PLEASE NOTE: CLASS WILL BEGIN AT 12:15 THIS MONDAY (I HAVE TO ATTEND A MEETING FOR THE ANTHROPOLOGY DEPARTMENT’S 8TH YEAR REVIEW)

Please note that I had to delete your bibliographies. Otherwise the file would have been huge.

PROBLEM AND LIT REVIEW STATEMENTS (in the order they were received):

1. Karen L. Ishizuka

The Cultural Legacy of the Early Asian American Movement”

Statement of Problem

Can social movements create culture? What is the role of art as a platform for protest? How personal is the political? From melting pot to multiculturalism, one of the United States’ persistent characteristics has been the disparity between the promise of the American dream and the reality that some animals are more equal than others. National concern with various manifestations of this incongruity reached a critical peak in the 1960s and 1970s when social movements on many fronts problematized issues of race, ethnicity, gender and sexual orientation like never before or since. In so doing, social movements - driven as much by the search for belonging and solidarity as for social change - developed deep emotional, relational and performative formations that outlived its issues. “Arts of Activism: The Cultural Legacy of the Early Asian American Movement” will explore the intersection between social movement and community culture. It will examine the relationship between the Asian American movement in the United States, a lesser-known but nonetheless significant component of the American New Left, and 1) the construction of culture and community, 2) the use of art in both reflecting and shaping the movement and subsequent culture/community and 3) personal identity and meaning. The study will employ autoethnographic, personal narrative and life history methods to explore the lived experience and felt quality by which cultural workers formulated and passed on a holistic yet polycultural Asian American consciousness and culture. The study will be multi-sited with research conducted in major U.S. areas in which movement activity was centered: Los Angeles, San Francisco, New York and Honolulu. The study will be contextualized by and positioned within the broad milieu of other ethnic, racial and progressive movements of the 1960s and 1970s as they created a new sense of self, community and nation that helped America, in the words of Langston Hughes, become “the land that never has been yet, and yet must be.”

Review of Literature

The study will rely on a variety of theoretical, ethnographic and methodological work in the intersections of art and culture, social movements as community culture and autoethnographic, personal narrative and life/oral history. Specifically it will build on the relatively few published materials on the Asian American movement. (Because I have not yet read all of the literature, this review is more bibliographic than analytical.)

Among the literature on the New Left in the United States there is little mention of the Asian American movement. Only recently have new works (Gosse, 2005; Pulido, 2006) acknowledged the inclusion of the Asian American movement but none yet have critically examined the impact and complexity of the early Asian American movement, much less its cultural and artistic manifestations. Note that I use the qualifier “early” to denote the focus of my study as the Asian American movement between approximately 1968 to 1980. Except for the inclusion of contextual
historical precedents and aftermath, the topic of my research is specifically focused on the years between 1968 to 1980.

There is only one single-authored book devoted to the early Asian American movement (Wei, 1993) which brought much needed attention to this overlooked topic but provoked considerable criticism regarding its accuracy, quality of interpretation and conclusions from both the academy as well as from those whose history this is. There are two other books on the early Asian American movement that are anthologies. One is focused specifically on contemporary Marxist or revolutionary analyses on the revolutionary segment of the early Asian American Movement (Ho, 2000). The other (Louie and Omatsu, 2001), also written by participants in the movement, is as wide-ranging as the Ho anthology is specialized. A salient feature of this publication is that it was a collaborative effort in the grassroots style of the early UCLA Asian American Studies Center publications, Roots: An Asian American Reader (1971) and Counterpoint: Perspectives on Asian America (1976), which were the first publications in Asian American Studies. An anthology on Asian American activism in the 1990s (Aguilar-San Juan, 1994) provides a look twenty years after the early decade of the Asian American Movement. In her introduction, Aguilar-San Juan points out that the history of Asian American activism had not been told.

The commemorative issue of Amerasia Journal, Vol. 15, No 1 (1989) was a "Salute to the 60s and 70s: Legacy of the San Francisco State Strike and contained eight memoirs and articles on the early movement. Two journal articles (Jensen and Abeyta, 1987 and Maeda, 2001) and two graduate theses (Kao, 2006 and Maeda, 2001) round out the literature on the early Asian American movement.

There are many books in Asian American Studies (eg: Espiritu, 1992; Okihiro, 1994; Omi 1994; Low, 1996; Zia, 2000; Wu, 2002; Ancheta, 2006) that examine social change, race and culture. Many shed considerable light on the early Asian American movement. One in particular is an anthology of Asian American writers but whose introduction contains one of the first, and to me, still one of the most cogent theoretical insights into the socio-political state of Asian America (Chin, Chan, Inada and Wong 1975). A memoir (Kochiyama, 2004) and biography (Fujino, 2005) on Yuri Kochiyama, the best-known Asian American activist, are particularly important for this study as she is also a part of this research study.

While the literature on the New Left overlooks the Asian American movement, it provides a critical foundation as it establishes the cultural-historical milieu for this study. The phrase is attributed to C. Wright Mills (1960) and the first wave of books were published soon after (Novack, 1961; Cohen and Hale, 1966; Oglesby, 1969; Long, 1969). A second wave of books on the 1960s appeared in the 1980s (Carson, 1981, 1995; Rothman and Lichter, 1982; Breines, 1982, 1989; Sayres, Stephanson, Aronowitz and Jameson, 1984;) Wini Breines (1988) paraphrased Marx in stating that the spectre of the 1960s haunts the 1980s and vice versa as political realities of the 1980s crushed the visions of the sixties generation. There seems to be continued interest in the 1960s if publications on the topic in the 1990s and 2000s are indicative (Burns, 1990; Anderson, 1996; Unger and Unger, 1998; Goodwin and Polletta, 2001; Goss and Moser, 2003; Goss, 2005).

Many were written by activists (Gitlin, 1987; Miller, 1987; Katsiaficas, 1987; Fraser, 1988 and Hayden, 1988). Their first person experiences provide comparative accounts for this study although it must be taken into account that most are by White males who write from own experiences. Feminist and womanist perspectives (Evans, 1980) are critical to balance inherent gender bias. Books on the civil rights movement are important and even more critical for this study as are those on the Black Power movement (Foner, 1970, 2002; Carson, 1981/1995; Jones, 1998; Cleaver and Katsiaficas, 2001) especially those from a womanist perspective (Bambara, 1970) and first person accounts (Cleaver, 1967; Brown, 1992). Literature on the
Chicano/Chicana movement (Munoz, 1989; Rosales, 1996; Martinez, 1998; Perez, 1999) and American Indian movement (Burnette and Koster, 1974; Nagel, 1996; Johnson, 1996; Warrior and Smith, 1996; Johnson, Nagel and Champagne, 1997; Josephy, 1999) including biographies and autobiographies (Crow Dog, 1990; Means, 1995) provide a broader view of other ethnic American movements and, like the Asian American movement, expand the understanding of ethnicity and race in the United States.

Of specific importance to this study are books and articles that explore the intersection of social movements, ethnic communities and artistic expression. Two recent books focus specifically on the arts, culture and creativity in social movements (Jasper, 1997; Reed, 2005). A few critical books examine literature by women (Whitehead, 1986; Ostriker, 1986; Young, 1997; Montefiore, 2004) and women of color (Fisher, 1979; Anzaldua and Moraga, 1981; Anzaldua, 1990). With specific regard to Asian Americans, there have been several books and articles on a variety of artistic mediums. Although most are not specifically on Asian American movement arts, many include work done during the 1960s and 1970s and some invoke the social and political dynamics of the era. They include theater (Chin, 1981; Uno, 1993; Yamauchi, 1994; Gotanda, 1995; Kurahashi, 1999; Uno and San Pablo Burns, 2002), music (Ho, 1999; Wang, 2001), literature (Mirikitani, 1980) There are important works on Black political art and the Black Arts movement (Bullins, 1969 and 1973; Gayle, 1971; Chapman, 1972; Van Deburg, 1992; Ho, 2006), Chicano/Chicana arts and expression (Lorde, 1984; Cockcroft and Barnet-Sanchez, 1990; Griswold del Castillo, McKenna and Yarbro-Berjarano, 1991; Chabram-Dernersesian, 1992; Gaspar de Alba, 1997 and 2003; Cantu and Najera-Ramirez, 2002) and American Indian movement arts (Singer, 2001).

2. Pari Wichianson-Santillano

Cigarette smoking is a behavior with complex social and cultural interrelationships. Research on smoking and Asian Americans have identified important socio-cultural determinants that help to better understand smoking behavior. However, there is no research on Thai Americans to date, even though the prevalence of smoking among Southeast Asian men is one of the highest in the United States (Ma et al., 2005). This study will investigate the socio-cultural influences on patterns of cigarette smoking among Thai American men in Southern California. Is smoking associated with masculinity? Is smoking viewed as a means of social interaction? Do smokers hold on to more traditional views than non-smokers? Most importantly, do these cultural beliefs act as a barrier to smoking cessation efforts? Answers to these questions will aid in the development of more culturally appropriate smoking cessation interventions that target Thai American men.

Understanding Cultural Influences on Patterns of Cigarette Smoking Among Thai American Men

This is a proposal to investigate the cultural influences on patterns of cigarette smoking among Thai American men in Southern California. It has been prepared by Pari Wichianson-Santillano, who will conduct research under the guidance of Dr. Marjorie Kagawa-Singer, chair of the author’s doctoral dissertation committee. This study will contribute to existing research on smoking among Asian Americans and will be the first study on cultural influences involving Thai American men. Findings from this study will provide a better understanding of the perceptions, knowledge, and beliefs about smoking among Thai American men, which will aid in the
development of culturally appropriate smoking cessation interventions for this population.

**Previous Research on Smoking and Asian Americans**

Asian Americans have the lowest smoking rate in the United States at 11.7% when compared to the general U.S. population rate of 21.6% (CDC 2005b). However, this percentage masks the true prevalence of smoking, since many Asian immigrants have limited English proficiency and tend not to participate in telephone surveys conducted in English. Ma et al. found that the smoking rate for Vietnamese men is 61.1% when surveys are administered in the subject’s native language (2002). English proficiency is often used as a proxy for acculturation and its relationship to smoking has been studied extensively in tobacco research on Asian Americans (Jenkins et al. 1990, Moeschberger et al. 1997, Kim et al 2000, Lew et al. 2001, Ma et al. 2002, Yu et al. 2002, Fu et al. 2003, Ma et al. 2004, Shelley et al. 2004, Maxwell, Garcia, & Berman 2005 and Hu et al. 2006). An overwhelming majority of studies have found that smokers are less acculturated than non-smokers, which suggests that acculturation is a protective factor against smoking. Findings have been inconsistent when length of time in the U.S. is used as a measure of acculturation. This is especially true for individuals who reside in ethnic enclaves (Bates et al. 1989, Klatsky & Armstrong, 1991 and Weicha et al. 1998). These individuals have limited exposure to the mainstream culture and their immediate environment is similar to that of their native country. As a result, they tend not to change their cultural beliefs irrespective of their length of stay in the U.S.

Recently, researchers have focused their efforts on identifying specific socio-cultural determinants specific to Asian American subgroups in order to better understand patterns of smoking and to design effective smoking cessation interventions. Maxwell, Garcia, and Berman found that Filipino smokers are more likely to agree that smoking is a part of social interactions, growing up, being a man, and looking mature (2007). Similar themes were identified in a study on Korean smokers, where smoking is viewed as a common thread in Korean men’s social world and a prime component of Korean men’s gender identity (Kim, Son & Nam, 2005). In the Cambodian community, smoking occurs at social gatherings, such as birthday parties, temple ceremonies, and funeral ceremonies, making it increasingly difficult for smokers to quit and for former smokers to stay smoke-free. Furthermore, Cambodian smokers are more likely to have traditional views on the medicinal properties of tobacco, where smoking is reported to reduce stress, stop bleeding from wounds and promote dental hygiene (e.g., cleaning teeth, preventing cavities, keeping teeth strong) (Friis et al., 2006). Spigner, Shigaki, and Shin-Ping report similar findings, where smoking to be sociable and smoking to alleviate stress emerged as salient themes during focus groups with Chinese and Vietnamese smokers (2005). In their study on Southeast Asian men, Chen et al. (1993) found that almost every subject (n=1553) reported having at least one “best” friend who smokes and Ma et al. (2006) found that strong cultural norms surrounding smoking among Korean Americans deter individuals from quitting for fear of social ostracism and that this fear outweighs any long term negative health effects. These findings suggest that many Asian American subgroups regard smoking as a means of social interaction and tobacco cessation efforts targeting these populations need to include coping strategies and skills for refraining from smoking in social settings.

**Knowledge regarding Smoking-related Diseases**

Since the Surgeon General's Report in 1964 linking lung cancer to cigarette smoking, numerous anti-tobacco campaigns have been developed to decrease the prevalence of smoking in the United States. However, Asian Americans are a relatively new ethnic minority group and may not have been exposed to the same health education messages aimed at the general population. Therefore, research investigating the socio-cultural determinants of smoking among Asian Americans often includes degree of knowledge about smoking-related diseases. A number of studies found that Asian American smokers have lower knowledge of the health consequences of smoking than non-smokers (Chen et al. 1993, Ma et al. 2003, Spigner, Shigaki & Shih-Ping 2005, Friis et al. 2006,
Hu et al. 2006, Chan et al. 2007, Fu et al. 2007). Maxwell, Garcia, and Berman found that while Filipino smokers were aware of the cancer-causing effects of smoking, they were significantly less likely than non-smokers to be aware of the seriousness of the problem or that smoking is a cause of heart disease (2007). Since these findings suggest that Asian Americans continue to smoke despite being aware of the cancer-causing effects of smoking, tobacco cessation efforts should emphasize less on health effects and more on socio-cultural determinants of smoking.

**Previous Research on Smoking and Thai Americans**

More Southeast Asian Americans smoke than any other ethnic group in the United States and death rates caused by tobacco-related diseases are disproportionately high in this population. In fact, lung cancer death rates among Southeast Asian men exceed those of white men by 18% (Coultas, Gong & Grad, 1994). Although Southeast Asia includes eleven mainland and island nations, previous research on Southeast Asian Americans have only included Vietnamese, Cambodian, Hmong, and Laotian Americans (Levin et al. 1988, Bates et al. 1989, Chen et al. 1993, Jenkins et al. 1995, Moeschberger et al. 1997, Weicha et al. 1998, Lafferty et al. 1999, Chen 2001, Duong et al. 2001, Xu et al. 2005 and Friis et al. 2006). Socio-cultural determinants of smoking that have been identified for Vietnamese, Cambodian, Hmong, and Laotian Americans are not generalizable to all Southeast Asian Americans.

In 2000, 112,989 individuals in the United States identified themselves as Thai alone, a 24% increase from 1990 (US Department of Justice, 2000). A recent national survey of 39,290 individuals found 45.8% of men in Thailand are smokers. Because the Thai American population is increasing at a fast pace due to immigration, the prevalence of smoking among Thai American men may reflect that of Thai men in Thailand. To date, there has been very limited health behavior research involving Thai Americans and a search for smoking-related literature on this population yields “0” results. This study will be the first to investigate socio-cultural determinants of smoking among Thai American men, which will provide a better understanding of the cultural influences on patterns of smoking behavior of this population. Findings from this study will aid in future developments of culturally appropriate smoking cessation interventions targeting Thai American men.

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3. Andrew Whittemore

**Problem**

A significant amount of literature describes smaller municipalities as homogenous places in which land use decision making is made by representative government actors on behalf of a population whose interests are finite. (Fischel, 1985; Michelman, 1967; Tiebout, 1956) Land use conflicts are consistently posed as battles between insiders and outsiders, with a resolution being a compromise between resident and development interests. (Fischel, 1985; Michelman, 1967) I hypothesize that significant diversity of opinion in regards to development exists in even small municipalities, and that land use decisions in suburban jurisdictions should not be portrayed as feuds between residents and developers. They involve struggles between residents for say as well, involving a process whereby certain civil and public actors with enough time and resources commandeer the decision making process on behalf of their community. This view of governance in American municipalities stands in contrast to dominant models and raises the question for planners of whether or not small government necessarily translates into wider participation and fair, representative outcomes.

**Literature Review**
Under the authority granted by State Zoning Enabling Acts, most American municipalities have the power to govern how property owners use their land through zoning. At worst this may represent arbitrary government intervention into the marketplace and property rights, resulting in damages to individuals and entities ranging in size up to the national level. At best it is the result of consensus among all affected constituents on how to utilize their property in a way that causes the least harm and the most benefit to neighbors. Here I have placed the analysis of land use decisions into three camps defined by theoretical approaches. Remarkably, individuals in all three camps have arrived at incredibly varied conclusions as to the real or potential effects of zoning; the value of their discussion therefore lies in their approaches. While their conclusions may reflect the particular circumstances of their time or subject, their approaches may be utilized across time and space.

The first camp is that of the neoclassical economists, likely the first to weigh in on the validity and effects of zoning in the United States. Crucial to this approach, and the most important thing to derive from it, is the idea that management of entitlements, through zoning or less formal arrangements, can have an optimal outcome based on an idea of efficiency. Efficiency is defined as that scenario producing the greatest benefit and least harm to property owners and consumers in terms of monetary wealth. A municipality may find itself in a situation of damage control, a zero sum game, or distribution of benefits, but all three have an optimal outcome that can be measured by overall utility, here defined basically as overall accumulation of wealth. Why however any community should seek such an optimal situation is not something asked by Fischel (1985, 2001), Glaeser (2005, 2006), or Ellickson (1973, 2005), at least in their most theoretical writings, simply because alternative behaviors are not considered rational. If we are to understand why communities do not reach an optimal point in which entitlements are distributed to maximize economic utility, because they hardly ever do, we should turn to other approaches.

Structuralist and post-structuralist scholars, including Popper (1981), Plotkin (1987), and Molotch (1976), are similarly concerned with the attainment of an optimal situation, but defined by the process as well as the outcome. Here egalitarian decision-making, it is assumed, goes hand in hand with an outcome of maximized benefit to all. Crucial to their critiques is the argument that decision making, at present, is biased by the interest of wealth accumulation. Some, perhaps many of the neoclassical scholars, would ask why this should not be the case. I believe many structuralists would say that it should, so long as the overall accumulation of wealth was in the interest of as many constituents as possible. This is however, in their mind, usually not a possibility. Egalitarianism in decision making can lead to growth management strategies that protect local capitalist interests against wider ones, or more importantly the numerous aspects of utility not conventionally tied into ‘exchange value,’ what structuralists call use value. This is a concept elaborated by post-structuralists who consider use value in a wider discussion of memory, spirituality, and identity.

Still another camp I have discussed here is one concerned mostly with process over outcome. These critics, who I have framed as following an “institutional model,” are concerned with to what extent the mechanisms of bureaucracy are directly tied to constituents’ wishes. Here any variety of outcomes may be desirable so long as the process involved in getting there maximized constituent participation and minimized conflict. Many theorists, namely Weber (1946), Dahl (1961), and Lindblom (1959, 1965), doubt that any bureaucratically managed situation can ever represent true democracy, but that it can at worst create a situation of corporatism or oligarchy. Authors in this camp examine individual cases, of housing construction in the Bay area (Pendall, 1999), waste management center placement in Minnesota (McAvoy, 1999), or of political participation in New Haven (Dahl, 1961), as scenarios from which readers may draw out best or worst practices in decision making. Still others suggest radical adjustments to current bureaucratic practices, suggesting it is the process rather than the actual proposal that causes conflict.
These three approaches to land use decision making incorporate the great majority of current theoretical methodology for analyzing land use decisions in the United States. I believe they exist and persist because they accurately reflect what constituents are concerned with in land use conflicts. However what may characterize the general population, and what I did not really address here, is a unity of all three approaches. Indeed, any given individual, when faced with a challenge to the current value of his or her property, may express all the concerns that the three approaches value most. Any property owner may be equally concerned with their property’s monetary value, the identity of their community, and their stake in the community, all at the same time. To the extent that this is the reality of land use decision making, I should be concerned with all three of these approaches going forward.

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4. Hanna Garth

– Cuba: Food, Health and the State

Problem Statement
Since 1962, throughout Cuba, all food collection and distribution is controlled by the Unión Nacional de Acopio, (UNA). Complaints about Cuba’s food rationing system since it was established in March 1962. What impact does centralized state control over food have on the ways in which people conceptualize food and nutrition, as well as how these are connected with their health and wellbeing? Desire for “black market food” is ever present as food shortages persist; does the consumption of black market food conjure up different affiliations of food and wellbeing? During the economic crisis of the 1990s, urban gardens were created to combat food shortages. Do those who cultivate their own food have different ideas about the impact of the food that they consume on their health and wellbeing? Are their feelings different if they conceptualize the land as their own or as belonging to the state? Does neighborhood food cultivation empower community members, build community, and bring together neighbors? Do those who cultivate foods through urban gardens feel a connection with the land, in absence of the state?

Cuban Gardens Review of the Literature

Cuban Special Period
Known as the “Special Period in Time of Peace”, with the collapse of the Soviet Bloc, the 1990s brought the worst economic crisis in Cuba since the 1959 revolution (Gaceta 1993; Messina 2004; Ritter 1990; Stricker 2007). The economy was undergoing a prolonged recession, which began in the mid-1980s (Roca 1977), and in 1986 Cuban leadership began the “process of rectification of errors and negative tendencies.” This process included centralized economic policy making and work to eliminate any existing market-oriented mechanisms (Perez-Lopez 1994). In addition to the deteriorating economic conditions, the end of the Cold War left Cuba without major allies for economic trade, from 1989 to 1992 imports were cut by 73 percent from $8.1 billion to $2.2 billion (Preeg 1993). With the drastic reduction of oil, fertilizer and pesticide imports from the Soviet Union—in addition to deceasing food imports—Fidel Castro stated in 1991: “The food question has the number one priority.” (Roca 1994) Castro considers food to be a national security issue: "Beans are more important than cannon," he told the 5th Communist Party Congress in 1997 (Snow Tuesday June 26, 2007).

Popular Gardens
One of the Cuban responses to the food shortages of the Special Period was the formalization and state regulation of urban gardening, which is still especially prominent in Havana, a city with
approximately 2.5 million people living in it. (Chaplowe 1996; Deere 1994; Koont January 2004; Murphy 1999) In 1990, over 85,000 families in Las Tunas province were growing tubers, plantains, corn and fruit, and the city of Havana was preparing over 1,700 hectares for garden plots. (ANPP 1990) By 1995, there were an estimated 26,600 garden plots throughout the Havana's 15 municipalities.

The rise of individual and community garden plots, authorized to promote self-sufficiency in food production, brought about property issues for the Cuban leadership (Roca 1994). As a result of this and other pressures, in 1993 the Cuban leadership eliminated state farms, which were extremely large, highly mechanized and input-intensive (Messina 2004) and created Basic Units of Cooperative Production (UBPCs) through the Law-Decree No. 142 (Alvarez 2004b; Gaceta 1993; Messina 2004). UBPCs have the goal of “linking man to the land, providing self-sufficiency for the workers' collective and their families through cooperative efforts and improved living conditions, achieving strict relationship between workers' earnings and production results, and achieving self-sufficiency in the productive process through management autonomy and administration resources.” UBPCs will “have the usufruct of the land for an indefinite period of time, be the owners of their production, and sell their production to the state through the enterprise or in the manner the state decides (Alvarez 2004b).” By 1995, Cuba’s 2,800 UBPCs accounted for 42% of the country's total agricultural land (Alvarez 2004a). This policy may have been very influential in Cuban citizens concepts of ownership, connection to their labor and their sense of connection to their food.

Food in Cuba Today
Nearly twenty years after the start of Cuba’s special period, while food production and availability has improved, there is still need for further improvement (Ritter 2004). In 2006 there was a seven percent drop in food production from the previous year, and in June 2007 the National Assembly gathered under Raul Castro to discuss this issue (Snow Tuesday June 26, 2007). Issues of food distribution remain, many perishable crops spoil because of scarce transportation or faulty coordination by state agencies contracted to pick them up (Granma Monday, June 25, 2007 #22). Today, more than 150,000 individual farmers and agriculture cooperatives produce two-thirds of the country's food including most of the beans, corn and root crops, one third of the rice, just under 50% of the milk and more than half of the pork, beef, goat and sheep meat products on one third of the arable land, with state farms on the remainder (Snow Tuesday June 26, 2007). Under the current system, farmers can sell any surplus at the 300 farmers markets across the island, and the state and Youth Work Army also sell vegetables at much lower prices. Today, more than 350,000 gardeners in a nation of 11.2 million people grow fruit and vegetables in and around cities, some selling produce directly to the public.

5. Michael Strickland

Over the past thirty years of reforms and development, the field of social relationships in China has been radically transformed, and nowhere has the effect been greater than among the youth generation. China's current youth generation, born in the 1980s, were the first to grow up under the new economic and social reforms, and several studies have already revealed the dramatic changes in their family relationships (Fong 2004) and romantic and sexual partnerships (Farrer 2002). But the ties that constitute the main part of most youths' social lives—friendship and peer relations—have somehow been
overlooked. The study proposed here aims to assess the changes in youths' friendships through ethnographic study of their concrete practices. How are friendships created and maintained in social interaction? To what extent do youths depend on the support and aid of their friends? What kinds of support do they offer and expect from one another, and what do these exchanges mean to them? In short, the goal of this project is to understand what roles close friendships play in the lives of young Chinese, and how such peer relationships are evolving in the face of the ongoing changes in family life, the economy, and education.

Friendship Practices in Social Change

Although friendship has never been as strong or as prominent a topic of study as other varieties of personal relations, such as kin ties or romantic partnerships, it has nevertheless accumulated a modest literature of its own.

In contrast to both family and marriage bonds, friendship has no official or legal recognition, perhaps anywhere in the developed world (Levinson 1984). Many scholars have noted that this lack of formal institutionalization gives friendship the appearance of something completely freeform, unstructured and idiosyncratic (Bell and Coleman 1999; Paine 1969:510). Yet careful research from anthropology and other social sciences has shown that friendships often follow implicit norms and expectations, and may connect to the broader scheme of social relationships (Bleizner and Adams 1992; Allan 1989; Eisenstadt and Roniger 1984; Eisenstadt 1956). Moreover, despite the fact friendship may sometimes seem as though it is a pure and “natural” type of human relationship (Paine 1969), these patterns have shown themselves to be highly variable across cultures and time (Bell and Coleman 1999). Other research has also demonstrated that within a given society, there may be distinctly different friendship practices by gender (Fehr 2004; Oliker 1989; Swain 1989), by class (Zang 2006; Walker 1995), and other divisions.

Anthropological research specific to China indicates that the state of friendship, its many practices, and the ways it compares to other varieties of close relationships have all changed over the course of the last century. Histories and ethnographies from earlier periods show that in traditional Chinese village life, friendship often preempted spousal relations in importance. Adults tended to spend much of their time with same-sex peers, and could be much more intimate with them, than with their own spouses (e.g. Fei 1992); this is, however, no longer the case, at least for China's youth generation, who have embraced Western concepts of romantic love, leading to a rearrangement of their priorities in their interpersonal relationships (Yan 2003). Friendship in China also had a complex, antagonistic relation with official state ideologies in the 20th century. During the early years of the communist regime, the revolutionary government forcefully advocated new communalist ideals, compelling many to suppress their personal friendships. In the socialist order, friendship represented a private attachment, or even personal favoritism, that was thought to conflict with the ideal of total self-dedication to the public good (Vogel 1965). But when the reform era began in the 1980s, the state of friendship in Chinese social life changed once again. In 1986, Ruan Danching found that in individuals' social networks a mere five percent of people were identified as friends, a much lower figure than in Americans' social networks (Ruan et al. 1997). But by the early 1990s, the number and proportion of friends in the average person's social network
had risen sharply. And, significantly, when broken down by age group, the largest increase was among youths.

Collectively, these cases point to some of the transformations in friendship practices in China’s modern history. In recent years, as the landscape of social relations has shifted, friendship has become a larger part of many youths social worlds. At the same time, however, its significance and position relative to other kinds of social relationships appear to be changing as well. What is needed now is a coherent, comprehensive understanding of friendship among Chinese youth and how it meshes with their other social ties, and that is what this project intends to provide.

**Styles of Exchange and Support in Friendships**

Although many have asserted that emotional attachment is the defining feature of friendship (Wolf 1969), others have insisted that instrumental or material support are equally central (Pitt-Rivers 1973; cf. Way 2004). This may be especially true in China, where friendship practices seem to place a greater emphasis on providing friends with concrete assistance when they are in need (Chen et al. 2004; Smart 1999). A key objective of the research proposed here is to examine the support shared between youth peers, and the importance it may have in their everyday lives. Developing a precise understanding of support behaviors is one of the main problems for the study of friendship in both cultural anthropology and biological anthropology (Silk 2003, 2002).

Since the 1990s, one of the most prevalent topics in the anthropology of China has been exchange in social relationships. These include, among other things, extended family ties, peer relations, and a broad order of reciprocal exchange relationships known as guanxi. By all accounts, networks of exchange relationships constitute a vital part of social life in China, and many depend on these relations simply to get by in everyday life (Gold et al. 2002; Kipnis 1997; Yan 1996; Yang 1994). Close friendship, too, is a part of these exchange networks. Yet one of the leading scholars in this specialized field, Mayfair Yang, has observed that close friendship operates by its own distinct principles (1994:120). Whereas many exchange relationships work on a logic of direct, equal reciprocity of favors, the assistance of friends is not supposed to be contingent. As previous research has suggested, friendship may differ from other kinds of personal relationships in precisely what kinds of support friends exchange, whether or not they keep accounts of the things they do for one another, and if and exactly how they repay each other later on (Clark 1981). And recently, some evidence has emerged that Chinese youth do prefer to depend on their peers and friends for certain kinds of help, rather than on others (Ye 2006). Still, a detailed account of the support behaviors between friends, and how they differ from other exchange relationships, has thus far been lacking.

**Friendships during Transitions to Adulthood**

It is common wisdom in much of the social sciences that peer relationships are especially prominent in youth (Giordano 2003; Bukowski et al. 1996; Youniss and Smollar 1985). By implication then, it is assumed that when individuals age into adulthood and their social circumstances begin to change, other relationships, like marriage and family, begin to undercut their peer connections (Laursen 1996; Condon 1987:119; Baxter and Almagor 1978; Coleman 1961:174). Ethnographic data from many parts of the world
would seem to suggest that this shift in the nature of peer relationships is commonplace, and some have proposed that it may have its underpinnings in humans' evolved psychology (Schlegel and Barry 1991). In any event, it appears that the move into adulthood is likely to have an effect on youths' peer relations. But exactly what these effects are, and how they come about, are not understood.

As youth studies researchers have pointed out, however, the transition to adulthood is a complex process and is not everywhere the same (e.g. Wyn and White 1997:94-120). For Chinese youth today, their experiences of the transition to adulthood are very different from what they were for their parents' generation, and this is bound to have implications for what role their peer relationships take on as they mature. Over the past decade, the education system has expanded enormously (Wan 2006), and thus the current generation of youth in China are likely to spend many more years in school than their parents or grandparents did (Fong 2004). Earlier scholars have consistently noted that extended education means a prolonged immersion in an environment of same-aged peers (Kett 1974; Coleman 1961; Hollingshead 1949). And even as youths are spending more time in the company of peers, they are also facing a new set of challenges unknown to previous generations, in every domain from education (Fong 2004), to the job market (Hoffman 2001). Given these trends, young Chinese are dealing with a very different and novel transition into adulthood, one that potentially opens a greater role for friend and peer relationships in their lives.

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6. Cristina Moya

While many anthropologists have devoted their careers to documenting the cross-cultural variation in social taxonomies, or to take a smaller sliver of the problem the multiple forms ethnic boundaries take, much less attention has been paid to the fact that this variation is amazingly constrained given the potentially infinite criteria for defining social category boundaries. Why do certain cues recur in multiple social taxonomies as meaningful delineators of social groups (e.g. language, geographic origin, religion, symbolic visual markers)? What type of reasoning strategies do such categories promote (e.g. are people more prone to form stereotypes about ethnic than political alliance categories)? Given this cultural variation how do children acquire the locally appropriate ethnic category concepts? Do these cognitive structures belie an evolutionary history where ethnic categories have been an important feature of human environments?

To address these questions experimental research on social cognition will complement fieldwork carried out amongst neighboring Quechua and Aymara speaking communities in Southern Peru. Multiple pre-historic, historic and contemporary migrations in the latter region have resulted in a social landscape with categories that differ in how they are bounded, defined, and marked. We can therefore look at how various features of these categories evoke inferences, and various kinds of inter-group interactions.

Theoretical background and previous research
Despite the question's centrality to the social sciences, researchers have reached no consensus regarding the defining features of ethnicity. The debate about the history of ethnic groupings and its effects on human social categorization is even greater. Early anthropologists in the culture history tradition often assumed culture areas, or ethnic units, to be trans-historically valid units of analysis to which one could unproblematically and ethically (from the outside analyst's perspective) ascribe traits (Wissler 1927). They recognized smaller tribal social groupings as the focus of group sentiment. By mid-century, such approaches were abandoned due to criticisms that ethnic categories are not primordial entities but rather dynamically shifting ones with unclear boundaries. Moerman went as far as to consider ethnicity simply an "emic (from the ingroup's perspective) category of ascription" (1965), and it has become a common belief in the social sciences that "cultural difference between two groups is not the decisive feature of ethnicity" (Eriksen 1993). Geertz's seminal paper on primordial attachments refocused the debate on people's perceptions of ethnic, religious, and linguistic social categories (1963). Echoing Weber's recognition that such group loyalties can be analyzed under the same rubric (1922) and drawing from a variety of cross-cultural examples, Geertz proposed that the perception of "given-ness," which develops from sharing a set of social practices, is the critical feature linking these phenomena. On the other hand, more recently institutionalists have questioned the trans-historical importance of ethnic groups, focusing rather on the ability of nation states to ignite ethnic loyalties in, arguably, novel ways (Wimmer 1997).

Even researchers studying the more limited world of the American racial social taxonomy in controlled laboratory settings do not agree on the implications of their findings for theories of human social cognition. Some social psychologists maintain that ethnic identity is one of few categories, including age and sex, which is automatically encoded (Taylor et. al. 1978). Additionally, developmental psychologists have recently shown that young infants are reticent to interact with strangers speaking in a foreign accent (Kinzier et. al. 2007) suggesting humans may be prone to use dialect as an ingroup marker. Meanwhile, the equally prolific minimal group tradition in psychology emphasizes the ease with which arbitrarily assigned markers in anonymous laboratory settings engender strong ingroup loyalties and favoritism in economic allocations. This suggests that there is nothing particular about the actual ethnic categories in our taxonomies, but rather that any and all social categories can serve equally well as inducers of ingroup emotional attachment (Tajfel 1982; but see Yamagishi et. al. 1999).

Evolutionary models also vary in their predictions about ethnic cognition. One prominent view is that ethnic categories are too recent cultural institutions for natural selection to have had time to respond to them (Brase 2001). On the other hand, various primates exhibit coalitionary behavior, using contingent cooperation in competition over mates or food. This has led researchers to claim that humans use the same kind of coalitionary adaptations when thinking about modern ethnic groups. Evidence that race encoding decreases in an experimental task when a coalition (basketball team) is visually marked is mustered in support of this position (Kurzban et. al. 2001). More recently however Pietraszewski et. al. show that dialect is encoded regardless of whether a coalition is marked or not (2007).

Another perspective emphasizes the importance of culture as a human adaptation. Cultural evolution would have allowed for ethnic groupings throughout much of human
evolution, making it likely that natural selection would have favored specific adaptations for distinguishing coalitional from ethnic contexts (Richerson & Boyd 2000). The current cross-cultural pervasiveness of ethnic phenomenon across varying social and subsistence systems also implies a deep evolutionary history.

Evolutionary approaches help us parse research questions along functionalist lines, for example by distinguishing between ethnic coalitions whose members cooperate to achieve common political goals, and ethnies whose members are loosely affiliated but share various cultural features. Brubaker has termed the former ethnic groups and the latter ethnic categories (2002). In this study we will only look at the latter. Although all ethnic groups are ethnic categories, the reverse is not true. Members of an ethnic category need not experience ethnic loyalties, outgroup hatred, nor have a nationalist agenda for others to perceive them as a category about which they can make one-to-many (inductive) inferences. Nor are these necessarily the reasons for outgroup avoidance. These issues are often confounded by the non-functionalist approaches to ethnicity described above. The function we will investigate is the use of ethnic categories as information structures about the world, which can help avoid coordination costs and promote profitable social interactions.

For selection to have favored inductive reasoning and quick stereotype formation about ethnic categories two requisites must be met: 1) In order for the inferences to have been accurate on average, members of the ethnic categories must have been relatively homogenous along relevant dimensions (fitness-relevant cultural variants). 2) For category based inferences to have been useful, there must have been significant between-category differences. The selection pressures would have been strongest if the predictions promoted profitable interactions and helped avoid costly ones. Given this, we will use the term ethnic to mean social categories whose members believe themselves to have a relatively recent common origin, and are more likely to share multiple cultural phenotypes (e.g. norms, beliefs, language), than are two humans chosen at random. Importantly, we will consider cultural phenotypes as any traits that are socially learned. Several processes that create and maintain ethnic categories and satisfy the above conditions could have existed for much of human evolutionary history.

Between category differences and within category homogeneity often persist despite migration between the categories and close contact between their members. For example, despite the potentially homogenizing forces of mass media, dialect differentiation continues in the United States (Labov 1994) and despite living in the same region and heavily interacting with other social categories, the Pakhtuns of the Swat valley maintained a distinct cultural identity (Barth 1969). The covariance of cultural traits will emerge as long as the target of imitation for multiple traits is the same across individuals within a category. Biases in cultural transmission, such as conformist learning - that is, imitating the common type in one's social category - is one such process which also ensures within-group homogeneity (Boyd & Richerson 1987, Solits et. al. 1995, Richerson & Boyd 2005). Similarly, some traits are inherently more valuable for an individual to adopt when common (for example, driving on the left side) because of decreased coordination costs (McElreath et. al. 2003). Boundaries can also be perpetuated through intra-group punishment or ostracism of norm-violators, and obligate membership in a category defined by some emically chosen criteria which signals to others that one is following a given set of cultural expectations (Weber 1922, Barth 1969). Moralistic
punishment of those who violate such expectations, has been shown to be capable of stabilizing a broad range of behaviors if the 2nd order free riding problem (that is, free-riding on the public good of providing costly punishment) is solved (Boyd and Richerson, 1992). Endogamy (marriage with co-ethnics), as one kind of limitation on inter-group migration, also conserves the boundary and constrains the introduction of novel cultural variants to a group (Nave 2000, Gil-White 2001).

We predict that humans are predisposed to attend particularly to cues that are readily and commonly detectable, reliably predict cultural traits, and lead to few false positive assessments when deciding which categories have inductive potential. In order to take advantage of the information structure resulting from the processes described above, humans must be able to detect which categories meet these criteria. This is a particularly difficult task in the case of ethnic categories since they are marked in cross-culturally variable ways and inter-ethnic encounters are usually a small percentage of one's social interactions. Humans must pick out perceptually available cues that reliably predict unobservable culturally transmitted features of a target individual. Natural selection may have aided this process by providing innately specified information that guides humans' attention towards likely predictive cues. Language, ethnic markers such as tattoos or clothing, place of origin, religion, and having an ideology of common origin, are often such cues and were likely similarly useful throughout human evolutionary history. Linguistic cues and ethnic markers have the advantage of being aurally or visually detectable on the agent regardless of context. Intentionally produced ethnic markers that have low natural rates of occurrence ensure that very few people without the marker are not category members (Brase 2001). This minimizes costly incorrect positive inferences given a particular cue is detected. Patterns of linguistic and cultural change, and migration result in landscapes where place of origin and language are predictive of cultural traits (Roberts 1995). It follows that such cues will elicit quick stereotype formation based on few observations.

On the other hand, given the variation in the defining criteria of category membership, we expect that knowing the specific form of ethnic cues must be socially learned (e.g. which phonemic differences mark a dialectical boundary) and that a predisposition for using some cues over others can be overridden by such cultural inputs (Hirschfeld 1996). How these cues are integrated for categorization purposes can affect how ethnic concepts are instantiated. For example, prototype-based concepts would allow for individuals to belong to an ethnic category to varying degrees, whereas categories based on necessary and sufficient cues would result in dichotomous assignments either as a member of the ethnic category or not (Murphy 2004).

Additionally, humans must be able to discern which inferences can be drawn based on information about category membership. Even ethnic categories only have rich inductive potential in certain domains, namely culturally influenced traits. Given the greater within, than between, group genetic variation in humans, and the discrepancy between ethnic boundaries and genetic ones, any mechanism that makes inductive inferences based on ethnic category, should not make inferences about most highly heritable traits (e.g. behavior caused by Huntington's disease). Some have suggested that humans indeed make such misguided inferences because ethnic categories elicit species reasoning (Gil-White 2001). This account assumes that natural selection has been unable to produce an ethnic inference mechanism that attends to the traits about which
inferences would be useful. Evidence that inferences are preferentially made about culturally variable traits would lend stronger support for the claim that ethnic categories were a critical selection pressure in human pre-history.

Some scholars have suggested that a cross-cultural tendency towards essentialist reasoning about ethnic categories is further evidence of selection for ethnic inductive reasoning (Gil-White 2001, Kanovsky 2007). Essentialist thought entails ascribing stable underlying essences to individuals based on category membership and reasoning as if these essences determine individuals' behavior or traits in various domains (Barrett 2001). For example, Hirschfeld demonstrated that American children reasoned as if occupation and skin color were controlled by biologically transmitted and permanent essences (1996). Astuti et. al. showed that amongst the Vezo of Madagascar, despite ideologies that ethnic identity is defined through one's daily activities, children also reasoned as if essences that governed people's behavior were biologically transmitted (2004).

However, debate remains regarding how immutable these essences are perceived as being, and how people think they are acquired or transmitted (Kanovsky 2007). In the case of ethnic categories, a functionalist account predicts that folk notions of essence acquisition and mutability should reflect actual critical periods of socialization – that is, the period when traits are learned and after which changing them is difficult. Otherwise, the system would make one of two mistakes: 1) If it operated as if essences were acquired before socialization is complete, it would incorrectly reject the possibility of pre-socialized individuals changing cultural traits. 2) If it assumed essences could be acquired after critical periods of learning, it would erroneously accept the possibility of cultural change in individuals with crystallized cultural phenotypes.

The above-outlined functionalist theoretical position is opposed to the majority of social psychological research on stereotyping, which treats the phenomenon as a byproduct of peoples' limited cognitive resources (Allport 1954, Taylor et. al. 1978, Blair & Banaji 1996). The latter's underlying assumption is that it is easier to make categorical judgments than to gather more information about each novel item. This non-functionalist approach does not consider the costs of these heuristics, and tends to address all stereotyping as a singular phenomenon regardless of the categories' domain and extent of inductive potential (e.g. from gender categories, to body weight and racial ones). However, if ethnic categories have richer inductive potential than other social categories, one would predict that ethnic stereotypes develop faster than those about categories with less inductive potential. Furthermore, depending on folk notions of ethnic essences, it may take more disconfirming evidence to disavow people of ethnic stereotypes relative to stereotypes about other categories. It would behoove us to understand the mechanisms responsible for the formation and maintenance of ethnic stereotypes if we wish to address their adverse effects in propagating often inaccurate and insidious information.

Psychological mechanisms for learning about and predicting ethnic category members' behaviors would only be adaptive insofar as they deterred potential costly interactions or promoted beneficial ones. Given that inter-ethnic trade and niche specialization, and ethnocentrism and ethnic endogamy are cross-culturally common features, it seems that both kinds of interactions are possible and prevalent (Wilson 2003, Kalmijn 1998). However, it remains unclear to what extent fear of incurring coordination costs motivates outgroup avoidance. Assortment along social category lines for
coordination tasks may be simply due to likelihood of encounter, or density of shared social network. In order to determine whether coordination costs would have been a significant evolutionary pressure, we must first document whether, to what extent, and in what domains of interaction they arise.

For the reasons previously discussed, co-ethnics will tend to share various norms, beliefs, and preferences that may abet coordination costs. Economists have often considered this a possible reason for decreased contribution to public goods in ethnically heterogeneous contexts (Alesina 2000). However, recent experiments in ethnically heterogeneous Kampala, Uganda, showed no discernable cost to inter-ethnic interactions in various joint effort coordination tasks (Habyarimana et. al. 2006). This counterintuitive result in part may be a function of the relatively culture-neutral tasks involved, such as solving a puzzle that required unlocking a box. In order to get a better handle on real world inter-category interaction costs it may be fruitful to consider naturally occurring phenomena.

A promising context in which to explore and quantify these effects is that of exogamous relations, given that marriage often requires long-term coordination and many cultures have convergently evolved ethnic endogamy norms. Research in the United States has shown that ethnically exogamous marriages (Kalmijn 1998) and religiously exogamous ones (Burchinal & Chancellor 1963) are more likely to end in divorce than endogamous ones, but the mechanisms responsible for these dissolutions are unclear. Coordination costs within the relationship may account for the pattern, but alternate explanations such as external social pressures and difficulty recruiting alloparental help from kin and friends must be taken into consideration as well.

Using marriages as a case study gives us a best-case scenario for fruitful inter-category interactions, since presumably both parties have a joint interest in the endeavor succeeding, hostility and animosity is minimal, and the parties are a non-representative self-selected group. This allows us to focus on everyday, seemingly inconsequential, behaviors that may promote ethnic categories’ "boundedness." Additionally, given humans' long juvenile periods during which bi-parental provisioning is important, the ability of parents to coordinate could have serious fitness consequences. At least in some hunter-gathering groups father absence has been shown to have large negative effects on child survivorship (Hurtado & Hill 1992). This project explores one possible reason why inter-ethnic interactions can break down despite good intentions.

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7. Michelle Kline

Cultural Learning Dynamics and Patterns

Over the past several decades a number of researchers have developed epidemiological (or population dynamic) models of cultural change that link the individual psychology of cultural learning to patterns of transmission and cultural change at the population level (see Cavalli-Sforza & Feldman, 1981; Cavalli-Sforza et al., 1982; Richerson & Boyd 1985; Boyd & Richerson 2005). Models that focus on the evolution of cultural learning abilities as a species-typical capacity (e.g., Rogers 1988; Boyd &
Richerson 1995; Kameda 2003; Enquist et al. 2007) have contributed to the theoretical debate on the importance of cultural learning in defining the human species (e.g., Tomasello et al. 1993), and as an evolutionary pressure in lengthening the period of juvenility in human life history (Kaplan 1997; Kaplan et al. 2000; but see Blurton Jones & Marlowe 2002). The macro-evolutionary findings of these models highlight the importance of the assumptions each necessarily makes about individual-level behavior, such as the selectivity of cultural learners. Recent work has elaborated on the importance of individual learning “biases” or tendencies in affecting the population-level results. Henrich and Boyd (1998) demonstrate that an individual bias towards conformist learning could produce a population-level pattern of between-group cultural differences. McElreath et al. (2003) show that if shared norms minimize transaction costs in social interactions, then the cultural evolution of ethnic “markers” as social group identifiers is possible.

**Life History Theory and Cultural Learning**

Human life history is arguably unique, with an extended period of juvenility that some have proposed functions as an extended period for cultural learning and cognitive development (Leigh and Park, 1998; Kaplan et al. 2000). Current research calls into question whether the lengthy period of juvenility functions in this manner. Findings by Bird and Bleige-Bird (2002) and Bleige-Bird and Bird (2002) suggest that there are constraints of size and strength that primarily limit Meriam children’s foraging capacities, rather than limitations on acquired knowledge or skills. A study on a variety of foraging skills among the Hadza similarly concludes that physical strength rather than skill, practice, or experience was the primary factor in predicting performance (Blurton Jones & Marlowe 2002). However, Gurven et al. (2006) find that this “brain-based capital” is highly important in explaining the timing of Tsimane men’s peak in hunting success, and that “physical capital” is of less significance. A recent review of the acquisition of hunting skills (MacDonald 2007) indicates that the physical versus brain-based capital constraints differ among domains within hunting. MacDonald also finds a tendency toward observational learning with little direct teaching, a pattern consistent with other work in the cross-cultural study of learning and teaching (Lancy 2007). However, experimental psychology research by Csibra and Gergely (2006), indicates that even in absence of explicit teaching adults may use subtle pedagogical cues to indicate important learning opportunities to children, especially in the domain of artifact use. Gurven and Kaplan (2006) find a general pattern in time allocation in which children focus on low skill/low strength activities, adults on high strength/high skill activities, and aged adults on high skill/low strength activities. These findings suggest that there may be a similar shift in time allocation to learning different tasks. In addition, the theory indicates that the most appropriate models for cultural learning may be age-similar and slightly older individuals who demonstrate skill—rather than the oldest or most skilled among potential cultural models. An as yet unexplored area of research is the life history of artifact use and production, though MacDonald’s work does include an analysis of children’s use of hunting technologies. The above theory suggests that, if the production, maintenance, and even invention of technologies requires a great amount of skill but less strength than other subsistence skills, this domain may belong to a large degree to older adults.

**Cultural Evolution and Cultural Models**
Cultural evolutionary theory makes additional predictions about who naïve individuals should prefer as cultural models, preferences which are commonly referred to as “learning biases.” Richerson and Boyd (1985) suggest that the simplest of these is direct bias, where culturally naïve individuals attempt to learn cultural “traits” that appear to be the most successful behaviors. If cultural “models” (examples or teachers) are rare and teaching has some cost, Henrich and Gil-White (2001) propose learners might compensate their models through deference, praise, and favors. When a technique or practice’s success is not easily observable, such signs of prestige would provide a reliable signal of a high-quality model from whom to learn. Where not only results, but also the crucial components of a model’s method are not clearly denoted, this may lead to overly faithful copying rather than the imitation of goal-relevant aspects of the technique, resulting in the accumulation of spurious elements in a practice, belief, or technique (Gergely & Csibra 2006; Boyer 2003). McElreath et al. (2003) suggest that, if ethnic markers (arbitrary, voluntary indicators of self-identification) exist for groups of individuals who share norms, naïve individuals should preferentially learn from those who are marked similarly and could thus avoid learning cultural practices that are a mismatch to their own cultural group’s. Previous research by Barth (1969) documents that the prevalence of potential ethnic markers is stronger at group boundaries and where groups come into contact, a fact consistent with McElreath et al.’s model. Research in psychology also supports the idea that there may be an evolved psychological preference for similarly “marked” individuals, with findings that even young infants soon prefer the sounds—and speakers—of their own native language (Kinzler et al. 2007). Henrich and Boyd (2001) show that a bias for conformist learning could help individuals to avoid imitating rare and maladaptive cultural models. This would also give rise to between-group differences that might reinforce the importance of ethnic markers. Efferson et al. (2007) found only partial support for the existence of conformist learning in a field experiment among participants on the Bolivian altiplano, but more naturalistic evidence of the spread of fads throughout contemporary society suggests conformist transmission may be important (Bikhchandani et al. 1992).

Pathways of Cultural Transmission

While little research exists that can test these predictions and those of life history theory directly, many researchers have documented the pathways of cultural learning in studies of cultural transmission and technological diffusion. Researchers focused on the economic factors that affect decision-making in adopting new technologies have highlighted the importance of economic cost-benefit analysis (Griliches 1957), the influence of underlying social relationships, and has typified individuals as early and late adopters (e.g., Rogers 1983). Since the advent of cultural evolutionary theory, researchers have been concerned with the validity of the application of the “meme” metaphor to cultural inheritance (Dawkins 1976) and so have focused their study on the fidelity and sources of cultural transmission. Some field studies have found that families, and parents in particular, have an overwhelming impact on the cultural traits that children acquire (e.g., Hewlett & Cavalli-Sforza 1986; Ohmagari & Berkes 1997). This pattern of transmission is known as “vertical” inheritance or transmission, as opposed to “horizontal” (within-generation) or oblique (across-generation but from non-parents). Harris (1995) argues against these results, and finds that when genetic effects are controlled for and behavior is studied away from parental presence, parental influence on
cultural transmission is near zero. Harris instead argues for the importance of horizontal transmission. Auinger (2002) finds that food taboos in a horticulturalist/foraging society in the Democratic Republic of the Congo are transmitted partially but not fully in concordance with explicitly stated social norms, that the influence of parental behavior decreases with their offspring’s age, and that there is sometimes substantial oblique and horizontal transmission. Additional studies have documented a high degree of within-family vertical inheritance of ethnobotanical knowledge (Lozada 2006) and community patterns of food taboo transmission that depend highly on central knowledgeable individuals (Henrich, in press). These studies are not only informative in the study of the transmission of culturally acquired behaviors, values, and beliefs, and in the analysis of the diffusion of innovations, but also the archaeological study of artifact distributions.

**Cultural Transmission and the Archaeological Record**

Archaeologists have begun to apply theory and models of cultural transmission to inform analyses of long-term cultural descent using multiple methods of reconstructing phylogenies (Lipo et al. 2005). Tehrani & Collard (2002) found that the splitting of textile traditions into multiple schools (phylogenesis) was a more prevalent force in the generation of new styles that was the blending together of two or more pre-existent schools (ethnogenesis). Eerkens and Lipo (1997) generate a null model of how much variation in artifact measurement should exist, given processes of cultural transmission with some error in copying that is then accumulated across generations. Bettinger and Eerkens (1999) explained an otherwise puzzling anomaly in arrow point typology in terms of cultural transmission processes involving social versus individual learning, each in different geographic areas, where the latter leads to more variation and a less robust design. Mesoudi and O’Brien (2008) show experimentally that the processes hypothesized by Bettinger and Eerkens could feasibly have produced such a record. Henrich (2004) proposes a model of cultural learning that assumes some difficulty in accurate learning and in access to expert models, and argues that cultural transmission dynamics and demographic change led to maladaptive loss of cultural technologies in Tasmania (see Read 2005, Henrich 2006 for further debate). Models by Neiman (1995) and Shennan (2001) demonstrate using models and archaeological data that cultural “drift” or neutral evolution based on chance transmission dynamics may appear in the archaeological record as battle-ship curves of change.