (2002), today's educated elite want financial security and nice things, but they want more than that. Their idea of success and happiness, their Dream of "making it," also depends on finding creative fulfillment as individuals. They are more than bourgeois; they combine elements of bourgeois and bohemian culture, wanting to attain a comfortable material lifestyle (recognizing it comes from education and hard work) with the bohemian quest for personal fulfillment (wanting to be happy and fulfilled at what you do).

Many college students today grew up watching their Boomer parents mix the bourgeois with the bohemian. In addition, Gen Y was socialized by a popular culture which, in the 1990s, created and celebrated Wall Street and Dot.com heroes who epitomized having "it all." As a consequence, college students today, it is hypothesized here, will most value (and associate happiness with) having interesting and fulfilling jobs rather than jobs that provide high financial rewards. Furthermore, it is hypothesized that there will be gender differences in desired job traits. Significant gender differences among college students have been noted in their ranking of life goals (Abowitz & Knox 2003a, 2003b) and in their levels of gender ideology, with college men being more 'traditional' in their views of gender than college women (Abowitz & Knox 2004). These data suggest that among Gen Y undergraduates, men are more likely to aspire to or value jobs that provide material and financial rewards (the traditional goals of the American Dream) while women value jobs that are meaningful, useful and contribute to society.

THE SAMPLE AND DESCRIPTION OF RESPONDENTS

The sample consists of 154 undergraduates from a mid-Atlantic liberal arts university who voluntarily completed a confidential 140-item survey. The sample was stratified by gender and class year and subjects were randomly selected from among all full-time undergraduates enrolled at the university during the spring of 2001. The data were collected over a three-month period. Female respondents are somewhat overrepresented, comprising 60 percent of the overall sample (as compared with about 50% of the student population). First year students constitute 20 percent of the sample, while seniors had the highest response rate, constituting 30 percent of respondents. Sophomores and juniors are each 25 percent of the sample. In addition, the sample was almost evenly divided between members of fraternities or sororities (51%) and independents (49%), constituting a slightly less "Greek" sample than the campus overall (which was 55% Greek). Much like the campus student population, the sample was overwhelmingly white (90%), and respondents were all "traditional" college age (between the ages of 18 and 22) at the time of the survey.

In terms of social class and family background, the students in this sample identified strongly with the "upper middle" class (53%) and two-thirds of the sample reported their family income as "above average" or "far above average." Nine out of ten of the respondents reported living in intact families at age 16 and 71 percent reported that both parents currently work outside the home. Their parents, overall, are very well educated, with 70 percent of fathers having at least a bachelor's degree — half of whom (35% of all fathers) have an advanced degree. Mothers are also well educated, with 63 percent having completed at least a bachelor's degree and almost half of those (26% overall) having an advanced degree.

Most of the fathers (almost 80%) are employed in middle to high status white-collar professional occupations – they are doctors, lawyers, mid- and upper-level executives and managers. Only 17 percent of students report fathers in blue-collar trades and fewer than 3 percent report fathers in the primary sector – mostly in family farming (75% of these fathers are self-employed as compared with only 25% of the fathers in white-collar occupations). More than 80 percent of the working mothers were reported to be in the traditionally female-dominated fields of teaching, nursing, office work, or office management. Finally, 92 percent of students in the sample report that their family owns their own home, and 28 percent report that their family owns a second home (44% of second homes were considered solely vacation homes while the rest were business properties, rentals, or a business/vacation combination property). Clearly, this sample of Gen Y college students comes from families that are better off than most Americans – families who have fulfilled most of the traditional expectations of the American Dream.

DOES MONEY BUY HAPPINESS?

Do Gen Y students subscribe to Alger's view of "making it" in America? Do they believe financial success is linked to happiness? To determine if this is the case, we need to look systematically at what goals students say are most important for life after college and how these relate to various job characteristics. Previous studies (Abowitz & Knox 2003a, 2003b, 2004) have shown that when undergraduates today assess a range of life goals, including various personal and economic aspirations, they unequivocally report that being happy, being in love, and having romance are more important to them than having financial security and material

Table 1: Desired Job Characteristics Among College Students

Desired Job Characteristics	Overall Mean (n=154)	Women (n=95)	Men (n=59)	Greeks (n=78)	Independents (n=76)
It has good job security	4.57				
It has good chances for advancement	4.62				
The job brings recognition and respect	5.19				
The job leaves you a lot of leisure time	5.96				
It is an interesting job	2.18				
The job is useful and contributes to society	4.68	4.28	5.31**	5.13	4.21**
It is a challenging job	4.82			5.14	4.49*
It has high salary and benefits	4.08			3.79	4.37*

*Significant difference in means, $p < .05$; **Significant difference in means, $p < .01$

wealth. They also value being well-educated and having a "fulfilling job" more than financial success. In addition, students rank having close friends, a spouse, and relatives more highly for their lives after college than having a career and work. Although some significant gender differences were reported in these studies, there were no significant differences reported in the overall importance assigned to having a career or to financial success among recent undergraduates (in contrast with results reported by Hammersla & Frease-McMahan 1990, and Kasser & Ryan 1993, whose college samples used Gen Xers). What was not addressed in previous studies, however, is how goals like financial security and happiness relate to students' assessments of different job characteristics. Even if we know what they aspire to do or be after graduation, we do not know how they expect to achieve it in the job market.

To address this question, the correlations among different student life goals were examined. Students rated each life goal on a scale from 1 to 5, with lower scores indicating greater importance. The correlation analysis confirms that students do distinguish between happiness, on the one hand, and financial security and having nice material things on the other. Financial security is positively and highly correlated with having nice things ($r= .45$, $p < .01$) and with having a career and work ($r= .35$, $p < .01$) as one might expect, but *it is not significantly correlated with being happy.* Rather, "being happy" is positively and significantly ($p \leq .05$) associated with getting married ($r= .16$), having kids ($r= .18$), and being in love ($r= .19$). These latter effects are not large, but they are statistically significant. Being happy is also positively correlated ($p \leq .01$) with having romance ($r= .24$), close friends ($r= .26$), and having family or relatives ($r= .25$). Happiness is modestly associated with career and work ($r = .20$, $p < .05$) but more importantly it is significantly related to having a *fulfilling* job ($r = .27$, $p < .01$). These correlations suggest that among today's college students, economic success, as indicated by financial security and having nice things, does not define happiness.

If happiness is associated with having a "fulfilling" job, how does it relate to more specific job characteristics for members of Gen Y? How do they translate this general conceptual ideal into concrete expectations for the job market? If money does not buy happiness for these undergraduates, what does? This question is addressed more specifically by the data presented in Table 1. Students were asked to rank-order eight job characteristics in a list, when "thinking about jobs after graduation." Number one was to be assigned to "the characteristic that is the most important of these characteristics," number two was "the second most important characteristic," and so on. The lowest ranked, or number eight, was the characteristic "least important" from among all those listed. The mean value assigned to each characteristic is presented in Table 1 along with means by gender and Greek status (whether students did or did not belong to fraternities/sororities on campus) where such between-group differences were statistically significant. Differences by gender and Greek status were examined since these factors have been shown elsewhere to impact students' post-baccalaureate aspirations and expectations (Abowitz & Knox 2003a, 2003b, 2004; Eskilson & Wiley 1999).

The job characteristic that stands out most clearly among the eight listed is whether or not "it is an interesting job" ($m= 2.18$). This was ranked almost two full steps

Table 2: Significant Zero-Order Correlations Among Desired Job Characteristics and Key Life Goals

	Job Characteristics							
	Job Security	Advancement	Recognition and Respect	Leisure Time	Interesting Job	Useful & Contributes	Challenging Job	High salary and Benefits
Job security	1.00		-0.19*		-0.21**	-0.30**	-0.37**	
Advancement		1.00	-0.23**	-0.20*	-0.19*	-0.44**	-0.18*	0.24**
Recognition and Respect			1.00	-0.25**	-0.26**			
Leisure Time				1.00	0.16*		-0.25**	
Interesting job					1.00			
Useful & contributes						1.00		-0.50**
Challenging job							1.00	-0.37**
High salary & benefits								1.00
Life Goal: Financial Security						-0.27**	-0.27**	0.48**
Life Goal: Happiness					0.25**		0.24**	-0.17*
Life Goal: Nice Things		0.22**	0.18*			-0.39**	-0.29**	0.43**
Life Goal: Fulfilling Job				-0.18*			0.26**	-0.23**

*Correlation is significant at .05 level, two-tailed test; **Correlation is significant at .01 level, two-tailed test.

(on average) above the second highest ranked job trait. One-sample t-tests confirm that the mean values for each of the seven other job characteristics differ significantly from this mean ($p < .01$). The second highest ranked job trait in the sample overall is the one most closely associated with the traditional achievement ideology – whether a job has "high salary and benefits" (m= 4.08). Again, t-tests confirm this mean as significantly greater than all those ranked below it. Undergraduates most want an interesting job, after which they think salary and benefits are important. As expected, the latter are important but not the most important aspects of a job for Gen Y college students.

Beyond salary and benefits, the next most important job characteristics occur in a relatively undifferentiated group: "good job security" (m=4.57), "good chances for advancement" (m=4.62), "useful and contributes to society" (m=4.68), and "challenging" (m= 4.82). There are no significant differences among these means. The last two job characteristics, ranked significantly below the middle group, are whether a job brings "recognition and respect" (m=5.19) and "leisure time" (m=5.96). This last trait itself ranks significantly below all others ($p < .01$). These students are not interested in "slacker" jobs, but they are seeking intellectually meaningful ones.

In addition, we see in Table 1 that both gender and Greek status differentiate significantly among several job characteristics. College men and women assign different importance to having a job that is "useful and contributes to society." As hypothesized, women ranked it more highly than men (4.28 vs. 5.31). In addition, three job traits differed significantly between students who belonged to fraternities and sororities (Greeks) as compared with those who did not (Independents). Independents valued having a job that is "useful and contributes" more highly (4.21 vs. 5.13) as well as having a "challenging" job (4.49 vs. 5.14), whereas Greek students most highly valued having a job with "high salary and benefits" (3.79 vs. 4.37). These data suggest that the effects of gender-relations and Greek status on campus go beyond structuring everyday social interactions, they may also affect the way college men and women construct their long-term life goals and job aspirations.

Beyond these basic rankings, what is the

Table 3: Desired Job Characteristics by Gender Among Fraternity/Sorority Members

Desired Job Characteristics	Greek Mean (n=78)	Sorority Women (n=52)	Fraternity Men (n=26)
It has good job security	4.40	4.44	4.31
It has good chances for advancement	4.36	4.56	3.96
The job brings recognition and respect	5.22	5.23	5.19
The job leaves you a lot of leisure time	5.94	6.12	5.58
It is an interesting job	2.10	2.27	1.77
The job is useful and contributes to society	5.13	4.46	6.46**
It is a challenging job	5.14	4.85	5.73
It has high salary and benefits	3.79	4.19	3.00**

**Significant difference in means, $p < .01$

Table 4: Desired Job Characteristics by Gender Among Independents

Desired Job Characteristics	Independent Mean (n=76)	Independent Women (n=43)	Independent Men (n=33)
It has good job security	4.75	4.70	4.82
It has good chances for advancement	4.88	5.19	4.48
The job brings recognition and respect	5.16	4.74	5.70**
The job leaves you a lot of leisure time	5.99	6.23	5.67
It is an interesting job	2.25	2.40	2.06
The job is useful and contributes to society	4.21	4.07	4.39
It is a challenging job	4.49	4.37	4.64
It has high salary and benefits	4.37	4.30	4.45

**Significant difference in means, $p < .01$

structure of relations among these job characteristics? To what extent are these differentially desired job characteristics related to each other and to student's other aspirations, such as achieving financial security, having nice things and being happy? These questions are addressed by the zero-order correlations in Table 2. Correlations are included only where they attain statistical significance.

There are several important inter-item correlations among job characteristics and life goals to note. First, we can see that having a job with high salary and benefits is positively (and significantly) associated with having a job that provides recognition and respect (r=.24) as well as with the goals of achieving financial security (r=.48) and having nice things in life (r=.43). At the same time, a job with high salary and benefits is perceived by students to be negatively related to one that is useful and contributes to society (r = -.50) and to one that is challenging (r= -.37). There is also a small but statistically significant negative association between having a job with high salary and benefits and being happy (r= -.17). When we consider the associations with having nice things in life, we see it is perceived to be positively related to having a job that provides advancement (r=.22), recognition and respect (r=.18), and most especially high salary and benefits (r=.43), but is negatively associated with a job that is useful and contributes to society (r= -.39) and one that is challenging (r= -.29). In terms of happiness, while being happy is not related (at least statistically) to achieving financial security or having nice things and has a small negative correlation with a job that has high pay and salary, it is thought to be positively related (r=.25) to having an interesting job and having a challenging job (r= .24). Finally, when the goal of having a "fulfilling job" is correlated with the various job characteristics, we see that it is negatively related in students' estimations to having a job with leisure time (r = -.18) and to one that has high salary and benefits (r = -.23), but it is positively related to having a job that is challenging (r = .26). It is important to note that although many of these correlations, however statistically significant, appear to evidence weak relationships, the pattern of relations among them, nonetheless, provides overall support for the hypotheses about the job aspirations and values of Gen Y undergraduates.

Thus, as these college students appear to conceive life goals and choices about job characteristics, they see a distinction between the kind of job that allows you to fulfill the traditional achievement ideology (having financial success, nice material things, so-

Table 5: Desired Job Characteristics by Greek Status Among Men

Desired Job Characteristics	Male Mean (n=59)	Fraternity Members (n=26)	Independents (n=33)
It has good job security	4.59	4.31	4.82
It has good chances for advancement	4.25	3.96	4.48
The job brings recognition and respect	5.47	5.19	5.70
The job leaves you a lot of leisure time	5.63	5.58	5.67
It is an interesting job	1.93	1.77	2.06
The job is useful and contributes to society	5.31	6.46	4.39**
It is a challenging job	5.12	5.73	4.64*
It has high salary and benefits	3.81	3.00	4.45**

*Significant difference in means, $p < .05$; **Significant difference in means, $p < .01$

cial recognition and professional advancement) on the one hand versus those that make you happy (are interesting, fulfilling and challenging) on the other. Overall rankings of life goals suggest these students do want to "have it all" – both bourgeois economic success and bohemian happiness and fulfillment – but the correlation analysis suggests they do not define one in terms of the other. They do not seem to assume that jobs which provide for the most economic achievement are going to be those that are interesting or most likely to make you happy or fulfilled. Like the competing impulses of their emerging politics (Greenberg 2003), their idea of "making it" encompasses competing bourgeois and bohemian propensities, but recognizes them as such. At the end of the day, these particular members of Gen Y do not believe that money buys happiness, but they'd like to have both anyway, thank you very much.

FRATERNITY MEN: A SPECIAL CASE?

Gender differences noted here and elsewhere (Abowitz & Knox 2003b, 2004; Hammersla & Frease-McMahan 1990; Kasser & Ryan 1993), combined with significant differences reported between fraternity men and sorority women (Abowitz & Knox 2003a), suggest that gender and Greek status may interact to differentially shape undergrduate men's and women's aspirations for life and jobs after college. Fraternity men have been shown to value economic achievement more than their sorority counterparts and all Independents, male or female (Abowitz 2005). So the question becomes whether or not fraternity men, as compared with other undergraduates, are more likely to value jobs with high salary and benefits and good chances for advancement over interesting jobs? To test this idea, the relative rankings of job characteristics were elaborated controlling for both gender and Greek status.

Among Greek students on campus (see Table 3), two significant gender differences emerge. As might be expected, we see that first, fraternity men value having a job with high salary and benefits much more highly than sorority women (3.00 vs. 4.19, $p \leq .01$) while sorority women value having a job that is useful and contributes to society more highly than fraternity men (4.46 vs. 6.46, $p \leq .01$). In contrast, in Table 4, among Independents on campus, only one job characteristic was differentially valued between men and women: having a job that brings recognition and respect was more important to Independent women than to their male counterparts (4.74 vs. 5.70, $p \leq .01$). Together, the data in these tables suggest that what appears as an overall gender difference in Table 1, that is, college men and women assigning differential importance to having a useful and contributing job, is in fact only a significant gender difference between fraternity men and sorority women. Further, Independent women's greater desire for jobs with recognition and respect – which did not appear among Greeks or in the overall sample rankings – was previously suppressed when Greek status was not also taken into account.

To better illustrate the gendered effect of Greek status on desired job characteristics, the data were reanalyzed by Greek status holding gender constant. Among college men (see Table 5), three job characteristics differed significantly in their ranking between Greeks and Independents. Fraternity men ranked high salary and benefits much more highly than Independent men (3.00 vs. 4.45, $p \leq .01$), while Independents, men not part of Greek organizations on campus, placed higher value on having a job that is useful and contributes to society (4.39 vs. 6.46, $p \leq .01$) and having a challenging job (4.64. vs. 5.73, $p \leq .05$). That the differences between Greeks and Independents in Table 1, are really differences in valued job characteristics between Greek and Independent *men* is confirmed when the means are examined by Greek status among college women (table not included). Among women in this sample, *no significant differences* in the ranking of any job characteristics appeared between sorority women and Independents. *The effects of being Greek on the ranking of job characteristics differentiate only among college men, not among college women.* There is an important gender-Greek status interaction among college students when it comes to students' goals and aspirations for life and jobs after college that sets fraternity men apart from others. For college women, in contrast, the effects of Greek status on desired job characteristics are trumped by the effects of doing gender (West & Zimmerman 1987).

When we put these data together with previously cited work using the same sample data, what we see among the college students is that fraternity men rank financial security and material things more highly than other college students (Abowitz & Knox 2003a, 2004; Abowitz 2005), and, as shown above, they exhibit a significantly greater preference for jobs that provide high salary and benefits. These particular students may not directly equate happiness per se with financial success, any more than the rest of their peers do, but their aspirations for financial success (as measured by the relative importance they assign to attaining financial security, material things, and high paying jobs) are significantly greater than for other college students, male or female.

Further, fraternity men see greater opposition between the bourgeois and bohemian impulses than other college students in the sample. When analyzed separately (and compared with the correlations in Table 2), the negative correlation increases in size among fraternity men between having a job with high salary and benefits and a job that is useful and contributes to society ($r= -.55$, $p < .01$). They also see *much* stronger opposition between jobs that provide good chances for advancement and those that are interesting ($r=-.48$, $p<.05$) or fulfilling ($r= -.47$, $p < .05$). Finally, these college men in particular see a strong disjunction between jobs that bring recognition and respect and jobs that provide leisure time, with a negative association ($r= -.73$, $p<.01$) more than three times larger than reported by the rest of the sample ($r= -.20$, $p<.05$). Among these college students, fraternity men's hierarchy of values and goals is in many ways distinct from other undergraduates' (men's *and* women's), and aligned with a more traditional vision of success and the American Dream. What remains to be determined, however, is whether these differences are attributable to selection processes that constrain movement or selection into fraternities to those men who already share these values and aspirations, and/or whether the differences are due to fraternity culture and socialization processes among the members with regard to these particular goals. The source of these differences cannot be determined here, but it remains an important question for future investigations.

CONCLUSIONS, CONCERNS, AND IMPLICATIONS

The data in this paper are used to examine aspects of the American Dream among college students today. From life goals to desired job characteristics, we see a generation in flux –between older more traditional visions of the good life and newer more all-encompassing ones. Today's college students represent the oldest members of a new cohort, Gen Y. They are not Baby Boomers, they are not Gen Xers – yet they are the children of both these cohorts. They want to be happy and to be financially successful but do not equate or confuse the two. They see these as distinct goals, but value happiness more highly. When it comes to jobs after college, these students most aspire to an "interesting" job, rather than one that brings high salary and benefits or recognition and respect. Even fraternity men believe an interesting job is most important. This result is surprising among those who most value financial rewards and who most closely endorse traditional Algerian notions of merit as a determinant of social class in America today (see Abowitz 2004).

But is the tendency to put bohemian fulfillment and happiness above bourgeois financial success, as we see here, typical of this cohort as a whole, or is it related in some way to a sample bias with these data? This is an important question to consider. Are students from an elite private institution, living up on "the hill," primarily children of the educated upper and middle classes, more or less likely to put the bohemian above the bourgeois, personal happiness above financial success? Would students from a public university, or children of the working and middle-middle classes, be more likely to rate the importance of bourgeois success more highly? One could argue that they would. Having less assurance of family connections and financial support down the road, students from less economically advantaged families might be less inclined to pursue an interesting job over one that pays well and offers financial security.

To partially address this concern, the effects of family class background were briefly considered in the analysis here. The rankings of life goals and job characteristics were analyzed both by subjective family class position and reported family income. As it turns out, the importance assigned by students to financial security and material wealth did vary significantly by family class position, but they were both *more* important to students from "upper class" families, not less. The mean ranking for financial security among students from "upper class" families was 1.13 as compared to 1.89 for those from middle and working class families ($p < .05$). The mean value assigned to having nice material things was also highest among "upper class" students and lowest among students from the "working class" (1.78 vs. 3.06, $p < .01$). When family income was considered, no significant differences appeared for these life goals or job traits. What is of interest to note, further confirming that a sample class bias, such as it is, is not the source of the larger pattern of results, is that students reporting "below average" family income were more likely ($p < .01$) to value public service – playing a role in politics or public life – (m=3.11) than were those whose families had "above average" income (m=3.65) or "average" income (m= 4.07). What stands out is that these differences all run *counter* to the concern that students from more elite or privileged families (more likely to be found at an "elite" liberal arts institution?) would more easily disregard the importance of material and financial concerns. Rather, in this sample of college students, albeit at an "elite" liberal arts institution, those who come from *less* advantaged family backgrounds place less, not more, importance on achieving financial success and material comfort after college and are *more* likely to value public service.

College students make clear and important distinctions among life goals and desired job characteristics. Despite a great deal of consistency among them in their hierarchies of goals and aspirations, they do *not* all value the same things. Significant differences emerged here both by gender and by Greek status – two key status variables in campus life and politics. Perhaps the most interesting finding is that among college students, the strongest adherents today to the traditional tenets of the American Dream are fraternity men. For them, Alger's Dream of attaining wealth and affluence seems to be alive and well.

There are important implications of these data for high school and college personnel. Teachers and faculty who advise students about prospective majors and careers, administrative staff who work with students on internships and in job placement centers, and career counselors who focus on graduating seniors and recent alumni all need to carefully consider – even reconsider – the assumptions they make about students' life goals and job aspirations. Those used to working with Gen Xers are likely going to need to reorient their thinking as they work now with the graduates of Gen Y. New options will be needed to help graduates find those "interesting" and "fulfilling" internships and post-graduate careers. With the exception, perhaps, of fraternity men, for whom a traditional, corporate career path still seems suited, students today face more complicated and difficult career choices if they want to achieve their multi-faceted life goals and find jobs with the characteristics they desire. While undergraduates today do not believe that money buys happiness, they nonetheless dream of having both. More than that, they believe they can have both. We will have to wait and see whether their pragmatism or optimism wins out.

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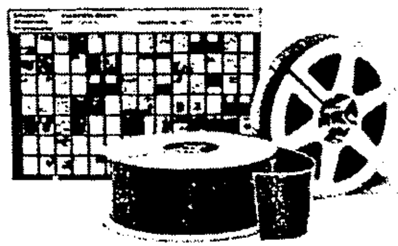

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SONG LYRICS IN CONTEMPORARY METAL MUSIC AS COUNTER-HEGEMONIC DISCOURSE: AN EXPLORATION OF THREE THEMES

Adam Rafalovich, Pacific University and
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ABSTRACT

This paper discusses modern forms of metal music as extensions of the politics of youth culture. Based upon the premise that texts form an 'ideological contract' with their audiences, an extensive examination of the aesthetic and lyrical content of metal music is provided. The authors conclude that the content of metal music exists in a reciprocal relation with its listening base, and provides a lens through which their modern-day subjective experiences may be understood. In illustrating this reciprocity the authors explore the vast literature which casts a condemnatory gaze upon metal music and then demonstrates how a discourse analysis of this musical genre may avoid such condemnation, and posit a political discussion of it. Three of metal music's most predominant themes are discussed at length: 1) psychological chaos; 2) nihilism/violence; and 3) alternative religiosity. Such themes are placed against a cultural backdrop depicting the dominant modes of 'appropriate conduct,' and are articulated as a political reaction against such modes in Western societies.

INTRODUCTION

The discussion of metal music as a political formation of youth culture is a marginalized one. We argue here for the necessity of such a perspective—that the lyrical and aesthetic content of metal music are integral aspects of youth identity and reflect the power struggles young people have with contemporary culture. Moreover, metal music is not just a forum for young people to vent amorphous and undefined aggressions, but instead, speaks *directly* to them. This essay will explore some of the major themes that typify metal music in the American and European scene, and demonstrate how these themes are indicative of some of the cultural problems young people confront. The seemingly dogmatic subscription to messages in metal music—for example, those of violence, insanity, and Satanism—illustrate resistance to societal conditions that are legitimately experienced by young people. We discuss patterns in the narrative structure of popular metal music lyrics as well as some aesthetic aspects of this music genre. Adopting a multi-theoretical approach, we contend that such lyrics constitute valuable texts that may be used to better understand contemporary antagonisms between social tends and the youth who are subjected to such trends.

As disseminators of ideology, texts establish reciprocity with their readership. For example, Martin Barker (1989) contends that the relationship between a text and its audience is "contractual":

> A 'contract' involves an agreement that a text will talk to us in ways we recognize. It will enter into a dialogue with us. And that dialogue, with its dependable elements and form, will relate to some aspect of our lives in our society. (Barker 1989 261)

Barker further argues that the popularity of a cultural form is largely contingent upon its perceived authenticity: in "speaking to" an audience it must reflect the experiences of that audience. Text and audience are therefore mutually-obligated; the text provides a reflective capacity for the audience who in turn become its interlocutor.

Barker's and other writings of this ilk illustrate the contractual agreement between text and audience in ways that are very relevant for understanding the politics of contemporary youth and their motives for consuming and contributing to various forms of popular culture. Of particular concern in this study is the cultural form of metal music[1] and the degree to which this musical genre demonstrates a political reciprocity with young people. Two theoretical propositions need mentioning here: first, the scope of a cultural form—including its national and international visibility—is contingent upon the maintenance of a contract that involves a commitment to reflect people's experiences, and second, a cultural form's amount of influence, its "staying power," is contingent upon a degree of fit between audience and its message. From these propositions it can be argued that the marked international influence of metal music stems from the fact that the genre continues to reflect the vicissitudes of youth culture. Today's metal scene engages in a symbolic interplay with its listening base, where young listeners match its lyrical and aesthetic content to their own subjective experiences. Hence, the narrative structure of popular music is continually changing. Though it is a matter of course that audiences "relate" in some way to the music they appreciate, the *specifics* of this symbolic interplay need further elaboration.

We may begin with lyrics from Roadrunner recording artists and platinum-selling metal band, Slipknot:

> Fuck it all. Fuck this world. Fuck everything that you stand for. Don't belong, don't exist, don't give a shit. Don't ever judge me.

An interpretation of these words conjures a discussion of nihilism; not in the haughty, Nietzschean sense, but rather, a shallow, listless nihilism forced upon the listener as an instruction to turn his back on all codes of morality and head down the path of self-destruction. Furthermore, the immense popularity of such lyrics (Slipknot's debut album sold over 3 million copies) may be seen as indicative of many of the problems associated with today's youth: a lack of role models, a lack of attainable goals, a Nintendo-numbed sensibility in which responsibilities are shirked, and so on. However, Slipknot member Shawn Crahan offers a very different perspective on his band's music and the messages it conveys:

> We are here to wake you up and kill the part of your brain that tells you that you can't. It's not about me. It's about what I'm doing for kids. When I walk out onstage, there's 15,000 kids that, to me, represent potential. And I'm here to tell you, to tell them that no matter what they say, you can be from nowhere and you can break out and become anything you want. Because the bottom line is that this is your lifetime. This is your time, here, now, on this planet. (Orshoski 2001 16)

To "fuck everything" from this perspective is to demolish what young people have been told to believe in, but not for the sake of demolition. Instead, according to Crahan, and arguably many other metal recording artists, the demolition of established truths begins a process of asserting one's own *personal* truth. The "fuck it" message of metal provides the fertile soil for exploring the possibility of becoming "anything you want."

METHOD

The academic literature addressing the metal genre must include the perspectives of those having first-hand experience with it. As an avid listener for many years and drummer in a metal band, the first author writes as a "native" to the metal scene. The second author is also an avid listener to past and contemporary metal music, and has been involved with the punk and rock scene in the US and Europe[2] for three decades. Together, both of us have seen hundreds of rock and metal shows and have read more librettos (lyric inserts) than one could possibly count. Because of our long-term involvement with metal, we feel that we can avoid the condemnatory stances that characterize previous accounts of the genre and provide a glimpse into some of its political meanings.

Our data selections for this paper are based upon a convenience sample, where we keep in mind some of contemporary metal's most influential domestic and international recording artists. We did an exhaustive content analysis of librettos from over two-hundred metal recordings. Librettos were analyzed according to an interpretive approach, using grounded theory techniques (Glaser 1978, 1992; Glaser & Strauss 1967; Strauss & Corbin 1990). Analyses of the data began with "open coding," where data were categorized indiscriminately, followed by a "closed coding" procedure in which data were examined for specific themes after preliminary categories had been established.

Following a summary of the condemnatory stances taken toward metal music in academic writing, this paper is organized into three sections which discuss predominant themes in this musical genre. The first of these sections is devoted to the illustration of *psychological chaos* in metal music—a theme that attacks established notions of mental hygiene that define who is emotionally "healthy" and who is not. This narrative questions the pathologizing of chaotic states of mind, and the belief that others should be a source of emotional solace. The second section, *nihilism/violence*, draws from a conglomeration of narratives in metal music that advocate multiple forms of anti-social behavior. We argue that the expression of the *possibility* of anti-social behavior, rather than its actual enactment, is highly political. The third section, *alternative religiosity*, explores today's Satanic narratives in metal music, and also those which invoke Nordic religious systems. To illustrate this we focus upon the cultural politics of metal music stemming from Scandinavian countries. Based upon this analysis, we conclude with that the lyrical content of metal music provides a fantasy structure for a generation of youth who struggle in an era of increasing social control.

PREVIOUS ACCOUNTS: METAL MUSIC AS AN ACADEMIC AND LAY PROBLEM

As the literature demonstrates, metal music is often pigeon-holed into discussions that almost exclusively focus on the moral and social savior faire of the genre's audience and artists. It is not surprising that politically-oriented discussions—particularly, discussions that focus on the significance of metal music in reflecting the power asymmetry between youth culture and the dominant culture—remain scarce.

Metal music and its multitude of subgenres are inextricably linked to youth culture. Hence, numerous studies that address metal discuss this cultural form as an influential variable in the attitudes and behavior of young people. With Robert Walser's *Running with the Devil* (1993) being one of the few notable exceptions, the bulk of this discussion of metal's connection to, or influence upon youth are overwhelmingly evaluative (Richardson 1991; Weinstein 2000). Seemingly out of touch with the audience-centered, "fan-zine" forum exemplified by magazines such as *Hit Parader, Metal Maniacs*, and *Metal Edge*, the bulk of academic literature on metal music is inundated with inquiries regarding the extent to which metal harms the listener, the greater culture, or both. Attacked from perspectives as seemingly divergent as feminism and right-wing conservatism, preferences for metal music are repeatedly shown to be connected to juvenile delinquency (Klein, Brown, Childers, Oliveri, Porter & Dykers 1993; Singer, Levine & Jou 1993), wanton sexuality (Arnett 1993), misogyny (Kenske & McKay 2000; Rubin, West & Mitchell 2001), drug abuse (Arnett 1993), Satanism (Trzcinski 1992) and suicidal ideation (Graham 1993; Stack 1998; Scheel & Westerfield 1999). Some of these studies contend that metal is an influential variable in troublesome behaviors and attitudes, while others contend that preferences for metal are "red flags" for concerned parents and child psychologists. Whether implicating metal as a causal variable in the troubles of youth or viewing the popularity of the genre as a warning sign, such perspectives stigmatize the genre and those who listen to it.

The now decades-old stigmatizing discussion of metal is well represented in the lay realm and has repeatedly surfaced in the court system. These include the lawsuits filed in 1985 against Ozzy Osbourne for his song "Suicide Solution," and its apparent influence over the suicide of John McCullen; in 1990 against the band Judas Priest, who were accused of inserting subliminal messages into their music that supposedly contributed to the suicidal demises of Ray Belknap and Jay Vance; and in 2000 against the band Slayer, whose apparently violent messages prompted three of their young male fans to murder 15-year-old Else Pahler.[3] Such legal actions are no doubt bolstered by the efforts of censorship-oriented, special interest organizations such as the Parent's Music Resource Center (PMRC), a collective who are best known for lobbying Congress to force music distributors to included warning labels, such as the famous "Tipper Sticker"[4] that is placed on metal and other music CDs dubbed to contain "explicit content."

Some of the less stigmatizing portrayals of metal music discount many of the connections to metal and anti-sociability. Such accounts often contend that the connection between metal and the listener is a spurious one. For example, Christine and Ronald Hansen (1991) argue that many of the "damaging" messages metal conveys through its lyrical content are not adequately processed by the listener, that the concepts metal provides are not internalized, and finally, that metal fans enjoy the overall aesthetic of metal, rather than any specific kind of message the genre may transmit. Portrayals of metal music also seem wont to place the genre and its listeners underneath the rubric of a "subculture" (Gross 1990), denoting the metal scene as a collection of people following an unrefined ideology, linked together through shared forms of meaningless personal adornment and "scene identification." The metal subculture, it is argued, represents the rebellious" phase of adolescence (Bleich, Zillman & Weaver 1991) and is merely an extension of youth exploring and breaching the boundaries of social normativity. Metal is something kids eventually "grow out of."

PSYCHOLOGICAL CHAOS

The aesthetics of metal music have been argued to reflect the complexities of contemporary culture. As the world has become conjointly more fractured and psychologically alienating, the song structure of metal bands has mirrored these social changes. As Robert Walser states:

> Thrash metal bands like Metallica and Megadeth have developed a musical discourse... Their songs are formally even more complex, filled with abrupt changes of meter and tempo that model a complex, disjointed world and displaying a formidable ensemble precision that enacts collective survival. (1993 157)

According to Walser (1993), both song structure and the precision (or "tightness" in musician's terms) with which today's metal compositions are performed are part of the genre's collective message of modern survival. In abruptly and precisely following changes of meter and removing superfluous[5] elements from their compositions, metal bands strip down the music's aesthetics to emphasize a cacophonic roughness.

Modern metal's disjointed, yet precise cacophony is further illustrated by the infusion of complex rhythmic techniques that further the earlier aesthetic directions begun by bands like Metallica and Megadeth. As a continuing reflection of metal's modeling of today's psychological anxiety and as sign of the genre's increasing musical sophistication, metal bands since the early 1990s increasingly utilize polyrhythmic techniques in their compositions. The use of polyrhythms, most notably employed in avant-garde jazz circles, involves the performance of two or more time signatures simultaneously (Magadini 1995). A pattern emerges after the listener repeatedly hears the "resolution point" of these time signatures. The arrival of the resolution point may be long in coming, depending on which meters are played against each other. Anticipation of the time when the meters resolve creates a state of anxiety in the listener.[6] Such an anxiety typifies the subjective moment of the adrenaline-rush musical tapestry so commonly associated with today's metal bands and their themes of psychological confusion. Some metal bands which employ polyrhythmic techniques are: Meshuggah (Sweden), Dog Faced Gods (Sweden), Anthrax (USA), Helmet (USA), and Pantera (USA). It is also arguable that the implementation of such compositional devices partially refutes previous assumptions which claim metal is a genre based around a "relatively simple song structure" (Epstein & Pratto 1990 68).

The illusion of dark chaos found in the instrumentation of metal music, characterized by distorted low-tuned guitars, and cacophonous time-shifting rhythms, is matched by lyrical content. Such lyrics would be unfitting if they conveyed "sunny" narratives. Instead, they explore dark states of mind rarely addressed in other music genres.

Slayer, an American metal band with international renown, often depict themes with traumatic psychological motifs:

> You better learn my name
> Cause I'm the one insane
> And I'm a constant threat
> You run in fear of my dark silhouette
> Inside my violent mind
> Chaos is all you'll find
> Anarchy uncontained
> Bear witness to the scorn of my campaign
> (From the song, "Perversions of Pain" [1998]).

There are at least two messages present here. The first concerns the graphic description of a violent mind, characterized by the words "chaos," and "anarchy." The second directs an admonishment toward the listener. One of these found in the first line directs the listener towards a familiarity with the mentality of the speaker. To not learn this person's "name" is to deny the existence of this state of mind and perhaps become victimized by such a facet of the human condition.

Another prominent metal band, who completed a 1999 North American tour with Slayer, and were the second stage headliners at the 2002 *Ozzfest* tour, is Sweden's Meshuggah. A similar message to the above excerpt from Slayer comes from their song "Beneath" (1995):

It's time to go into the me below
My morbid self beneath
A peril trip the last way out
I spin as I let go.

Resonating with the song's title, this excerpt depicts a part of self that is unseen or unacknowledged in conventional social life: the self of morbid fascination that has been shunned and pathologized. Another Meshuggah song, "Inside What's Within Behind" (1995) describes the ravages of emotional pain:

Life neglected infected by strain
I fall into the smothering the even
Flow of ravaging pain
This my temple of self-caged contempt
A body slowly pierced by
Inevitable me.

Expressed through barking lyrics which are unintelligible to the ear (thank goodness for lyric inserts), this song conveys the aesthetic experience of confused hopelessness. The "even flow of ravaging pain" is a symbol (described as a "temple") of a condition caused by oneself. This is a fatalistic portrayal of self-centeredness in which the process of self-torture appears "inevitable." There is a larger commentary implied in this passage, but it is unclear until the song shifts focus and expresses the possibility of redemption:

Turn your eyes toward the inside
Dig deep within I'm sure you'll find
A different self a different soul
To put you in peace with mind.

This thematic shift in the song, accompanied by an ambient and markedly more intelligible change in vocal style, advocates an individual solution to the aforementioned turmoil. Through a self-empowering suggestion, the song asks the listener to overcome the condition of pain-ravaged self-centeredness and find a greater self somewhere "deep within." The speaker asks the listener to trust the human capacity for self-reflection and discover a higher self. This requires the listener to no longer be "self-caged" as the first part of the song describes, and reach a state of self-awareness which reveals the arbitrary nature of such a cage. Such themes of redemption repeatedly portray psychological pain as an individual problem with an individual solution—an assertion that inherently questions the validity of seeking solace in others.

The metal genre, in this sense, represents a discourse opposed to the actions of the obsequious "confessing animal" described in Michel Foucault's *The History of Sexuality* (1978 59).[7] Examining the modalities of psychotherapy through his account of sexuality, Foucault argues that one of the functions of modern psychiatric practice was not only to find out what someone hides in the psyche, but also discover what the individual was hiding from him/herself (Foucault 1978 66). This was part of the bifurcated duty of modern psychotherapy in which the patient must be made aware of his/her mechanisms for avoiding the deeper roots of his/her pathology then be given the symbolic tools to combat such mechanisms. It can be argued that this role of modern psychiatry was conducive to creating a relationship between confessing subject and therapist which was based on subservience and the dissolution of emotional self-sufficiency.

However socially abhorrent, the individualized, self-empowered discourse of metal music is an extension of the politics implied in Foucault's work. It is a counter-discourse to that which has grown to dominate Western notions of mental health both in clinical and popular realms. Metal music represents a rebellion against assumptions that psychological problems must be resolved through the establishment of a relationship between self and something external, whether that is another person or an organized therapeutic apparatus.

Nihilism/Violence

Nihilistic themes in metal music are those that portray a denial of culturally-constructed codes of conduct and their concomitant systems of morality. Such a theme may be transmitted through a substantial demystification of humans. Take for example, these lyrics from the German metal band Rammstein:

Was macht ein Mann
(What does a man)
Was macht ein Mann

(What does a man)
der zwischen Mensch and Tier nicht unterscheiden kann
(who cannot distinguish between man and animal)
Was
(what)
Er wird zu seiner Tochter gehen
(He will go to his daughter)
sie ist schön und jung an Jahren
(she is beautiful and young in years)
und dann wird er wie ein Hund mit eigen Fleisch und Blut sich paaren
(and then, like a dog, he will mate with his own flesh and blood)

From an anthropological stance, this excerpt explores the possibility of human behavior when animalism reigns supreme. Taboos, especially those that concern incest, may be broken when the essential basis of these taboos—our culture and its consequent humanity—are removed. In exploring the possibilities of enacting behaviors that are largely unacknowledged, stigmatized, and repressed, metal offers a critique against the moral codes that prohibit such behavior. These behaviors often involve the sexual and/or physical degradation of another, and are commonly regulated through formal means of social control.

Given the often anti-social content of metal lyrics, it is not surprising that studies have explored the connection between such lyrical themes and outward violence (Ballard & Coates 1995; Epstein, Pratto & Skipper 1990). This includes studies which explore metal's misogynistic overtones and the propensity for male violence towards women (Kenske & McKay 2000; Weinstein 2000). However, a close look at contemporary metal lyrics reveals violent themes which are rarely gender-specific, and more rarely directed at women. This is not to say that there is no misogyny present in the current culture of the metal scene—a scene invariably dominated by young males—but rather, that the explicit anti-female themes so readily visible in 1970s and 1980s rock music are not retained in today's metal music. The violent themes in contemporary metal lyrics speak more to issues of emotional catharsis than to a blatant maintenance of the patriarchal order.[8]

Such cathartic themes often allude to ultimate forms of self-empowerment, including the ability to wreak havoc upon the world. Take, for example, this song from the slow-tempo, dark American metal band, Crowbar:

Looking at me smothering you
Destroying all
Looking at me punishing you
Destroying it
Pushing you down and pulling you down
I'm crushing all
Pushing you down pulling you down
I'm dragging you under
(From the song, "Wrath of Time be Judgment" [1996]).

Another example comes from the American band Machine Head, and their song, "Ten Ton Hammer" (1997):

I can feel this pain is real
I hate deep down inside
And like broke glass you'll shatter
With bloody fists I'll batter
Like a ten ton hammer

I'll be the trembling in your breath
Trickle of blood upon your flesh
You'd love to watch me take the fall
I'll be the thing that you despise
'Cause I'm the path to your demise
And I'm a be there standing tall.

Both of the previous passages depict a pronounced power asymmetry between the speaker and the outside world. The speaker dominates this world with such ease s/he appears superhuman. The other in this abrasive relation remains unnamed and general; the violence can be directed toward anyone or anything. "You" denotes a person, institution, emotional state—any number of entities perceived to be worthy of a violent onslaught. The passage constructs a shared subjectivity between the speaker and the listener, where they both need not share the same "you" to mutually explore the finitudes of violent fantasy. The function of metal music in this regard may be likened to the enjoyment audiences derived from watching films like *Fight Club*, in which fantasies of physical violence were a way of breaking up the monotonous life of the mall-trotting, IKEA-shopping, modern human. Such metal lyrics appear antagonistic, if not blatantly cruel. However, the description of physical violence may be better interpreted euphemistically. In a world perceived by cynical metal fans to be tainted by a rationalistic Weberian sluggishness, violence symbolizes the beauty of rapid change. In conveying the human capacity for violence, metal bands symbolize one's ability to effect immediate and visible alterations in the course of events in the world.

In a political sense, the individualistic and violent motifs in metal lyrics resonate with those portraying psychological chaos. During a time when 5-10 percent of school-age boys are taking Ritalin for behavioral problems (Breggin 1998), and when the propensity for violence and anti-institutional behavior is categorized under mental disorder labels such as Conduct Disorder and Oppositional Defiant Disorder (American Psychiatric Association 1994 85-94), the appeal to the virtues of violence is counter-hegemonic.

ALTERNATIVE RELIGIOSITY

The metal genre is probably most famous for its consistent undermining of Christianity. This is notably the case with Scandinavian "black metal" artists purporting Satanic motifs, characterized by bands like Emperor (Norway), Dimmu Borgir (Norway), and Dissection (Sweden), and also motifs rooted in traditional Nordic mythology, characterized by bands like Enslaved (Norway), Burzum (Norway), Borknagar (Norway), and Einherjer (Norway).

The term "black" has multiple meanings for those who would interpret this sub-genre of metal music. It is frequently argued that the term "black" represents a negative relation to Christian notions of purity. Hence, black metal artists commonly invoke images of black magic, "dark angels," and activities which occur during nighttime. One band, Dissection, states on the credits of their album, *Storm of the Light's Bane* (1995), that the entire project was written during hours of darkness; sort of a statement of authenticity. The term "black" also has political interpretations, representing the color for right-wing politics (opposite of left-wing "red" political positions) in most of Europe. In an introduction to Kevin Coogan's article, "How Black is Black Metal?" Jeff Bale states:

> It (the term "black") poses the question of whether today's fascinating black metal counterculture is intrinsically associated with far right political attitudes. (Coogan 1999 33)

Political analyses of anti-Christian themes in music have been previously posited, and are typified in Elizabeth Jane Hinds's 1992 article, "The Devil Sings the Blues," which focuses on the classic rock band, Led Zeppelin. In examining the subversive aspects of Zeppelin, the article compares the band's anti-Christian occult motifs to the rise of late 18th century Gothic literature. From Hinds's perspective, the dominant moral order, instilled in the European populace through the advent of Christianity, is a specific focus of disdain for hard rock listeners. Such disdain is directed at two loci of Christian control, including the control held over bodily pleasure, subverted through the lyrical expression of sexual gratification, and the control over sources of spiritual contact, subverted through sympathetic portrayals of Satan. For Hinds, discourses of bodily pleasure and narratives of underworld connection comprise a postmodern politics. This perspective resonates strongly with Robert Walser's discussion of the postmodern politics of heavy metal, in which he describes Satan as a "transgressive icon" (Walser 1993 151).

Academic explorations of Satanism and its effect upon the metal listener are as prolific as studies that rigorously scrutinize the connection between metal music and highly anti-social behavior (see Trzcinski 1992). Most studies which address Satanic content discuss bands which weakly allude to Satanism, rather than bands which explicitly invoke Satanic nomenclature. Artists such as Iron Maiden, Judas Priest, and Ozzy Osbourne, fall under this rubric. Through mixing a variety of themes into their music, including those as unrelated as drug and alcohol abuse (i.e. Ozzy's "Suicide Solution"), and Greek mythology (i.e. Iron Maiden's "Flight of Icarus"), such bands' messages are amorphous. They have been attributed "Satanic" status by unwitting parents and other concerned authorities by default.

The fact that the music under scrutiny remains thematically ambiguous partially explains why studies tend to discount the connection between metal music and any serious involvement with Satanism. For example, in "The Role of Suggestion in the Perception of Satanic Messages in Rock and Roll Recordings," Thorne and Himmelstein (1984) contend that listeners tend to hear a backmasked Satanic message in a song when they are told the message is there, rather than through the message's "subliminal" power. In addition, Jonathan S. Epstein and David Pratto's "Heavy Metal Rock Music: Juvenile Delinquency and Satanic Identification" contends that the

> Satanic element exists more for its shock value than for any kind of real identification on the part of the vast majority of Metal listeners. (1990 72)

Such studies are important, but overlook the fact that Satanism is a very real narrative in today's metal music that is dogmatically adhered to by black metal artists and their fan base. For example, Satanic lyrics often conjure images that distort or mock Christianity. Emperor's song "the Oath" (1997), stands as an example:

> Hark, O' Night Spirit
> Father of my dark self
> From within this realm, wherein thou dwelleth
> By this lake of blood, from which we feed to breed
> I call silently for Thy presence, as I lay this oath.

Perverting the Christian ritual of communion, in which a person may symbolically drink the blood and eat the body of Christ, the speaker derives spiritual sustenance from an entire reservoir filled with blood. Through the appropriation of Old English this excerpt further perverts Christian rites, and attempts to raise the validity of Emperor's dark oath to that of Christian prayers with similar invocations.

In addition to the perversion of Christian rites, Satanic black metal bands also attack Christian symbolism:

> In the dawn an angel was dancing
> Surrounded by an aura of light
> But in the shadows something was watching
> And with patience awaiting the night
> Angel whispers: "Mournful night,
> Attractive night your dark beauty obsesses me"
> An angel bewitched by the shadows
> Seduced by the whispering lies
>
> A spell was cast and the sky turned red
> The angels heart froze to ice
> The blackness that falls is coming to stay
> Under the snow lies angels so cold
> (Dissection, "Where Dead Angels Lie" [1995]).

This excerpt typifies Satanic black metal, conveying the temptation of the ultimate symbol of Christian purity by the taboo qualities of the night. Believing "the whispering lies" of the shadows, the angel meets its demise. Curiously, the angel does not become a part of the dark side through the realization that darkness is better than light. This is not a narrative about the conversion of an angel into a being of the dark. In an outright dismissal of anything Christian, the angel is frozen under the snow and left to be forgotten.

A prevalent and more recent black metal theme involves the subscription to Nordic Mythology. Norway's Einherjer, for example, is a band whose name refers to slain Viking warriors sent to the hall Valhalla, who feast the night away and return to fight and be slain the next day (Grant 1990 26). Bands like Einherjer have gone to great lengths to transmit traditional Nordic messages, both symbolically and textually. Their CD, *Odin Owns Ye All*, has the image of a bearded man missing an eye—a symbol for the Norse god Odin, who surrendered his eye to the god of wisdom, Mimir (Grant 1990 13).

Einherjer's song "Out of Ginnungagap" (1998) tells the story of Nordic creation:

> Out of emptiness
> Out of Ginnungagap
> Came Yggdrasil
> Came Life
> Out of emptiness
> Out of Ginnungagap
> Came all of what is today.

Very similar to the Greek notion of Chaos, as described in Hesiod's tale of creation, *Theogyny* (Morford & Lenardon 1985 29-30), Ginnungagap is the eternal void from which all existence comes. From Ginnungagap came Yggdrasil, Nordic mythology's "world tree," which links the nine worlds of the universe and connects all of the Viking gods (Grant 1990 41).

Black metal is wrought with Viking narrative and symbolism. Burzum's CD, *Hlidskialf* (1999), for example, is titled after the highest throne of the gods, in which Odin oversees the nine worlds. The CD narrates present-day Viking battle scenes in which sacred traditions are reasserted, threatening those who defy the resurgence of traditional Nordic beliefs with the crushing hooves of Sleipnir, the 8-legged horse of Odin. Songs like Enslaved's "In Chains Until Ragnarok" (1998) retell the Nordic story of the day of reckoning in which evil will inherit the Earth (Grant 1990 36). In addition, bands like Enslaved and Borknagar have the Mjollnir (the hammer of the Nordic god, Thor) woven into their CD cover art and often brandish this symbol around their necks. The focused and coherent use of Nordic symbols debunks earlier speculation that metal's use of symbols is a "signature of identification with heavy metal, not...a religious or philosophical statement of faith" (Gross 1990 125).

It is increasingly argued that black metal is an extension of a larger religious and cultural movement with the youth of Scandinavia, and more recently, greater Europe and North America. Citing the editor of *Aorta* magazine, Keving Coogan states:

> Norwegian black metalists are modern day examples of an ancient martial/mystical band of Werewolf-like "berserker" warriors known as the Oskorei. (Coogan 1999 44)

Coogan (1999 44) also mentions the connection between black metal and the traditional Nordic religious movement known as the Ásatrú Alliance in Europe and in the United States.

The berserker mentality reflected in modern metal can be seen through religious ideology, where Nordic symbolism and narrative are vehicles for anti-Christian sentiment. Tales of Ginnungagap and Ragnarok are antithetical to the dominant Christian mythology. The former places creation outside the control of a sentient being, counter to the famous six day process as described in the Bible's Book of Genesis. The latter claims that the world will not end in the control of good as described by the Book of Revelation, but instead will succumb to the forces of evil.

Such a discourse is heavily counter-hegemonic in Norway, an 88 percent Protestant country. As Michael Moynihan and Didrik Søderlind (1998) point out in their history of black metal, *Lords of Chaos*, the populace of Norway inherited the cultural legacy of centuries of Christian missionary work, including the inclination towards censorship (Moynihan & Søderlind 1998 40). Moynihan and Søderlind see the appeal to a different religiosity, more particularly, the appeal to the native Viking religion, as indicative of a battle against this legacy, spearheaded by Scandinavian youth. The early 1990s, for example, saw numerous Christian churches torched in Norway and other parts of Scandinavia. Taking credit for the burnings were a new sect of Odinists inextricably linked to the black metal scene. As Moynihan and Søderlind state:

> Black metal would provide the foot soldiers ready to plunge headlong into battle, firebrands in hand to brazenly set alight the cathedrals and churches of Europe. (1998 xi)

CONCLUSION: THE POLITICS OF FANTASY

In *Marxism and the Philosophy of Language* (1973), Russian linguist and political philosopher, Valentin Volosinov, asserts that shifts in the language of modern media represent changes in social relations, primarily those between an art form and its interlocutors. The change in social relations in the contemporary metal scene is one in which the genre has an implicit message of advocacy for the conditions of youth. In the case of metal's exploration of the darker parts of self, the politics of the dialogue is apparent. We live in an era in which psychiatric discourses have systematized humanity to such an extent that only the most drastic modes of expression are politically visible. Indulgence in the pathologized states of humanity dubbed most abhorrent represents a politics against current psychiatric modalities. This politics is largely the same when addressing the multiple forms of nihilistic behavior, including wanton violence and taboo breaking. Metal's counter-Christian sentiment also expresses this dialogue: the youth of today are not increasingly secular, as much as they are trying to find a new foundation for what is sacred. Within the moral order of Christianity, the invocation of other myths and modes of behavior (including Odinistic rituals and acts of outright violence) are starkly marginalized. Today's metal scene, it can be argued, offers a vehicle to express the subjective condition of cultural repression.

Similar to earlier types of rock music, metal is an expression of protest against greater cultural practices. Some may argue that because metal artists are adored, if not made into icons, the current youth generation is at the peak of its freedoms. However, one has to consider the increases in regulations, the explosion of surveillance, and the enforcement of rules that have consistently intensified in formal and informal contexts over the decades. While overt political protest in the 1960s and 1970s was controlled by a police force largely untrained to face civil disobedience, today's institutions of social control are so sophisticated that an open fight appears fruitless at best, suicidal at worst. The 1999 World Trade Organization protests, now known as the "Battle for Seattle" remains an historic case in point. In addition to thwarting efforts aimed at the open fight, social control is now exercised through an increasing number of legal regulations, their strict enforcement, the focus on discipline and control in educational institutions, and through the pharmaceutical treatment of unwanted behaviors. It has been previously argued that violence occurs more often in keeping social order (i.e.-through police and military action), than in the predatory, victimizer-on-victim manner (Black 1993, 2002). The sources of "legitimate violence," those of the established mechanisms of discipline, such as the military, the police, and those who run state mental hospitals may be construed as more predatory than individuals who advocate or enact harming another or themselves.

As it calls attention to the social conditions of its time, metal music functions similarly to earlier rock music, but not in its advocacy of overt political upheaval. Instead today's metal music invites its audience to partake in fantasies that reflect experiences of oppression. Fantasies are counter-hegemonic, in this sense. They are a resource left to a "straight-jacketed" generation. Metal confronts psychological chaos, allows one to explore the possibilities of nihilism, and provides Antichristian sentiments that challenge religious domination. Whether or not one subscribes to the notion that metal music is a "phase" of youth development, it remains that the dialogue between this widely popular genre and its audience is fueled by the asymmetry in power between established cultural practices and the young people who feel coerced into following them.

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ENDNOTES

1. As metal music is constituted by a wide array of sub-genres, including heavy metal, dark metal, black metal, speed metal, metalcore, grindcore, gothic metal, satanic metal, industrial metal and many others, and because the lines of demarcation between these different sub-genres are often blurred, it is clear that a unified term for this type of music is excessively problematic. For this reason, we use the terms "metal music" or "metal" as generic nomenclature referring to any number of different sub-genres, or combinations of them. We differentiate this generic concept of metal music from punk and skinhead music, as well as classic rock music. Punk and skinhead genres influenced metal, creating subgenres with a specific following in Northern Europe. Skinhead and punk-oriented sub-genres of metal in Germany and Scandinavia are more likely to be expressed through a national language which reflects national culture. This is part of the reason why such subgenres are largely absent from the international metal scene that, with a few notable exceptions, is dominated by English—a medium of international communication and marketing.
2. As described in Andy Bennett's (2002) methodological critique, research concerning youth culture and popular music often lack methodological precision and/or substantial means of empirical investigation. While this study does by no means employ rigid empirical sampling, we employ our specific cultural knowledge to systematize the investigation through domestic and cross-national comparisons. Such a perspective helps to identify sub-genres and tendencies of metal music whose dynamics are not only explainable in terms of historical developments and linkage to other genres, but by the genre's own international cross-fertilization. This dynamic is demonstrated by metal bands' international touring and the increasing internationalization of the marketing of bands that are signed by smaller music labels. Part of this marketing certainly involves the international exchange of MP3 files via newsgroups or shared distribution providers. With the advent of internet technologies and the consequent high availability of all types of music, including metal, we may conclude that a recommended analysis of metal would involve a discussion of the genre on an international scale.
3. All of the above court cases either ended with dismissal of the charges or acquittal of the defendants.
4. This term, of course, refers to the role of Tipper Gore in beginning the PMRC and in lobbying congress to have warning labels placed on explicit content CDs. The term "Tipper Sticker" is often invoked by ex-Dead Kennedys frontman, Jello Biafra, during his spoken word en-

gagements, in which he discusses censorship of today's music, and how the messages transmitted through heavy music are widely misunderstood by adult authorities.

5. We are reminded here of the stark distinction between metal bands and the so-called "hair bands" of the mid-eighties. With most of these bands such as Winger, Warrant, Poison, and the like, the song structure rarely deviated from a predictable 4:4 time signature. Most of these compositions featured rather simplistic guitar riff structures oriented around melodic vocals. Hence, the "hook" of most of the hair bands' songs stemmed from the vocal lines and not the collective participation of the entire band.

6. Due to its emphasis on rhythm, rather than melody, it may be argued that the psychological tension engendered by polyrhythmic song structure in metal is much more intense than that created in jazz music. In metal, polyrhythms are based upon sudden bursts of mono-tonal, noise-gated, highly distorted, and low-tuned guitar noise that is often juxtaposed with drums played in a different meter. Played in such a manner, this type of rhythmic structure emphasizes the gaps between notes and makes for a disturbing machine-like aesthetic. Polyrythms in jazz are based upon the same rhythmic principle, but usually employ multi-tonal melodic devices in different meters, rather than strictly rhythmic devices. The melodic emphasis of jazz largely covers gaps in the rhythmic structure. In some ways, this makes the polyrhythms in jazz more difficult to feel. Hence, jazz is considered more "cerebral" and metal more "aggressive."

7. Christopher Lasch's *the Culture of Narcissism* (1979 16-21) also addresses the phenomenon of modern day confessing, albeit differently than Foucault. From Lasch's perspective, the tendency to confess ourselves to others is an extension of a narcissistic sensibility in which we continuously need others for external validation.

8. For a concise and compelling discussion of metal music as a vehicle for the expression of young male pain and rage, see Ian (1997).

TRAUMA REGISTRIES AS A POTENTIAL SOURCE OF BORDER EPIDEMIOLOGY WORK GROUP INDICATOR DATA: TRENDS FROM 1996-2000

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ABSTRACT

Drug abuse problems in U.S.-Mexico border communities are largely defined as drug trafficking problems. Thus, the measured response remains one that is couched within criminal justice perspectives instead of social service or treatment initiatives. There is a clear need for data and data systems that attend to the major aspects of drug use, drug abuse vulnerability, and health & social consequences in borderland communities. In Texas, the Trauma Registries system (TR) has been established for nearly a decade and a half. Data for this presentation covers the last five years. As in other parts of the nation, Texas hospitals' emergency care systems have come to use TR: 1) to measure the quality of trauma care and to evaluate the effectiveness on health outcome; 2) to serve as a data source for injury surveillance; and 3) to measure costs of trauma care by hospitals and ERs. In terms of substance abuse surveillance and monitoring purposes, for the U.S.-Mexico Border region, all hospital TRs have important potential for measuring drug and alcohol health consequences. The data collected varies by TR, but they usually include patient demographics, injury severity, medical care procedures, health outcome, and medical costs. Most of the state's hospitals already report alcohol — few report drug abuse data. All ERs could collect and report drug abuse by patients entering Emergency Rooms, but most do not! Border communities' public health drug abuse concerns and issues need to be key components of U.S. national and international drug abuse monitoring and surveillance systems. Outside of symbolic and courtesy visits, systematic substantive sustained public health and community capacity building efforts on the U.S.-Mexico Border remain outside national, state and third sector policymakers planning and programming efforts. With occasional episodic and passing public health and community capacity building, one's community concerns and issues about border communities drug abuse problems remain largely missing from federal national drug abuse surveillance systems and unattended in state block grants or in discretionary programs. Collection, reporting and improving of these data would serve to assist policymakers and planners in addressing substance abuse as a more serious consequence of patients presenting to ERs. There exists bi-national potential to collect, report and assess the same health consequences in Mexico that need to be explored by those working on the U.S.-Mexico drug abuse policy control matters.

For the last fifty years, the U.S.-Mexico border region's communities have been seen largely as narco-trafficking centers and targeted for special federal and state initiatives seeking to curb and control drug trafficking from Mexico into the U.S. But, public health concerns about drug abuse in these communities are largely symbolic, often fragmented or simply passing demonstration efforts. In this paper, we will explore the TRs role, utility and limitations for drug abuse monitoring and surveillance at local, area, state, national and possibly international levels (Beachley, Snow, & Trimble 1988; Goldberg, Gelfand, Levy, & Mullner 1980; Champion & Teter 1988; Mendeloff & Cayten 1991). In an effort to enhance and improve knowledge and understanding about drug abuse and drug abuse services along the U.S.-Mexico Border, there is a need to understand drug use and abuse at local community levels throughout the border. While in the past decade, border gateway cities have again drawn national media and policymakers' attention and interest, it has been largely in narco-trafficking terms and largely within a Criminal Justice System (CJS) perspective. There is a clear need for data and data systems that attend to other *major aspects of drug use, drug abuse vulnerability and drug use consequences* — especially one within a public health perspective.

This paper will address the potential and limitations of Trauma Registries across the border and along the border. The use and improvement of Trauma Registries (TRs) by national and state health and mental agencies would serve to enhance, extend and present policymakers, researchers and practitioners with important drug abuse health consequences data and data systems (Pollack & McClain 1989; Vestrup, Phang, Vertesi, Wing, & Hamilton 1994; West, Williams, Trunkey, & Wolferth 1988). With the exception of San Diego, U.S.-Mexico border gateway cities are outside national surveillance and monitoring systems: Arrestee Drug Abuse Monitoring Program (ADAM/DUF), Drug Abuse Early Warning System (DAWN), NDATUS, Substance Abuse and Mental Health Services Administration's National Drug Abuse Household Survey (SAMHSA-HHS), Center for Disease Control's Youth Risk Behavioral Assessment (YRBA) and even the National Institute on Drug Abuse's (NIDA) Monitoring the Future and the Department of Labor's Youth Longitudinal Survey. In short, what is the role and nature of hospital TRs for border surveillance and monitoring system? What does it promise? What are some limitations? What alternative perspective and implications do TR drug abuse monitoring systems pose? And, what possibility for international TR and drug abuse monitoring system exists?

The Need to Redefine Drug Abuse Problems Along the U.S.-Mexico Border

Periodically, the U.S.-Mexico border communities' drug problems are "rediscovered." The problems remain largely defined as drug trafficking problems and are presented within criminal justice perspectives, policy and responses. With occasional episodic and passing public health and community capacity building, one's community concerns and issues about drug abuse remain missing and unattended. Drug abuse remains a key concern among communities along both sides of the U.S.-Mexico border. National, state and third sector efforts need to build, expand and enhance local communities capacities and infrastructure to plan, provide services and evaluate these efforts. While various federal and state-level data reports and data systems exist, border communities are missing from DAWN, YRBA, SAMHSA's *National Drug Abuse Household Survey*, NIDA's Monitoring the Future and the Department of Labor's *Youth Longitudinal Survey.* Even in the Department of Education's (DOE's) *Safe and Drug Free* funding for border communities, these programming efforts have yet to lead to any model programming that would help address border communities unique circumstances and needs relative to drug abuse and the U.S.-Mexican Border.

While subject to occasional studies, these efforts are limited to community or school, and usually exploratory. Moreover, they fail to adequately ? to drug abuse and health consequences. With the exception of a major highway safety study, the more serious health consequences — unintended injury and mortality involving trauma care system (TCS) remain largely unattended. In our nation's major monitoring and surveillance systems, ADAM, PULSE, DAWN, NHHS and MTF, most border communities are missing. Even in Border Epidemiology Work Group (BEWG) reports, health consequence data reporting is uneven, not always comparable and/or missing for juveniles and young adults. There is a clear need for enhancing and expanding border communities' TR data, potential and limitations (Cales 1984; Eastman, Lewis, Champion, & Mattox 1987; Guss, Meyer, Neuman, Baxt, Dunford, Griffith & Guber 1989). There is a need for ADAM and PULSE to include health consequence data in their reporting efforts. In short, there is a clear need for data and data systems that attend to major aspects of drug use, drug abuse vulnerability and consequences in borderland communities.

Border communities' public health drug abuse concerns and issues need to be the key component of US national and international drug abuse monitoring and surveillance systems. The promotion and improvement of hospital TRs in the U.S. and recent advances in microcomputer technology, software and networks have rekindled interest in TRs for basic, administrative and applied research (Jurkovich, Rivera, Gurney, Seguin, Fligner, & Copass 1992; Richards, Clark, Holbrook, & Hoyt 1995). We first will address what TRs are and their potential for addressing drug abuse health consequences. Thus, this paper suggests the importance and limits of Texas-based TRs for monitoring, surveillance and policy research (Champion, Sacco, & Hunt 1983; MacKenzie, Siegel, Shapiro, Moody & Smith 1988; Ellis, Michie, Esufali, Pyper, & Dudley 1987). We then argue the need for enhancing and expanding public health and health consequence data in national and state planning and programming purposes (Flint 1988; Rutledge, Messick, Baker, Rhyne, Butts, Meyer, & Ricketts 1992). Second, we will discuss how utilizing TRs in border communities will help redefine the U.S.-Mexico Border drug abuse problem. Here we will present data that suggests key trends and patterns for major border gateway cities — that need to be compared and contrasted to other border cities (Runge 1993; Kellermann 1993). Lastly, we discuss the potential of this data on both sides of the border and the implications for bi-national monitoring, reporting and service planning. Here we will suggest that these data are available across sister cities and would provide important health consequences data for basic, applied and administrative research.

TR and Drug Abuse Monitoring: Promise and Limitations

In Texas, TR have been established for nearly twelve years. While data for this presentation was generated from Thomason Hospital's TR that was initiated in 1995, this paper only covers the last four years. As in other parts of the country, hospitals' Emergency Departments and Intensive Care Units (ED/ICU) used TR to measure the quality of trauma care and to evaluate the effectiveness on health outcome. A second major utility of the TR is as a data source for injury surveillance and patient health-care outcome. The data collected varies by TR, but state mandated reporting usually includes patient demographics, injury severity, medical care procedures, health outcome, and medical costs (Goldberg, Gelfand, & Levy 1980; Kane, Wheeler, Cook, Englehardt, Pavey, Green, Clark, & Cassou 1992; Rutledge, Fakhry, Baker, & Oller 1993). In terms of substance abuse surveillance and monitoring purposes, for the U.S.-Mexico Border region, TRs have important potential for measuring drug and alcohol consequences. Since the first 1950's Chicago Trauma Registry, the role of TRs has been to monitor and evaluate trauma patient care for health-care entities and the regional EMS systems that they belong to; to identify and report major trauma injuries and outcomes; and to provide a sense of how to prevent, treat and reduce trauma costs. TRs are databases that collect, archive and report information about patients that they receive through a trauma care services continuum. Patient inclusion into a TR system generally require that patient population meet certain criteria:

*ICD-(Codes (**800.0—959.5**)
*All trauma patients have Injury Severity Scores (**ISS**)
*Admission to ICU or hospital floor

It must be recognized that collecting standardized data is generally set by the state legislature and corresponding state agency(s). In 1989, the Texas state legislature, recognizing the need and challenge that collecting standard data from over 450 hospitals would present, allowed reporting entities to file electronically either on a quarterly basis or annual basis. As of August 31, 1996, Section of 157.129 of the state trauma registry rule established Texas hospital standard data set requirements, TR case inclusion, and what constituted major trauma.

The two major types of hospital TRs are paper and computerized. Trauma care is provided through a four tier system of providing care to acute and injured patients. Level one trauma centers are tertiary care facilities central to any Trauma Care System (TCS). Level two provides initial definitive care regardless of severity of injury. They can be academic, community, public or private facilities located in rural, suburban and urban settings.

Generally, level 3 and 4 trauma centers have monthly volumes of 0-15 patients a month and are manually abstracted monthly and then reported to their RAC or directly to the state oversight agency. Level 1 and 2s are generally utilizing mainframe and/or personal computer-based systems due to the volume and amounts of data processed.[1] The TRs are associated with trauma care and may reside as part of hospital Management Information System (MIS) or operate as a stand alone program usually in the ER and ICU. There is no single software package being promoted by the Texas Trauma Registry for use by Texas hospitals to fulfill their trauma reporting requirements. Hospitals may use any computer, modem and software as long as they are able to collect and electronically transmit the Texas Hospital Standard Data Set to the Texas Department of Health (TDH 2003).

The Centers for Disease Control (CDC) and Prevention have developed a hospital trauma registry software package. With its permission, the Texas Trauma Registry developed a software module that works with CDC software to collect and electronically transmit the Texas Hospital Standard Data Set. Both of these software packages are available free to interested hospitals by contacting the Texas Trauma Registry.

The actual collection of TR data is guided by hospital needs and state reporting guide-

Table 1: Number of Total Trauma Admissions by Year for Drugs and Alcohol Between 1996-2001

	Number of Trauma Admissions by Year											
	Thomason Hospital						Far West Texas & Southern New Mexico Regional Advisory Council on Trauma					
	1996	1997	1998	1999	2000	2001	1996	1997	1998	1999	2000	2001
Total Admissions	1031	1145	1496	1663	1595	1647	1046	1769	2031	2299	2789	2735
Drugs Only	155	201	264	219	248	205	155	271	333	265	249	205
Alcohol Only	439	330	420	413	382	338	439	504	629	510	484	441

Source: Thomason Hospital Trauma Registry

lines. This unfunded mandate has allowed hospitals to report essential elements and desired optional elements. In a sense, there are minimal and desired data elements. Minimal data sets are comprised of TR data that involve all ICU and hospital floor trauma data needing to be reported to the Texas Department of Health. Desired data elements are these in which state, professional, and some local agencies would like to see collected, but that are not mandatory.

The TDH agency sets reporting deadlines, quality measures, and means by which data is to be sent. This data can be collected, accessed, and reported by public domain and commercial personal computer software packages. The American Society of Trauma offers courses about management and training of personnel.

CDC and state TR guidelines set the data that gets reported by the hospital. On August 31, 1996, the State of Texas required the department of health and hospital trauma units to gather data about trauma in Texas. One objective was to identify severely injured trauma patients within each health care agency. Others were to monitor patient care within each health care unit and regional emergency medical services network and to identify the total amount of uncompensated trauma care delivered each fiscal year. All medical facilities need to report to the TDH Injury and Control Division the state required elements or minimal data. Due to the need for confidentiality, public reports of the data are reported in the aggregate; security measures and guidelines need to limit access to registry data. Four regions ranging from El Paso to Brownsville cover the Texas border (TDH 2001). In 1990, the state legislature mandated the reporting of certain trauma cases. Generally, they include 800 and 959 ICD cases.

El Paso's Thomason Hospital (EPTH) is a level 1-trauma facility and the lead agency for trauma care in the area. EPTH initiated the TR in 1994 and has provided TDH state-mandated minimal trauma level data. It serves as the lead hospital for this area. EPTH belongs to the Far West Texas and Southern New Mexico Regional Advisory Council. The existing RAC has eight hospitals within the region that participate on an ongoing basis.[2] The RAC is unique in that it covers 4 Texas counties and 7 New Mexico counties.[3] The state of Texas is divided into 11 RACs.

DRUG USE AMONG TRAUMA ADMISSIONS: Thomason Hospital and RAC Hospitals

The trauma registry data of Thomason Hospital reported here covers the years 1996 -2000. Thomason is the only teaching hospital in El Paso, Texas. Many of the patients come from southern New Mexico where medical resources are limited. The TR data comes from one of eight hospitals that handle trauma cases in the region.

DRUG USE AMONG TRAUMA ADMISSIONS-THOMASON HOSPITAL:
A Profile of the 1997-2000 Admission

During the 2000 calendar year, there were 1,595 trauma admission cases as compared to 1,031 in 1996 (Table 1). Since 1996, there has been a 35 percent increase in total trauma admissions. While drug abuse trauma admissions have increased from 155 cases in 1996 to 253 cases in 2000, the percent increase from the base year of 1996 was 39 percent for drug cases. In terms of alcohol-related admissions, the number has decreased significantly each year from 1996 to 2000. In 1996, there were 439 alcohol-related admissions, which decreased to 382 cases in 2000. The percent of change for drug-related cases was a 3 percent increase, yet for alcohol cases there was a decrease of 6 percent.

In 2000, there were 248 drug-related trauma admissions at Thomason Hospital (Table 2). Forty percent of these admissions

Table 2: Thomason Hospital Trauma Patient Profile for Drugs and Alcohol Between 1997-2000

	Alcohol				Drugs			
Characteristic	**1997 (N=330)**	**1998 (N=420)**	**1999 (N=413)**	**2000 (N=382)**	**1997 (N=201)**	**1998 (N=264)**	**1999 (N=219)**	**2000 (N=248)**
Gender								
Male	85%	83%	91%	93%	77%	75%	91%	93%
Female	15%	17%	9%	7%	23%	25%	9%	7%
Age								
0-12	0%	0%	1%	1%	2%	1%	1%	1%
13-17	6%	4%	8%	5%	14%	6%	8%	5%
18-25	26%	26%	28%	29%	26%	27%	28%	29%
26-35	29%	29%	35%	28%	24%	28%	26%	28%
36-46	23%	25%	21%	30%	22%	25%	21%	30%
47+	16%	15%	7%	7%	11%	12%	6%	7%
Race/Ethnicity								
Hispanic	83%	77%	83%	80%	74%	72%	83%	80%
White-non-Hispanic	15%	21%	13%	17%	20%	25%	13%	17%
African-American	2%	1%	1%	2%	4%	2%	1%	2%
Other	1%	1%	3%	1%	2%	1%	3%	1%

Source: Thomason Hospital Trauma Registry

had used drugs or alcohol, whereas 16 percent of the admissions had used "drugs only" (Table 1). Eighty-five percent were male. Over three-fourths (81%) were Hispanic, 2 percent were African-American, and 1 percent were members of other racial/ethnic groups. White, Non-Hispanics comprised 15 percent. A majority (27%) of trauma patients in 2000 were between the ages of 18-25 and male. Between 1997-2000, there was a 21 percent increase in the total number of drug-related cases seen at Thomason Hospital. Also, there was an 8 percent increase in the number of males being admitted to Thomason Hospital for drug-related issues. There was a 3 percent increase in males being admitted for alcohol-related cases between 1997-2000, and an 8 percent increase in males being admitted for drugs. However, for females there was a 2 percent decrease for alcohol-related trauma and an 8 percent increase for drug-related cases. There was no significant age increase when examining the data by individuals being admitted as per the 1997 data. There was a decrease between 1-7 percent pertaining to ages from 0-17 and an increase between 3-5 percent for drug-related cases. Regarding ethnicity, there was no significant decrease for alcohol cases involving Hispanics. However, there was a 5 percent increase for Hispanics who were admitted for using illegal drugs, all other ethnic groups stayed the same or decreased by 1 percent.

We next will report on drugs identified by TR drug abuse admissions toxicology exams (Table 3). One should keep in mind that patients may report using more than one substance. For cocaine between 1995-1998 there was a 50 percent increase. Between 1999-2001 there was a decrease in number of individuals under the influence of cocaine. Individuals under the influence of marijuana increased between 1995-2000, with a percent change of 62 percent. However, in 2001 marijuana cases started to decrease. Individuals under the influence of opiates continued to increase between 1995-2001 with an increase percent change of 94 percent. However, in 2002 individuals admitted under the influence of opiates started to decrease. Individuals under the influence of amphetamines increased between 1995-2001, with a percent change of 70 percent. However, in 2002 cases have decreased significantly. Benzodiazepine cases increased between 1995-1998, but decreased from 1999-2002. However, when looking at the percent change there is still an increase of 40 percent. Barbituates continue the fluctuating pattern on a yearly basis. The only category in which we see a continued and consistent decrease is for "other" drugs.

The majority of 2000 admissions who had used substances were injured on the "street or highway" (67% for alcohol and 64% for drugs). Slightly more than 10 percent were injured at "home" or in a "residential institution," 12 percent involving drugs, 3 percent involving alcohol in a "public building," 4 percent involving alcohol, or 22 percent involving drugs in "other" places (e.g. "farm,"

Table 3: Type of Drug Abused by a Sample of Trauma Admissions at Thomason Hospital in El Paso, Texas Between 1995-2002

Drugs*	1995	1996	1997	1998	1999	2000	2001	2002**
Cocaine	47	75	97	138	109	112	94	38
Marijuana	37	67	92	81	93	98	63	33
Benzodiazepines	15	23	29	46	23	45	25	18
Opiates	8	24	26	57	55	97	126	42
Barbituates	4	15	28	16	4	6	5	3
Amphetamines	3	3	5	7	4	5	10	3
Other	6	12	2	1	0	0	1	0

*Number of drugs will not match total because some patients will be listed for multiple drugs.
**2002 comprises until June
Source: Thomason Hospital Trauma Registry

Table 4: Type of Injury for Thomason Hospital Patients Between 1997-2000

	1997		1998		1999		2000	
	Alcohol (N=330)	Drugs (N=199)	Alcohol (N=420)	Drugs (N=264)	Alcohol (N=413)	Drugs (N=219)	Alcohol (N=382)	Drugs (N=248)
Motor Vehicle Crash	46%	46%	42%	45%	44%	44%	41%	43%
Motorcycle Crash	3%	3%	5%	5%	5%	7%	3%	4%
Pedestrian Crash	5%	5%	6%	6%	6%	3%	7%	5%
Gunshot Wound	5%	7%	4%	6%	3%	5%	5%	5%
Stabbing	17%	17%	10%	11%	10%	9%	11%	11%
Fall	10%	9%	13%	8%	13%	11%	14%	12%
Other	15%	14%	20%	19%	2%	21%	20%	21%

Source: Thomason Hospital Trauma Registry

"places of sports," "industrial sites").

The largest number of drug and alcohol-related injury cases involve Motor-Vehicle-Crashes (MVC) — when combined with Motor-cycle Crashes (MCC), they involve 44 to 47 percent of all trauma substance abuse-related cases in 2000 (Table 4). While the number of cases increases for both alcohol and drug admissions cases, drug abuse-related cases increased more from 1997 to 2000 than did alcohol-related cases in 1997-2000.

In terms of penetrating wounds involving firearms and stabbings, TR data decreased for alcohol, but not for firearms. While the actual number of cases increased for both, the percent change is smaller for alcohol-related cases than for drug abuse-related cases. During this period, falls and pedestrian accidents increase only slightly. The category of Other increased by 5 percent when one compares 1997 to 2000. In 1997, MVC, stabbings and other injuries were involved nearly 4 in 5 substance abuse-related cases. Yet in 2000, MVC is followed by falls, then stabbings.

In terms of MVC alcohol-related admission cases, nearly twice the number are alcohol-related cases than are drug related. Male rates are greater than females for all types of injuries, but especially in terms of MVC, stabbings, and firearm injuries. While the rates decreased for females from 1997 to 2000, there was an increase among males. Stabbings and gunshots also decreased, but the rate of decrease is greater for stabbings than for firearm injuries. Where stabbing decreased by almost half for males from 1997 to 2000, firearm mentions decreased only slightly, from 14 to 10 cases. Again, only as it concerns falls and Others mentions does one find an increase, but the increase is only a slight one.

SUMMARY: THE NEED FOR BI-NATIONAL SUBSTANCE ABUSE TR PROJECT

There is a clear need for data and data systems that attend to major aspects of drug use, drug abuse vulnerability and consequences. And there is a clear need to develop, cultivate, and evaluate drug abuse monitoring systems and data along the U.S.-Mexico border. On the U.S. side of the border, community leaders are concerned that national and state policymakers view border cities as largely narco-traffficking centers and rely largely on a CJS approach to the drug problem. Moreover, many are troubled by the lack of a more comprehensive and balanced public health and community approach to drug abuse within border communities. While this administration like past administrations' has rekindled an interest in border drug abuse issues, public health issues are left wanting. The need for border drug abuse surveillance and monitoring systems can be partially met by taking advantage of the information in U.S.-TRs' — especially those existing along the U.S. side of the border. The EPTH TR provides an important drug consequence data system and attends to issues closely found in DAWN. Moreover, the EPTH TRs like other hospitals' ED/ER/ICUs, participates in state reporting systems. Unlike some hospitals, EPTH TR reports all drug and alcohol-related cases. It should be kept in mind that hospital MIS department maintain complete patient databases, while trauma registry data can collect two types of data – TR essential and additional desired data for their own hospital use. The need for access to the desired data should serve as an impetus to develop a collaborative monitoring and surveillance effort of the area's RAC and major border TR hospitals.

TRs represent one of the better mechanisms for U.S.-Mexico surveillance systems and for collaborative research. There is clearly a need for developing a TR Substance Abuse Monitoring & Surveillance effort workgroup of border TRs. This workgroup could also explore the need and utility of making bi-national TR surveillance monitoring operational. They would begin by taking stock of current operating and potential reporting networks on both sides of the border; explore points of similarity, differences and gaps; develop a mutually agreeable protocol that could serve as long-term goals and objectives; on a pilot basis look a ICUs' and TR drug abuse report networks; convene a group to further explore how to enhance and improve existing data. TR surveillance monitoring project could also serve as a basis for specialized sub-studies — reliability studies, comparative studies, drug-related violence, rapid assessment study site, Motor-Vehicle Crash (MVC) and Motor-cycle Crash (MCC) study, cost/benefit analysis, etc. A TR surveillance-monitoring project could also serve as a basis for applied studies and specialized sub-studies — intervention, reliability studies, comparative studies, and drug-related violence. The EPTH TR pilot effort with Juarez suggests that its Mexican counterparts have demonstrated implementing a similar system in Mexican border cities. The EPTH TR must be kept within guidelines suggested by Pollack and yet still meet basic state and national TR needs. There is a need to further explore and pilot a collaborative TR project based on a drug abuse surveillance system designed particularly for Mexican border cities that complements, if not parallels existing ones in the U.S.

IMPLICATIONS FOR A BI-NATIONAL MONITORING AND REPORTING SYSTEM FOR THE U.S.-MEXICO BORDER: RECOMMENDATIONS

The Thomason TR data show that trauma data can be a useful indicator of drug abuse patterns and trends. There is a need to establish collaborative projects on both sides of the border to collect and analyze trauma data related to drug abuse. These data can be useful in:

- Developing area and regional surveillance systems.
- Establishing the need and range of services necessary for border communities.
- Demonstrating the ways drug problems impact border communities.
- Serving as a baseline for prevention and allowing for specialized studies of border communities.
- Showing the costs related to the drug problem.
- Demonstrating border twin city collaborative and cooperative efforts in using trauma data.

FINDINGS

The current findings are broad but suggest sustainability for the implementation of TR in Mexico. Currently, there is support to establish a Juarez, Mexico TR with the same capabilities as TR in Texas. There is a significant push in comparing data between Mexico and the U.S. pertaining to trauma data. The TR system is ideal in assessing drug and alcohol use along the border and the impact imposed upon hospitals in dealing with the substance abuse issue. There is a large need for social science researchers to use this data in assessing the substance abuse problem at another level, instead of just the criminal justice perspective.

The main findings of this paper are:

- TR data is measurable both quantitatively and qualitatively.
- TR data can state a cost based on substance abuse to the local

hospitals.

- TRs can track individuals yearly by region to see if they are a reoccurring cost for local hospitals.
- TRs can be instrumental in supporting public policy change.
- TRs can measure the impact on the local healthcare system due to substance use.
- A TR will be implemented in Juarez, Mexico in about one year.
- There is tremendous potential in using a TRs for substance abuse research.
- There are limitations to the TR, but they appear minor.
- The trauma registry is relatively new as compared to other systems.
- Many youths who use illegal substances are captured in TRs, which might not be caught otherwise.
- Specifically for Texas, TRs can be linked statewide to assess substance use/abuse if data is collected on a continuous basis.
- Some RAC regions collect substance abuse data, others do not.

The data and approach presented herein needs to be compared to data from other El Paso hospitals, then to other border cities. Sister city research has suggested which strategy is more likely to bear fruit and meet changing and future demands. Some effort needs to be spent on assessing and improving the quality of the TR data. The authors recognize the need not to oversell or overextend trauma center programs, staff and capabilities. Nonetheless, the Border Epidemiology Workgroup would benefit by involving trauma registry programs and staffs in their efforts. Border-wide monitoring and surveillance projects have long been touted and called for and trauma centers represent a viable vehicle for such an effort.

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ENDNOTES

[1] There are several excellent commercial trauma registry software packages on the market. However, commercial software is not necessarily required, since there are also free software packages available. Some hospitals have even developed their own software or are planning to use existing software. Any of these packages (commercial, free or existing) can potentially satisfy the data reporting requirements of the Texas Trauma Registry. The technical specifications for these requirements are in the document entitled Texas Hospital Standard Data Set. As long as the computer software package enables the collection and electronic transmission of the Texas Hospital Standard Data Set it can be used to satisfy the Texas trauma reporting requirements.

[2] These hospitals are William Beaumont Army Medical Center (WBAMC), Sierra, Las Palmas, Culberson, Del Sol Medical Center, Southwestern General and Thomason Hospital.

[3] The Texas counties are Hudspeth, Culberson, Presidio, El Paso. The New Mexico Counties are Hidalgo, Luna, Grant, Dona Ana, Sierra and Otero.

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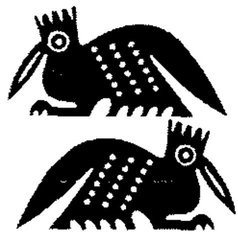

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THE NOTION OF MASCULINITY IN MALE COLLEGIATE ROAD CYCLISTS

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ABSTRACT

The aim of this study was to look at notions of masculinity in male collegiate road cyclists and assess the masculinity scores of cyclist in one of the ten collegiate cycling conferences in the U.S. This study utilizes the Bem Sex-Role Inventory (BSRI, long form) to evaluate the masculinity scores of male collegiate road cyclists in order to open the discussion of masculinity as it pertains to cycling. Thirty-two male subjects, in the conference, participated in the study. Results show a BSRI t-ratio score of -10.41, statistically different from that of the established norms of -6.33 ($p<0.05$). Conclusions are that male collegiate cyclists although androgynous, are generally more masculine than the established normal population.

The last decade has witnessed a recent movement in men's studies and a growing popularity of investigating different forms of masculinity and their consequences for men (Beal 1996). The present study examines masculinity and how it pertains to male collegiate road cyclists. Cycling is a popular sport with much research having been done regarding the science of optimal performance. However, sociological aspects of the sport are sparse and masculinity studies have yet to stretch to the sport of cycling. This study seeks to redress the imbalance in cycling research.

Road cycling is an interesting activity in terms of masculinity. The sport of cycling contains the tight, flamboyant colored spandex clothing, leg shaving and the slim, lean bodies that could be construed as feminine. In comparison, there is an overtly heterosexual environment and testosterone pumped racing that can be dangerous and exciting, which seems contradictory to the cyclist's appearance. In order to look at and discuss masculinity in collegiate road cyclists in one of the ten collegiate cycling conferences in the United States, the Bem Sex-Role Inventory (BSRI, reproduced with permission, Consulting Psychologists Press) was utilized to evaluate masculinity scores of road cyclists.

The Bem Sex Role Inventory, initially published in 1974 in the *Journal of Consulting and Clinical Psychology* (Bem 1978, 1981), was used to rate male collegiate road cyclists on a sex scale that could be compared to an established, normal population. The BSRI was one of the first sex tests published that was "specifically designed to provide independent measures of the individual's masculinity and femininity" (Lenny 1991 576). To date, reliability and validity tests on the BSRI are reported as high, and although the notion of masculinity is ever changing, it is the most often used measure in this type of research suggesting that it tests current masculinity ideals relevant to today's society (Lenny 1991).

THEORY

The theory behind the development of the BSRI purports that culture defines what is masculine and feminine, and that these are two random components that the BSRI is designed to assess. Specifically, the BSRI measures the degree "to which individuals endorse these heterogeneous cultural clusters as self-descriptive" (Lenny 1991 594). Much evidence to the ever-changing notion of masculinity will be presented that supports this view.

Analyzing masculinity, whether within the realm of sport or not, needs to be put into the context of the society in which the sport is played, and in which the participants of the sport play it. Kimmel (2001) discusses the notion of global masculinities, how they are created and how they try to resist change. He argues that masculinity is not a constant for all places and all times, but rather is an ever-changing fluid pool of concepts and behaviors that vary dramatically.

Masculinity and sport are two factors that seem intertwined. Frank (1999 221) argues that there are three sites of practice in which masculinity stands out as important: "the body, sports and sexuality." Sport and masculinity are inextricable linked, with sports said to be an arena where "traditional notions of masculinity can be reestablished and reproduced" (White & Gillett 1994 36). In fact, it has been argued that

> organized sports, as a public spectacle, is a crucial locus around which ideologies of male superiority... are constructed and naturalized. (Messner 1989a 80)

As Beal (1996 205) states, "sport is one of the most significant institutions of male bonding and male initiation rites." Furthermore, Messner, Dunbar and Hunt (2000) describe *real men* as winners, suggesting that to succeed in sport, against other men, heightens notions of masculinity.

If hegemonic masculinity were to have one defining visual representation, for sure it would be that of musculature. White & Gillett (1994) looked at masculinity in terms of muscularity when they decoded advertisements in *Flex* magazine. They argue idealistic masculinity is portrayed as being muscular (1994 20) and that men seek to attain this idea of the body beautiful in order to convey a masculine image.

From the many allusions to masculinity found in the literature, masculinity can be described as being hard, fast, strong, powerful, aggressive and tough; as successful ("winning isn't everything; it's the only thing" Messner 1989b 59), dominant and controlling; by being competitive, athletic and active; dangerous and risky; masculine, muscular, and above all masculinity is purported to be heterosexual (Beal 1996; Koivula 2001; Laberge & Albert 1999; Messner 1989a, 1989b; Messner *et al.* 2000; Trujillo 1995; Whannel 1999; and White & Gillett 1994). Moreover, the feminine must be suppressed (Gay 1992).

The notion of masculinity can be a very difficult idea to comprehend, with many values making up the ideal masculine image. Tensions within those that do not fit into its values are bound to exist. Frank (1999) argues that trying to become the ideal hegemonic male is full of struggles and tensions and that changing notions of masculinity makes this difficult. Gay (1992) outlines further tensions resulting from the suppression of the feminine within since this leads to a distortion of masculine characteristics.

REVIEW OF LITERATURE

Masculinity did not undergo extensive analysis till the mid-1980s (Whannel 1999), and since then sport has played a key role in its construction and maintenance. Although no research could be found specifically in the area of cycling and masculinity, a study by Koivula (1995) looked to classify 60 different sports on gender appropriateness, including cycling. The study classified cycling as gender-neutral (Koivula 1995; see also Parsons & Betz 2001; Meaney, Dornier & Owens 2002). Furthering her work, Koivula (2001) looked at all of the sports classified previously and how these sports and those in these sports were characterized. Her classifications were rated on a 7-point scale, ranging from 1, "not at all characteristic of the sport/sport participant" to 7, "very much characteristic of the sport/sport participant" (2001 379). Koivula questioned 403 participants. Cycling, already defined as being gender-neutral, did not show any particularly high or low scores on the twelve factor-based scales. The highest score received was for strength and endurance (5.7 out of 7) with the lowest score interestingly being on the aesthetics and femininity scale (2.0 out of 7).

Masculine defined sports tend to display features that are characteristically perceived as dangerous, risky or violent, involve a team spirit, speed, have elements of strength or endurance, and are perceived to be masculine (Koivula 2001). In her recent work then, Koivula found cycling to be perceived as somewhere in the middle of the rating scale for masculinity, suggesting that it holds only certain aspects of the masculine definition.

Sport is one of the most popular mediated images, and American football is one of the most watched sports and thus serves as an important arena in which to look at masculinity. Trujillo (1995) studied an entire season of ABC's *Monday Night Football* program, finding considerable masculine laden overtures from the commentators. His study not only highlighted more universal notions of masculinity such as aggression and power, but also aspects of masculinity relating to "rigorous training techniques" and the importance of practicing (1995 407).

Messner *et al.* (2000) studied televised sports content, aimed at and viewed by a heavily young male audience, to determine the dominant themes that lie therein. Messner *et al.* (2000 381) argue "sports programming presents boys with narrow and stereotypical messages about race, gender, and violence". Specifically, they argued that viewers are continually absorbed in images and commentary regarding the positive rewards that come from playing aggressively. Renzetti & Curran (1999) argue that media sports reporting emphasizes toughness and courage.

Messner *et al.* (2000) found that sports created what they termed the 'televised sports manhood formula.' This is said to provide

> a remarkably stable and concrete view of masculinity as grounded in bravery, risk taking, violence, bodily strength, and heterosexuality. (Messner et al. 2000 392)

It is unsurprising that this is the case, with previous work by Messner concurring,

> sports as a mediated spectacle provides an important context in which traditional conceptions of masculine superiority...are shored up. (1989a 79)

Whannel (1999) studied masculinity in sports with reference to sporting stars and its narrativization in the media in the United Kingdom. He concluded that sport is a male arena in which men both largely produce it and consume it.

It is important to note that masculinity is not only existent on one level. There is more than one type of masculinity that is evident in society at any one time, but it is the hegemonic masculinity that is the concern in this review, sometimes referred to as "exclusive masculinity" (Wellard 2002 235). It is this hegemonic masculinity that will be the frame of reference for masculinity used herein. Whannel (1999) makes us aware that more than one masculinity is evident in society, and that there is a struggle with notions of masculinity in the sporting world. Whannel (1999) contends that some images of masculinity occupy a subordinate position to masculinity as a whole. As Wellard succinctly puts it:

> What prevails in sport and in turn reflects wider social values is the presentation of a particular version of masculinity which is ascribed higher cultural capital and, especially in sporting practices, viewed as a 'natural' form of behavior. (2002 236-237)

Whannel also agrees with the idea that there is a struggle with notions of masculinity in the sporting world, arguing

> images and representations of sport characteristically involve contestation and categorization, marginalization and incorporation of elements of masculinity. (2002 64)

Smith (2000) argues masculinity is complex and has many dimensions, however, it can be sustained in part by other, non-hegemonic attributes that contribute to its maintenance. Laberge & Albert explain,

> masculine hegemony is not simply a product of the things men do but also the meanings their activities acquire through unequal social interactions. (1999 259)

Kimmel (1996) argues that historically it was through sports at the turn of the twentieth-century that men were able to define themselves as men, and that sport turned boys into men. Messner (2003 140) believes that this was due to the fear of social feminization which led to "the creation of organized sport as a homosocial sphere". Messner's work looked at the construction of a masculine identity through organized sports as a child. His findings suggest that it is at an early age when men find themselves thrust into the world of sports and are impressed upon to uphold the ideals of masculinity that lay therein.

This thrusting of young men into the sporting world suggests that it is not merely an individual choice to participate in sports, but something that is coerced in the individual. Masculinity is not formed by the individual alone, but shaped through the interaction between the individual and the society. Through organized sports, the challenged and faltering ideology of male superiority is reinforced (Messner 1988).

If masculinity were to have one defining visual representation, for sure it would be that of musculature (Gay 1992). White & Gillett (1994) looked at masculinity in terms of muscularity when they decoded advertisements in *Flex* magazine. They note that increasingly in today's capitalist society, men are "unsure about their masculine identities" (1994 19). They argue idealistic masculinity is portrayed as being muscular, in control, powerful, aggressive and violent (1994 20) and that men seek to attain this idea of the body beautiful. The establishment of a significant symbol of masculinity, such as muscularity, undermines the acceptance of alternative body images, thus reinforcing hegemonic theories of masculinity.

In looking at male action toys and their evolving physiques, Pope, Olivardo, Gruber & Borowiecki (1999) argued that the trend over the years has seen an increase of muscularity among the figures. Pointing to the increasing problem of muscle dysmorphia amongst men, they argue it could be because men feel pressured by the fact that the male ideal is becoming increasingly more muscular. Findings from the study also show that action toys have become more muscular through the years (Pope et al 1999; see also Luciano 2001).

A study along similar lines by Jirousek, (1996) looked at the evolving visual ideals of the American football uniform, and how it represents the changing notions of what is masculine within society. She found that over time, the uniform has grown increasingly larger, especially in the shoulders, chest and thighs, yet becoming narrower in the waist, accentuating male body parts to meet ideal masculine images and posing virtually unattainable ideals for men to aspire to. It is interesting to note that at the turn of the twentieth-century the opposite was true in that excessive protective gear was not generally considered manly and therefore wide-shouldered pads were not worn.

Jirousek (1996) also discusses how men with exaggerated muscles, such as the football hero, are being replaced by athletes with more balanced proportions, such as the basketball star. This would seem to contradict current thought as to the notion of muscles and masculinity expressed by the other literature reviewed, but may highlight a changing attitude of hegemonic masculinity that could yet be seen to be expressed in the future. A more recent study by Edwards & Launder (2000) maintains that, in general males still desire to be more muscular, suggesting Jirousek's conclusions were rather hopeful.

A study of skateboarding subculture found that although a non-hegemonic masculinity was created, this revised form still elevated skateboarding as masculine by differentiating themselves from females and femininity (Beal 1996). Historically, in response to changing historical circumstances, sport was promoted as one significant means of ensuring that boys became "properly masculine." Even in the creation of new masculinities, the dominant hegemonic masculine ideal that is promoted in society is evident. Within the subculture of skateboarding females had to prove their masculinity to become accepted. In creating the masculine subculture of skateboarding, the male skateboarders fashioned a culture that satisfied a need for defining themselves as different from the feminine that would normally have been met by athletics for other males (Beal 1996).

Looking at the association of masculinity with the choice to pursue, or not to pursue, athletic careers, Messner found that choices depended upon social ability to "construct a public masculine identity" (1989a 71). Messner argues that through organized sports, boundaries of identification between oneself and another is accomplished, and that masculinity serves to develop this identity. Messner believes sport represses natural similarities between sexes, constructs differences, and then weaves a structure of signs and interpretations around these differences that makes them natural (Messner 1989a). Also of note is a study by Harris & Hall (1978) who found a hierarchy within sporting athletes depending on the type of sport played. The athletes perceived to be most masculine were those involved in team sports, followed by those in individual sports and then at the bottom were the nonathletes.

The study by Laberge & Albert (1999) referenced previously, examined conceptions of masculinity and gender transgressions in sport among boys in Quebec. They found that boy's views of men undertaking participation in feminine sporting endeavors were mixed, with some responses seemingly indifferent and others attaching an "inferior status" to those men. It was argued that transgressive behaviors could be legitimate because

> moral strength (in this case for facing stigmatization and discrediting by peers) and physical prowess are used as proof of masculinity. (Laberge & Albert 1999 257)

Work undertaken by Loland (1999) looked at sport specific attitudes of sportsmen to their bodies. She found that there are sport specific ideals to what the body should look like that contend hegemonic notions of the masculine ideal, but are, however, always compared to what the ideal within the hegemonic society is. Loland believes that bodily

Table 1: Descriptive Statistics for Study Variables (mean +/- standard deviation)

Racing Category	Age (Years)	Height (cm)	Weight (kg)	Body Fat %	HRS Training	Sexual Orient.
A = 34.40%	23.27 +/- 3.80	180.80 +/- 6.35	73.41 +/- 8.72	6.11 +/- 2.30	18.23 +/- 5.57	hetero 91%; 9% missing
B= 28.10%	22.22 +/- 2.22	181.74 +/- 5.70	72.02 +/- 6.84	8.16 +/- 3.44	13.06 +/- 4.69	hetero 78%; 22% missing
C= 37.50%	22.17 +/- 2.76	181.61 +/- 5.36	76.07 +/- 6.61	7.88 +/- 1.64	11.33 +/- 7.01	hetero 100%
Totals	22.56 +/- 2.98	181.37 +/- 5.64	74.01 +/- 7.41	7.17 +/- 7.41	14.20 +/- 6.50	hetero 90.63%; 9.37% missing

images that did not compare to the masculine ideal were more related to functional expressions. Importantly however, other masculine traits substituted for the lack of the ideal image.

Loland (1999) argues tensions often exist between sport-specific ideals of masculinity and societal masculine ideals in general. Sporting men often measure themselves by two standards, the predominant body ideal of the specific sport in which they participate, as well as ideals of society at large.

> It is a paradox that to enhance traditional masculine virtues such as dominance and control, ski jumpers have to minimize the primary sign of masculinity, namely muscles. (Loland 1999 299)

Among the various sports that have been researched over the last decade that men's studies have become popular, cycling is a particularly interesting one to investigate due to the contradictions of norms, including dress and the feminine type behaviors of shaved legs, as well as the body structure that is in opposition to much of what is construed as masculine in our society. The present study employs the Bem Sex-Role Inventory to address masculinity in collegiate road cyclists in one of the ten collegiate cycling conferences in the United States. We rate male collegiate road cyclists on a sex scale that could be compared to an established, normal population. In looking at the notion of masculinity as it pertains to cycling in today's society, conclusions will be made regarding the hegemonic masculinity in which the study took place.

METHODOLOGY

Subjects. The sample population was male collegiate road cyclists from one of the ten collegiate cycling conferences in the United States. The population consisted of 99 male cyclists present for the conference. Subjects that agreed to volunteer in the study were handed an informed consent and questionnaire. Thirty-four subjects agreed to take part in the study, with 32 completing it. Two subjects were removed from the study after defacing questionnaires.

Data collection. The Bem Sex Role Inventory (BSRI, long form) was used to ascertain the mean sex *t*-ratio score for the sample

Table 2: BSRI Scores

	Masculinity scale	Femininity scale	t-ratio
1978 Stanford normative sample	Mean 5.12 Median 5.10 +/- 0.65	Mean 4.59 Median 4.60 +/- 0.55	-6.33 +/- 13.73
Male collegiate road cyclists	Mean 5.27 Median 5.33 +/- 0.64	Mean 4.47 Median 4.63 +/- 0.57	-10.41* +/- 10.87

*Statistically significant difference (p> 0.05).

group. Reproduction rights were obtained from appropriate sources. Reliability and validity of the BSRI has been tested and is shown to be high (Lenny 1991). At registration for the conference championships, in the spring of 2003, the consent form and BSRI were administered to participants. To test for possible spurious relationships between masculinity and cycling the questionnaire also contained descriptive questions that pertain to the subject's age, height, weight, body fat percentage, total training hours per week, race category and sexual orientation (see Appendix). Completed questionnaires were collated and the BSRI was analyzed.

Statistics. Using Bem (1978, 1981), data was converted to standard scores for masculine and feminine scores, and overall t-ratio scores, in order for analysis. Microsoft Excel with *Stats Plus* v2.5 add-in software was used to analyze the data, with significance (Ü) set at $p<0.05$. A 1x3 ANOVA was performed on the BSRI *t*-ratio scores broken down by rider category.

Results showed that no significant differences were evident between any of the categories ($p^30.05$), illustrating that the groups were homogenous, and thus data was collapsed and analyzed together. A one-sample t-test was then performed to compare the mean *t*-ratio score of the entire sample data to the established norm of the 1978 Stanford sample population.

Descriptive data were analyzed to ascertain means, standard deviations and percentages of responses. This information was then tabulated for ease of inspection (see table 1 for descriptive data)

RESULTS

Mean scores for masculine and feminine norms (5.26, (t (31) =1.28, $p^30.05$), and 4.47, (t (31) =-1.16, $p^30.05$) respectively) were not significantly different from the 1978 Stanford normative sample population (5.12 and 4.59 correspondingly). Using Bem (1978, 1981), the median split method of analysis shows participants to express androgynous scores closely approaching masculinity.

Further analysis of the data shows, however, that there was a statistically significant difference between the overall *t*-ratio score (-10.41) obtained from the results of this study and those of the 1978 Stanford normative sample population (-6.33, t (31) =-2.12, $p\geq0.05$). A summary of the results is apparent in table 2.

DISCUSSION AND CONCLUSION

Results from this study investigating masculinity suggest that male collegiate road cyclists rate as "androgynous," but approaching masculine using the BSRI median split method. Furthermore, evidence suggests that they are more masculine than the 1978 Stanford normative sample population using the *t*-ratio scores. Androgyny represents a combination of masculine and feminine characteristics within a person, no gender role differentiation. This leads to greater behavioral flexibility in interacting with others.

Messner et al. (2000) argue that real men are winners, suggesting that the better an athlete is, the more masculine he should be. However, the results from this study found no significant difference between the masculinity scores of riders from different categories (which examined athletes at different levels), which suggests that the level of the athlete has no particular influence over their masculinity. Masculinity, defined in part as being successful, is shown here not to be the case as higher level athletes appear to have similar masculinity scores as lower level ones.

Subjects in this study report very low body fat percentage levels. Although measurements were not conducted by this study, these self-reported levels are not uncommon in cyclists, who are generally very lean. Masculinity, in the literature reviewed, is often associated with muscles, and as such cyclists fail to fit into this hegemonic masculinity

(White & Gillett 1994). The results of this study seem to contradict this idea, and the masculine scores obtained by the sample could well be explained through a hyper-masculine persona. It is suggested that cyclists create a hyper-masculine image to compensate for their lack of muscle bulk in order to satisfy the need to exert a masculine appearance in the context of cycling as a sport (Beal 1996).

White & Gillett (1994 20) believe that the physical and dietary routines of bodybuilding are "disciplinary techniques some men use to understand themselves as masculine." This suggests that regimented types of physical and dietary routines are a way of defining what is masculine and thus, the extreme training involved with cycling and the evidence of dieting may be a way in which collegiate road cyclists identify their masculinity. The subjects in this study reported training loads of an average 14.20 hours per week, and almost 30 percent of them reporting having previously been or currently on diets. Trujillo (1995) believes that rigorous training and practice is manly, and it is argued here that this, along with dieting to have control over their bodies, is a way in which cyclists' masculinity is defined and expressed.

Gender transgressions, an idea put forward by Laberge & Albert (1999) can be related to collegiate cycling. Not only do they rate as "androgynous" on the BSRI scale, but the tight, brightly colored clothing and the leg shaving often practiced by some cyclists seem to go against the dominating masculine ideal. Laberge & Albert found that transgressive behavior can be legitimate because

> moral strength (in this case for facing stigmatization and discrediting by peers) and physical prowess are used as proof of masculinity. (1999 257)

In a sense, cyclists make up for their transgressive behavior by being more masculine in other aspects.

Trujillo (1995) suggests that masculinity is exhibited best when men perform in a homosocial, but heterosexual, environment. Thus, Trujillo is suggesting that masculinity is not only heterosexual, but it is also most powerful when conveyed in a male setting. We see this with cyclists, who may often race at the same time as women, but race against other men. This homosocial environment in which they compete leads to cyclists adopting an overtly heterosexual orientation. It was documented in some of the responses to the question on sexual preference, that there were several explicitly heterosexual replies stating that individuals 'liked chicks' or were 'as straight as an arrow.'

Some subjects abstained from answering the question on sexuality, and although homosexuality is not assumed, it does raise the question as to whether non-heterosexual individuals would refrain from responding to protect their image of masculinity and place within the sport of cycling. Answering truthfully for a non-heterosexual individual could have possibly led to an exclusion from the overtly heterosexual world of collegiate cycling, thus abstaining would have been an expected and understandable choice.

Homoeroticism and clothing is another issue that has been discussed in the literature in relation to American Football. The tight clothing that the athletes wear is said to be sexually charged as it closely adheres to the shapes of their buttocks (Trujillo 1995 416). The similar fashion of cycling clothing to 'tightly adhere' to the shapes of the male body is clearly comparable to that of American Football, and thus, creating a heterosexual environment minimizes the potential erotic pleasures that may be obviously derived from the appearance of cycling clothes.

In analyzing the current data, Lenny (1991) discuses the two methods that were used. The median split approach compares the masculine and feminine scores for the whole group to the established norms. In this case, when the median masculine score is higher than the norm, and the median feminine score is above the norm, a sex rating of androgynous is given to the sample group. As the median for the feminine score is so close to the norm, it is suggested that the subjects are approaching masculine scores using this method. The t-ratio scale is another way in which to look at the data, comparing the result of the difference between the masculine and feminine scores to give a relative finding. If t-ratios were small, a person would be viewed as androgynous, whereas a lager t-ratio would equal a higher masculine or feminine score (Lenny 1991 579, 589). The median split approach can only classify a person's sex, whereas using the t-ratio approach, a masculine quantity can be derived from the established normal data (Bem 1978, 1981).

This research did not simply wish to define male collegiate cyclists merely as feminine or masculine, but to the extent that they are one or the other. Using the median split method, it is evident that the cyclists in the study approach masculine. Although these medians are not significantly different from the established norms, placement above or below the median value is used to classify a subject's sex. However, using the t-ratio approach, which scores individuals on their sexuality rating, we can see a statistically significant difference between the established norms and the findings of this study.

In evaluating the use of the BSRI, its reliability and validity are high, and the BSRI is the most often used measure in this type of research (Lenny 1991). It is also noted that the scales used "have adequate freedom from socially desirable responding" (Lenny 1991 591).

In the study by Koivula (2001), where perceived sport characteristics were looked at, the highest score received for cycling was in the strength and endurance scale (5.7 out of 7) with the lowest score interestingly being on the aesthetics and femininity scale (2.0 out of 7). Masculinity in cycling was given 4.1 out of 7, suggesting its classification of gender-neutral (Koivula 1995) is appropriate in how it is perceived. The current study has found that male collegiate cyclists exert a more masculine presence than normal populations. In relating this to Koivula (2001), it may suggest that although cyclists are more masculine than the general population, they are viewed, and possibly are, somewhere in the middle of the masculinity scale when compared to other sports and sporting participants.

Results from this study suggest that male collegiate road cyclists rate androgynous using the BSRI median split method, but are more masculine than the established normal population using the BSRI t-ratio approach. It is argued here that these findings result from a trend in cyclists as a whole to adopt a more exaggerated form of masculinity than the normal population. In the sporting world of collegiate road cycling, cyclists seem to have found a place where certain behaviors are reinforced and masculinity authenticated, even in the presence of transgressive behaviors.

This research has extended masculinity studies to the sport of collegiate road cycling. It is believed that as more research is done using the BSRI with athletes that more defined measures of normality can be developed in which to compare sample groups. The question is whether cyclists are more masculine because they are cyclists or because they are athletes participating in a male dominated arena, sports, and in which ways are they more masculine. Further research in the area of masculinity needs to be conducted, especially in the sparse field of cycling.

Our research is not without shortcomings. First, our sample is small, but this is a fairly large percentage of the population in the region. Also, this study only examines males and their rating on the BSRI. While it is beyond the scope of this study to assess women's scores on masculinity versus femininity using the BSRI, how women in cycling fair in terms of gender is also of interest. These issues and other related questions define the agenda for future research on cyclists.

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APPENDIX
Copy of Questionnaire

Please fill out the information on this page first. Once you have completed this page, please begin answering the questions on the subsequent page. This questionnaire will take around 5-10 minutes for you to complete. If you have any questions, please ask the person that handed this questionnaire to you to clarify.

Personal Information:

a) Please state your
  i. Age ____________
  ii. Height ____________
  iii. Weight ____________
  iv. Body fat % ____________
    (If unknown, please leave blank)
b) Are you male / female*
    (*Please delete as necessary)
c) What is your sexual orientation? ____________
(If you would prefer not to say, please leave blank)
d) At what level / category do you race in at collegiate events? ____________
e) How many years have you been cycling competitively? ____________

Training Questions:

1) In an average week, how many hours would you say you train on the bike? (Include any work done on an indoor trainer) ____________
2) How much time in an average week do you train off of the bike? ____________
3) Do you ever train using weight / resistance exercise (i.e. weight training)? ____________
4) Do you ever go on a diet during the year? ____________
5) Is your weight an issue for you? ____________

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