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Abstracts are listed in alphabetical order by first authors’ last name
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Increasing Detection and Re-evaluating Critical Habitat for the Federally Threatened Jollyville Plateau Salamander (*Eurycea tonkawae*)

**RESEARCH QUESTION**

The U.S. Fish and Wildlife Service recently listed the Jollyville Plateau Salamander (*Eurycea tonkawae*) as a threatened species and designated 31 critical habitat units for the taxon in Travis and Williamson Counties, Texas. The designated critical habitat is largely based on one study of *E. tonkawae* habitat preferences and unpublished data. No studies have attempted to delineate the full extent of *E. tonkawae* habitat by sampling in and outside of the accepted habitat parameters.

**METHODOLOGY**

We conduct monthly *E. tonkawae* surveys within the Brushy Creek drainage in Williamson County, Texas that are designed to 1) identify the full extent of *E. tonkawae* habitat and 2) collect detailed information to evaluate microhabitat occupancy. We systematically sample all potentially occupied areas, including areas that are not considered habitat and areas that are considered minor habitat components. In addition, we use a new sampling technique, an aquatic dredge, to survey for *E. tonkawae* in difficult to sample habitats (e.g., leaf litter, woody debris, aquatic vegetation).

**RESULTS**

Early results indicate that *E. tonkawae* occupy areas outside of their previously documented habitat and outside of their federally designated critical habitat. Further, dredge sampling increases detection in leaf litter, aquatic vegetation and woody debris, and previous studies may have underestimated occupancy and population size in these habitat components.
Arielle Akines, Dennys Obregon  
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Point of Transition: The prologue and First Two Chapters of "El Periquillo Sarniento"

ABSTRACT  
The Mexican novel began in the nineteenth century with “El Periquillo Sarniento” by Jose Joaquin Fernandez de Lizardi. Known as the Mexican thinker and father of nationalism, Lizardi uses his novel as a vehicle of expression to teach the masses morals for their generation and future generations to come. This work is an investigation of narrative structure, literary culture, and national identity that sets "The Periquillo Sarniento" as a didactic novel. An Authentic communication tactic with its readers makes this novel a transition point between literature and collective consciousness of the Mexican people.
Multicore architectures require sound thread to core mapping policies exploiting the efficiency of multi-threaded programs. Traditionally, the operating system scheduler focuses on temporal aspects of performance such as execution time and latency, disregarding other factors that may have significant impact on the system. For example, judicious thread migration decisions can provide significant power savings. Typical schedulers, however, fail to make power aware migration. This master thesis focuses on comparing the effects of using a greedy algorithms built on heuristic models, and a machine learning model that is trained, on making power aware thread migration decisions. The greedy algorithms are developed to make intelligent thread migration decisions for improving energy efficiency. Each migration is made depending on whether the cores are equally utilized, and overall system balance is the end goal, or is resource aware and aims to minimize memory contention. The analytical models use a novel approach for utilizing hardware performance counters as feedback to guide decisions in a user-space tool for thread migration and mapping. We develop an algorithm that schedules concurrent processes in a power aware manner by considering both core utilization and power consumption. The algorithm is extended to consider shared resources and locality issues by looking at a metric that combines shared cache miss rates.

A machine learning algorithm is then developed, using a number of hardware performance counters as features to ultimately assist in making thread migration decisions. Input parameters consisting of a history of core utilization, power consumption, and cache miss rates, comprise the training set used with the machine learning algorithm.

A final comparison in overall power efficiency yielded when using both algorithms is made, and conclusions are drawn in regards to the effectiveness in employing both models.
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Social Media and its Effect on Face to Face Communication & Socialization

ABSTRACT

Problem: The social media construct changed the landscape in which we communicate with not only the world around us, but also, the personal/communicative relationships between friends and family. The purpose of this study is to examine the relationship between mediated communication through social media usage and face-to-face communication. Caplan (2007) found that Internet use and individuals’ psychosocial well-being, along with their beliefs about interpersonal communication (both face-to-face and online) are important cognitive predictors of negative outcomes arising from Internet use. Huan, et al (2014) discovered that loneliness completely mediated the relationship between shyness and generalized problematic Internet use. Studies on social media and socialization can help determine if it is necessary to limit social media exposure for children to ensure healthy social development, and if after the developmental years, there is a need to implement interpersonal communication courses to adequately develop interpersonal skills.

Theory: The theory we are utilizing for this research is Cultivation Theory. This theory studies media effects on society and suggests that the more an individual is absorbed into a particular media the more that individual is influenced by that media.

Methodology: This study will be conducted using the focus group method. A volunteer sample of Texas State University students who are social media users between the ages of 18 to 25 will be recruited. Utilizing a questionnaire, researches will gauge the social media use of participants for use in a focus group. This focus group, to be conducted on September 23, 2014, will further explore the participants’ social media use and attempt to establish a correlation between social media usage and face-to-face communication habits. The study will also include a literature review citing research already done on the subject from various professional psychological and sociological journals.

Results: Through this study, we expect to see a positive correlation between the consistent usage of mediated communications and the increase in social ineptitude.

Impact: Understanding the relationship between social media usage and face-to-face communications will enable us to determine the potential benefits or disadvantages of using social media as a mediated communication medium.
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The illusion of love in El Zarco

ABSTRACT

This essay analyses and reconsiders the nationalistic plan that Manuel Ignacio Altamirano envisioned for mid-nineteenth century Mexico. As part of the literary movement, costumbrism, the novel reflects the hard working and honorable people of the “pueblo”. In Imagen, identidad y moralidad en la escritura costumbrista mexicana, 1840-1900, Brian Hamnett relates the costumbrism style as a method of returning to the past. This is relevant due to the remote atmospheres were the action of the story takes place. Hamnett considers that costumbrism is utilized for longing the political stability that colonial life offered, in contrast to the reformist war and French invasion that Altamirano lived through. In El Zarco not only is there a desire for the apparent stability of the colonial past, but the pre-Columbian past as well. Even though Hamnett argues that costumbrism ends with the emergence of indigenismo, this essay proposes that in El Zarco both concepts are juxtaposed. Duality prevails in El Zarco. For example, the characters and the spaces have their significant double. Dual and binary oppositions are crucial elements in the pre-Columbian culture. To achieve the purpose of this study the essay will explore the illusions that exist in the novel and their importance. There are two types of illusions that exist in the novel; one focuses on opposite reflections, and the other on illusions or false appearances of something. For instance, in El Zarco there is a clear duality between Yautepac and Xochimancas, the native and non-native flora, and the ethnic features of the characters.

The use of dual spaces and characters in El Zarco creates an ambiguous environment, where reality and the real is hidden or shielded by an inverted image. According to the Real Academia Española an inversion is when the order, object, or sense of things is substituted by its contrary. In the novel, there are numerous inverted images due to fictitious images that overlap over the real image, where the virtuous y substituted by dishonesty. For this section the study of Luz Aina Morales Pino relates the relationship between the image and the imaginary. Morales Pino sites that the imaginary does not originate from the image but it does need from it to stay alive (14-29). For example, Manuela constructs an inverted image of Zarco due to the imaginary or the illusion that already exists in her imagination.

Reality and illusion create confusion within the two main couples of the novel. Even though, Altamirano includes a chapter titled “el amor bueno”(sincere/true love), it is unavoidable to ask whether true love actually triumphs or if it’s all an illusion. The insertion of dual objects, spaces, and characters represent the two entities that Mexico is composed of. In addition, they promote the progressive vision that Altamirano proposed for the nation. The love story and union between the characters symbolizes the nation-building project that Altamirano proposed during his time. But if love is only an illusion, Altamirano fails in projecting a true and plausible sense of love for the nation and sense of nationalism in mid-nineteenth Mexico.
ABSTRACT

Purpose

The purpose of my research project is to understand the social structures of the Metropolitan Community Church (MCC) congregation in Austin, Texas. This paper will examine the history of the MCC in Austin and place it within the historical context of the LGBT civil rights movement. The MCC is a progressive evangelical church that is almost exclusively LGBT. MCC is an international collection of nondenominational churches that were formed shortly after the beginnings of the LGBT civil rights movement. The MCC church in Austin was founded in 1976 with the intent of assisting the local LGBT population through an open atmosphere of acceptance to all who attend its services. The church provides services to LGBT Christians who otherwise feel abandoned or marginalized by the larger Christian community. MCC maintains and regularly participates in political action campaigns for LGBT civil rights throughout the city.

Changes in social attitudes towards the LGBT community in the past fifteen years has made it more acceptable to be open about homosexuality. While the clergy and congregation are quite open and accepting of visitors, a question remains as to what kind of boundaries the church has set. The project will shed light on the structures of social cohesion within the church and how it polices its boundaries. This approach towards understanding will be aided by the theoretical perspective of Mary Douglas’s ideas of group and grid, and purity and pollution.

Theoretical Perspective/Approach –

Douglas created a system of identification for social structures to explain the behaviors of different groups. Where the level of “group” explains social cohesion, “grid” explains social stratification within the group. Douglas believed that societies held binary structures of pure and polluting agents. Often, in Douglas’s view, the structures of pure and polluting agents were symbolic of the functions and regions of the body. The boundaries of society, which are symbolic of the body, must be guarded to maintain social cohesion.

The project will be conducted through a traditional ethnographic approach, centering on interviews with informants to gain insights into the culture of the church. By discovering how the church understands itself through Douglas’s ideas of purity and pollution, a model for boundary maintenance within the congregation can be made. Understanding how the church and its members have resolved questions of biblical scripture with respect to homosexuality will provide a better understanding into how and why society at large has changed its views on homosexuality in general.
Kathryn Michelle Benavidez, Biology, Texas State University, Tara Harris, Minnesota Zoo, Colin Chapman, Anthropology and McGill School of Environment, McGill University, Dale Leitman, Nutritional Science and Toxicology, University of California-Berkeley, Jessica Rothman, Anthropology, Hunter College-CUNY, Michael D. Wasserman, Department of Environmental Science and Policy, St. Edward's University

Intergroup variation in estrogenic plant consumption for the black-and-white colobus monkey of Kibale National Park, Uganda

ABSTRACT

Alterations in diet have occurred throughout the evolutionary history of primates, including the Homo lineage. Currently, a distinct change in the modern human diet is occurring with an increase of soy consumption in many parts of the world. However, the physiological and behavioral implications of this change are unclear. Soy possesses phytoestrogens, which are estrogen mimics that are known to have effects on reproductive physiology and behavior in vertebrates, but effects on wild primates are not well understood. We observed the behavioral activities of eight black-and-white colobus monkey troops (Colobus guereza) living in Kibale National Park, Uganda, for one year, with a focus on dietary strategies. We analyzed staple plant foods of the monkeys to determine estrogenic activity using transient transfection assays and examined intergroup variation in the consumption of estrogenic plants across the eight groups. The percent of diet coming from these estrogenic plant items varied from 1.5% to 6.2%. To test for behavioral effects of phytoestrogen consumption, we examined the relationship between percent of diet from estrogenic plants and percent of time spent grooming and self-grooming, with no significant trends detected. As effects of estrogenic plant consumption occur at the individual level, future research will examine changes in hormone levels before and after consumption of the identified estrogenic plant items. By further examining variation in phytoestrogen consumption both within and across primate species, we hope to clarify the role of these estrogenic compounds in the evolutionary history of modern humans.
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Time, Valence, and Arousal: A Manipulation of Narrative Transportation

ABSTRACT

Research questions:
RQ1: Can time segments of 40, 50, and 60 seconds, influence the level of transportation into a narrative program with the same plot?

RQ2: Can transportation be affected by clip type composed of a composite arousal and valence score?

RQ3: Can transportation be manipulated by clip type by time?

Methodology or approach:
This study performed a mixed model ANOVA containing a within subjects factor design utilizing four conditions of differing video clip content (differing by levels of valence and arousal) X 2 (Repetitions) and one between subjects factor of time containing three levels (40 seconds, 50 seconds, and 60 seconds).

Results or preliminary results and their impact on the field:
RQ1 was analyzed with a mixed model ANOVA, it revealed no main effect of time on transportation, $F(2,78)= .062, MSE= 161.236, p=.940$. Thus, the answer to RQ1 is that transportation is not affected by the manipulation of clips 40, 50, and 60-second time intervals.

RQ3 asked if narrative transportation is affected by time as a means of video type. To examine RQ3, a mixed models ANOVA revealed no significant interaction between time and video type on narrative transportation, $F(6,234)= .551, MSE= 12.13, p=.769$. Thus, the answer to RQ3 is that transportation is not affected by time by video type.

RQ2 asked if transportation can be affected by clip type composed of a composite arousal and valence score. This research question was examined using a mixed model ANOVA. This analysis revealed a main effect for video type on narrative transportation, $F(3,234)= 26.724, MSE= 22.01, p<.001, \eta^2=.09$.

RQ2 was further analyzed through the use of Bonferroni post-hoc pairwise comparisons. Post-hoc pairwise comparisons revealed that moderate arousal/negative valance clips ($M= 35.29, SD=6.41$) were significantly different from moderate arousal/positive valance clips ($M=37.86, SD=7.80, p=.007$), significantly different from high arousal/negative valance clips ($M= 41.9, SD=7.86, p<.001$), and significantly different from high arousal/positive clips ($M=39.04, SD=7.68, p<.001$). Post-hoc comparisons further revealed moderate arousal/positive valance clips to be significantly different from high arousal/negative valance clips ($p<.001$). Thus, the answer to RQ2 is that valance and arousal has an effect on users reported transportation.

The most influential contribution that this study makes to the theory of transportation is that we have demonstrated that varying the valence and arousal of message features can and does result in varied levels of transportation. Highly
arousing/negative valance clips produced higher levels of transportation compared to the other three clips. Riddle (2013) suggested that negative imagery resulted in more transportation as a form of vividness. These findings support Riddle’s (2013) conclusion. Additionally, highly arousing/negative valance video content is more vivid. As such, it may cause viewers to pay more attention to the vivid content. This insight is important for the theoretical development of transportation, but also for practical applications of developing short and immersive advertising.
Heterointegration of III-V on Silicon using a Crystalline Oxide Buffer Layer

ABSTRACT

The cost effectiveness of silicon combined with the extremely mature processing technology have made silicon one of the most important materials of the 21st century. Even with its cadre of undeniable advantages, the silicon technology still suffers from low optical efficiency and has degraded electrical properties in scaled CMOS devices. On the other hand, III-V semiconductors are ideal for optoelectronic and photonic applications and their high carrier mobilities are ideal for the channel material in future Si based MOSFETs [1]. Such implementation would require the deposition of various III-V materials on silicon with low enough surface defects to fabricate surface channel transistors. The integration of III-V compound semiconductors with Si could also combine the cost advantage and maturity of the Si technology with the superior performance of III-V materials.

Heterointegration of III-V on Si present many problems including the growth of polar on non-polar substrate, high-lattice mismatch and thermal mismatch leading to the formation of anti-phase domain boundaries, dislocations and surface defects [2]. Various schemes have been used to reduce the density of threading dislocations which including low temperature buffers, superlattice buffers [3] and thermal cycling [4]. Another integration scheme that has been used included a crystalline oxide buffer layer, viz. SrTiO3 that was grown epitaxially on Si [5]. This study will investigate the effect of oxide surface terminations on the subsequent GaAs crystal and surface quality. Results of other III-V layers including antimonides grown on Si using a single crystal oxide buffer layer will also be presented.

The SrTiO3 lattice ($a_{STO} = 3.905 \text{ Å}$) undergoes a 45° rotation to accommodate the high lattice mismatch with the underlying Si (001) ($a_{Si} = 5.431 \text{ Å}$) leading to a strain of 1.7%. The GaAs lattice ($a_{GaAs} = 5.653 \text{ Å}$) grown is now strained 2.3% with respect to the 45° rotated SrTiO3 lattice, thereby enabling the reduction from the original 4% strain for the GaAs/Si system [6]. A two-step growth process utilizing a high temperature nucleation layer of GaAs, followed by a low-temperature GaAs layer at a higher growth rate was employed. The surface termination conditions of the SrTiO3 crystalline buffer layer have a strong effect on the surface roughness of the final GaAs epitaxial growth. GaAs grown on the Sr-rich SrTiO3 surface shows the lowest surface roughness as compared to a Ti-rich surface or a stoichiometric SrTiO3 surface (Fig 1). After annealing at 580 °C the RHEED displayed a clear (2x4) reconstruction. (Fig 2a). High-resolution XRD results show a GaAs (004) FWHM of 130 arcsec for the 1.5 μm GaAs layer grown on the Sr-rich SrTiO3 surface.
These results have enabled the high quality growth of GaSb-based Esaki Tunnel diodes on GaAs/SrTiO3/Si virtual substrates for future high frequency, low power applications such as reduced power dissipation in consumer electronics and longer battery lives.

This work is supported by the AFOSR under Grant # FA9550-10-1-0133

**Fig 1.** 10 μm x 10 μm atomic force micrographs of 1.5 μm thick GaAs surface grown on three different SrTiO3 surface terminations: (a) Stoichiometric (b) Ti-rich and (c) Sr-rich with RMS roughness values ($R_q$).

**Fig 2.** (a) RHEED pattern of the GaAs surface reconstruction (b) Double-crystal X-ray diffraction curve showing the GaAs (004) crystal plane for 1.5 μm thick GaAs grown on a Sr-rich SrTiO3/Si substrate.
References

Exercising proficiency with operations on irrational numbers

ABSTRACT

Fluency with our number system is a critical part of mathematics. Understanding how rational and irrational numbers work and fit into the number system as a whole is at the foundation of a good understanding of mathematics (Fischbein, Jahiam, & Cohen, 1995). In this study, we present developmental mathematics students with a task which tests understanding of the closure of irrational numbers under addition and multiplication. We analyze the data with the strands of proficiency framework from Adding It Up (Kilpatrick, Swafford, & Findell, 2001), searching for evidence of each strand. The results indicate that no individual strand is particularly strong or weak among all of the students, yet small example spaces of irrational numbers may be to blame for many errors from the students. We conclude with implications for the classroom.
Hydrilla is an invasive species that is problematic in the San Marcos River where it competes with native species including the federally endangered Texas Wild Rice (Zizania texana) (EAHCP 2013). With limited treatment methods available for control of non-native aquatic species, an integrated approach to restoration will be required. One approach could be the use of a native aquatic plant that can out-compete and suppress the reproductive cycle of hydrilla. Illinois pondweed (Potamogeton illinoensis) is native and common in the San Marcos River (Owens et al. 2001). Cursory observations in the field suggest that pondweed may effectively colonize an area and out-compete non-native species such as hydrilla after a period of two weeks (Jacob Bilbo, pers. Observ.). A field study was conducted over a two-month period in Spring Lake, which tested the effects of water velocity, substrate type, and competitive pressure on total length and biomass of hydrilla and pondweed. Preliminary results have shown significant differences (P < 0.05) in total length and biomass across the two species. These results suggest that the modification of substrate type and water velocity after physical removal of hydrilla may have an impact on competitive interactions between hydrilla and pondweed. This research could be used to modify current habitat restoration efforts in order to suppress the propagation of hydrilla in the San Marcos River and other water bodies.
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Pavel Hass (1899-1944) and the Second World War (1939-1945)  

ABSTRACT  
The life of Pavel Haas abruptly ended in October of 1944 at the Auschwitz concentration camp. Behind him, he left a legacy of selfless giving. He gave his marriage, musical talent, and eventually his life (Peduzzi, 1996). He started to study music at the age of fourteen, enrolling at the Music School of the Philharmonic Society. Later, he studied for two years in the master class of composer Leoš Janáček (1854-1928), who was Haas’ most influential teacher. Haas proved to be one Janáček’s best students. Eventually he worked his way into being a film and stage composer with the help of his brother. Aside from this, Haas’ musical output contains a variety of instrumental and vocal music (Miranda, 2011). In 1941, Haas along with thousands of other Jews entered the Ghetto at Terezín (Theresienstadt).  

While some of Pavel Haas’ music and biography has been explored by a few select scholars, most scholarship on Haas is in Czech or in German. My paper will contribute to the English-language scholarship on Haas. Specifically, I will look at Haas’ life and musical output during World War II – during this brief but defining period in his life. The presentation will also contain a summary of the musical culture of the Terezín ghetto.  

Bibliography  


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Light Modulated Gene Expression in the Skin of *Xiphophorus maculatus*  

**ABSTRACT**  

Life on Earth evolved under the full spectrum light of the sun. However, the last century of industrialization has resulted in wide use of artificial and primarily fluorescent lighting. It is not uncommon for animals housed in research centers or humans in their work environments to spend the majority of their active time under fluorescent lighting. Human physiological and psychological effects due to artificial fluorescent lighting have been shown to be significant and quantifiable. Both the amount of light and composition of artificial lighting are important parameters associated with human health. Published reports suggest human physiological response to full spectrum versus “cool white” lamps include differences in oxygen intake, heart rate, absorption of vitamins and minerals, etc. However, despite these many behavioral and physiological studies indicating artificial light sources are important to animal health, there are virtually no data available from investigation of specific molecular genetic responses that may occur in response to varying types of artificial lighting.  

*Xiphophorus* fishes represent a vertebrate model widely used to investigate the molecular genetics associated with cancer development and other heritable complex traits. In general fish may be expected to be sensitive and responsive to varying light conditions since, in the wild, they must utilize light conditions for warmth, predation, predator avoidance, and to time breeding cycles. Therefore we used *Xiphophorus maculatus* to investigate the global molecular genetic response in skin upon illumination with varied lighting types (i.e., 4,700K “cool white” fluorescent or 10,000K full spectrum). Adult fish were either kept dark adapted or exposed to full spectrum or fluorescent lights then given 6 hrs to modulate their gene expression. Relative mRNA levels before and after light exposures were evaluated using high throughput parallel sequencing of total RNA isolated from the various skin samples (i.e., RNAseq experimental design). Statistical processing of the RNAseq data allowed light response gene sets, and the biochemical pathways they take part in, to be identified. Quantitative real-time PCR (i.e., qRT-PCR) was used to confirm a subset of the genes showing light modulated expression. We present results showing the molecular genetic effects of fluorescent vs. full spectrum light exposure in the skin of *Xiphophorus maculatus*. 
Music Discovery by College Students Via Social Media and Mobile Usage

ABSTRACT

For decades, music fans were limited in their avenues to discover music, with options limited to record store shelves, airtime on the radio, or seeing a band in person at a concert. In the mid-to-late 1990’s, online music sharing in the form of chat rooms, fan sites, and file sharing services, such as Napster, opened new avenues for fans to discover music. However, since the advent of Napster, music sales revenue has decreased nearly 57% (“Music sales see first gain since 1999,” 2013). Now, with the boom of social media sites like Twitter, Facebook and Instagram, in addition to music sharing sites like Pandora, Spotify, Sound Cloud and You Tube, music fans have more options than ever to discover new music away from the revenue generating, traditional sources of yesteryear.

This study will use the diffusion of innovations theory as the theoretical framework as we seek to determine how and why music is diffused among college students. Previous research in the diffusion of music in the social media age has found that social recommendations were preferred over non-social recommendations (Brixtel, Dixon, Mesnagre, & Rafiq, 2011). Music discovery often occurs with personal acquaintances playing music to the respondents, which in the digital age is done through social media sharing or recommendation (Brixtel, Dixon, Mesnagre, & Rafiq, 2011).

Research Question

With this proposed research, we will seek the answers to the following questions:
RQ 1: Do college students discover music more through traditional means or via digital platforms?
RQ 2: What digital platforms are most prevalent in how college students discover music?
RQ 3: Are college students more likely to listen to music recommended to them by someone in their social media network?

Methodology

The research that will answer the above research questions will be conducted using a focus group, consisting of ten college students who are active music listeners and users of social media. The focus group, which will last for 45 minutes, will take place on September 23, 2014 on the campus of Texas State University.

Expected Results

We expect to find that students are increasingly using mobile devices to discover and consume music and that they are sharing and recommending music via social media platforms to their social networks. We also expect to find that students are more likely to listen to music recommended to them by someone in their social media network. The findings of the proposed research could be used by the music industry and by individual
bands and singers to determine how to better reach college students and create more exposure opportunities for their music.

References


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IMAGE TRANSFER EFFECTS ON PERCEPTIONS OF MUSIC EVENT SPONSORSHIP

ABSTRACT

This research explores how a company’s brand sponsorship of a music event affects the “fit” and “similarity” process of image transfer for the event’s attendees. Moreover, this research examines how music event sponsorship ultimately affects the perception of the brand and event within a given population. The increase of tourism and local interaction from music festivals such as South by South West (SXSW) in Austin, Texas, leave ample opportunity for brands and companies to capitalize on increased spending. There are also multiple opportunities for companies to increase brand equity and experience at a music festival such as SXSW through the numbers of fans that attend the festival. According to Close et al. (2006) “image transfer” sponsorship positively affects the image of a brand associated with it. A field study conducted by Schmitt & Zarantonello (2013) indicated that event attendance increases brand equity and that brand experience is the most important mediator of that equity. Cornwell & Pappu (2014) also provide that a sponsorship and sponsee’s “fit” for non-profit events affects clarity of positioning positively at high levels of “similarity” between social partners. This research, through a survey of undergraduate college students, attempts to explore if this phenomenon holds true in for-profit sponsorship. The author expects that brands with a “low-fit/high-similarity” to an event will negatively affect an attendee’s perception of both, while a brand with a “high-fit/high-similarity” event will have little effect.
ABSTRACT

Research Question/Problem

Demographic trends for most crime types have been substantially similar, with evidence that lower income, being a racial minority, and youth all contribute to a greater likelihood of victimization for crimes ranging from assault to burglary. Identity theft has been a growing threat for the past decade, and victimization trends for identity theft do not conform to expectations pertaining to other crime types. This research investigates trends in and risks for identity theft victimization using the National Crime Victimization Survey Identity Theft Supplement of 2012.

Methodology

Using survey data obtained through the National Crime Victimization Survey, identity theft victimization trends are analyzed with respect to demography, specifically age. Broad trends related to age and identity theft victimization have been described in the literature, but the data has not been disaggregated in the detail presented here.

Preliminary Results

It is known that identity theft victims, as a whole, are dissimilar from victims of most other types of crime. This research details how victimization varies with age, and provides possible explanation for why age matters for identity theft victimization in such a unique way. It is necessary to understand the risks of victimization in order to combat it, and this research helps to illuminate those risks.
Islam In The Veil Of A Woman: Using Communication theory of Identity to study the longitudinal and discursive impact of religion, media and culture on the construction of transnational identity

ABSTRACT

Research Questions

This study addresses four important aspects determining and constructing the complex Identity of Muslim women in America post 9/11:

I. What aspects define the transnational identity of Muslim women in the United States? How is it constructed?

II. How does Islamic Shar’iah or code of law construct a Muslim woman’s Identity?

III. What is the role of media in the Identity construction process?

IV. What is the impact of 9/11 on the Muslim woman’s Identity?

Methodology

Research Framework, Sampling Procedures & Data Collection

The research methodology entails two distinct phases where each phase incorporates a method best suited to unravel participants’ voices. The first phase primarily underlines the data collection tools which are stemming from Ethnography. As a researcher, I was an emblem of one of Gold’s four master roles (1958), referred to as a participant-as-observer. In this case, I established rapport with the informant- Maulana (religious scholar) who appeared to provide insight about the activities of the Muslim community in Lufkin. Alongside this, respondent interviews were conducted with nine women between the ages of thirty-five to forty-five, where three were working professionals while six of them were home makers. They were all immigrants and shared varied cultural backgrounds where one woman was from South Africa, five were from Pakistan, two from India and one from Bangladesh. The respondents were solely selected on the basis of their experiences and contribution to the topic under investigation, primarily addressing transnational Identity construction of Muslim women through Shar’iah, Media and 9/11. The respondent interviews were conducted in isolation with one interview lasting for approximately thirty to forty minutes. The two focus groups lasted for almost twenty-five to thirty minutes with five women as participants. The data collection method also included field notes which were collected during the time span of forty days, in Islamic Center events, regular Islamic School days and Sunday gatherings, home parties, and participation in religious festivals. The data collection process followed a layered approach (triangulation) to improve authenticity of research.
Data Analysis & Techniques for ensuring Authenticity

Ethnography, which originated in the social sciences of anthropology and sociology, was described by Lindlof and Taylor as “a holistic description of cultural membership” (2002, p.16). The method has been used in data collection to probe deep into the cultural environments through intensive fieldwork. The triangulation of data collection allowed me as a researcher to reduce any biases that arise during the investigation, and having supporting evidence to back the arguments presented through the layered approach. The conceptual grouping of the data and the typology of narratives organized as themes is then narrowly analyzed in light of the CTI (Hecht, 1993).

Results

The framework of Thematic Narrative Analysis has been used to excavate aspects that have determined the Transnational Identity of Muslim women using Communication Theory of Identity (CTI). The ideology of Muslim women’s transnational identity is a function of the four variables: Social structure, Shar’iah Law, Religious Institutions and patriarchy, and media that define their personal Identity (self-concept) in terms of their gender identity. This ideology reflects that Communal Identity dominates all other forms of identity of Muslim women and functions as a catalyst to craft the transnational Muslim woman’s identity, only aligning them with a separatist strategy. Thus, the transnational identity of Muslim women becomes complex, and its functioning at the four layers of CTI represents a more communal identity (religious identity) formation process than any other. Hence, a very narrow view of transnational identity of Muslim women is constructed which disregards the longitudinal and discursive impact of culture, religion and media on the formation of the transnational identity.

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<tr>
<th>Communicative components</th>
<th>Loci of CTI operating under each communicative component</th>
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<tbody>
<tr>
<td>1. Social Structure (Macro &amp; Micro level)</td>
<td>Communal &amp; Personal</td>
</tr>
<tr>
<td>2. Shar’iah law (identity construction through veiling &amp; identity negotiation)</td>
<td>Enacted, Relational &amp; Personal</td>
</tr>
<tr>
<td>3. Religious institutions (separation &amp; assimilation practices; patriarchy &amp; culture)</td>
<td>Personal, Enacted, Relational &amp; Communal</td>
</tr>
<tr>
<td>4. Mainstream media (Islamophobia; Muslim Schools of thought &amp; Shar’iah law)</td>
<td>Enacted, Relational &amp; Communal</td>
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REFERENCES


Dan Cheshire  
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Confronting the specter of the open set: Factors involved in students’ construction of understanding in the introductory topology course

ABSTRACT

Problem/Research Questions

For mathematics or mathematics education students, one of the most abstract and daunting topics to learn is general topology. Sometimes referred to as “point-set” topology, this field entails the study of abstract notions such as “nearness” and “continuity”; which underlie our understanding of the geometric properties of Euclidean space, as well as modern achievements in analysis of the real numbers. This transition can be difficult for students, and often results in students relying on collections of dissociated facts, without any integrated cognitive structure to organize the information.

Recently there has been an increase in interest into the means by which learners construct their understanding of abstract concepts. There have been many empirical studies and theoretical analyses of students’ general skills in advanced mathematics courses. They have focused on students’ understanding of proof, symbolic notation, and affective attitude toward mathematics. There have also been numerous content-specific studies looking such issues as well.

This trend has provided rich insights into the processes involved in learning abstract mathematics. However, few of these studies have measured the impact of these skills and the development of topology-specific knowledge. In order to fill this domain-specific deficit in the research, as well as to extend and develop these important new theoretical learning models further, I wish to answer the questions below.

In an introductory topology course:

1. To what extent have the students constructed the pre-requisite, concrete-representational understanding of the abstract concepts they will learn? We focus our observations on the following domains:
   a. algebra
   b. Euclidean geometry
   c. real analysis
   d. set theory

2. In what ways do students construct coherent understanding of the abstract concepts involved, given their previous understanding of the concrete-representational versions of those ideas?
3. In what ways, and to what extent, do the following constructs mediate the students’ construction of understanding?
   a. symbolic notation skills
   b. proof construction and validation skills
   c. levels of self-efficacy in mathematics and topology
   d. levels of appreciation for the beauty and utility of mathematics and topology

**Methodology**

This investigation consists of a combination of qualitative and quantitative methods. Classroom observations, artifact analyses, knowledge assessments, and interviews with an introductory topology class, will be used to construct case studies of 3-4 students’ experiences. All the interviews will then be coded, based on recent theoretical research and a factor analysis of the assessment results. These will serve as inputs into a structural equation model, to determine the contributions of the mediating factors proposed above. Finally, the model will be used to evaluate a theoretically-grounded, preliminary “genetic decomposition” of several key topological concepts.

**Preliminary Results and Impact**

To date, the genetic decompositions, knowledge assessment problems, and the majority of the interview questions have been developed and piloted in an undergraduate topology course. In the coming semesters I will implement these measures and begin to analyze the data. The results of this analysis will be a starting point for the creation of instructional strategies to aid in the introduction of this challenging and important field of study.
Leah Colsch & Wayne Paris
Social Work, Abilene Christian University

The Regional Effect on the Academic Success of People with Disabilities

ABSTRACT

Although people with disabilities are a growing population still today, there is little
case work done involving them. This population is becoming a more strongly identified
group in our society. When coupled with the expectation that ‘accommodation’ must be
provided through the Americans with Disabilities Act it is increasingly challenging for
educational institutions to successfully complete their task. It is just as important that we
as a society should become more aware and informed of the existing disabled populations,
their needs, and the educational systems effect on them. A quantitative analysis was
performed while looking at the academic success of people with disabilities varying
amongst different geographical regions in the US by using information from the 2006
General Social Survey (GSS) data set. An ANOVA was used and indicated that the
Southern Region of the US had significantly (p<0.01) lower years of educational
achievement. The data analysis indicates that those with disabilities in the southern region
are less likely to complete high school, college, and, graduate school. This may help
explain and contribute to the known economic limitations, limited social development, and
significantly lower salaries and benefits. This specific research provides a basis
understanding in the development of disabilities and their educational outcome. The
cursory data analysis suggests that there is an existing trend of respondents with different
disabilities and level of education completed amongst regions.
Yubo Cui & Wilhelmus Geerts  
Physics, Texas State University

The Influence of the Deposition Parameters on the Film Thickness of RF sputtered Permalloy Oxide Thin Films

ABSTRACT

Permalloy is a magnetic alloy of nickel and iron consisting of 80% nickel and 20% iron. It has a high magnetic permeability in weak magnetic field, a low coercivity, near zero magnetostriction, and a low magnetic anisotropy. Its magnetic properties do not depend on stress, which makes it very suitable to be used in magnetic sensors and actuators. Oxidized Permalloy (PyO) will not have those attractive magnetic properties so it was thought of as a kind of defect and avoided in the industry production. Therefore not a lot is known on PyO although recently it was shown to increase the performance of spin valve hard disc reading heads [1].

During this research the influence of the deposition parameters on the deposition rate of reactive RF sputtered PyO films is investigated. An A300 SERIES, A3CV & CTM MAGNETRON SPUTTERING SYSTEM was used to deposit thin PyO films on cleaned substrates. This Magnetron System has a load lock which significantly reduces the time to pump down the main chamber after sample loading and allows us to make up to 6 samples a day. The background pressure of the system is in the 10^-7 Torr range. The system is furnished with a quartz lamp substrate heater, a crystal thickness monitor, and a substrate rotation mechanism. The thickness of the samples was determined using a Woollam M2000 variable angle ellipsometer. This instrument was used to determine the optical properties of PyO and the film thicknesses of the samples.

Firstly, the deposition rate of PyO with different Oxygen flow rate and different power was determined by using the crystal thickness monitor. Since the acoustic impedance of PyO is not known, it was estimated from the values of rocksalt ZnO and CoO. Then, three different sample series were made: a series of samples prepared at different oxygen pressure (sputter gas flow: 10 sccm, O2: 0-20%, PRF=240 Watt, t=600 sec, T=20°C), a series of samples with different thickness (sputter gas flow: 10 sccm, O2: 20%, PRF=240 Watt, t=37-1200 sec, T=20°C), a series of samples with different deposition temperature (Sputter gas flow: 10 sccm, O2: 20%, PRF=240 Watt, t=600 sec, T=20-600°C). All depositions were done on 4 different types of substrates at the same time, i.e. Si/SiO2, Si/SiO2/SiN, Si/Al, and glass microscope slides.

The film thickness of all samples was determined from the ellipsometry measurements. The film thickness is linear with the deposition time, approximately independent of the deposition temperature but slightly depends on the partial oxygen pressure. The ellipsometry data suggests that the optical properties might depend on the film thickness. The deposition rate was 1.3 Å/sec at 10 sccm (20% O2), and PRF=240 Watt.

LIVE TRAP AND BAIT SELECTION BY GULF COAST KANGAROO RATS (DIPODOMYS COMPACTUS SENNETTI) FROM TWO TEXAS MAINLAND POPULATIONS

ABSTRACT

RESEARCH PROBLEM: The Gulf Coast Kangaroo Rat (*Dipodomys compactus*) may exhibit an aversion to new and unfamiliar objects in its habitat, which might prove problematic in trapping this species. This study seeks to determine live trap and bait preference for *D. c. sennetti* inhabiting mainland Texas. Identifying trap or bait preferences may increase capture success for future work on this relatively understudied species.

METHODOLOGY/APPROACH: We evaluated capture success of four different live trap types (extra-large folding H. B. Sherman traps, large folding H. B. Sherman traps, new unused large folding H. B. Sherman traps, and Fitch traps) and two different bait types (oats with mixed bird seed, and an oats, peanut butter, and vanilla extract mixture) by implementing a paired trap study. We trapped two populations of *D. c. sennetti*: one at the northern extent of the subspecies’ range (Guadalupe County) for 1632 trap nights, and the second at the southern extent of the subspecies’ range (Jim Hogg County) for 1416 trap nights. We analyzed the data to determine if the number of captures differed by trap type or by bait type.

RESULTS: Overall trap success was low (<2%) for both sites, confirming previous reports that this species is not readily captured. Preliminary results indicate that captures are dependent upon trap and bait type. Our findings suggest that greater trap success of *D. c. sennetti* may be achieved using extra-large H. B. Sherman live traps baited with oats and mixed bird seed.
**ABSTRACT**

Problem or research question: Did Descartes make an error, as Damasio asserts in the title of his famous book, *Descartes’ Error: Emotion, Reason and the Human Brain*?

Methodology or approach: The research to be undertaken will first distill Descartes’ questions and answers from his *Meditations*, then interrogate Damasio’s approach in terms of them as well as in terms of utility. The agreements and disagreements which exist between the two philosophers can then be shown, in Descartes’ case, to be thought-provoking questions. The centrality of Descartes’ philosophy to the thinking of the Enlightenment provided a focal point for the eventual development of cognitive neuroscience, which Damasio is currently working to advance.

Results or preliminary results and their impact on the field: Damasio’s work turns out to be a development of a line of questioning which Descartes proved valuable in expositing. Hence, the two thinkers are not only not at odds with one another in the body of each man’s respective work. In fact, Damasio can be seen to use modern technology and insight to develop the question first posed by Descartes. What falls out of this discussion is the realization that rationality itself is characterized by its embodiment. Even in Descartes’ famous argument, “I think, therefore I am,” there is an overarching element of circularity built in. Doubting the existence of one’s body is only possible if it has already been assumed that the body and mind are different things – otherwise, the proof Descartes already provided of the impossibility of doubting the existence of one’s mind applies. The mind/body dualism which this argument instituted was already part of the Christian faith in Europe. In fact, Descartes could have faced persecution if he had not attempted to justify God even as a prelude to his scientific publications. Hence, Descartes’ “error” was in all likelihood a deliberate action designed to placate the powers that be. The very structure of his argument contains in itself the foundation for the research which would eventually enable Damasio to form a theory of embodied minds which are affected by emotions in addition to rationality in the decision making process.
Identifications of both water scarcity and solutions for adapting to climate changes in the Heihe River Basin of China

ABSTRACT
In ecologically fragile areas with arid climate, such as the Heihe River Basin in Northwestern China, sustainable social and economic development largely depends on the availability and sustainable uses of water resources. However, there is more and more serious water resources shortage and decrease of water productivity in Heihe River Basin under the influence of climate change and human activities. This article attempts to identify the severe water scarcity under climatic change and present possible solutions for sustainable development in Heihe River Basin. Three problems intervened land use changes, water resources, the relevant policies and institutions in Heihe River Basin were identified, including (1) water scarcity along with serious contradiction between water supply and demand, (2) irrational water consumption structure along with low utilization efficiency, and (3) deficient systems and institutions of water resources management along with unreasonable water allocation scheme. In this sense, we focused on reviewing the state of knowledge, institutions and successful practices to cope with water scarcity at a regional extent. Possible solutions for dealing with water scarcity are explored and presented from three perspectives: (1) scientific researches needed by scientists, (2) management and institution formulation needed by governments and (3) water resources optimal allocation by managers at all administrative levels.

Keywords: water scarcity, water solutions, arid area, climate changes, Heihe River Basin
ABSTRACT

The literary masterpiece *Don Quijote* by Miguel de Cervantes Saavedra provides a glimpse into the human psyche by shedding light on the reasons why people are motivated to make drastic life changes such as converting to another religion. The purpose of this paper is to explore the various motivations for religious conversion of certain characters in the story of the Captive’s Tale in *Don Quijote*. Cervantes demonstrates that the reasons for conversion range from the socio-economic, emotional and religious. Characters that best illustrate these motives include Uchalí Fartax, Azán Agá, Zoraida and Murcia. Uchalí Fartax and Azán Agá are renegade characters that abandon their faith due to their desire to prosper economically. Zoraida is a Moorish character that decides to convert to Christianity for spiritual reasons. Murcia is another renegade character that is compelled by his emotional needs to help the captive, Zoraida and other Spanish captives escape from Algiers. It is through these wonderfully rich and dynamic characters that Cervantes brings to light the fascinating complexities of the human mind and spirit.
Tyler Dukes  
English, Texas State University

The Searchers and Dallas Buyers Club: Social Upheaval on Two Frontiers

ABSTRACT

This research is a critical comparison of John Ford’s classic Western film The Searchers (1956), and Jean-Marc Vallée’s blockbuster hit Dallas Buyers Club (2013). Released two years after the end of McCarthyism and The Second Red Scare, and one year before the Civil Rights Act of 1957, The Searchers (1956) is a lens into U.S. social and historical discourses of the time. Similarly, Dallas Buyers Club (2013) offers these advents as well – released one year after Proposition Eight’s reversal in the Ninth Circuit Court of Appeals in California, and President Barack Obama’s first verbal support of same-sex marriage. I examine how morality and social ethics are communicated through the films, in addition to the parallels between the year of filming and the year portrayed. The methodology applied includes a close-viewing, deconstruction, and analyses of key scenes from the films, a critical sociological approach to the historical cultural movements, as well as a genre-specific reading of both films as “traditional Westerns.” This research enters into the extensive academic conversation surrounding The Searchers (1956), while offering new insight into the less-observed Dallas Buyers Club (2013); it aims to explore how both films define and perpetuate cultural norms of the time.
Arin Ely
Communication Studies, Texas State University

Communication Responses to Romantic Jealousy, Perceived Mate Value, and Sexual Orientation: Challenging Evolutionary Perspectives Associated with Jealousy Communication

ABSTRACT

Problem or research question in relation to existing research

Several researchers have concluded that feelings of jealousy are innate and have evolved as a result of evolutionary needs associated with reproduction, paternity uncertainty, and caring for offspring (Buss, Larsen, Westen, & Semmelroth, 1992). This perspective is based on the heterosexual experience and does not offer an explanation for homosexual individuals’ responses to jealousy. Same-sex couples cannot procreate; thus, their jealousy communication is likely not due to the same evolutionary motives. One factor that is hypothesized to impact jealousy communication is individuals’ perceived mate value. Mate value is conceptualized as individuals’ perceived value in comparison to their partner in a romantic relationship (Sidelinger & Booth-Butterfield, 2007). Individuals who perceive themselves to have lower mate value than their partners experience increased feelings of jealousy and insecurity (Sidelinger & Booth-Butterfield, 2007; Phillips, 2010), and therefore, perceived mate value may also impact jealousy communication.

Methodology or approach

This study consisted of 242 participants (51 heterosexual men, 57 homosexual men, 77 heterosexual women, and 57 homosexual women). The participants were required to be over 18 years old and be in or have been in a romantic relationship to participate. Participants were collected from the following sources: LGBTQ online forums, student organizations on two southern university campuses, lesbian and gay “meetups,” events hosted by the Gay & Lesbian Chamber of Commerce in a large metropolitan area, and through Facebook posts and referrals. Snowball sampling was leveraged to increase the sample size. Following consent, participants were asked to complete an online questionnaire, which was created using qualtrics.com. The survey was comprised of three scales: perceived mate value (Landolt, Lalumière, & Quinsey, 1995), feelings of jealousy (Pfeiffer & Wong, 1989), and communication responses to jealousy (Guerrero et al., 1995).

Results or expected results and their impact on the field

Results revealed no differences in communication responses to jealousy based on sexual orientation, but found differences based on sex. Analysis showed that only men and heterosexual individuals communicate differently about jealousy depending on perceived mate value; heterosexuals leverage more integrative communication if they perceive themselves to have high mate value, and men with high mate value reported using direct and indirect communication responses to jealousy less often. Finally, results revealed that homosexual females perceived themselves as having less mate value than heterosexual females, but this was not found to parallel for men.

The findings support the idea that a dual evolutionary and social role perspective could help researchers more accurately assess communication. Explanations for the results are likely related to societal expectations for men and women and social roles in relationships. Overall, the findings from this study provide support for the significance of
assessing and interpreting research through multiple theoretical standpoints, rather than relying on the extant evolutionary perspective that has historically been tied to jealousy communication.
Like and Unfollow: Selective Exposure in Social Media Amongst Millennials

ABSTRACT

Research Question: What kinds of news content and/or news sources are millennials likely to be attracted to on social media and what decision-making process do they use when deciding what to view and what to avoid?

People tend to pick and choose traditional media content based on their interests, personal attitudes and beliefs. This is a well-established phenomenon and in line with the Selective Exposure theory that states that out of a desire to reinforce deeply held beliefs as valid, people exhibit a bias towards mass media content that they see as attitude consonant, or confirming these beliefs (Jang, 2014). Many scholars are concerned that this tendency toward sameness may lead to a polarization of public opinion and political views as people avoid balanced content that may challenge their views in favor of news sources or content that mirrors their current beliefs. However, recent research on digital platforms has found that these concerns may be overstated (Beam & Kosicki, 2014).

While people do practice selectivity in digital media, they are more likely to selectively seek than to selectively avoid. Most news consumers are not likely to avoid a balanced or even attitude-challenging article if it crosses their path (Jang, 2014). This research broadens our understanding of digital media consumption. However, as social media becomes a news destination, the effect of a news item being shared by a friend or the number of times it has been liked on selectivity has yet to be fully investigated.

This research will see a group of ten 18-24 year olds participating in a focus group that will be conducted on September 23rd, 2014. During the session participants will be asked about their social media habits, the kinds of content for which they most often refer to social media, and what attracts them to, or would cause them to avoid, certain kinds of content or sources.

Based on previous research we expect to find a bias toward selective seeking behavior. We expect participants might specifically follow and like certain pages or people based on the belief and expectation that they will provide content the participant finds personally relevant. We expect selective avoidance to be a less common phenomenon and that people will rarely go out of their way to actively remove content from their feed.

Previous research has also found that content deemed popular, either through number of views or average ratings, will be deemed more attractive (Westerwick, Sharma, Hansen, & Alter, 2005). This may mean that on social media the pages and people with the most followers, celebrities, professional athletes and entertainment sites, will set the tone for content. It’s expected that more focus group participants will report using social media to follow this kind of content.
Understanding how users choose content, or choose to avoid content, on social media is invaluable information for news organizations and advertisers. Millennials are currently the largest demographic in the United States (Soloman, 2014). Understanding what influences them in the consumption of news and media messages will help media organizations not just tailor content that they would be inclined towards for maximum exposure, but also how to get them to consume a message that they would otherwise ignore within the digital sphere.

References


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Composing an Audible Story: How Composers Make You Believe You Are A Blood Elf in Blizzard Entertainment’s World of Warcraft

ABSTRACT

Research Problem
As video game music garners increasing amounts of scholarly attention (Brandon, 2005, Donovan, 2010, and Harvey, 2006), it continues to sustain independence from film music or other research focuses (Newcomb, 2012). Massively Multiplayer Online Role-Playing Games (MMORPGs) are a very popular form of gaming, currently with one of the most popular ever being Blizzard Entertainment’s World of Warcraft (WoW) with over six million subscribers. An important aspect to WoW’s success is the care and detail the staff at Blizzard pour into the story and lore of the characters and races in this game. With wide-sweeping, overlapping story arcs, the music that accompanies not just individual characters, but also entire races and cultures, is artfully crafted to consistently and wholly immerse the player into the game as they engage in an entirely fantastical world. The musical aspect of WoW has not been explored in published scholarly research; only anthropological, sociological, and psychological studies such as Nardi 2010, Bainbridge 2010, or Graham 2013 have been published thus far.

Methodology
This paper will analyze and discuss the music predominantly played in territories inside the game that are inhabited by Blood Elves and the characteristics that make that music so immersive for the player. In addition to analyzing this music, I will also discuss the findings of a self-conducted survey (of a general audience) to determine if this music has any universally recognizable qualities that identify the music of the Blood Elves as belonging to an elven society.

Expected Results and Impact
I expect that the music this paper will focus on will show universally expected qualities that aurally immerse any player into the World of Warcraft. The universal aspects will be supported through my survey results and the techniques will be revealed through my analysis of the piece of music. This should have an impact in my area by elevating these selections as exemplary models for immersive video game music.


The Birds and the Bees: Family Communication Patterns and Females’ Sexual Self-disclosure to Parents and Physicians

ABSTRACT

Problem or research question
RQ1: Does family communication orientation affect females’ sexual self-disclosure to their parents?
RQ2: Does females’ perceived parental reaction to their self-disclosure affect their sexual self-disclosure to their parents?
RQ3a: Does females’ perceived parental reaction to their sexual self-disclosure moderate the association between their family conversation orientation and their sexual self-disclosure to their parents?
RQ3b: Does females’ perceived parental reaction to their sexual self-disclosure moderate the association between their family conformity orientation and their sexual self-disclosure to their parents?
RQ4: Does females’ sexual self-disclosure to their parents affect their sexual self-disclosure to their physician?
RQ5: Does females’ perceived parental reaction to their sexual self-disclosure affect their sexual self-disclosure to their physician?
RQ6: Does females’ perceived parental reaction moderate the association between their sexual self-disclosure to parents and physician?

Methodology or approach
Participants were required to be females between the ages of 18 to 30 and were recruited in two ways. First, researchers used a snowballing technique to recruit participants via posts on Facebook. Next, researchers recruited students from communication studies courses at a large southern university. The final sample consisted of 133 individuals who fully completed the survey in a sufficient amount of time; thus, our completion rate was 81%. This study uses Family Communication Patterns theory to examine the relationship between females’ sexual self-disclosure to their parents and how it is related to their sexual self-disclosure to their physician. Correlation analyses and multiple regression analyses were conducted to examine whether females’ Family Communication Orientations influenced their decision to self-disclose their sexual behaviors to their parents, whether females’ sexual self-disclosure to their parents and physician are related, as well as how their perception of their parents’ reaction affected such disclosure.

Results or preliminary results and their impact on the field
Results suggest that females are more likely to engage in sexual self-disclosure with their parents when they are high in family conversation orientation and perceive a positive parental reaction to their sexual self-disclosure. Moreover, females engage in less sexual self-disclosure with their physicians when they also engage in less sexual self-disclosure with their parents and perceive a negative parental reaction to their sexual self-disclosure. The results will benefit physicians and parents by allowing them to better understand the communication environment in which young women self-disclose information about their sexual behaviors, which could significantly affect physician treatment and the parent-child relationship.
Edward S. Garza
English, Texas State University

A World of Wonder: Classical Allusions in Thoreau’s Walden

ABSTRACT

Research Question(s):

What purpose(s) do classical allusions serve in Henry David Thoreau’s seminal work, Walden? In turn, what do these allusions reveal about Thoreau as a writer and philosopher?

Methodology:

In my introduction I collate and scrutinize the literature surrounding Walden’s classical allusions, a literature claiming that the allusions function ironically, even humorously. Next I identify and explore a deficiency pervading several studies on this topic: the overlooking of the connection between Walden’s world and that of antiquity. I advance my interpretation through a close reading of Walden itself, focusing on five key passages within it.

Results and Their Primary Impact on the Field:

I find that Thoreau deploys classical allusions to celebrate and elevate the natural world, the primary subject of Walden. In doing so, I offer a distinct way of understanding Thoreau’s methodology, one that should enhance the reading of this text by both scholars and students. Moreover, my study situates Thoreau as a thinker whose revelations stem from observing the physical world, not only from engaging with literary works. This assertion gives readers a tool with which to understand Thoreau’s transcendentalism.
Anna Gates, Jacqueline Hernandez & Dittmar Hahn
Biology, Texas State University

Salmonellae in the Intestines of *H. plecostomus* in the San Marcos River

**ABSTRACT**

**Research Question:**
*Hypostomus plecostomus*, an invasive, algae consuming fish, were sampled from the San Marcos River (San Marcos, TX) at different times from February to September 2014 and their intestines analyzed for the presence of salmonellae. Results were correlated to precipitation for the river area.

**Methodology:**
The intestinal contents as well as environmental samples (i.e., water and sediment) were evaluated for the presence for salmonellae by quantitative real-time polymerase chain reaction (qPCR) after semi-selective enrichment.

**Results:**
Between 40 and 100% of the animals contained salmonellae in their intestines following a precipitation event >12.5mm. However, salmonellae were not detected in the environmental samples. This indicates that salmonellae are ingested by *H. plecostomus* with the food sources and may persist in the intestine. The increase in detection of contaminated fish after large rainfall events suggests some effect of runoff and accumulation in food resources even though salmonellae could not be detected in environmental samples.
Andrea Gomez, William Farr, Dittmar Hahn, Ivan Castro Arellano, Michael Forstner
Biology, Texas State University

CHYTRIDIOMYCOSIS: PREVALENCE OF THE PATHOGEN
BATRACHOCHYTRIUM DENDROBATIDIS IN AMPHIBIAN COMUNITIES OF
CENTRAL TEXAS AND TAMAULIPAS, MEXICO

ABSTRACT
Batrachochytrium dendrobatidis (Bd), a fungus that causes chytridiomycosis on infected amphibians, and has been implicated as a potential causative agent in the amphibian population declines of the past 50 years. This study seeks to assess the prevalence of Bd in amphibian communities in Central Texas and the state of Tamaulipas, Mexico. In Central Texas two counties were evaluated during the spring of 2012 using 4 taxa and 360 samples. For the Tamaulipas assessment samples of 18 amphibian species were collected between 2004 and 2008 at 16 different localities that ranged from 100-2900 meters in elevation. All the samples were obtained from non-consumptive toe clippings and swabs. The presence of the pathogen was assessed by using a Taqman quantitative real time PCR (qPCR) assay, in a highly sensitive approach to detection. Interestingly, there is a low prevalence for Bd in Central Texas in comparison with previous studies conducted in this area. All samples tested from Tamaulipas were negative for the presence of the pathogen. This study implies that monitoring the pathogen in both southern Texas and northern Mexico requires explicit changes to normal surveys protocols. To better understand the dynamics of the fungus in these environments, will require increased efforts during periods that accommodate pathogen thermal preferences. Further exploration in this regions and adjacent areas will help to inform of the prevalence, widespread and epidemiology of Bd and would help prioritize conservation efforts.
Xi Gong, Yongmei Lu, Yan Lin & F. Benjamin Zahn
Geography, Texas State University

K-Vec: A Global and Cross-scale Analysis Method of Vector Autocorrelation

ABSTRACT

Problem or research question

Multi-location events are used to model complex geographic phenomena that correspond to multiple point locations. The linkage among point locations of the same event is a special characteristic of this data type. By connecting the points together, an event can be represented by a vector. Vector autocorrelation analysis provides an important way to understand the spatial pattern of the vectors and multi-location events. However, most of the existing methods focus on local or single-scale vector patterns.

Methodology or approach

To fill the gap in the literature, this study proposes a new method, K-Vec, to analyze global and cross-scale vector patterns. K-Vec redefines the distance between vectors in a conservative way and extends the Ripley’s K method to vector analysis. In order to keep the marginal distribution, conditional spatial randomness is utilized in Monte Carlo simulations. Three case studies with two simulated datasets and one real dataset are conducted using K-Vec.

Results or preliminary results and their impact on the field

The results show that K-Vec can effectively detect global vector patterns and cross-scale variations in the simulated data. It can detect the global trend of the vehicle theft-and-recovery location pairs in 1998 in Buffalo, New York. Moreover, the method can enhance the selection of neighborhood size for further local pattern analysis.

Keywords: spatial statistics, vector autocorrelation, global patterns, cross-scales patterns, multi-location events, GIS
Hispanic Consumers’ Perception of Water Sustainability and its Implications for Policy Formulation

ABSTRACT

Research Rationale and Purpose

This study aims to gain insight as to the consumer habits and attitudes of a majority-minority population in two states facing extreme cases of drought and water shortage. As the percentage of Hispanic population increases in the United States, it is important to gain an understanding of their cultural practices and beliefs regarding this crucial issue. The phenomena of minority influence in the political atmosphere surrounding drought and water conservation is worth evaluating, and the best starting point is within the Hispanic population. With the shift in water availability resulting from drought conditions, the importance of public perception and education grows. The research purpose is to understand Hispanic consumers’ attitude and behavior toward drought and water conservation as well as their adoption of different types of water conservation policies in order to gain an understanding of their perception and motivation surrounding the issue of water shortage and drought in their respective state.

Methods and Approach

This study will use a quantitative research approach by employing survey techniques as the methodology for data collection. Perceived Difficulty in Water Conservation, Social Pressure, Water Utilitarian Belief, Water Ecological Belief, Drought Attitude, Perceived Moral Obligation, Behavioral Intentions, Actual Behavior, and Policy Adoption will be the major constructs in the survey questionnaire. The target sample size is 800 Hispanics (400 from Texas and 400 from California), which has been purchased from the data company, Qualtrics. The data collection is currently in progress.

Expected Results and Contribution

It is expected that Water Utilitarian Belief and Water Ecological Belief would affect Perceived Difficulty in Water Conservation, Social Pressure, Drought Attitude and Perceived Moral Obligation. Furthermore, Perceived Difficulty in Water Conservation, Social Pressure, Drought Attitude and Perceived Moral Obligation would significantly affect Behavioral Intentions, which in turn affects Actual Behavior and Policy Adoption. By studying the practices of a majority-minority in two states adversely affected by drought, we hope to reveal the implications that the specific population’s consumption habits have upon policy formulation in their states.
Research Question

Women of reproductive age are the fastest growing group of incarcerated individuals in the United States (Sabol, Minton & Harrison, 2006). When you add the stress of being pregnant within a prison, this can create psychological distress among incarcerated mothers who “experience a loss of autonomy and control over aspects of their motherhood (Safyer & Richmond, 1995).” To promote a secure attachment between mother and child, correctional systems must address the issue of how to promote forms of sustained contact. Hence, the research question asks: In what ways will participation in a well-being program influence mental health status in incarcerated women as measured by locus of control and maternal depression?

Research Design

The research design endeavors to examine fluctuations in maternal depression and locus of control as a way to strategize the protocol development process. The research program includes a breastfeeding protocol, focus groups, and diagnostic assessments. The researcher postulates that the women’s well-being program will positively influence mental health as defined by locus of control and maternal depression.

The study population encompasses incarcerated mothers and mothers-to-be at local correctional facilities. The researcher will use a pretest and posttest nonequivalent comparison groups design. The Edinburgh Postnatal Depression Scale and the Internal Locus of Control will be employed at baseline and during the final evaluation.

To determine whether findings are statistically significant and rule out chance as a rival hypothesis, the researcher plans to use a two-tailed test of significance to establish whether or not there is a relationship between an incarcerated woman’s locus of control and level of maternal depression. Though the hypothesis is directional by nature, the two-tailed test of significance will test for both positive and negative effects that may result during the data analysis. Pending results, a one tailed t-test may be utilized to explore the effects in more depth to inform recommendations for future research and variations in experimental designs.

Implications for Future Practice

Should the hypotheses be confirmed, additional rigorous studies with larger samples could be justified. One limitation in this study includes the fact that both of the test facilities usually generate short-term stays for many of the inmates as they are typically awaiting transfer to a different prison or waiting for dismissal. Therefore, replicating this study in state prisons would allow for multiple baselines, posttest measures, and the ability
to study larger samples. Despite limitations, this study addresses crucial issues in social work through the creation of an intervention that brings service gaps to light and will inform future policy making decisions in the criminal justice system.

References


Reimagining the Current Accountability System: Parent Narratives Assessing Schools from a Community Perspective

ABSTRACT

Problem/Research

It has been over 30 years since the inception of the standardization and accountability system in Texas (ADP Network, 2009; Texas Education Agency, 2013). This prolonged systematic execution has manifested a “value system” as the sole indicator of a school’s overall academic performance, school culture, parental engagement, and educator efficacy. This value system has been questioned and argued by educators, parents, education advocates, and scholars (Block, 2009; Hargreaves & Shirley, 2009). They have questioned the validity of the student standardized tests scores to match the student learning capacity, the relevance these test scores have on student college readiness, and the long lasting negative effect on student educational experience. We must find solutions to democratize the form in which schools are valued, perceived and measured by a community perspective. Reimagining the accountability system can provide a realistic assessment of the neighborhood school that better informs student needs, map the assets of each school, and creates a stronger identity of the neighborhood school. Therefore the research questions guiding this study are: (1) How can parents assist schools to reimagine an accountability system that better serves the learning needs of their children and the community? (2) What are the conditions, skills and processes needed to develop a community informed school accountability system?

Method

This qualitative pilot study documents the parents’ narratives and their understanding of a collective approach to assessing the work of students, educators, and leaders that ultimately assess the work that occurs in their neighborhood school. The study setting is a Title I elementary in Seguin (TX), where the student population is 62% Hispanic and 38% White. Following IRB approval/guidelines, data were collected in summer 2014 through: (1) Two focus groups with ten participants, (2) Two 90-minutes individual conversations with three focal participants (Ramon, Eloisa, and Yolanda (pseudonyms)), field notes (Patton, 2002) and artifacts/photographs (Merriam, 2009).

Study Findings/Impact

Data were transcribed and coded for patterns and themes (Patton, 2002) and a matrix was built in order to cross compare data from the different data sources (Merriam, 2009). Narrative analysis was utilized to report the participants’ experiences using their point of view and voice (Creswell, 2007). Thus, study findings are reported through the following themes: (1) Ir/relevance of standardized test, (2) genuine dialogue parent and educators to
impact student learning, (3) re-humanizing teaching, and (4) quality of social interaction among students. These themes will be discussed through the narratives provided by the participating parents. Study findings illustrate the desperate need for a community system that helps inform the life of schools based on student, teacher, parent and community interactions. Study findings support the creation of a community-based accountability system model that can promote change and spark the conversation among all stakeholders that includes the families as an integral agent in the decision making process. Study findings have potential to contribute to the body of literature that informs the field of school improvement and school leadership.

References

SustainabilityCaseStudy


Sara Harrod & M. Clay Green
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THE EFFECTS OF LANDSCAPE CHARACTERISTICS ON NESTING ECOLOGY
OF CAVITY-NESTING BIRDS

ABSTRACT

Across Texas, cavity-nesting birds are under increasing pressure from habitat loss and
degradation. Central Texas has undergone a radical transformation in the last 150 years;
agricultural practices have decimated tall savanna grasslands and allowed for juniper
woodlands to proliferate. Globally, cavity-nesting birds show varying responses to edge
and fragmentation; in China, Grey-faced (Picus canus) and Great Spotted Woodpeckers
(Dendrocopos major) showed little change in reproductive success at varying distances-to-
edge, whereas Great Tits (Parus major) and Yellow-rumped Flycatchers (Ficedula
zanthopygia) showed decreased reproductive success when nesting close to edges. The
only edge studies in Central Texas have focused on the endangered Golden-cheeked
Warbler (Dendroica chrysoparia), leaving little knowledge as to how other cavity-nesters
are affected by the increased loss of suitable habitat. Forty bluebird boxes were set-up
among a variety of habitats at the Freeman Center outside of San Marcos. Eastern
Bluebirds (Sialia sialis), Bewick’s Wrens (Thryomanes bewickii), Black-crested Titmice
(Baeolophus atricristatus), and Ash-throated Flycatchers (Myiarchus cinerascens) utilized
the boxes and successfully fledged young. Within 35 meter buffers around each box,
habitat variables such as percent vegetation cover, distance-to-edge, and habitat patch size
were measured. A CCA was conducted to test how well these predictors explained the
overall success and the number of species at each box. 45% of spatial variability was
explained. Bluebirds and flycatchers were specialists in habitat selection, wrens were
generalists, and titmice showed little differentiation among habitat selection. Further
research should be conducted to determine which other variables may influence nest
success and species selection at each site.
Toward a Definition of ‘Voice’: The Intersection of Character, Point of View, and Language in Literary Fiction

**ABSTRACT**

Rather than clearly defining the nature of voice, narrative theorists have often described voice in relation to other elements of fiction such as tone and style. It is considered one of the most amorphous aspects of writing—something that must be “found” instead of constructed. The significance of voice in literature is paramount, as the best narratives possess the strongest voices. ZZ Packer, author of *Drinking Coffee Elsewhere*, explains the importance of “authors who pay attention to ‘getting the voice’ right in a story win over readers because they turn them into addicts” because “strongly voiced narratives take over our systems like a drug.” However, this integral component of writing has not been demystified and deconstructed into discrete parts. Our project seeks to advance the discussion of voice in literary fiction by breaking voice down into three areas: character, point of view, and language. In this paper, we will examine contemporary literary fiction such as Lauren Groff’s “Delicate Edible Birds” as well as the theoretical frameworks of Roland Barthes and Robert Burke regarding the rhetoric of fiction in order to define and describe elements of voice and to discuss how to manipulate these elements within narratives. By concretizing voice through an explanation of these three components, we hope to assist both writers and readers in understanding what makes a fictional voice compelling and memorable as well as how to experiment with voice to change the construction of a story. We also plan to include exercises for practical application of these narrative theories for writers interested in strengthening and enhancing voice in their own fiction.
Work in Belize: Social Reproduction of Labor in a Diaspora Community

ABSTRACT
Background:

In 1981, the United Nations High Commission for Refugees and the Government of Belize began a resettlement project that resulted in the community of Valley of Peace, a village with a population of 2,000, located 12 miles from Belmopan, the capital of Belize. This project provided a home for 200 families fleeing the civil war in El Salvador. These families cleared a place in the jungle and established a farming community that has lasted over three decades.

Research Question:

Valley of Peace was established as a farming community for Salvadoran’s leaving their home country. Many of the pioneers were leaving agricultural communities, and continued with farming when they arrived in Belize. My research investigates identity within the Valley of Peace, and the role identity plays in production within the community. Specifically my research is based on the question, “is there a Valley of Peace mode of production, and if so, how is it reproduced within the community?”

Methods:

I conducted six weeks of research in the Valley of Peace. During this time, I engaged in participant observation and direct observation of work taking place in Valley of Peace. I also conducted interviews with teachers and school administrators within the community, and conducted interviews with workers both in the community, and those who have left the village to find work elsewhere.

Results:

This paper shows that easy access to primary and secondary education coupled with the availability of non-agriculture focused careers has resulted in second and third generation members of the community leaving the village to seek other career options. In the past, members of this community were expected to learn the agricultural trades of their parents; today many residents find their careers in education, tourism, construction, and government. An emphasis is now placed on education, vocational training, and multilingualism, which allow members of this community to find jobs elsewhere in Belize.
Desiree Hazel  
Family and Consumer Sciences, Texas State University

Pinning A Product: Affects of Pinterest Use on Product Purchase Intention

ABSTRACT

This research explores the affects of social media platform use on product purchase intention. The social media activity and platform used for this study is the process of “pinning” on Pinterest. One of the fastest growing social networking sites, Pinterest is described as a visual discovery tool that enables users to categorize their interests and finds onto boards and fill them with visual bookmarks known as “pins” (Chrzan, 2012). Pins are then shared with a user’s followers and within the specific category the pin falls under. Retailers that integrate social networking platforms such as Pinterest into their marketing plans may benefit from the increasing popularity of these sites. By interacting with customers on social networking sites retailers could increase their social presence, which may encourage brand commitment. Connecting with consumers in this way could increase engagement and brand awareness, which could translate to an increase in purchase intention. This study uses a survey convenience sample of university undergraduate students in a fashion merchandising program who are already using the Pinterest social media platform. The product used for this study is fashion clothing, shoes, and accessories. This research will attempt to affirm that using Pinterest to pin fashion products will prompt users to purchase those products. The results may help retailers in making the decision to use social media platforms such as Pinterest for marketing and advertising purposes.
Christopher Herman  
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News Media Stereotypes and Student Perceptions of Ethnically and Culturally Diverse Populations

ABSTRACT
The purpose of this research is to examine how racial stereotypes, both positive and negative, may be propagated by newspapers and radio, and how those stereotypes may influence a college student’s perception of other racial groups. The newspaper used in this study is Texas State University’s student newspaper, The University Star. In addition to the paper, the radio channel being used is Texas State’s KTSW 89.9 Student Radio. The research will look at the belief level (perception) of students and whether their individual belief levels (perceptions) were influenced by their viewing of news stories on people ethnically and culturally different than them. Previous research, such as Joshua Aronson and Claude Steele’s “Stereotypes and the Fragility of Academic Competence, Motivation and Self-Concept,” has focused on understanding the impact of negative stereotypes (e.g. stereotype threat) as opposed to understanding stereotypes in their entirety (Aronson & Steele, 2005). Through the use of focus groups and a convenience sample survey, this research will attempt to explore how individuals organize, perceive, and communicate how positive or negative stereotypes influence students’ perceptions of each other. Understanding how negative and positive stereotypes influence student relationships may provide important information for students, teachers and university officials in the way news is presented on an ethnically diverse student body. The results found in this research could possibly influence the way in which The University Star and KTSW 89.9 report on stories involving people of different racial groups.

Reference
Dan Hodge  
Political Science, Texas State University  

Mobile Apps, Crowdsourcing and the Blame Game  

ABSTRACT  

**Question:** What is a Mobile-App Company’s Potential Liability for Crimes Involving Crowdsourced App Users and Third Parties?  

**Methodology and Approach:**  
Legal research methodology stems from an analytical consideration of primary and secondary sources of law. Primary sources are government statutes, agency regulations and court opinions. Secondary sources are law review articles, legal encyclopedias, treatises and other non-law writings. Typically, research begins with a legal question. A legal question involves answers that may not be immediately apparent or are difficult to discern without legal research. The legal question often contains words related to pre-determined legal concepts or terms of art. Then the legal question is neatly formed into a workable legal issue.  

Next, the researcher scours secondary sources for cases and insight into the issue(s) presented. After consulting secondary sources, the research focuses on primary sources like case law and statutes to build a pool of fact scenarios similar to the legal issue in question. After comparing the legal issue in question to all the similar primary sources, the research will point to a likely outcome in court.  

**Results and Impact:**  
The impact of liability in crowdsourcing cases could reach an incalculable level similar to asbestos-related harms. Crowdsourcing is rapidly gaining popularity among companies and consumers as a quick and economic means to an end. Existing implementations of crowdsourcing have only scratched the surface of impact upon millions of users—all without direct regulation—and show no signs of slowing down.  

Crowdsourcing introduced a totally new category of “crowdsource workers.” Amazon, Lyft, Uber and many others call openly to the masses for work to be done. Unemployment is historically high, and many Americans snag work wherever they can find it. Currently and presently, the courts are having difficulty classifying crowdsource workers, not to mention the extent to which the crowdsourcing company may be liable.  

As with other recent technological frontiers, the law has to play catch-up. Crimes happen, and the courts must decide who, how and when to hold parties responsible. It is not likely that a court would hold a mobile-app company liable for third-party’s harms against
a crowdsourcing-app user because foreseeability is a historically difficult standard to bear. Similarly, the issue of foreseeability will likely shield a mobile-app company from liability in cases involving an app user’s harms against a third party. When an app user harms another app user, however, courts may hold mobile-app companies liable. Justice Alito opened wide the chamber doors to hear more cases involving crowdsourcing.
**ABSTRACT**

**Research Questions**

Are landowners willing to allocate resources into the production of a mesquite rather than eradication?

Do landowners think that mesquite production and current land use can co-exist to create an addition revenue stream?

Is Mesquite an unutilized source of alternative energy and food/feed into the future?

**Methodology**

Counties in the I-35, I-10 corridor within mesquite’s natural range were considered for study. This area would give any business a logistical edge for moving a product around Texas, the nation and internationally. Land owners were selected from Guadalupe County which both I-35 and I-10 cross through. Criteria for selection of landowners was Agriculture Use Property Tax Exemption from Guadalupe County Appraisal District and properties larger than 7 acres in size. 7 acres was decided to be best suited for harvest of mesquite based on Smith (1982), Dahl (1982), Felker (1984), Ansley et al. (2010), Park et al. (2012), Joshi et al. (2013) and various other unpublished sources. Narrowing the results of Agriculture Use Exempt properties that matched the criteria for selection yielded a population size of 5974. Using Krejcie and Morgan (1970) and Dillman et al. (2009), 361 land owners were matched and selected for participation.

Using five contact points and “One mode prompt completion by another mode” described in Dillman, (2000) and Dillman et al. (2009) landowners were sent an introduction mailing with instructions on how to access the survey, a thank you post card and periodically over the weeks of the study will be sent reminder post cards to non-respondents. An electronic survey consisting of 47 questions grouped to understand the land use, willingness and views of landowners on the utilization of mesquite. The survey took advantage of laddering of values described in Reynolds and Gutman (1988), ranking of values (Dillman, 2000) and questions modeled from a similar study on wood based bioenergy at Mississippi State University in 2011 by O. Joshi et al and Gruchy et al.

Responses and data collected will be scored and compared using a variety of descriptive statistics using SPSS software. Correlations between responses will be made to build a larger picture of how land owners and managers view mesquite and its possible use in agriculture as a feed component and a crop for bio-energy feedstock.
**Expected Results and the impact on the field**

This study is still on going and the survey is still out to the population and will be closing the 2\textsuperscript{nd} week of October. As of 9/18/14 there has been 45 responses which is 12.5\% response with an expectation of about a 20-25\% response rate as the reminder letters reach the population. The result if this study will give a generalization of the willingness of landowners in Guadalupe County, Texas to utilize Mesquite and similarly viewed plants in a profitable way. This will be a starting point for further study into a larger frame of reference i.e. additional counties, state, national level working turn nuisance and invasive plants into a viable resource into the future.
The Effects of Horticultural Community Service Programs on Recidivism Numbers of Offenders

ABSTRACT

Problem or research question in relation to existing research

Researchers are continuing to look into the numerous variables associated with the benefits of interactions between plants and nature on non-criminal individuals and their quality of life. However, fewer studies are being conducted on much narrower topics such as the benefits of horticulture and its effects on reducing criminal activity.

Methodology

The purpose of the study was to determine the differences in rates of recidivism of offenders completing community service in horticultural versus non-horticultural settings; this sample included both non-violent and violent offenders.

Expected results and their impact on the field

The analysis is expected to yield results indicating community service clients who work in horticulturally-oriented environments are less likely to reoffend when compared to community service clients who work in an indoor or non-horticulturally oriented environments.

The benefits of human interactions with plants and nature have been noted throughout history, and the concept of a symbiotic relationship between the two is far from new. Transitioning from incarceration back into society can be very difficult, and rehabilitation can prove to be a long and demanding road for offenders. The impact of increasing the number of community service opportunities where individuals’ serve their hours in horticulturally-oriented environments could potentially decrease recidivism rates.
Brittani Hudspeth, Josh Hunter, Renee Paul, Pamela Piersall, Alena
Weeks, & Sherene Williams
Social Work, Abilene Christian University

Evaluating the Effectiveness of Case Management within a Non-Profit Organization
Working to Reduce Homelessness

ABSTRACT

Problem or Research Question in Relation to Existing Research: This study is second
year follow-up work addressing the question: Does the agency’s current case management
system lead to self-sufficiency in the homeless population served within Dallas, Texas and
the surrounding area?

Methodology or Approach: The current study used pre-existing data gathered and
maintained by the agency’s case management Efforts to Outcomes (ETO) database. Case
managers gathered data from clients through use of two tools: The Stability Matrix and
Income Assessment. The total population of clients served was 1,144; the total sample
population for this study was 328 clients receiving intensive case management services.
Data was organized in Microsoft Excel then imported into SPSS, where descriptive
statistics, chi-square analyses, and Wilcoxon-Signed Ranks tests were performed. This
study was conducted under the supervision of Dr. Wayne Paris at Abilene Christian
University as part of the curriculum for graduate social work research courses.

Results and Their Impact on the Field: The sample population was primarily male and
African American, between ages 40-59. The primary presenting problems of clients prior to
involvement in intensive case management were: physical or mental disability (66%),
mental health issues (60%), criminal history (58%), and substance abuse issues (40%).
Within 12 months, 94% of clients met a goal on the Stability Matrix and 60% of clients
experienced a change in income on the Income Assessment; by 36 months, 100% of clients
had met a goal on the Stability Matrix and/or indicated a change in income on the Income
Assessment. A chi-square comparison of clients who completed a pre and post Stabil
ity Matrix indicated statistically significant improvement in four areas: physical or mental
disability (p< .01), ‘significant’ debt (p< .01), legal issues (p< .01), and illegal residency
(p< .05). A chi-square comparison of clients that completed a pre and post Income
Assessment indicated statistically significant change occurred in two areas: temporary
rental assistance (p< .05) and section 8 housing (p< .01). A Wilcoxon-Signed Rank test on
clients that completed a pre and post Stability Matrix indicated significant improvement in
support structure (p< .01), employment (p< .01), housing (p< .01), income (p< .01), food
(p< .01), healthcare (p< .05), mental health (p< .01), and substances (p< .05). Results of the
study indicated a need for future analysis to explore the importance of clients that did not
experience a change on the Stability Matrix or Income Assessment. Results also indicated a
need for improvements to data coding and organization within the ETO database and Excel Spreadsheets used by the agency to streamline future data collection and analysis. Overall, the results suggested that clients are benefiting from case management services.
Aimee Jones  
Merchandising and Consumer Sciences, Texas State University  

IN VOGUE: FASHION ADVERTISING AND THE REPRESENTATION OF THE MODERN AMERICAN WOMAN  

ABSTRACT  

This historical research explores to what extent fashion advertising in *Vogue* Magazine from 1920 to 1923 reflected the socio-political advancements of women in that time period. These three years were chosen due to the monumental socio-political female advancements that occurred at that time. In August, 1920, American women were enfranchised and granted the right to vote (Chapman & Mills, 2006). This was a major feat for the advancement of US women. The very hotly debated Birth Control Review was published in 1917 by Margaret Sanger leading to her founding of the American Birth Control League in 1921 (Murphree & Gower, 2013). Equally as important in female advancement was the introduction from the National Women’s Party of the Equal Rights Amendment into Congress in 1923 (Cott, 1984).  

The beginnings of important female social and political advancements were made in the early 1920s, a decade characterized by rebellion, glamor, frivolity and, of course, fashion. At the center of this fashion world was *Vogue* magazine. *Vogue* was becoming the leading source of knowledge for women’s fashion (Hill, 2004). It had morphed from a strictly upper-class lifestyle publication into an everyday woman’s guide to fashion (Hill, 2004). With this change, Hill (2004) argues that “advertisers rushed in droves to be a part of the new *Vogue*” (p.12). Through a content analysis of Vogue Magazine archives from that time, this study seeks to determine whether or not the fashion advertisements in *Vogue* magazine took into consideration the socio-political advancements of women in those years. Or, was the advertising a separate entity, uninfluenced by societal changes, and maintaining a strict sovereignty over its own imagery and brand representation? The researcher expects to find that the fashion advertising of this time period did reflect the socio-political advancements of women.
Headstarting an Endangered Amphibian: Increasing headstarting survivorship using a predator exclusion device

ABSTRACT

The Lost Pines eco-region of Texas is a loblolly pine (*Pinus taeda*) and oak dominated woodland forest. This region represents the westernmost extension of loblolly pine forests in Texas. On September 4th, 2011 the Bastrop County Complex fire resulted in the loss of 36,000 acres of Lost Pines habitat. This catastrophic fire impacted approximately 40% of the remaining high-suitability habitat patch of the endangered Houston toad (*Bufo houstonensis*) for this County. Since 2007 Houston toad population management has centered around headstarting as a potentially effective way to boost declining populations. We developed and tested the use of a predator exclusion device that would decrease predation to wild or captive propagated egg strands. Forty nine egg strands were released in Austin and Bastrop counties in 2014. Of those, 40 egg strands were covered with a predator exclusion device and nine egg strands were left uncovered. Results show that 90% of uncovered egg strands were lost to predation activities. All fertilized covered egg strands successfully developed into tadpoles and later emerged across the landscape.
The Heart and the Matter: A Relational Response to Pedagogical Standardization

ABSTRACT

Problem Statement
This qualitative proposal studies the impact of standardization on the relational and technical aspects of classroom pedagogy. An overreliance on a technicist pedagogy, driven by the accountability mandates and high-stakes testing prevalent in current education policy, diminishes the role of the teacher-student relationship in the learning process. Although research shows this relationship to be vital to student success (e.g., Davis, 2006; Fan, 2012; Huan, Quek, Yeo, Ang, & Chong, 2012), policy aimed at standardizing pedagogical practices minimizes the resources and importance of the pedagogical relationship. I take standardization to mean the implementation of more homogeneous practices, management strategies, and curriculum framework for the sole purpose of increasing test scores. The emphasis on testing establishes "conformity with a set of predetermined standards without reference to the needs of individuals," (Milligan, 2005, p. 106) making it more difficult for teachers to develop relationships in the classroom.

Method
The guiding research question for this study is: how is the teacher-student relationship being informed/transformed by standardization practices? A phenomenological framework informs the method of the study, focusing on what it is like "as we find-ourselves-being-in-relation-with-others ... and other things" (Vagle, 2014, p.20). Data were collected through semi-structured interviews with middle school teachers. The focus of each interview was on their perceptions and beliefs regarding the usefulness and impact of teacher-student relationships on the learning process, and how current policies encourage or discourage their development in the classroom. The data were analyzed using both descriptive and in vivo coding techniques, which resulted in three emergent themes.

Preliminary Results
The first them described the importance of the pedagogical relationship. All of the participants in the study echoed the statements expressed in previous research literature regarding the teacher-student relationship, stressing its primacy over and above other pedagogical skills. The second theme pertains to teacher frustrations over the impact of standardization on classroom practices. Specifically, the participants noted an increased anxiety due to accountability pressures and its effect on the social aspect of teaching. Teachers feel like they do not have the time to cultivate necessary relationships with students because of the pressure to prepare for and pass the test. Additionally, the emphasis on the test placed a priority on teaching test-taking strategies specific to multiple-choice tests, preventing teachers from utilizing other assessment strategies that they felt were more effective in understanding their students. The third theme centers on how teachers respond to their perceptions of the effects of standardization. Teachers respond to a perceived lack of autonomy, brought about by efforts to control both content and delivery in the classroom for the sake of the test, by attempting to re-establish their authority in the classroom. The study concludes by discussing ways teachers can implement pedagogical
practices that incorporate both relational and technical aspects of teaching, in an effort to satisfy policy demands while attending to the specific learning needs of students.
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Black Nerds, Asian Activists, and Caucasian Dogs: An Online Update to Self-Categorization Theory Via Race-Based, Intercultural Facebook Groups

ABSTRACT

Research Issue: Concurrent with Facebook’s growth in usage by Americans has been the development in how racial identity is expressed online. Facebook Groups are cultural representations of the way that individuals understand their racial group membership (Rockquemore & Arend, 2002). I contribute to the “new cultural politics of difference” by focusing on modern, organic representations of race on the Internet (West, 1993). The main research question centers upon how race is defined on the Internet as a group category of intercultural self-identification for individuals to self-categorize online.

c) Research Method: I study computer-mediated culture across Facebook Groups with different cultural classifications by analyzing the discourses of racialized groups of people, specifically White and Caucasian, Black and African-American, and Asian and Asian-American (Erez & Earley, 1993). Because racialization is socially-constructed, I choose keywords that reflect American understandings of race in popular parlance, e.g., White as analogous to Caucasian and Black as analogous for African-American. These representations of race online afford a critical engagement with presumptions about race that have been taken for granted. White as a racial category has been built upon an “othering” of non-White races, particularly in terms of social control of African-Americans as part of the racist legacy of slavery (Brock, 2006), so I have included both White/Caucasian and Black/African-American to examine cross-cultural differences in discourse between the two racial categories online. By including Asian and Asian-Americans, I address a population often overlooked in communication studies, a field criticized as Eurocentric (Miike, 2006) and one whose ethnic identity in American college students is more similar to Latinos than to African-Americans (French, Coleman, & DiLorenzo, 2013). Previous research has also shown that more than European-based and African-based cultures, Asian-based cultures are hailed as high-context and collectivistic in that Asian-based cultures are verbally more understated and indirect (Leetz, 2003). Thus, the high-context Asian/Asian-American group may provide discernible contrast in the intercultural identification claims found in discourse by the other online racialized groups characterized as low-context.

d) Research Results and Significance: While Facebook has been the site of study for individual behavior (Ellison, Steinfield, & Lampe, 2007; Zhao, Grasmuck, & Martin, 2008), Facebook Group behavior is understudied (Park, Kee, & Valenzuela, 2009). This study is among the first to center analysis upon the group, rather than individual, level of Facebook users. I update self-categorization theory with its application not to individuals, but to racialized groups online, as examples of intercultural markers of identification (Turner & Reynolds, 2011). The essential question of what it means to be Black, Asian, and White online has not yet been explored in the research site of Facebook Groups, even
though people continue to seek out online spaces premised upon racial identity (Daniels, 2012). The factors that create a racial identity online as captured by Facebook Groups provide critical insight into digital representations of race that are no longer tied to the body but that are still attached to offline expectations about racialized behavior that may reinforce stereotypic and prototypic ideals, reaffirm Whiteness as normative, or depict the “othering” of races (Hogg & Reid, 2006; Mastro & Kopacz, 2006; Nakamura, 2002; Daniels, 2012). Examining how race is represented online reflects how racial identity is configured in contemporary times through the mediation of computer tools. Sociality is increasingly moving online, and the Internet is a place where race matters because offline behavior and online behavior are enmeshed and imbricated (Sassen, 2002; Daniels, 2012). This study explores how race matters online.
PRESCHOOLER PARENT SURVEY OF FACTORS INFLUENCING THE HOME FOOD ENVIRONMENT: A BEST FOOD FITS PROJECT

ABSTRACT

Problem: Childhood overweight and obesity affects one in four children, ages 2-5 years and one in three children, ages 2-19 years, nationally. Among these children, Hispanic, African American, and low income populations are considered to be at a higher risk. Texas has a higher incidence of childhood obesity, perhaps reflecting health disparity among racial/ethnic minorities in the state.

Intervention: The present study is an extension of Best Food for Families, Infants, and Toddlers, a program dedicated to preventing childhood obesity. The central aim of this study was to assess dietary behavior of families of preschool children and empower parents to make changes in the home environment to make healthier choices for family food.

Methodology: The study sample included parents or primary caregivers of a child enrolled in a preschool program in Hays County, Texas (n = 173). A parent survey was administered to collect both baseline data and post-intervention data on parent perceptions related to family weight, feeding practices, nutrition knowledge, and self-efficacy. The survey was available in Spanish and English. Intervention strategies were implemented among participants throughout a four-month period. These strategies included nutrition education packets, social media postings, photo reflection of the home food environment, and child food reflection exercises. Upon completion of each study component, parents were incentivized with a grocery gift card.

Results: The mean caregiver age was 32.8 ± 7.7 years. This study included participants of races/ethnicities reflective of Hays County, TX. Most participants were White Caucasian (50.9%), followed by Hispanic/Latino (43.9%), and Black or African American (4%). Survey results indicated that 28.3% of parents felt it was sometimes or often true that they could not afford to eat balanced meals. Additionally, 29.5% of caregivers agreed to some extent that the cost of healthy foods prevented them from buying those foods, whereas 49.7% disagreed, and 20.8% remained neutral. Participants reported that the energy and time to cook a caregiver had at the end of the day was not a substantial barrier to healthy eating at home for most of the participants, with only 12.7% disagreeing. Of the 173 participants, 144 participant’s families always (7 days a week) or most times (4-6 days a week) ate together, indicating an important opportunity for parents to model healthy eating behaviors. Data were analyzed using SPSS (version 20). Parent nutrition knowledge, feeding practices, and self-efficacy were tested to investigate the association with...
demographic variables. Paired T-tests and ANOVAs will be conducted to determine whether the intervention method demonstrated an improvement in parent feeding practices, nutrition knowledge, and self-efficacy.

**Impact:** These data will prompt and inform additional interventions to guide parent practices in the home including meal planning, grocery store mapping, and knowledge of guidelines for children.
Amber Krause  
Media and Communication, Texas Tech University

OMG GMOs: An Analysis of Washington Initiative 522 Advertisements on YouTube

ABSTRACT

Problem and Research Questions

Washington Initiative 522 was a ballot initiative to mandatory label products containing genetically modified organisms (GMOs). Although it failed, the initiative fueled an ongoing debate regarding GMOs and their possible regulatory, health and economic impacts. Campaign advertisements could impact the outcome of these initiatives. Thus, it is important to understand how consumers process advertisements and examine the messages available through popular media outlets. The purpose of this study was to explore the message characteristics of advertisements related to Washington Initiative 522 on YouTube. To accomplish this purpose, the following questions guided the study:

1. What is the message sensation value of YouTube videos about Washington I-522?
2. What message appeals exist in YouTube videos about Washington I-522?

Methodology

This research operated under the framework that media consumption combines both experiential and information-centered processes (Holbrook & Hirschman, 1982). Experiential consumption involves feelings associated with consuming a particular advertisement, whereas information processing sees consumers as logical thinkers (Holbrook & Hirschman, 1982). Attempting to identify how both views are utilized in advertisements, the researcher examined message sensation value and message appeals.

Message sensation value (MSV) can be defined as “the degree of to which formal and content audio-visual features of a televised message elicit sensory, affective and arousal responses” (Palmgreen et al., 1991, p. 219). Superior levels of message sensation can result in greater stimulation during information processing (Paek, Kim & Hove, 2010).

The two message appeals most often used are logical or emotional (Goodwin & Rhoades, 2011). Logical appeals provide factual information allowing the audience to evaluate and decide if the information is valid (English, Sweetser, & Ancu, 2011). Emotional appeals deal more with affective processing and generate consumer feelings to persuade behavior (Albers-Miller & Stafford, 1999).

A content analysis was used to evaluate videos from the No on 522 and the Yes on 522 YouTube channels. A purposive sample of campaign advertisements was taken, which resulted in 30 videos. The researcher analyzed the sample using a code book.
Results

Overall, MSV was relatively low, with the average score of 1.2. Videos for the initiative utilized MSV characteristics more than those opposing the initiative. Majority of the videos against the initiative (81.3%) had no MSV at all. As YouTube is used more for communication strategies, it would be a missed opportunity to not utilize MSV characteristics. In order to break through the clutter, MSV characteristics can trigger stimuli and engage the viewer’s attention (Donohew, Finn, & Christ, 1988; Morgan et al., 2003).

The messages for the initiative used emotional appeals (n = 14) in all of their videos, whereas messages against the initiative used more logical appeals. This finding implies that proponents tended towards incorporating experiential consumption elements more frequently than those opposing the initiative. However, a majority of videos used both types of appeals (n = 19, 63.3%), therefore including both experiential and information-centered processes to persuade viewers.

References


Establishing the Mandate: American Involvement with The League of Nations

ABSTRACT

Following World War I, leaders of the most important nations on the globe wondered how they were going to prevent a crisis like the war from happening again. United States President Woodrow Wilson in his notable Fourteen Points address, stated that an organization which was based on international diplomacy was necessary. Out of the address, came the idea for the League of Nations. This league would serve as a predecessor to the United Nations. In Paris, the leaders of the victorious nations would carve up countries that Germany and the Ottoman Empire held for centuries. President Wilson would be instrumental in the creation of this league and the actions that it took. Wilson’s desire to create the league and his subsequent failure would become a cornerstone of his presidency. Wilson created a relationship with British Prime Minister David Lloyd George and World Zionist Leader Chaim Weizmann, which secured the creation of the Palestine Mandate be controlled by the British and the Zionist Jews. Palestine was to be “A home for the Jews.”

Through careful and extensive examination of primary source materials from Wilson, Lloyd George, Weizmann and the records of the Paris Peace Conference of 1919, I have found a relationship that was formed that would irrevocably influence the further course of history. Weizmann and Wilson were determined to make the Palestine Mandate a reality. Once Wilson had learned that American participation with the League of Nations would not be able to be accomplished, Wilson worked with British Prime Minister David Lloyd George to give Great Britain control of the Mandate.

The British Mandate for Palestine as it would come to be known, was seen as a cooperative effort between the British, Jewish and Arabs in order to form a nation where both sides could prosper. This became clearly evident that was not the case. My research question involves measuring the amount of intent that Wilson had towards Pro-Zionist causes in order to make Palestine that “home” for the Jews. It is to show that Wilson’s actions with a type of diplomatic imperialism was the catalyst which caused many issues that the world would face in the subsequent decades. The relationship between Britain and the United States at the time of The Paris Peace Conference in 1919, is one of trust and cooperation. Essentially during the League of Nations, the Americans believed that British control of the Mandate was the only viable option for it to succeed. Weizmann and Wilson along with Lloyd George created a nation which would soon become of the greatest points of conflict during the twentieth century. It is the hope of this paper, to show that the actions of the United States and Great Britain had an effect on not only the Middle East and its development following the fall of the Ottoman Empire, but the world as a whole.
Jennifer Lilley  
Chemistry and Biochemistry, Texas State University

Analysis of NHEJ DNA repair efficiency and accuracy in new mutants of Saccharomyces cerevisiae

ABSTRACT

DNA lesions can have major deleterious consequences in the cell and organism. Double-strand breaks (DSBs) are the most serious variety of DNA lesion because a single DSB can cause death of a cell. DSBs can be induced by gamma rays, chemicals, and endonucleases such as EcoRI. Eukaryotic cells possess two main pathways to eradicate DSBs: homologous recombination and nonhomologous end-joining (NHEJ). The NHEJ pathway in yeast cells uses three different protein complexes to ligate the broken ends back together: Ku, Mrx, and DNA Ligase IV. Previous work screened ~5,000 yeast mutants and identified 210 genes that are needed for resistance to gamma radiation. Of these mutants, 81 of them were also killed by expression of the DSB-inducing endonuclease EcoRI. This sensitivity suggests these genes play an important role in DSB repair, but the specific pathway involved is unknown. Of the 81 EcoRI-sensitive mutants, 8 of them are already known to be important for DSB repair. This leaves 73 mutants that have yet to be characterized.

Initiation of my project began by developing new methods for screening these mutants. The NHEJ repair assay our lab uses can indicate if a particular gene plays a role in the NHEJ pathway by plasmid design and enhancement of transformation efficiency. I helped develop a new assay for transformation of stationary phase yeast cells with DNA. My improvements included incorporation of dithiothreitol (DTT) and a rich broth recovery phase. DTT works to break disulfide bonds within membrane proteins, allowing plasmids to enter the cell more efficiently. A recovery phase in rich broth enhanced cell survival. Increasing the amount of plasmid DNA to enter cells and increasing the amount of cells that survive the transformation process has greatly improved efficiency. The inclusion of these two new steps increased transformation efficiencies to upwards of ~300,000 transformants per ug DNA added. This is a value that has not been seen before in the literature.

The new method has increased our ability to visualize the degree to which genes are required for the NHEJ pathway. Previous research observed that inactivation of known NHEJ genes reduced repair by only 10-20 fold each. Trials using our new protocol revealed vast differences between genes (Ex: repair was reduced 600-700 fold in Ku and DNA ligase IV mutants and ~30 fold in Mrx mutants). The importance here is that we can detect differences in the degree to which the NHEJ pathway requires these proteins. I am currently in the process of using the same assay to screen the 73 new mutants to test not only if the gene is important but also to what degree.
In addition to repair efficiency, I am also testing the accuracy of DSB repair in the screened mutants. DNA repair via the NHEJ pathway is not perfect and can lead to the insertion or deletion of bases, creating a mutation. Repaired plasmid DNA from mutants that exhibit high rates of mutation will be sequenced.
Lilia Loera  
Anthropology, Texas State University

FIEL (Familias Inmigrantes En La Lucha): Creating Visibility and Voice for Undocumented Immigrants in Houston

ABSTRACT

Problem/ Research Question:

As the struggle for immigration reform continues, immigrant rights groups have carried out various forms of mobilization in order to adapt to the social and political environment in the United States. In Houston, FIEL (Familias Inmigrantes Y Estudiantes En la Lucha or Immigrant Families and Students in the Struggle), an immigrant rights organization founded by an immigrant family focuses on bringing empowerment and resources to the undocumented immigrant community. In my research, I will explore how FIEL serves as a niche and voice for undocumented immigrants and how they advocate for immigration reform through various strategies. Scholars from different fields have analyzed the facets and questions that encompass illegal immigration such as the social and political context of “illegality” in the U.S social structure the manner in which undocumented immigrants are navigating their sociopolitical status through acts of civil disobedience, and how they are redefining the concept and meaning of citizenship.

Methodology

In order to answer my research question, I conducted direct and participant observation and interviews as a volunteer member of FIEL throughout an 8-week period in Houston. I attended meetings and socio-political events hosted by FIEL and interviewed two founders of the organization and one of their work and volunteer based members. Other methods used were analyzing media articles of immigration rights events hosted by FIEL and the use of social media such as Facebook as a tool to mobilize and organize.

Results and Impact on Field

Throughout my time with FIEL as an anthropologist and volunteer, I was able to understand how FIEL has served the undocumented immigrant community by providing them with resources on citizenship, English classes, residency, DACA (Deferred Action for Childhood Arrivals) and others in order to make their lives in the U.S much easier. Despite the hostile rhetoric by many anti-immigrant groups and that most of their members are undocumented, FIEL has created a space of inclusion, cultural solidarity and protection for undocumented immigrants in Houston that is hard to come by. Studying an immigrant rights organization such as FIEL can help anthropologists, especially applied anthropologists, find ways in which non-profit or government organizations can help access minority groups such as immigrants for the resources they need. Moreover, it helps...
us understand marginality and how groups such as undocumented immigrants navigate their lives as second-class individuals and non-citizens of the state.
**Jeremy Logan**  
Music, Texas State University  

**Color-Hearing and Music Analysis**

**ABSTRACT**

Synesthesia is the involuntary and automatic response of one sensory experience to another. In music, it most commonly manifests itself as color-hearing, or the visualization of colors in connection with pitches, harmonies, modes, timbres, etc. Various research has been done on synesthesia in regard to its connection to music (e.g., Bernard 1986; Galeyev 2007; Ward, Huckstep, and Tsakanikos 2006), but little music-analytical research has been published on synesthesia (Chae 2004; Harris 2004; Peacock 1985). To date, no comprehensive summary has been published on the state of research of synesthesia relative to music analysis and compositional process. This presentation will provide such a comprehensive summary.

**References:**


ABSTRACT

This research serves as thorough examination and assessment of the two completed cases of the newly formed International Criminal Court (ICC), Prosecutor v. Lubanga (2012) and Prosecutor v. Katanga (2014) both situated in the Democratic Republic of the Congo (DRC), to ultimately determine if the Court is equipped to handle cases of sexual violence. This research can also prove enlightening in regards to assessing if the overall international legal system is currently responsive enough to conflict-related sexual violence and if international prosecution can truly help to end the culture of impunity.

There is extensive literature on the topic of conflict-related sexual violence, however there are considerable gaps in regards to the immediate situation in the DRC, and very little has been written about the 2014 ICC decision for Germain Katanga. This research seeks to fill in some of the gaps, and provide a current, relevant assessment of the ICC’s capacity to handle situations with widespread sexual violence in the aftermath of the 2014 Katanga decision.

This research has relied on a plethora of sources, including the judgments released by the ICC, historical monographs of the history of the DRC, scholarly analysis of the ICC and its actions, history of international law regarding sexual violence, theoretical analysis of the conflict-related sexual violence, and other details of the legal treatment of sexual violence.

After thorough examination of the context of the conflict in the Democratic Republic of the Congo, the history of international law regarding sexual violence, and the ICC court proceedings regarding the situation in the DRC, it is clear that the ICC is not equipped to handle cases of sexual violence with the speed, vigor, and efficacy that is necessary to adequately protect the women and girls of the DRC, and other conflict-riddled places, and end the culture of impunity. Although the Court has made recent strides, and released new policies regarding treatment of sexual violence, that will hopefully result in more success in the immediate future.

This project, by closely examining the recent ICC judgments concerning the situation in the Democratic Republic of the Congo, sheds new light on the current status of conflict-related sexual violence and international law.
Andrew MacLaren, Michael Forstner, & Shawn McCraken
Biology, Texas State University

Automated Detection of Rare and Endangered Anurans by Digital Analysis of Remote Audio Logger Recordings

ABSTRACT

Research question:
Can audio recognition software be used to create an effective tool to search large amounts of audio data for the unique vocalizations of the Houston Toad, and if so can the methodology by which that tool is produced and optimized be used to produce recognition tools for other species? How does this artificial recognition tool perform compared to a researcher manually detecting vocalizations, and does that difference vary from species to species? Can tools for recognizing the vocalizations of anurans produce data capable of illustrating the seasonal cadence and distribution of a species? If all of the above are possible, is automated detection an effective method for monitoring the breeding activity of a population of anurans?

Methods:
I placed SongMeters (Wildlife Acoustics) are placed adjacent to potential breeding ponds within the critical habitat of the Houston toad. Each SongMeter records 10 minutes of audio each hour for 12 hours (6pm-6am) every night during breeding season (January-June) resulting in ~22,000 minutes of audio from each pond per season. I used SongScope (Wildlife Acoustics) to generate recognizers, then use them to search large amounts of audio data for the vocalization of interest. To optimize these recognizers I repeatedly test them against 120 minutes of audio, which contains a known number of vocalizations within it. A recognizer is optimized when false positives (recognizer selects audio NOT containing correct species) and false negatives (recognizer fails to recognize a known vocalization of interest) have both reached zero. In other words, the recognizer has detected 100% of the known vocalizations within those 120 minutes of audio data.

To test whether 100% detection capability is true for all sample sizes, I used the optimized recognizer to analyze one complete season of activity at one pond (~22,000 minutes). An independent researcher also manually searches the same data and records the number of vocalizations heard. The measure of human detected vocalizations versus automated detections of vocalizations provides recognizer efficacy on a seasonal scale.

When SongScope is used with an optimized recognizer it can determine how many vocalizations were made at each pond per night. Seasonal cadence and distribution as determined by digital analysis is illustrated by graphically depicting number of vocalizations detected for each night that SongMeters are deployed.
**Preliminary Results:** Progress on this project demonstrates that optimization of recognizers via the above methodology is possible. Previously collected recordings have provided an abundance of data (~13TB) from which five recognizers have been built with the goal of optimization to 100% efficacy. The recognizers detect vocalizations of the Houston Toad (*Bufo houstonensis*), the Gulf Coast Toad (*Bufo valliceps*), the Green Tree Frog (*Hyla cinerea*), the Grey Tree Frog (*Hyla versicolor*), and the Southern Leopard Frog (*Rana sphenocaphala*).
Jose Martinez
Modern Languages, Texas State University

Mexico's National corruption

ABSTRACT

José Joaquín Fernández de Lizardi was an important figure not only for his contribution to the literary realm but he also influenced the readers, even today his themes are relevant. In the first decades of the nineteenth century the political situation in Mexico was unstable and the identity of the new Mexican people was being developed. Lizardi took the responsibility of opening the eyes of a corrupt society, specifically bourgeois society. A country and a history marked by the Aztec empire and the arrival of the Spaniards who settled New Spain in the Americas. Two different cultures came together to create a nation. The traditions and customs were integrated with the importance of power and image. The mexican society of the XIX century becomes the result of the mixture of the two.

In 1810 the War of Independence against Spain is declared, three years later victory is confirmed. Independence was positive sign but it also established a new beginning, the birth of a nation that had much to develop. In the years that followed the independence, the young nation was in the midst of transition from a Spanish colony to independent nation. Lizardi impacts Mexican society through his thoughts, his published works reflects the corruption of the society of his time. Lizardi defines poverty that existed, not only financially but in reference to ignorance, pride and lack of morals that prevented the progress of the nation.
Edith McCoy, Curriculum and Instruction, Danny McCoy, Education Administration
Texas State University

How one Comes to be Who They Are: An Interactive Qualitative Analysis of The Life Experience

ABSTRACT

Problem
The textbooks provided a laundry list of different causes of a good or bad life…why people had easy or hard lives. The experts all have different terms for the same thing. Many argue that they knew the cause and that all society had to do was fix that one problem. Most argue a one-to-one causation. For example, a better education would lead to a better life. Researchers have all developed a list of causes and the lists overlap. Most talk about one end of a range examining things such as bad healthcare. Bad healthcare leads to poor quality of life, they argue, implying that good healthcare would lead to a good life. It is reasonable that even with good healthcare one can experience a poor quality life.

This study seeks to identify the elements that make up the Life Experience and how the elements relate in a system of influence. This study seeks to better understand the phenomenon and provide a theory for identifying solutions. This study seeks to pull together the many laundry lists of causes provided by others, ground the results by the constituents who live the experience and build a system of influence to describe the life experience.

Methodology
Interactive Qualitative Analysis (IQA) is the method used in this study. Developed by Northcutt and McCoy at The University of Texas and published in their book, Interactive Qualitative Analysis: A Systems Method for Qualitative Research, IQA is a systems approach to qualitative research, seeking to advance upon phenomenology and grounded theory. Where grounded theory falls short, IQA picks up with systematic, protocol driven procedures and the ability to draw a system of influence. IQA utilizes protocols to develop research design, identify themes and draw systems.

IQA seeks to examine all of the factors that make up a particular phenomenon and how they all relate to each other is a system of influence. IQA takes into account valence, or the continuum of positive to negative, of elements within the system. Where one lives, how much money one has and how much education are just a few factors that affect the quality of life. Any of these factors can be positive or negative on a continuum. Some people have quality lives even with negative aspects of a particular element. IQA allows us to build a system to explain how this works. Identifying the factors of quality of life and how they relate to each other will help in developing a plan for a better life.
Results
Readers of this study will take away a tool for better research. Other researchers will use the system and interview protocol/survey to make comparisons of different sub-constituencies. The system will be used as a discussion tool to identify where things may go wrong in people’s lives and how those things may be overcome. The system will allow others to look at the phenomenon through all of its parts rather than a one-to-one causation.
Monica Medel, Yongmei Lu  
Geography, Texas State University

Predicting Illegal Drug Cultivation in Mexico: An Examination of the Environmental and Human Factors

ABSTRACT

RESEARCH QUESTION

Patterns of illegal narcotics cultivation and distribution are understudied. Despite the abundance of academic work on drug policy, drugs and their economics, and the socioeconomic impact of drug cultivation on communities, there is a shortage of papers attempting to discern the distribution of illegal crops grown in outdoor locations. Among the existing studies attempting to estimate the prevalence of such crops, imagery and remote sensing data are normally used; the accuracy of their results varies depending on the image resolution. A few studies used neural networks and GPS recorded cultivation locations as input to predict crop locations, but none were conducted for Latin American countries, which serve as the major supply for drugs in the U.S. Mexico has a system that reports drug crop eradications as aggregating data to the country’s smallest administrative unit, municipality. This study investigates the question – where are the major places growing illicit drug crops in Mexico? It aims to develop a model to predict the spatial patterns of Mexican drug cultivation by considering environmental and human factors.

METHODOLOGY

This study attempts to predict areas of illicit cultivation of marijuana and opium poppy in Mexico. The eradication data of 2009 and 2010 on the municipality level were obtained using a Freedom of Information request and are used as a proxy to represent cultivation activities in Mexico. The spatial unit of the study is municipality. Species Distribution Model is commonly used in ecological studies to relate plant growth to environmental factors such as temperature, precipitation, slope, aspect, and sometimes elevation. But because these drug crops are illegal, their growth is related to specific human factors allowing them to thrive. The measurements for both environmental and human variables were derived for municipality level. Environmental variables include ranges of temperature and precipitation, besides slope and elevation, while human variables are proximity to roads, population density, police density, presence of other drug crops in the same area, land use (presence of forest), the prevalence and density of drug-related killings, and the magnitude of illicit-crop eradication by the armed forces in the same area in the previous year. Both global and local models were used to discern the determinants of marijuana and opium cultivation at Mexico’s municipality level.
RESULTS

Geographic Weighted Regression (GWR) proved a better fit than Ordinary Least Square (OLS) regression for predicting illicit cultivation in Mexico. We determined that the growth of illicit crops in Mexico is positively and significantly related to factors related to the easiness of starting illicit cultivation, the presence and effectiveness of law enforcement, and the magnitude of drug activities. Non-stationarity and spatial autocorrelation were issues that arose, but can be partially explained by the power of different drug cartels and their access to new technologies that are transforming narcotics cultivation in Mexico.
Evaluating the Undergraduate Instructional Assistant Training Program

ABSTRACT

Problem

In the 1980s, universities, especially those with graduate programs, began to introduce the use of teaching assistants (TAs), who are graduate students, in order to enhance undergraduate education. However, the use of undergraduate TAs is uncommon at the collegiate level, since these students are working on their first degree. The responsibilities of TAs can range from grading papers, leading recitation or discussion sessions, to teaching their own courses. Since TAs usually work with lower division courses, students may have a significant portion of their introductory courses lead by a TA. Research has shown that TAs can positively or negatively affect a student’s interest in pursuing a science major, so TA preparation is especially important.

In the Mathematics Department at Texas State University, both undergraduate and graduate students can serve as TAs. The undergraduates are given the title of Undergraduate Instructional Assistant (UIA) since they are unable to teach their own classes. Their responsibilities are restricted to leading the lab (or recitation session) portion of the Calculus sequence (Precalculus, Calculus I, Calculus II). In the fall of 2014, the UIA Training Program was established to serve as professional development for undergraduate students who have been hired as UIAs. The program consists of a 4-hour workshop at the beginning of the semester and three monthly one-hour seminars throughout the semester.

The goal for this study is to evaluate the UIA Training Program.

Methodology

Data will be collected from surveys, forum prompts, observations, and student ratings. A pre-workshop survey was given to all the participants to gauge UIA self-efficacy in regards to their pedagogical ability. Between seminars, participants are asked to respond to open-ended forum prompts, regarding their own teaching strategies, effective or not, their observation of the strategies of experienced TAs, as well as their developing teaching philosophy. Program facilitators will observe the TAs in their recitation sessions using an observation rubric to assess their implementation of learner-centered teaching strategies. At the end of the semester, the students enrolled in the recitation session will evaluate their UIAs performance as part of Mathematics Department protocol. For participants with prior UIA experience, the evaluations will be compared to previous semesters. For inexperienced
UIAs, their scores will be compared to aggregate data regarding first semester responses from other first-semester UIAs who had worked in the department in previous years.

Preliminary Results

There are nine UIA participating in the study, and of them, three have prior experiences as UIAs in the department. All but one have had prior teaching or tutoring experience, and four have had some level of professional development. Collect of data is currently ongoing. Results from the self-efficacy survey and forum responses will be discussed, and other preliminary data will be presented.

Data from the study can help with development of similar training programs. The study aims to inform about the needs of undergraduate teaching assistants and provide guidelines and possible outcomes for future professional development.
Identifying Ecological Correlates of Hantavirus Prevalence in Small Mammal Assemblages Worldwide

ABSTRACT

Zoonotic pathogens are the dominant cause of novel and reemerging infectious diseases. Hantaviruses (family Bunyaviridae) and their associated human diseases occur globally and differ according to their geographic distribution and type of illness exhibited in humans. Prevention of these diseases requires surveillance of seroprevalence in animal populations. Hantaviruses occur in close association with particular rodent and shrew reservoir hosts. Small mammal assemblage structure and species richness are suggested as strong drivers for the maintenance and spread of hantavirus infections. Dominance indices of competent hosts and assemblage characteristics may predict disease risk. We gathered abundance distributions from peer-reviewed literature reporting assemblages where individuals have been tested for hantavirus antibodies, and report at least one seropositive individual in the assemblage. Our objectives were: first, to determine the ecological correlates of hantavirus prevalence in small mammal assemblages by continent, hemisphere, and worldwide; second, to compare and contrast different diversity and dominance indices and the phylogenetic diversity with seroprevalence; and finally, to develop a predictive model for hantavirus prevalence in small mammal assemblages using defined ecological correlates. Preliminary results suggest a relationship between the weighted site seroprevalence and the relative species abundance, observed species richness, and phylogenetic relatedness of species within the assemblage.
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Counseling, Leadership, Adult Education, School Psychology, Texas State University  

Grief Education through Art-Based Therapy Strategies  

ABSTRACT  

Problem/Research  

Grieving encompasses a series of distinctive behaviors and stages (Küebler-Ross, 1969; Worden, 2002). Bereavement facilitators should employ a flexible perspective while exploring the grieving process with clients (Doughty, 2009). The goal of the study is to document the use of art-based therapy strategies during grief therapy to assist families to cope with loss. Research questions guiding this qualitative study include: (1) What art-based therapy strategies do licensed counselors use to help grieving families cope with loss? (2) What role do the strategies play in helping the bereaved?  

Method  

The purpose of this pilot study was to learn about five counselors’ facilitating practices working with grieving families and the therapy strategies they use. Narrative was the main method for data collection and for reporting findings (Riessman, 2008). The use of narrative allowed the counselors to reflect about their professional experiences and allowed the researchers to collect these stories. The study setting was the Children’s Bereavement Center of South Texas and five licensed professional counselors working there served as the focal participants: Eimmy, Mireya, Mollie, Nora, and Tracy (all pseudonyms).  

After IRB approval data were collected during fall 2013, spring/summer 2014, through semi-structured qualitative interviews that lasted 50-minutes and a follow-up interview, field notes (Patton, 2002), and photographs (Merriam, 2009). A total of 173-photographs were taken to illustrate the work of the counselors.  

Findings  

Six therapy strategies emerged as product of data analysis.  

1. Drama therapy: Children reflect about conflicting/unresolved events with the deceased. It gives them the opportunity to change the outcome of the loss in a safe environment and role play the event until it makes sense to them.  

2. Glasswork therapy: Dialogues over the created glass art pieces clarify misconceptions among participants, reduce feelings of isolation, and normalize grief. The client is able to create something beautiful from broken pieces. A metaphor for the possibility to reconstruct one’s life.  

3. Narrative therapy: The client has the opportunity to put into words their grief experience and tell a story. Through narrative individuals describe their own experiences and communicate their views of the world. This therapy strategy allows for individual and social learning to take place.  

4. Play therapy: Respects the level of maturity of the individual by presenting developmentally appropriate therapy to helping them cope with feelings and emotions. Drawing and three-dimensional art allow adults to use visual narratives to interact with children.  

5. Sand therapy: Provides a contained world that is fully manipulated by the bereaved children. Children create a tri-dimensional narrative of the story they lived explaining the death of their relative.
6. **Visual arts therapy**: Describe memories of special moment lived with the deceased relative. Encourage the use of imagination by providing a comforting atmosphere letting children focus on pleasant memories.

Study findings will be presented using verbatim quotes from the study participants and actual photographs illustrating their work as counselors. The study contributes to the professional development of novice licensed professional counselors and the body of literature in the field of grief-therapy.

**References**


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Land-use and Land-cover Change in Dhaka City, Bangladesh: A GIS and Remote Sensing Approach

ABSTRACT

Problem or Research Question: Dhaka, the capital city of Bangladesh, is considered as the eighth largest city in the world because of its land area and high population density. The rapid change in Land-use and Land-cover (LULC) and unplanned urban expansion is receiving considerable attention from the local policy makers and international community. This study used Geographic Information System (GIS) and remote sensing techniques to examine the pattern and direction of LULC change in Dhaka metropolitan city. This research answered following four research questions: a) Which areas of Dhaka City changed in terms of urban expansion? b) Which LULC classes had the most change and to what extent? c) What is the rate of change in the study area from 1989 to 2002 and from 2002 to 2014? d) Were there any issues regarding the spatial and/or spectral resolution of Landsat imagery for the LULC changes analysis?

Methodology or Approach: This study utilized three different remotely sensed datasets in order to analyze LULC classes and their potential individually. Remotely sensed data including Landsat Thematic Mapper (TM), Enhanced Thematic Mapper plus (ETM+) and Operational Land Imager (OLI) were used to estimate the pattern and direction of the LULC change. This study used a supervised classification procedure because of its better control over the classification and error detection, and making corrections. A Post classification comparison change detection techniques was used to estimate the major change between different land classes.

Results or Preliminary results and their impact on the field: The study revealed that built-up area increased significantly from 1989 to 2014 with an annual expansion of 81.54%. This analysis also quantified that this significant growth of built-up areas in the study area resulted from the substantial decrease of vegetation cover and potential agricultural land. It was apparent that 87.77% of the significant change occurred in agricultural land over the study period. Results drawn from this research should contribute to the update of LULC information, forecasting possible future LULC change and ensuring the sustainable development of the city.
Chiradeep Sen, Mechanical Engineering, Oregon State University, Alolika Mukhopadhyay, Engineering Technology, Texas State University, John Fields, Mechanical Engineering, Oregon State University, & Farhad Ameri, Engineering Technology, Texas State University

An Using a Form-Neutral Representation Approach for Measuring Information Content of Textual Engineering Requirements

ABSTRACT
This paper demonstrates a generic approach for measuring the information content of artifacts produced and used in early stages of mechanical design. Engineering design requirements are selected for information content analysis for illustration. In this method, requirements in natural language are translated to an Entity-Relation-Attribute-Value (ERAV) model composed of well-defined elements. A protocol for this translation is proposed and validated. Four different metrics, based on raw element count, count weighted by arbitrary ordinal scale, count weighted by node cardinality, and Shannon’s entropy are then applied to the ERAV model for measuring information content. The method proposed is generic enough to be applied to most design documents that use natural language as the knowledge representation formalism.
ABSTRACT
Problem or research question in relation to existing research
Among the many avenues the United States’ military explored to combat the spread of venereal disease, the most controversial and least known was the employment of sex workers. Although scholars analyze policies concerning venereal disease and sex work, including in the United State during World War II, few compare the various ways the United States military executed its policy within different parts of the world and none evaluate this policy in Liberia where Anglo-Americans were a minority.
Methodology or approach
I use the work of previous scholars, most notably Marilyn Hegarty in the United States and Beth Bailey and David Farber in Hawaii, to establish a basis for comparison of race and gender in Liberia, the focus of my research. I analyze the discourse and practice of venereal disease control in Liberia through reports, letters, and other military documents from the Office of the Surgeon General and the War Department; personal memoirs, published interviews, and photographs from personnel stationed in Liberia; state documents and personal papers related to Franklin D. Roosevelt's diplomacy with Liberia before and during the war; and a number of Anglo-American, African-American, Liberian, and African newspapers round out my analysis. I determine how the United States military constructed race and gender in Liberia where Anglo-Americans were a minority and African-American soldiers and nurses occupied an unclear status between Anglo-American officers and the Liberian militia and sex workers.

Results or expected results and their impact on the field
While harsher restrictions developed in the continental United States, restrictions lessened the further removed from the fledgling empire the military spread. A long tradition of sex work in Hawaii was industrialized under martial law through the management of the red light district. In the de facto colony of Liberia, the military facilitated sex work through the creation of women’s camps as a deterrent for journeys into the hinterland. While officially upholding miscegenation laws, in Liberia, the army turned a blind eye to Anglo-American men’s sexual activity yet enforced segregation regarding African-Americans sexuality which upheld the United States perception of African-Americans as hypersexual. Officially the United States criminalized sex work, yet continued to utilize it as a means of venereal disease control and regardless of a woman’s race the army continued to control her labor for its own use. Despite its location, the venereal disease policy reflected a racially segregated United States that devalued many women’s contributions to the war effort.
Dennys Obregon
Modern Languages, Texas State University

The Indigenous Exaltation in El Zarco

ABSTRACT
Ignacio Manuel Altamirano’s El Zarco is a work that has caused debates revolving around the male figure, particularly the indigenous man and his role in Mexican society, since its publication in 1901. This novel presents a character scorned and humiliated by his physical appearance but as the reader will discover, physical features do not determine the intellectual capacity of a human being.

Through this didactic work, Altamirano awakens the critical spirit in the reader and reveals the moral qualities of the indigenous man. The following study: “La sublimación del indígena en El Zarco”, which roughly translates to “The indigenous exaltation in El Zarco” attempts to demonstrate that the main character, Nicolás, is a symbol of courage, rebellion and honest work. Thus, stereotypes associated with indigenous people as incompetent and ignorant are thwarted in the work of the Mexican writer.

In short, there is a strong link established between Altamirano and literature. He gives a voice to the indigenous population of Mexico to combat all irrationality, cowardice, and ignorance directed towards them.
Using a Habitat Suitability Model to Aid in the Conservation Management of the Texas tortoise, *Gopherus berlandieri*

**ABSTRACT**

**Problem or research question in relation to existing research:**

The Texas tortoise, *Gopherus berlandieri*, is a threatened species in the state of Texas and strict conservation action is required to ensure that population loss does not occur. The historical range of the Texas tortoise, *Gopherus berlandieri*, includes a much larger area than observations from the last 30 years suggest. This is particularly true when examining the eastern portion of the tortoise’s historical range. Surveys in these counties will provide contemporary presence observations for Texas tortoises in its historical range to aid in the development of a statewide habitat suitability model, focusing on the eastern region.

**Methodology or approach:**

We used ArcGIS (v 10.2) and MaxEnt (v 3.3.3k) to model the suitable habitats, using environmental layers known to influence the presence of the Texas tortoise. To validate habitat suitability, as well as to refine the model by adding new observation points, we also conducted road surveys in the poorly known eastern range of the Texas tortoise beginning in March, which we will continue until October of this year. Further model development was then carried out using the presence data obtained through these surveys.

**Results or expected results and their impact on the field:**

My expected outcome is a habitat suitability model that extends throughout the historical range and takes into account recent anthropogenic effects on the ecosystems there. I will most likely see areas of high suitability in South Texas with varying degrees of suitability in the counties to the north and east. Assessing the current habitat suitability of the eastern historical range of the species, and determining whether this region does still support the species, will aid in conservation and management planning; specifically, in the delineation of areas where active management of the Texas tortoise should be carried out.
Ashley Ragan, Nathaniel Smith, Charlotte Singleton, Diandra Marquez, Cheyenne Meyer
Mass Communication, Texas State University

News Gathering and Interaction Patterns among College Students through Social Media

ABSTRACT
This research study is designed to examine the relationship between college students and the different ways they utilize social media tools to access contemporary news stories and share them with others. In addition to determining the social media news consumption habits among college students, the study will also identify their perception of news credibility after accessing social media sites.

Studies have been performed on the topic of news within social media in the past. Brian E. Weeks and R. Lance Holbert in particular did so in 2013. The study was done over the topic of reception, “friending,” and partisanship of news sites through social media. They explained how news use has accelerated over 50% within social media since 2009. Their study proved that reception and friending is directly related to dissemination using social media as the vehicle. The expected outcome of this research is that college students receive the majority of their news through social media rather than news outlets websites or traditional media such as newspapers or television. While college students are receiving their news on a social media platform, they likely still receive it from the same organizations. For example, there is a high probability that many college students follow CNN’s social media pages; therefore while the platform they receive their news on has changed, the source of the news has not.

The main objectives of this research are:

- To identify how much college students use social media to gather news
- To describe social media news consumption habits among college students
- To identify college students’ perceptions of news credibility gathered from social media

Through the uses and gratifications theory approach, specifically focusing on the “uses” portion, this research analyzes how and why college students are using social media to satisfy their news needs. The methodology used to gather information in this study will be a focus group. A focus group of ten participants, ages 18-23, will be conducted on September 23rd. A moderator will initiate a discussion with the participants using predetermined questions. Participants will be asked specific questions regarding their perception of news credibility, which social media sites they utilize/what influenced the participants to do so, political involvement with the sites they use, and in what facets they publicly share news stories to interact with others. A focus group is the best way to obtain the research objectives due to of the conversational format that allows us to both build a rapport with our participants and collect in-depth information regarding a subject they find familiar. As social media continues to grow in prominence and popularity, the research conducted will be a vital tool enabling news corporations to view our findings and maximize their efforts to push news out through social media sites. Our findings will also
aid companies who are trying to reach a target market of college-aged people by discovering what channels and methods are optimal to reach this group with a product or service.
Functional characterization of the PIC30 Homolog (PIC30H) in Arabidopsis

ABSTRACT

Auxin is one of the most important class of hormones that regulate growth and development in plants. Through a genetic screen, we earlier isolated Arabidopsis pic30-3 mutant that was resistant to synthetic auxin analog picloram and found that PIC30 is a membrane protein. Arabidopsis genome contains a homolog of PIC30 (PIC30H). We hypothesized that PIC30H may also have the same functions as PIC30. To test this hypothesis, we cloned Arabidopsis PIC30H and overexpressed in pic30-3 mutant background. Preliminary results indicate that PIC30H does not complement picloram resistant primary root growth of pic30-3, suggesting a functional difference between PIC30 and PIC30H despite their sequence homology. In-silico data suggest that PIC30H consist of 10 putative transmembrane domains. Transient expression of PIC30H in Nicotiana benthamiana revealed that PIC30H is mainly localized to the plasmamembrane. Histochemical GUS staining using PIC30H-GUS reveals that PIC30H is expressed in the lateral roots, root shoot junction and shoot tip. Complementation studies using nitrate deficient Hansenula polymorpha mutant suggests that PIC30H has the ability to transport NO₃⁻. To confirm our data, we identified two Arabidopsis T-DNA insertional mutants of PIC30H. Both mutants were resistant to nitrate analog chlorate suggesting that PIC30H is involved in nitrate transport. These results indicate that PIC30H is a nitrate transporter.
Jennell Rayos, Interdisciplinary Studies, Jiyun Kang, Mira Ahn, Gwendolyn Hustvedt, Family and Consumer Sciences
Texas State University

Profiling Sustainable Consumer Leaders: Socioeconomics, Personality, Consumption Behavior, and Ethical Consciousness

ABSTRACT
Statement of the Problem and Research Purpose

To clearly identify and fully understand sustainable consumer leaders, influencers who can make a strong impact on a broad diffusion of sustainable products, their behavioral and socio-psychological characteristics need to be investigated. Therefore, the purpose of this study is to create a comprehensive profile for sustainable consumer leaders by examining their socioeconomics, personality, consumption behavior, and ethical consciousness. The contribution of this research will be helpful for educators who are interested in expanding and dispersing the concept of sustainability and other practitioners who are eager to increase the consumer demand for sustainable products.

Methods and Data Collection Procedures

A conceptual model illustrating the antecedents of sustainable consumer leaders has been developed and it will be tested using an online survey. A random sample of 400 nationwide adult consumer panels has been purchased from Qualtrics (Data Company) for the data collection. In order to maintain the protection of human participants, an IRB exemption was requested and approved. The participants are willingly to participate, by answering survey questions pertaining to their personality, general behavioral tendency as a consumer as well as attitudes and behavioral tendencies specifically related to sustainable products.

Data Analysis

The data will need to be analyzed using descriptive analysis, reliability test, regression, and cluster analysis.

Assumptions and Limitations

It is assumed that independent variables (income, education, public individuation, empathy, need for change, elaboration on potential outcomes, moral identity, environmentalism, and citizenship) directly affect the behavioral tendencies of the sustainable consumer leaders. One limitation to this research would be the possibility that respondents may give socially acceptable responses to the survey questions.
This paper, which is a part of my thesis research, informs its audience about the influence of culture on identity. My research addresses Iranian-American-Christians’ perceptions of their new identity both as Americans and as Christians. Immigration is an important topic of debate and in law making in the United States. However, little attention is given to the cultural studies of minority groups in policy making. This research will promote a better understanding of diversity and can contribute to a better understanding of culture and religion in American society. The collected data offers an insight into immigrants’ lives. The information is helpful in shaping future immigration policies for Middle Easterners as well as in addressing Middle Easterners’, and specifically Iranians’, needs and expectations in designing immigration and refugee programs.

Methodology
The methods used for data collection were direct observation and semi-structured interviews. I completed my fieldwork in a community of Iranian immigrants in central Texas. I applied direct observation, which is a qualitative method, in order to collect data on my informants’ daily activities as immigrants. During my sessions of direct observation, I recruited eleven interviewees with whom I had individual, 40---70 minute long interviews. Furthermore, I used content analysis to analyze my data.

Results
There are many aspects of culture that form one’s ethnic identity. Language, ancestry, religion and common history are some of those influential aspects. However, ethnic identity is also associated with a sense of belonging. Sense of belonging refers to identification of an individual with a specific ethnic group as well as the group’s approval of such individual’s identification. My research shows that all aspects of culture influence one’s ethnic identity, however, unless a sense of belonging has been established, identification with an ethnic group is no complete.
Meredith Reckles, Megan Edge, Celeste Domsch, Rahul Chakraborty, Maria Gonzalez
Communication Disorders, Texas State University

Linguistic Productivity, Clausal Density, & Complex Syntax Use in Expository Discourse in Bilingual Adults

ABSTRACT
Problem: Previous research on monolingual adults reported that expository tasks yield language samples with multiple relative, adverbial, and nominal clauses, indicating an increase in clausal density in comparison with other language sample genres. Expository language is often required in academic or vocational settings for adolescent and adult speakers. The present study seeks to extend the findings of previous work by examining MLU, clausal density, and the use of multiple, complex syntactic structures during an expository discourse task in adults who are bilingual in languages not previously studied, including Portuguese and Bengali. The research questions are as follows:

1. What is the average number of C-units produced by bilingual adults in response to an expository prompt?
2. What is the mean MLU of these samples?
3. What is the mean clausal density of these samples?
4. How often do participants use complex syntax in these samples, defined as adverbial, relative, nominal, infinitive, participial clauses, as well as gerunds?

Methodology: This study examined expository discourse in 12 bilingual adults ranging from 22-37 years of age. The first languages (L1) of participants included Spanish, Portuguese, French, and Bengali, and they were all fluent in English. All reported a history of typical language development and normal hearing, as well as current participation in either college/university coursework, employment, or both. Samples were collected in English by an examiner who prompted the participants to engage briefly in conversation regarding their school or work experiences, and then to describe their favorite game or sport. Samples lasted between 5-8 minutes, and concluded once the participant felt he or she had completed the task. Samples were recorded, transcribed, and segmented into C-units. The C-units were coded for the inclusion of adverbial, nominal, relative, infinitive, and participial clauses, as well as gerunds analyzed for number of C-units, MLU, clausal density, and complex syntax.

Preliminary results and their impact: Results of pilot analyses indicate that expository tasks provide opportunities for the use of complex syntax in bilingual adults, and like monolingual adults, bilingual adults demonstrate wide individual variability in their use of complex structures. The clinical implications of this study, combined with previous research by others, are several. First, expository tasks are useful for eliciting linguistic productivity and the use of complex syntactic structures. Second, adults who are bilingual with English as their L2 provide English samples that are meaningful and sophisticated. Future work could include comparing the results from bilingual adults to monolingual adults, though a deficit-perspective on analysis would not be of either research or clinical utility. Third, individual variability is to be expected.
Robby Sanchez  
Sociology, Texas State University  

New University Males and Ideas of Masculinity  

ABSTRACT  
Research question:  
How do new university males view and develop their ideas of masculinity?  

Methodology or approach:  
1. In this study, I examine the ideas university male students have about masculinity. I will conduct 15-30 personal in-depth interviews with Texas State University students to understand their ideas of masculinity and how they form those ideas. Participants for this study will include English-speaking Texas State University students over the age of 18 who are male.  

2. The researcher will visit introductory sociology classes with the permission of instructors and give a brief description of the research project. The researcher will hand out flyers with contact information and more information to interested students. Interested students will contact the researcher directly. During these initial talks, the researcher will explain the purpose of the study, including how the researcher will handle issues of confidentiality, and ask the male students to participate in the study.  

The researcher will schedule interviews for students who agree to participate in the study. At this time, the researcher will provide a consent form that details the parameters of participation in the study. The consent form will also ask for permission to audio-record each interview. After explaining the information in the consent form, the participants and the researcher will each sign two copies of the consent form. One copy will remain with the researcher and the other will be given to the participants. Participants will volunteer their time for these interviews. The researcher will not offer/provide the participants any rewards/incentives such as extra credit for the class/course from which the participants were recruited, or any monetary rewards.  

Expected Impact:  
This study will give us some insight into the experiences and realities of new, male university students. While the results may be useful in developing new programming for this demographic, results could also help us view students through a different lense/perspective.
Andrew Santana, Michael Bell, & Matt Light
Psychological Research, Texas State University

The Relationship between Religious Beliefs and Perspectives on Evolution with Responses to Texas’ Standardized STAAR Test: A Look Into Knowledge of and Agreement with Evolutionary Processes

ABSTRACT
Problem:
The understanding of evolution is essential within high school science classes. However, evolution is perceived by some individuals as inherently incorrect on the basis of their own religious beliefs and, in certain areas of the U.S., has been argued as non-essential within the curriculum of public education. This current study attempted to understand if response to knowledge and agreement with evolution would change if certain words were altered within the presentation of information and questions within the survey. Researchers were also interested in how a person’s religious background, perspective toward evolution, agreement with tenants of evolution, as well as educational background in biology would relate to their knowledge of evolution.

Methodology:
The survey consisted of demographic questions related to race, ethnicity, age, gender, and religious beliefs. Along with this, 10 multiple choice questions from the biology portion of Texas’ 2013 standardized STAAR test that pertained to evolution. Using a modified Likert scale, the participants were asked their level of agreement to concepts involved in the process of evolution. These statements were derived from the Texas Board of Education’s standards required for the science curriculum of high schools across Texas. In order to assess their overall perspective on evolution, a question asking whether there view on evolution was one of the following: static (no evolution); caused by divine intervention; the result of natural selection. This question was taken from a Pew poll conducted in 2013 and utilized two different question formats, either presenting “animals and other living things…” or “humans and other living things…” at the beginning of the question. Along with this, participants were given either a survey that used the word “evolution” or a survey that used the words “change over time,” which occurred only in the 10 questions assessing knowledge and the 5 questions assessing agreement. The overall design was a 2x2 factorial between-subjects study, in respect to the alteration of word “evolution” and the question assessing the perspective on evolution.

Results:
Analyzing the data from 201 Texas State University students showed that altering the word “evolution” had no effect on responses. However, it was found that religious beliefs significantly influenced perspective of evolution, and that a person’s perspective of evolution directly influences both knowledge and agreement with evolutionary processes. Along with this, having a previous course in biology was also known to positively influence the knowledge, but not the agreement with evolution. There was also a significant positive correlation between knowledge and agreement with evolution. What these results
reveal is that both a person’s religious beliefs and their perspective on evolution are resilient when it comes to their knowledge and agreement with evolution, but that a person’s perspective on evolution directly influences what one knows about evolution and their level of agreement. Along with this, the results indicate that educating individuals about evolution, such as would be experienced in a biology course, will positively influence their knowledge, but not agreement with evolution.
ABSTRACT
"Talk Math 2 Me" is a casual weekly seminar that provides undergraduate students with the opportunity to present research of mathematics, mathematics history, and/or interesting math ideas to an audience of their peers. The aim of this research study is to determine how this seminar is facilitating the student presenters’ mathematical thinking and their perceptions of mathematics through case studies of selected presenters. Data will be collected from interviews with and observations of those selected presenters. A survey will be given to those students in the audience to provide information about their attitudes towards mathematics, their primary motivations for participating in the seminar. In addition, the survey will include items to assess perceived benefits of participation. The preliminary findings and possible implications to be drawn from those findings will be shared in this presentation.
Shanna D. Schultz
Communication Studies, Texas State University

“Dr. Sam Will See You Now”: Visual Argument, Ideology and Uncle Sam Depictions in Health Care Discourse

ABSTRACT

This paper analyzes two sets of depictions of Uncle Sam’s appearance in health care discourse; selections of political cartoons as well as images from Generation Opportunity’s ad campaigns against healthcare reform. Michael McGee argues that when ideology is enacted in practice, there are discursive elements that exert power and social control by their usage. These elements are labeled as “ideographs” which as a concept are intended to be “descriptive of the social human condition” (McGee, 1980). Uncle Sam is strategic, important and functions as visual argumentation. He ‘does work’ in “explaining, justifying or guiding policy in specific situations” and then relationship of the ideograph changes dependent on Uncle Sam’s position in the image itself (McGee, 1980). Understanding political cartoons are an argument is not particularly new to communication inquiry, however, there is significant room to investigate the usage of Uncle Sam in political cartooning and how his inclusion creates meta-arguments as well as exerts ideology of “Americanism” and shaping a view of how “America should be”. Edwards and Winkler’s (1997) writing on Iwo Jima cartooning, the authors argue that ideographs can exist beyond the discursive realm and that certain images can have power. They further argue that visual ideographs can appear to members of a culture with distortions, additions, omissions but for the audience to respond to the different forms, they must know and have memory of the original. For Uncle Sam, there remains cultural memory of him that enables a multiplicity of depictions of him used in modern policy discourse; of particular interest is his presence in modern healthcare debates.

This analysis will unfold in three parts: first, an overview of development towards visual ideographs; second, an understanding of how visual ideographs are constructed and applied to the depictions of Uncle Sam; and third, the implications of Uncle Sam as an ideograph, particularly in healthcare discourse. Utilizing a diachronic analysis to map the cultural American memory of Uncle Sam at the intersection of a synchronic analysis of modern healthcare discourse, the analysis reveals two ideographs at play: capitalism and patriotism. These ideographs are important because his usage in healthcare discourse plays integral roles in shaping public argument regarding transformative healthcare reform. Problematically, healthcare reform has yet to meet some of the core needs and demands of the American people. Understanding how Uncle Sam’s use in visual argument molded many of the national arguments made against the ACA revealed at least two of the hegemonic ideologies at work preventing major status quo shifts: capitalism and patriotism. Healthcare discourse remains present in policy making but the opportunity to challenge and
innovate new healthcare measures comes from a critical perspective in understanding where primary arguments are revealed to the general population.

City Year’s Relationships and Team Practices in the Discourse of School Dropout Prevention

ABSTRACT
Problem and Research Question
City Year is an AmeriCorps not-for-profit organization committed to increasing the graduation rates of high-risk students. City Year assigns volunteer teams to high-needs schools and attempts to provide support for students.

My research will focus on beliefs, traditions, customs, and rituals of City Year volunteers on the individual and group level. Each team member brings their individual practices previously molded by their culture and personal history. In addition, the national City Year organization promotes its own practices and its local San Antonio branch may have its own tradition of interpretation and practice.

With this background in mind, I intend to investigate possible answers to the question: How do volunteers within a City Year team create, maintain, transform, and express their individual and group practices regarding high-risk students, teachers, and parents in the discourse of dropout prevention?

Methodology
The bulk of the existing research on the factors of dropout prevention is overwhelmingly quantitative. Little anthropological qualitative research has been done.

To collect ethnographic data, I intend to spend a substantial amount of time in the 2014-2015 academic year observing the members of several San Antonio City Year teams. The perspectives of the team members will be documented through semi-structured interviews and surveys. In this paper, I will examine the issues in the relationships between City Year, their volunteers, the teachers, and the schools. I hope that the results of the larger study will provide information that will help schools better serve high-needs students.
Thomas Sievers, Mira Ahn, Jiyun Kang, & Gwendolyn Hustvedt
Family and Consumer Sciences, Texas State University

Understanding the Importance of Urban Parks and Greenery as Coping Mechanisms for Climate Change: A Study of Low-Income Hispanics in Texas and California

ABSTRACT
Problem and Research Questions
Research of satisfaction and happiness has demonstrated that a stable income and comfortable climates are two significant drivers of human well-being. The current research is concerned with low-income Hispanics due to the pressures caused by socio-economic barriers, which hastens their ability to cope with adverse weather conditions. Further stresses were found to arise out of the urban environment in the form of urban heat islands as well. Research in this area suggests that urban greening may be a sustainable alternative to reducing heat within cities and reducing air conditioning dependence.

The purpose of this study is to investigate the perceptions and behaviors of low-income Hispanic families in hot and dry climates and to explore the significance of green-spaces and urban parks as adaptive strategies to climate change. This research aims to investigate the stress levels of respondents to heat and to the experience of ‘going to the park’. Also, it investigates the perceptions and level of satisfaction that respondents feel towards their park visits and explores the influence of income on resiliency to heat.

To help answer these questions the following hypotheses were developed:
H1. Low-income Hispanic families will use parks more frequently due to the costs of running air conditioning
H2. Low-income Hispanic families will experience more stress than higher income families under extreme weather conditions.
H3. The perceptions and levels of satisfaction towards outdoor amenities held by low-income Hispanic families will generally be more critical of the amenities.
H4. There will be a lower degree of coping ability among low-income Hispanic families as compared to higher income.
H5. Overall, low-income Hispanics will reflect less resilience to heat than others.

Methodology
An online survey was created after three focus group sessions and distributed among a sample of 400 Hispanic residents in both California and Texas via a reputable market research company. The survey is composed of questions regarding behavior, perception, stress, and satisfaction. For data analysis, descriptive statistics and t-tests will be mainly used. Also, a coefficient index will be calculated to derive the levels of stress or satisfaction through the zip codes. These indexes will be presented through the Geographic Information Systems (GIS).

Expected Results and Implications
The survey is currently active, however, the results are expected to support previous hypotheses, showing a population stressed by the lack of effective coping mechanisms to heat. Such research will contribute to how we understand physical and subjective pressures affecting communities in two ways. First, it will help to uncover inconsistencies and gaps in
public policies surrounding the types of parks that are created, where the parks are located, the features they exhibit, and the degree to which cities are committed to urban greening. And, secondly, patterns of usage among residents may be better understood so that equal and affective access is provided for residents of cities.
Cesar S. Silva  
Modern Languages, Texas State University  

The development of poetic in/justice in the “comedia” of the Spanish Golden Age:  
*Fuenteovejuna* (1619) Felix Lope de Vega y Carpio (1562-1635)  

**ABSTRACT**  
The Spanish Golden Age was a period of flourishing of the arts and literature in Spain, which lasted from approximately 1550-1650. During this time, there were a large number of works presented in the literature questioning the rules and norms of society imposed by those who ruled. Many would say that the work that best exemplified this mindset was, *Fuenteovejuna*, written by Felix Lope de Vega y Carpio. The Spanish Golden Age literature, more specifically the “comedia”, commonly exposed a society where the social norm code known as poetic justice, presided over the majority of the themes of the literature. In 17th century Spain, regulatory structures, i.e., the old institutions --- including the Catholic Church, the monarchy and aristocratic class. Deep in the mindset of these institutions existed a regulatory belief that encouraged and promoted a thought defined as, “the level of lineage and social class affect the honor or lack of honor for the masses.” The “comedia o tragicomedia” of the Spanish Golden Age emphasized the moral purpose, which was the ideal scenery for Lope de Vega said to utilize poetic justice as a teaching mode for the audiences of his time. The purpose of his teachings was to expose and put on display the examples of social injustice throughout the entire history of Fuente Ovejuna for all the people of his time to see, more specifically, the masses of the lower class. Lope de Vega aimed to show that honor could be obtained through divine justice and virtuous actions, and was not a predetermined and set situation based on your financial reality. Our author explored the contradictions within Spanish society, which for him were impediments to the coexistence of the social classes. I propose to show that in order for the townspeople of Fuenteovejuna to truly attain poetic justice it would have to be through equitable and just punishment of the commander of Fuenteovejuna, Fernán Gómez de Guzmán. This justice can also be attained with through the marriage of the villagers Frondoso and Laurencia. Finally, it can also be seen when the Catholic King and Queen, Isabel and Fernando, forgave all the villagers and accepted them as loyal subjects of their crown.
Xi Tang, David Donnelly
Physics, Texas State University

Rasch Analysis of Student Responses to the Colorado Learning Attitudes about Science Survey

ABSTRACT
Research Question

Students’ understanding of and attitudes toward Physics will affect the quality of their Physics learning. Education study on this facet is very necessary. In 2005, the researchers from the University of Colorado designed The Colorado Learning Attitudes about Science Survey (CLASS). Today, this survey is regarded as a reliable tool to evaluate students’ attitudes toward Physics. We think the statistical analysis that is currently applied on the data collected by CLASS is not sufficient. With the Rasch Model, more information might be derived from the same data. The Rasch Model has an outstanding feature, that is, it is the only readily accessible tool that can be used to construct an objective scale in human science at present. We are wondering whether the Rasch Model is applicable on the data collected by CLASS, and what new information of students’ attitude toward Physics it can bring us.

Methodology/Approach

CLASS data were collected over three semesters during 2010-2014. Students in 25 different sections of two basic undergraduate physics classes were administered the survey and 1,037 student responses were received. We will use the software --“WINSTEPS”-- to apply the Rasch Model on those data.

Expected results and their impact on the field

If the Rasch Model works well on CLASS data, then we find a new approach to analyze CLASS data. More studies on CLASS data can be conducted by using Rasch Model. So that, more and deeper knowledge on students attitudes and understanding of Physics can be revealed. At the same time, it will become another practice of the Rasch Model. It can increase our understanding of this statistic analyses tool.
Tee Tyler  
Social Work, University of Texas at Austin

A Shared Experience: The Parent and LGBTQ Child Coming Out Process

ABSTRACT

Problem or research question
Research has explored the gay/lesbian child’s coming out experience from either the parent or child’s perspective. Research examining the parent/child relationship over time, however, is limited. This paper presents a study examining relational dynamics and interactions, i.e. the space between parent and child, from both parent and child perspectives including children representing the full LGBTQ spectrum. In addition, this study seeks to broaden the lens of LGBTQ familial research by exploring how macro/societal influences, i.e. stigma and social pressure, play out within the relational process.

Methodology or approach
This study uses a grounded theory methodology and a symbolic interactionalist framework. Data collection and data analysis occurred concurrently. The researcher recruited study participants from several PFLAG support groups. Participants were parents and their adult LGBTQ children. Twenty-two in-depth, semi-structured individual interviews were conducted. The relationship between parent and child was the primary unit of analysis. Line-by-line coding (use of gerunds) and focus coding led to emergent categories. Linkages between these categories contributed to a theoretical conceptualization of the relational process. To advance rigor, the author received weekly consultation from a researcher with expertise in relationship research.

Results or preliminary results and their impact on the field
The parent/child relational process takes place in five phases that occur sequentially: out to self, out to parent, relational tension, relational adjustment, and evolving relational identity. Dyad members advance through these phases together, comprising a relational process marked by shared experiences, including some that are specific to either the parent or child. For example, the child’s level of confidence during the initial disclosure impacts the parental response. Despite relational tension after disclosure, members maintain similar communication patterns as they did before disclosure. Children look for external support via social media, while parents attempted to advocate for their children in other relationships. Going outside to connect with others assists the relational adjustment members experience in the relationship. Coming out is not a one-time event, but an ongoing way of life for both parent and their LGBTQ child. There is a shift in focus from finding a resolution to the relational process to improving the manner in which both parties disclose to others. Parents and LGBTQ children share an evolving relational identity and construct a shared narrative that shifts in response to familial life events and broader societal changes.
ABSTRACT
(a) Problem or research question
1. Was the manualized reading fluency intervention as delivered in this study sustainable over time in a public school setting?
2. Did participants in this effectiveness study show significant changes in their reading fluency while they participated in the fluency intervention?
(b) Methodology or approach
The approach to our reading fluency program is as follows. This program was conducted at one elementary school in the Austin Independent School District, and it involved a large, collaborative team. The school principal authorized the reading fluency program, and ensured that appropriate space and materials were available. Two second-grade teachers sought referrals from all teachers in the school, and screened each student referred to determine his/her starting level. A university SLP analyzed the evidence base of several commercially available programs for reading fluency, trained the reading tutors, tracked all data, and consulted with a university statistician. A parent volunteer recruited 11 other parents to serve as reading tutors, and managed the schedule. Using this approach, 25 students in grades 2-5 were served in 2012-2013 by a total of 12 volunteer reading tutors. These 25 students completed a total of 449 sessions of reading fluency treatment that lasted 30 minutes each, with an average of 17.9 sessions per student. The university SLP analyzed the scientific evidence base for three different reading fluency programs that were commercially available, and presented the data to the collaborative team. The team voted to use Read Naturally (RN; Hasbrouck, Ihnot, & Rogers, 1999), which was then implemented. Each student referred to the reading fluency program was placed in the appropriate level, and completed two treatment sessions per week with a volunteer tutor and one other student. Treatment sessions lasted 30 minutes each, and required students to read a new passage while the tutor calculated their words-correct-per-minute (WCPM). Next, students listened to the same passage being read fluently several times, and finally, students re-read the passage twice more, while WCPM was calculated again.
(d) Results or preliminary results and their impact on the field
The WCPM data for each student at each session was entered into a spreadsheet, and submitted it to the statistical consultant on campus. Results of longitudinal multilevel modeling indicated that students had made small and steady gains in reading fluency over the course of the school year (Domsch, Richels, Price, Griffin, Richmond, & Resendiz, under review), though it should be noted that only 11 of the 25 total students had enough data to be considered in the statistical analysis. Interestingly, it appeared that a minimum of 15 weeks of reading fluency treatment was required to show improvement. This suggests that a late-spring referral for reading fluency may not provide sufficient time to allow the student to improve. This program can be adapted to other schools where a collaborative team either exists or can be developed.
Psychology’s Growth: United States vs. Germany, Brazil, and China

ABSTRACT

Problem:

Many educated and developed countries conduct research in psychology, much of what is published and consequently disseminated throughout are findings from the United States. Although the United States does not entirely dominate with 70% of published research in psychology as it once did in the 1970’s, the US still produces the majority (Bauserman, 1997). The United States does not utilize the rest of the world’s psychological information, even when that information is made readily available to us by translation into our native language (Bauserman, 1997).

Previous studies have shown that the United States is the leading publishing country in the psychological sciences (Bauserman, 1997). However, the United States is no longer at the top of the list in terms of growth (Rosenzweig, 1984). In 1997, Bauserman conducted research concerning this lack of representation from countries outside of the US. My study is closely related to his when comparing the literature in the United States versus countries internationally. However, my study differs in number of countries investigated and particular time periods chosen.

Methodology:

The literature search was conducted using the PsychINFO database, available through the Texas State University library. This specific database is made of peer-reviewed records consisting of material from the behavioral sciences and mental health, making it a valuable resource in terms of finding exactly what the field of psychology concentrates on. I focused solely on literature published from 1980 through 2014, separated by periods of ten years.

The countries selected were the United States, Germany, Brazil, and China. From this literature, publications concerning psychological studies from individual countries were selected. Materials were collected by specifying the years for the particular decade and then entering a country’s name in the PsycINFO’s search field for TI (title) while setting the word “psychology” as the second field of search. Academic journals, books and electronic resources were all included during the data acquisition.

Results:

From the first two time periods encompassing years 1980-1989 and 1990-1999, there was a 10% decrease for the US, a 9% decrease for Brazil, a 60% decrease for Germany, and a 29% decrease for China. Comparing years 1990-1999 to years 2000-2009, all countries compared show a rise in publications; United States by 100%, Brazil by 120%, Germany by 130% and China, by 20%.

The last four years, 2010-2014 in comparison to the 2000-2009 time period yields 209 publications reported for the United States, 32 for Brazil, 5 for Germany, and 16 representing China, (reporting percentages at this point is premature because only half of the time has passed in comparison to the other time periods). This is misleading and most likely due to the time it takes to translate published findings into English. The years from 2000-2009 is the most interesting finding
and reveals that all countries excluding China have a 100% increase. Although the gap is smaller than it used to be, and the numbers of articles in other countries are rising, prominence of the United States persists.
Acoustical Analysis of a Soundscape of Captive Animals

ABSTRACT
Problem or research question

Rhinos are myopic but renowned for exquisite hearing. Like them, many creatures depend upon hearing and smell to determine their environment. Their soundscape is their landscape. Nature is dominated by biophonic and geophonic sounds quickly absorbed by soil and vegetation. Urban soundscapes exhibit vastly different physical and semantic characteristics: reflections from hard geometric surfaces, multi-path propagation and reverberation, higher sound pressure levels, and a dominance of anthropogenic noise. Noise damages humans physiologically, including reproductively, and likely injures other mammals. Rhinos vocalize sonically and infrasonically. As with a number of endangered and threatened species, they generally breed poorly in urban zoos, where infrasonic noise tends to be chronic. Biological and social factors have been studied but little attention if any has been paid to soundscape. How can we identify, measure and describe what they may hear? Do they experience elements of which humans are unaware?

Methodology or approach

This project developed a methodology to record and study the acoustic environment of the Southern White Rhinoceros (Ceratotherium simum simum) at Fossil Rim Wildlife Center, one of the few U.S. facilities to successfully breed this species in recent years. Their enclosure’s broadband infrasonic, sonic and lower ultrasonic sound metrics were recorded and measured by three sonic, one infrasonic and one geophysical seismic data acquisition system throughout a week of normal park activities. The recordings were then processed and analysed using a combination of three acoustic analysis software programs.

Results or preliminary results and their impact on the field

Few places on earth today retain purely natural soundscapes, there now being a continuum of natural to anthrophonic almost everywhere. This project revealed that Fossil Rim demonstrates a high ratio of biophony and/or geophony at most times, plus many other characteristics of a natural soundscape, yet it also shares characteristics of an anthropogenic environment with almost ever present anthropophony of varying degrees both day and night. Judging from its world renowned record in conservation, this has not prevented their breeding of many endangered species, including the Southern White Rhinoceros.
This methodology could be adapted to similarly analyse the soundscapes of a wide range of zoos and to seek correlations between particular sound metrics and the well-being of their rhinos. If correlations appear, the soundscapes of a variety of facilities could be similarly studied from the perspective of other species, according to the acoustic sensitivity of each. Future research could seek to determine whether there is a point on that continuum where the well-being of individual animals or species declines, or whether specific acoustic parameters such as the ratio of noise within the bandwidth to which that species is most sensitive plays a greater or lesser role, if any. Understanding the suitability of the soundscapes to which we expose animals, could lead to modification of the acoustic environment of zoos in the way other aspects of exhibits have been developed in recent decades.
Dmitry Kabalevsky (1904-1987): A Comprehensive Biographical Examination

ABSTRACT

Problem:

Kabalevsky was important Soviet Union composer, a political leader, and an influential music educator (both within the Soviet Union as well as internationally). From a survey of the current scholarship, he is regarded primarily as a composer of children’s music, emphasizing the latter of his three careers and these sources often utilize a music-educational or pedagogical approach when discussing his compositions. Additionally, at the current time, not a single book exists in the English language dedicated in its entirety to this composer: incorporating his careers, the context of the socio-political climate of the time period and his compositional works. Among the majority of scholarship that does exist on Kabalevsky, typically dating back thirty to fifty years, these sources consist of short biographical sketches, and extremely light, stylistic analytical overviews, including only his largest pieces.

Approach:

In light of the absence of significant scholarship about the composer’s biography this presentation will present a complete and unified picture of this significant composer’s life, incorporating interdisciplinary, secondary sources from the related areas of music theory, music history, and music education, as well as primary sources that include the composer own ideological writings. This presentation will provide a socio-political-historical context, a discussions of his major works, an investigation into his personal ideology on music and music composition, an examination of his music-educational philosophy, and, finally, a comprehensive stylistic survey.

Results:

The resulting presentation will deliver a comprehensive biographical examination on the life and works of this important and influential 20th Century composer, encompassing a variety of perspectives and enabling a broader vantage point not previously explored by either music historians, musicologists, or music theorists—a summation derived from a plethora of sources spanning over fifty years of scholarship and two languages (English and Russian).
Modifying the Theory of Planned Behavior with Self-Regulatory Focus: A Study Over Encouraging Water Conservation Beliefs and Intentions Among Low-Income Hispanics in the American Southwest

ABSTRACT

Problem and Research Question

In the United States, particularly in the Southwestern states such as California, Arizona, and Texas, climate change is expected to bring about severe and persistent drought conditions. Furthermore, the region’s population has grown by about 25% of the last decade, more than double the national average of 9.7%.1 The lack of an adequate and stable water supply due to climate change, coupled with a rapidly growing population, could have a dramatic effect on the resilience and stability of local communities. Since immigration from Latin America is a significant contributor to the population growth in the region, participation of the Hispanic community will be crucial to the success any water conservation efforts. Low-income Hispanics are of particular concern for this study, because they are a group that has historically had limited access to water conservation programs.

The purpose of this study is to investigate how to increase the intention to adopt water conservation behavior among low-income Hispanics. This study approaches the problem through the Theory of Planned Behavior, which states that intention to perform a behavior is the result of the subjects attitudes, subjective norms, and perceived behavioral controls about the behavior in question. The Theory of Self-Regulatory Focus, which essentially states that individuals process information with the goal of maximizing gains (promotion focus), or minimizing losses (prevention focus), is used to modify the various elements of the Theory of Planned Behavior. The following hypotheses were created for this study.

H1: Both the promotion and prevention primed water conservation attitudes will differ significantly from each other, and the control prime.
H2: Both the promotion and prevention primed water conservation subjective norms will differ significantly from each other, and the control prime.
H3: Both the promotion and prevention primed water conservation perceived behavioral controls will differ significantly from each other, and the control prime.
H4: Both the promotion and prevention primed water conservation intention will differ significantly from each other, and the control prime.

Methodology

An online survey was created after three focus group sessions and distributed among a sample of 400 Hispanic residents in both California and Texas via a reputable market research company. Participants of this survey were randomly assigned to a priming event in order to induce a particular regulatory focus. They were then asked to answer a survey composed of questions about water conservation, attitudes, subjective norms, perceived behavioral controls, and intentions. For data analysis, linear regression and factorial analysis will mainly be used to interpret the results.
Expected Results and Implications

This study is exploratory in nature, and makes no specific predictions about the results. Instead, this study seeks to uncover new and potentially useful interactions between the Theory of Planned Behavior, and the Theory of Self-Regulatory Focus. Significant findings have the potential to reveal new ways of how to target water conservation beliefs, and to increase intention to conserve.
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Effects of turbidity on the antipredator response of the Barton Springs salamander to predator cues

ABSTRACT

Background: Increased turbidity resulting from anthropogenic factors such as land development and recreational use is an increasing issue for aquatic systems. Turbidity can affect the behavior of aquatic organisms by degrading visual information in their environment, which may impair an organism’s ability to appropriately detect and respond to a predator. Moreover, when faced with turbid conditions individuals may require additional sensory cues in order to effectively respond to predators.

Research Question: We wanted to determine whether there was an impact of turbidity on antipredator response in the federally endangered Barton Springs salamander, *Eurycea sosorum*, in response to predator cues of a native predator, the green sunfish (*Lepomis cyanellus*). We wanted to compare the anti-predator response to non-predator control cues from the green-throat darter (*Etheostoma lepidum)*.

Methods: We measured antipredator response of *E. sosorum* by recording change in activity, change in distance moved, and latency to respond to cues after being exposed to treatments. Cue treatments included a fully crossed design including both chemical and visual cues of the predator and non-predator across two vision levels; clear (0 NTU) and medium turbidity (~20 NTU).

Results and Impact: We found that *E. sosorum* significantly reduced activity and distance moved in response to predatory sunfish cues. We also found that *E. sosorum* significantly increased activity, increased latency to respond, and increased distance moved in turbid conditions. This study shows that *E. sosorum* has the ability to discriminate between predatory and non-predatory fish and that visual cues are not used in antipredator recognition in *E. sosorum*. This study also shows that turbidity diminishes antipredator response, which has conservation implications because reduced response may have impacts on the already imperiled *E. sosorum* population and the aquatic ecosystem as a whole.