

**CRITICAL STEPS TO DEVELOPING A UNIFIED THEORY OF ALCOHOL USE IN
LATIN AMERICA**

by

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Abstract

Alcohol use is often characterized by health researchers and practitioners as a serious, chronic, and still growing public health problem in Latin America. Citing unambiguously disastrous health consequences due to alcohol consumption and the growing consumptive pressures of globalization, well meaning coalitions of public health practitioners, macro-economists, and policy makers at the World Bank, World Health Organization (WHO) and international NGOs have urgently called for the implementation of supply side regulations to curb alcohol use in the developing world. This paper argues that there is a need to take a much more nuanced approach to alcohol interventions than those proposed by supply-side economists or policy makers in these institutions and that those interventions must be based on ethical, culturally centered research that aims to understand the mechanisms by which factors at the intrapersonal, interpersonal, organizational, and community levels interact as fundamental drivers of behavior. To that end, this paper develops a hybrid, unified model of alcohol use that can be used to guide future research initiatives. In the process literature relevant to alcohol consumption patterns written from multiple academic disciplines such as psychology, sociology, anthropology, political science and the study of economics are reviewed. To bridge these diverse perspectives and to link cognitive cultural perceptions with individual behavior, the conceptualization of cultural consonance in two domains, material lifestyle and social support, is introduced. Extending the model, the paper adds a new cultural domain of “indigenous identity” and two new constructs,

consensus intensity and temporal stability, which imbue the framework with broader and stronger descriptive powers to better accommodate the rapidly shifting cultural domains likely to be found in the globalizing world. Implications of knowledge generated by the application of the new expanded model are discussed.

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1.0 INTRODUCTION

Alcohol use is often characterized by health researchers and practitioners as a serious, chronic, and still growing public health problem in Latin America. Though not uncontroversial or uncontested, published statistics show that the people of Latin America may suffer a disproportionately higher number of negative health outcomes from alcohol use than other regions of the globe (Barbor et al., 2003). The World Health Organization (WHO) estimates that the burden of disease attributable to alcohol use among men in Latin America and the Caribbean ranges by sub-region from a low of 8.6%¹ to a high of 17.3%². By contrast the figure for the global disease burden among men due to alcohol is only 6.5% (Barbor et al., 2003). Though Latin America and Caribbean countries represent only 8.6% of the world's population (Population Reference Bureau, 2006), in 2003 alcohol use accounted for the loss of more than 10.3 million Disability Adjusted Life Years (DALYs)³ in those regions, which is 17.6% of the world's total DALYs lost due to alcohol consumption (Barbor et al., 2003). Worldwide, alcohol use is said to be involved in 1.5% of the total number of deaths from all causes each year. However in Latin America, that figure jumps to 4.5% (Barbor et al., 2003).

¹ WHO America Group "D" (Bolivia, Ecuador, Guatemala, Haiti, Nicaragua, Peru).

² WHO America Group "B" Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guyana, Honduras, Jamaica, Mexico, Panama, Paraguay, Saint Kitts, and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela.

³ Disability Adjusted Life Years (DALYs) are, "a composite health summary measure used to estimate the burden of disease in a given country, that combines years of life lost to premature death with years of life lost due to disability (Barbor et al 2003, p 73).

Significant and well studied medical and health conditions related in some fashion to alcohol consumption include: certain types of cancers, neuropsychiatric, cardiovascular, gastrointestinal, maternal and perinatal conditions, acute toxic effects, accidents, self-inflicted injuries, and violent deaths (Gutjahr & Gmel, 2001). Deleterious social consequences may also be associated with alcohol use and abuse. In reviews of current literature analyzing alcohol use in developing countries, documents produced by the World Health Organization and the World Bank cite numerous studies linking alcohol use to social ills such as domestic violence, social disruption, and lost economic productivity (Cercone, 1994; Jernigan, 2002b; Monteiro, 2001; Pyne, Claeson, & Correia, 2002; Room & Jernigan, 2000; World Health Organization, 1999, 2005). These reports also suggest significant relationships between alcohol use and other important determinants of public health, “such as poor education, low income and social status, lack of social support networks, unemployment and adverse working conditions, unhealthy physical environments, and lack of or inadequate access to health services” (Monteiro, 2001 p 99).

There is a consensus in the political economic literature that alcohol use in developing countries is on the rise – and will continue to rise – as they are further engulfed by the “perfect storm” of globalization (Caetano & Laranjeira, 2006). Many authors (Gruenewald & Treno, 2000; Holder, 2000; Jernigan, 2000a, 2002a; Room & Jernigan, 2000), arguing from supply-side perspectives observe that as alcohol becomes a global commodity controlled by multinational corporations, production is increasingly industrialized; lower prices and increasing availability result. Authors predict that when coupled with extensive advertising pressure and poor public health controls, lower prices and increased availability will ultimately spur an increase in

consumption. Surges in medical, psychological, social, and cultural problems in developing countries are predicted to follow in the coming years (Grant, Houghton, & Kast, 1998).

Citing unambiguously disastrous health consequences due to alcohol consumption and the growing consumptive pressures of globalization, well meaning coalitions of public health practitioners, macro-economists, and policymakers at the World Bank, World Health Organization (WHO) and international NGOs have urgently called for the implementation of the following alcohol prevention policy recommendations in developing countries: the imposition and enforcement of alcohol control laws such as restricted hours of sale, specific licensing of alcohol outlets, curtailing the number of alcohol outlets, stringent advertising rules, legal drinking age restrictions, blood alcohol limits for driving, and increased and indexed taxes on alcohol to ensure that the relative price of alcohol compared to other goods remains high (World Health Organization, 2002).

Interestingly these recommendations do not include classic, population-based public health style interventions with their traditional emphasis on education and consciousness raising to affect behavior and elicit normative changes at the personal and social levels. In fact, the executive summary of the World Health Organization's (2002) seminal public health strategy paper, *Alcohol in Developing Societies: A Public Health Approach*, states that,

- Well-designed alcohol education is an appropriate part of the school curriculum, but is unlikely by itself to do much to reduce rates of alcohol problems in a society.
- Likewise a low-intensity public information and persuasion campaign may have the symbolic value of appearing to do something about alcohol problems, but will usually have little practical effect on them.
- The most effective measures include taxation to limit consumption levels, specific licensing of alcohol outlets, limits on the number of outlets and on the times and conditions of alcoholic beverage sales or service, minimum-age limits, and drinking-driving countermeasures (p 5).

As one might infer from the preceding quotes, the strategy proposed by the WHO is almost exclusively restricted to legal policy proscriptions and governmental regulation of alcohol as a market commodity.

The limited, one-sector strategy proposed by the WHO to address alcohol use in developing countries is deeply troubling for many reasons. First, it belies a naïve, culturally ignorant, and “problem focused” understanding of alcohol use and the many functions (both positive and negative) it may have in the stabilization, perpetuation, and maintenance of cultural diversity. Second, it addresses alcohol use as a behavior from only the policy perspective while ignoring the need for an integrated approach that combines simultaneous interventions targeted at all social and ecological strata including the intrapersonal, interpersonal, organizational, and community levels which are widely recognized as inter-related and fundamental drivers of behavior (Emmons, 2000). Third, the strategy shows a wanton disregard for the power and agency of communities, working on a local level, to make choices about their health priorities and cultural identity, and to direct their economic destiny in the age of globalization. Finally, by arbitrarily defining alcohol use as a “problem” in the developing world, the WHO ensures that the focus of study becomes alcohol use as a cause of social problems, rather than alcohol use as a result of social forces, or as a force for positive social outcomes. Furthermore WHO’s characterization of alcohol use as a “problem” may contribute to negative stereotypes of populations in the developing world as disreputable, undisciplined, and lazy, causing further stigmatization and exclusion of many groups that already lack power.

1.1 OBJECTIVE

I argue that there is a need to take a much more nuanced approach to alcohol interventions than those proposed by supply-side economists or policymakers at the WHO. True, a macro-economic understanding of alcohol consumption is clearly important. Ultimately though, alcohol use occurs amidst the shifting nexus of economic, political, social, cultural and psychological factors. The construction of a complex theoretical and empirical understanding of alcohol use and resultant public health implications in the age of globalization is therefore a necessary first step in the quest to modify patterns of alcohol consumption. From a solid multi-disciplinary theoretical base, policymakers and practitioners can piece together the most effective mix of policy measures and behavioral interventions, reducing problem drinking while preserving human rights and cultural independence simultaneously.

This paper broadens the perspective of international public health practitioners and increases the depth of knowledge and theoretical understanding available to policy makers. To that end, the paper first brings together and reviews theories and explanations regarding alcohol use from three broad levels of study: the personal, the socio-cultural, and the political economic. The central goal of my work hereafter is to integrate psychological, anthropological, sociological, political, and economic concepts derived from the literature review into a nuanced, unified theory or model of alcohol use in developing countries while paying special attention to the rapidly changing and globalizing nature of the world. After describing a unified model, I reflect on what the use of the new theory could add to international health interventions and on the consequences of implementing policies that are blind to the many nuanced forces that drive alcohol consumption.

Because I have traveled and lived in Latin America and am to some degree familiar with many of the cultures indigenous to that region, I restrict much of the analysis and discussion to that geographical area.

1.2 A NOTE ON THE CONSTRUCTION OF A UNIFIED THEORY

Conceptualizing alcohol use and abuse, as well as framing the debate surrounding what kinds of use constitutes “problem” drinking in the developing world has been, and continues to be, a contentious issue among social science researchers. In the late 1970’s and early 1980’s leading anthropologists such as Dwight Heath (1975) called for medical anthropologists to focus their research on understanding alcohol use and drunkenness “as socially appropriate, culturally comprehensible event that was not necessarily pathological and did not always constitute a social problem” (Hunt & Barker, 2001, p. 167). However in 1984, Robin Room, a prominent sociologist working in the alcohol field attacked anthropologists for what he called, “problem deflation,” noting that “anthropologists tend to minimize the seriousness of drinking problems in the tribal village cultures under discussion” (Room, 1984, p. 170, quoted in Hunt & Barker, 2001, p. 167). Two years later, in 1986, the anthropologist Merrill Singer criticized anthropologists on another front, calling on researchers to take seriously the political economy perspective in the construction of drinking patterns worldwide (Singer, 1986). Noting that no culture is geographically isolated, temporally bound, nor autonomous, he attacked anthropologists for concentrating solely on local culture and local phenomenon rather than digging deeper to probe the underlying world structures that bring local culture into being and thereby affect alcohol use.

Cognizant of the multiple and competing perspectives and critiques of alcohol research over the last 20 years, Hunt and Barker (2001) proposed integrating them all into a single theoretical framework. They suggest that the following five propositions are essential components to the development of a unified conceptual framework that can be used to understand alcohol use:

1. All ingested substances should be studied under a single framework. At times alcohol is a drug, at times a food, at times a poison. This enables the comparison of substances with each other, a new understanding of their categorization as legal or illegal substances, and an ability to comprehend change as substances cross societal boundaries.
2. Consumption of ingested substances is inherently social, revealing of cultural processes, concerns, and symbols. This permits exploration of user behavior and social identity in a very broad context, avoids reification of substances, and places any “problem focus” into a perspective of power.
3. Specific spheres of consumption are differently valued by diverse groups in different eras. This emphasizes how value judgments change as substances circulate in society, and juxtaposes key actors with their behaviors and decisions, both actual and symbolic.
4. Production, distribution and consumption must be examined jointly. This allows a more extensive and fertile understanding of the intersection of micro and macro-issues
5. It is crucially important to examine power in relations of substance use. This clarifies how elite groups manage the moral economy of substances in society and how they fashion and control the acceptability of ingestive behaviors and desires (Hunt & Barker, 2001, p. 178).

Hunt and Barker’s propositions will guide my search for a unified model of alcohol use in Latin America. However to the five propositions just stated, I add one more: understanding alcohol use at the level of the individual or intrapersonal must be acknowledged and integrated into the combined social, cultural, and political approaches. While people are products of their environment and their culture, they are also unique, biological beings who possess a certain degree of autonomy – a fact that must be included in any holistic understanding of alcohol use.

2.0 WHY PEOPLE DRINK: WHAT INDIVIDUAL THEORIES TELL US

2.1 PSYCHOLOGICAL EXPLANATIONS

Numerous psychological theories explain alcohol use at the individual level. The most prominent, broadly researched and widely employed include Tension Reduction Theory, Personality Theory, Social Learning and other related cognitive theories, Developmental Theory, Expectancy Theory, and Emotional Modification theories. This section reviews the most popular and well-researched theories thought to have broad explanatory power.

2.2 TENSION REDUCTION THEORY AND THE STRESS-RESPONSE

DAMPENING MODEL

Tension Reduction Theory (TRT) is perhaps the oldest, simplest, most widely quoted, most intuitive and well researched theory of alcohol use (Greeley & Oei, 1999). People use alcohol because it reduces tension, or so the theory goes. Observing the rapid social changes occurring in the early twentieth century, E.M. Jellinek (1945) proposed that tension was an artifact of social disruptions caused by the mechanization and modernization of society and the resultant subjugation of the individual to the machine. Though alcohol is clearly not the only method to reduce stress, and is certainly also used when an individual is not under stress, Jellinek and other

theorists suggested that alcohol's consistent use as a stress reliever promotes a learned response that associates drinking with reward, which in turn leads to its prominent social value and recurrent use.

Thus the key tenets of the TRT are that 1) alcohol reduces tension, and 2) people drink in order to benefit from alcohol's tension-reducing properties. However, the great majority of research over the past 50 years does not truly support either of the tenets of TR theory. In an extensive review of research findings current to 1999, Greeley and Oei (1999) find that of 15 studies published after 1988, not one provided unequivocal support for TRT. Problematically, alcohol appears to produce different responses, at different doses, in different people and genders, sometimes acting as a stressor and sometimes acting as a stress reliever. At moderate dosages alcohol may dampen stress; at low dosages it is known to induce a sense of excitement and exhilaration; at high doses researchers observe increased anxiety. Women appear to experience increased stress rather than decreased stress after consuming alcohol in controlled studies. Furthermore stress levels measured through various means simultaneously (psycho-physiological, self-report and observer ratings) often move in different directions as intoxication proceeds, making any true analysis of stress levels difficult and inherently based on experimental perspective.

Although cross-sectional studies often demonstrate that anxiety disorders, social phobias, and posttraumatic stress disorder are positively associated with alcohol disorders, cause and effect are impossible to prove. It is entirely possible that alcohol in fact causes these disorders, or that they cause alcohol disorders, or that a third factor may cause both increased stress and increased alcohol consumption simultaneously through different pathways.

Finally, the TRT is called into question because ample alternative psychological motivations for drinking abound -- pleasure for one.

2.3 SOCIAL COGNITIVE THEORY

Social cognitive theory, developed by Bandura, posits that human behavior is derived from the reciprocal determinism of the individual characteristics of people, their own behavior and their environment (Bandura, 2004). Behavior patterns are largely the result of the outcome expectations and expectancies, or values placed on outcomes, that an individual develops through self-initiated and observational learning. Outcome expectancies are reinforced either directly or vicariously through internal or external (environmental) rewards, negative feedback, or punishment. Thus behaviors, as well as values placed on those behaviors are socially learned. In short,

acquiring or learning a behavior such as alcohol use is not only a result of directly experienced cues and reinforcements but also of observing the response to cues and the reinforcements received by models, either directly observed or learned through the mass media, second hand stories, and so forth (Wagenaar & Perry, 1994, p. 325).

Social cognitive theory also relies on the concept of self-efficacy, or the individual's belief that he/she has the skills and knowledge to perform a certain behavior. Self-efficacy is developed through mastery experiences, social modeling and social persuasion (Bandura, 2004). Behavior change ultimately happens when an individual believes that he/she can perform a given behavior, that the behavior will produce a certain outcome, and that that outcome has value to the individual.

Another fundamental construct of social cognitive theory is known as reciprocal determinism. Individuals and their behavior are affected and controlled by the environment, but individuals and their behavior can also affect and alter the environment. For example, drinkers may use alcohol because they are socially isolated but they may be socially isolated because they drink (Maisto, Carey, & Bradizza, 1999). Although situational and environmental factors and stimuli are important contributors to behavior, Bandura's conceptualization of the "environment" did not truly extend to distal cultural and legal factors, but rather focused most on the immediate physical and social setting, and on the internal cognitive context in which a behavior takes place (Maisto, Carey, & Bradizza, 1999).

Ultimately, the social cognitive perspective on alcohol use "is conceptualized as a socially learned, purposive, functional behavior that results from an interplay of social and personal factors" (Botvin, Baker, Renick, Filazzola, & Botvin, 1984). Bandura explained alcohol use as a learned coping behavior that helps individuals manage stress. Therefore individuals who lack alternative means of coping with stress are more likely to engage in alcohol use. This hypothesis has some support. An experiment conducted by Marlatt, Kosturn and Lang, (1975) (as cited in Maisto, Carey, & Bradizza, 1999) found that men who were provoked, but not allowed to retaliate drank more as compared to men who were provoked but who were also provided an opportunity to retaliate. Also, "individuals with alcohol use disorders show a lower level of (stress) coping skills than do individuals in relevant comparison groups" (Maisto, Carey, & Bradizza, 1999, p. 121).

Bandura suggests that excessive alcohol use could be controlled if problem drinkers learned alternative coping skills. Two types of coping mechanisms have been most researched: avoidant, emotion-focused coping, which generally emphasizes internal strategies to deal with

emotional distress but not with the root cause of the stress itself; and active problem-focused coping which emphasizes cognitive and behavioral methods designed to attack the source of distress. In the majority of studies emotion-focused coping appears to be maladaptive while active problem-focused coping appears to be adaptive (Maisto, Carey, & Bradizza, 1999).

Though Bandura originally used his model to postulate the use of alcohol as a learned coping mechanism to deal with stress, it is entirely possible that alcohol use could be a learned behavior that has some other functional value besides coping with stress, depending on the setting and cultural norms within the environment. For instance, alcohol use could be learned as a behavior mechanism to express and communicate happiness or joy at life events such as weddings or birthdays.

2.4 EMOTION MANAGEMENT

The role of emotion in the provocation of alcohol use is part of many psychological and socio-cultural theories seeking to explain behaviors associated with alcohol. Thus, though not an independent “theory,” the constructs that link emotion management with alcohol use deserve attention here. The connection between alcohol and emotion can be examined at many levels. In a review of the physiological effects of alcohol on the body, Lang, Patrick and Stritzke (1999) note that in several studies alcohol appears to produce a bi-phasic action. That is, as blood alcohol concentration rises, alcohol produces a stimulant effect, including increased cortical activity similar to that caused by amphetamines. This stimulating effect is linked in self-report data to “positive emotions such as elation and euphoria, as well as increased arousal described as energy and vigor” (Lang, Patrick, & Stritzke, 1999, p. 330). Conversely, sedation and dysphoria

occur at very high or declining levels of blood alcohol content in research settings. Not surprisingly, but importantly, work seeking to link alcohol use with an individual's efforts at stress reduction often only focus on this part of the blood alcohol curve while ignoring the stimulant and euphoric phases that could be motivating behavior.

An individual's expectations about the emotional effect of alcohol play a central role in much of the psychological theory and research work attempting to explain the links between emotion and alcohol. In their review of the literature, Lang et al. (1999) point out that emotional expectations surrounding alcohol use are the most "prevalent and pivotal beliefs" among subjects and that there is a convergence of emotional expectations along two dichotomous dimensions: activation vs sedation, and positive vs negative. In this context, people are motivated to drink because either they expect that alcohol will enhance positive emotions or because they expect that it will allow them to cope with negative ones. Lang et al. (1999) suggest that a longitudinal study of both adolescents and adults by Cooper, Frone, Russell, and Mudar (1995) convincingly shows that

enhancement drinkers are apt to be sensation seekers who hold strong expectations that alcohol will facilitate positive emotional experience, whereas coping drinkers are liable to be depressed, rely on avoidance and other mal-adaptive coping strategies, and hold strong beliefs in the tension-reducing properties of alcohol (Lang, Patrick, & Stritzke, 1999, p. 333).

Thus, unlike the limited perspective one gains from the tension-reduction theory, it appears that the motivation for alcohol use may be associated with the desire to enhance positive emotions as well as the need to alleviate negative ones.

Although understanding the mechanism by which alcohol serves to enhance positive emotions has received little work, there are two competing hypotheses that seek to explain alcohol's apparent ability to disrupt negative emotional states. Both theories are controversial in

that they propose that alcohol acts on higher-level cognitive functions such as attention, appraisal, and memory, rather than at primary motivational systems typified by simplistic biological models of drug interactions with pleasure centers in the brain.

The attention allocation hypothesis proposes that alcohol “impair[s] cognitive activity that requires controlled, effortful processing and restrict[s] attention to the most immediate internal and external cues” (Lang, Patrick, & Stritzke, 1999, p. 349). Thus emotional stress reduction is a function both of dosage of alcohol, which restricts cognitive activity, and the number or extent of the immediate internal or external distractions that exist in the individual’s setting. Importantly then, a given dosage of alcohol can produce either more or less stress reduction depending on the number of external distractions that are present in the environment.

The appraisal-disruption hypothesis states that alcohol acts to “interfere with the initial appraisal of stressful information by constraining the spread of activation of associated information previously established in long-term memory” (Lang, Patrick, & Stritzke, 1999, p. 350). Researchers theorize that alcohol may act to selectively constrain the spread of negative versus positive information and thus alter the appraisal of negative stressful information more than positive information. A more positive psychological state ultimately results (Sayette, 1993).

Taken together these two theories indicate that intoxication compromises complex cognitive processes that interfere with an individual’s ability to process complicated or distal environmental cues that may be producing stress in his/her life. Therefore the resultant behavioral and emotional states are governed by a focus on immediate signals taken from within an individual’s immediate temporal and physical environment. This model is flexible as it can be used to help explain the quantities of alcohol people consume as well as how alcohol can be used both as an enjoyable, diversionary tactic and as a maladaptive coping response.

3.0 SOCIO-CULTURAL THEORIES OF ALCOHOL USE

Unlike many psychological theories, anthropological perspectives on alcohol use are rooted in the assumption that individual behavior is inseparable from the system of rules and expectations developed over time by distinct social groups to govern it. Culture itself, as it relates to alcohol consumption is understood as a “cognitive, mental map” that limits behavior by imposing normative rules and values on who drinks, where they drink, with whom they drink, how much they drink, and how they act when they drink (Knipe, 1995). The anthropological perspective calls attention to the fact that alcohol has many culturally defined and dependent functions. It can be a food, a medicine, a poison, a symbol, a path to religious enlightenment, an aphrodisiac or simply a way to quench thirst; in many cultures it can serve all of these functions at different times. Many prominent anthropologists, such as Dwight Heath who has produced several comprehensive literature reviews, insist that from an emic perspective, in the vast majority of cultures worldwide “alcohol-related problems are really rare, even in many societies where drinking is customary, and drunkenness is commonplace” (Heath, 1987, p. 18).

This section presents an overview of some of the most critical cultural explanations of alcohol’s use and function, with a special focus on alcohol’s role in the cultures of Latin America. Much of the information in this section is described in greater detail by Heath in his four exhaustive historical reviews of the anthropological literature related to alcohol use in various cultures (Heath, 1987, 1990, 1995b, 1998).

3.1 DRINKING AND THE ENHANCEMENT OF SOCIABILITY

Psychological research, mentioned in the preceding section, demonstrates that the effect of alcohol is bi-phasic. In experimental trials, increasing blood alcohol content is associated with feelings of euphoria and stimulating physiological effects. Anthropologists observe that throughout this phase of the drinking curve many people tend to talk more, are more outgoing, less socially inhibited, and less concerned about communicational failure. As such, alcohol can be a substance that facilitates social interaction and is often an important factor that aids in the formation of social relationships.

While this positive aspect of alcohol use can certainly be observed in any North American bar or party where it often facilitates the formation of relationships by helping to overcome the highly individualized and private social atmosphere of western society, this same property is important in less industrialized societies as well. Large geographical distances between families or social groups are characteristic of many rural agricultural societies. Thus, large gatherings or other social interactions between groups may occur rather infrequently. In these cultures, alcohol is often used to ease the discomfort that individuals may feel on the rare occasions when they come together in close and sustained interaction to which they are unaccustomed. In his work on the Aymara of Bolivia, Carter (1977) writes that during market days, one can often find groups of drunk peasants from geographically dispersed and isolated areas mixing gregariously. In this context he claims that alcohol is used as a social lubricant to lower social barriers and communicational reticence and to ease awkward tensions among those unaccustomed to large gatherings of people. At the market, alcohol is often used as a vehicle to meet new people, seal important business deals, or build trust between acquaintances. Carter explains that often outsiders who visit the market and witness these drunken groups leave with

the impression that the Aymara engage weekly in drunken episodes. However, this impression is false. Market towns draw participants from a very large number of distant rural communities. Because of the difficulties of travel, including physical discomfort, extensive time commitments, and economic cost, the vast majority of people only visit market towns three or four times a year, such that the majority of participants in the market on any given week are different. A visit to the market therefore constitutes a special “event” in the lives of rural Aymara people and is often marked by ritualized drinking. Thus, “a given man or woman may drink on only two or three occasions in an entire year” (p. 105).

3.2 GROUP IDENTIFICATION & ETHNIC BOUNDARIES

What people drink, how they drink it, how much they drink, and how often they drink is clearly important to the maintenance and preservation of cultural identity and ethnic boundaries. Abstention from drink can be just as important. The Irish often cite heavy drinking as a bond which holds their culture together, distinguishing them from other groups around the world. By contrast, in highland Bolivia, fundamentalist Protestants maintain group identity within an overwhelmingly Catholic majority at least in part because they abstain from drinking (Harvey, 1994). A study by Westermeyer (1974) of American Indian communities shows that some individuals in that group embrace the stereotype of the “drunken Indian” and “use it as a way of asserting their ethnicity, differentiating themselves from others, and offending sensibilities of those whites who decry such behavior” (as cited in Heath, 1990, p. 269). In fact, Lurie (1971) characterizes American Indian drinking as “the world’s oldest on-going protest movement” (as cited in Heath, 1990, p. 269). Heath’s own fieldwork among the Camba in the Bolivian jungle

showed that that group took great pride in its ability to imbibe straight, 186 proof rum, while making fun of the weakness of other groups' lower proof drink. Harvey (1994), in a study of the Ocongate Quechua in Peru, demonstrates that for that community, "Drinking is ... seen as an act of sharing and collaboration through which the community is created and sustained, community projects for progress realized, and continuing care from the supernatural powers ensured" (p. 214). She notes that anthropological studies conducted in the Andes by Allen (1988) support her interpretation, which demonstrates that the specific character of alcoholic beverages, the ritual that surrounds them, and the culturally constructed meaning behind it all, are fundamental to determining the distinction between "us" and "them" that is crucial to the maintenance of cultural identity.

3.3 STRATIFICATION AND EXCHANGE

Alcoholic beverages and drinking customs are also important in the internal social organization of many cultures. In his book, Knipe (1995) reviews an anthropological study of the Pumamarca pueblo in the central Andes conducted by Bunker (1987). In that community alcoholic beverages have a history as a form of currency, or medium of exchange, and were also a symbol of wealth. Under the *encomienda* system, indigenous workers were paid partially in liquor by their non-indigenous landlords and were also provided *chicha* and *coca* throughout the work day. *Chicha* was also included as an incentive to workers during communal inter-indigenous work projects, such as the potato harvest. Bunker contends that although the beverage (*chicha*) is the same, it orders economic relationships differently depending on the context. In the first situation, *chicha* represents a form of payment for an individual's labor, while in the second

setting it becomes a way of reaffirming communal values, mutual obligations, reciprocity, and sharing. In Pumamarca, *chicha* also plays a fundamentally important role in economic exchanges; agricultural and livestock negotiations are consistently initiated by sharing a shot of alcohol. Another round of alcohol seals the deal.

In addition to its important role in structuring the economy of the pueblo, drinking is also obligatory at communal religious events, fiestas, individual rites of passage, weddings, and funerals. It is at these community events that alcohol use structures power dynamics within the Pumamarca. Community events are generally hosted by various high ranking and wealthy individuals within the community. In Pumamarca, as in many places, wealth is associated with power. The ability to provide drinks for a large number of guests is understood as a definitive demonstration of one's wealth. Correspondingly, the refusal of a drink at a hosted event is interpreted as a challenge to power. However, drunkenness is viewed negatively in the community, therefore making the power dynamic surrounding fiesta drinking even more complex: wealthy hosts have the power to make their guests drink and can often use their power to inebriate specific individuals for whatever reason. Intoxicated individuals are then negatively sanctioned by the community itself for violating normative values the community holds dear. In this complicated web of community events alcohol is variously associated with wealth, economic exchange, and ritual. In the process of those events, it also becomes an important mechanism that delineates and structures the social order and power dynamics in Pumamarca.

Though Pumamarca is a current example, the use of alcoholic beverages in the formation and maintenance of social structures within groups and alliances between groups has a very long history in the Andes. Archaeologists suggest that Incan rulers in pre-Columbian Peru, Ecuador, and Bolivia supported an elite class of *chicha* brewers who produced a special grade of *chicha*

over which the rulers maintained monopoly control (Morris, 1979, as cited in Heath 1990). Using individualized allocations of this special *chicha* apportioned to regional leaders, central Incan rulers were able to coordinate and control their vast empire through a system of rewards and punishments in which *chicha* was an important component (Rostworowski de Diez Canseco, 1977, as cited in Heath 1990).

As the Pumamarca example shows, alcoholic beverages are an economic commodity. Their production requires labor, time, energy, and agricultural materials -- scarce resources that could be used in other ways. In many societies alcoholic beverages therefore hold relatively high stores of value per unit of volume. As such, they are often symbols of economic status, and can also be used as a basis for establishing social credit. Heath (1990) points to a study of Australian aborigines conducted by Collmann (1979) as a case in point: "Binge drinking or 'sprees,' far from reflecting a breakdown of traditional society as is often presumed by outsiders, can fruitfully be viewed as 'especially appropriate ways of establishing potential credit among a generalized collectivity'" (Collmann 1979, p. 212, quoted in Heath 1990, p. 272) or "trying to develop funds of credit against long-term uncertainties, by spending current surpluses on liquor" (Collmann 1979, p. 221, quoted in Heath 1990, p. 272). In this society, an individual who spends money on drink for his friends during times of plenty can reasonably expect to recoup this investment later during times when he may be in need of help.

3.4 CEREMONIAL AND RITUAL ASPECTS

Among traditional Aymara communities of highland Bolivia, drinking is almost always associated with ritual and ceremony. In his ethnographic account, Carter (1977) proposes that

“uncritical acceptance, reverence, and compulsive behavior form the foundation of the sacred” (p. 102). Shared, sacred, ritualized objects and acts are potent binding forces that hold groups together. For the Aymara, distilled cane alcohol, often consumed nearly pure (89% ethyl alcohol), represents the sacred. Carter (1977) writes that alcohol use in Aymara culture differs from its use in Western society in four major ways:

First, it almost always occurs in a social setting. In traditional Aymara society, one is forced to drink specified amounts (usually three shots or three ‘fingers’ of a bottle) at a command from his host, and a solitary drinker is a rarity indeed. Second, the society produces practically no alcoholics, i.e., people do not usually develop a physical dependency on drink. Third, inebriation to the point of unconsciousness is perceived of as a ‘good’. A proper host will do everything possible to totally incapacitate his guests through drink. And fourth, alcohol is looked upon as a ritual object and, in traditional society, used only on ritual occasions (p. 109).

Alcohol is “surrounded by reverence, mystery, deep seriousness, and ultimate concern” and symbolizes the religious; “without it, one cannot enter the world of the sacred” (p. 109). Harvey (1994) helps to explain the rationale behind the obsession of many indigenous groups with complete drunkenness during ritual drinking sessions and notes that in the Andean context outsiders fail to “appreciate the total meaninglessness of drinking in moderation” (p. 216). In the Andes, drinking is understood as a way to transcend the natural world and channel supernatural power from the landscape that surrounds them. This can only be accomplished through utter and total inebriation to the point of unconsciousness. Further, unconscious individuals are associated with ritualistic human sacrifices offered during the Inca period. Such sacrifices, now made with animals, remain “central to the image of social cohesion and power in Andean culture” (p. 216). Here it is important to note that community norms heavily sanction individuals who drink outside of ritual times or whose “drunkenness is not harnessed to the regeneration of community” (p. 216).

3.5 GENDER AND ALCOHOL

Across the world, in almost every culture, women drink less than men. Biological characteristics are surely involved, though definitive proof of any of the popular biologically based theories is hard to find. Among the more prominent biological explanations are that women's gastric metabolism rates are lower than men's, that smaller volumes of body water facilitate the distribution of alcohol more quickly, that women are more biologically sensitive to the psychological effects of alcohol, that they are more likely to experience hangover symptoms, or that they simply do not derive as much pleasure from the behavioral effects of alcohol (Wilsnack, Wilsnack, & Obot, 2006).

While biological differences most certainly account for some of the variance in consumption by gender, cultural influences likely have more explanatory power. Wilsnack et al. (2006) suggest three theoretical explanations that explain gendered differences in drinking patterns: First, alcohol use represents and enhances men's power status over women. Men use cultural norms to deny women access to alcohol, thus defining them as unworthy of the "special" status that the ability to use alcohol can connote. Second, the use of alcohol often carries with it a sense of heightened sexuality -- or at least the expectation of heightened sexuality -- as well as increased enjoyment and improved performance. In many cultures, women's alcohol use is socially negatively sanctioned (motivated by male jealousy), ostensibly to reduce the likelihood that women will fall victim to the removal of sexual inhibitions thought to result from drinking. Third, alcohol use is constructed in some societies to include an element of risk, especially when consumed in large quantities. It is possible that women are more risk averse, or that men derive more enjoyment or social benefit from risk taking behavior. Risk taking also demonstrates masculinity, but not femininity in many cultures.

Harvey (1994) shows that in the Andes, married women drink less than men for many reasons. One is the gendered division of labor within marital relationships. Women's traditional work, such as cooking and child care, is seen as more continuous in nature, allowing little time for drinking. According to Harvey's cultural interpretation, women's work rarely requires collaboration, strength, or supernatural intervention, aspects of work that the use of alcohol often facilitates. Men on the other hand often engage in tasks perceived to be more strenuous, such as thatching, which require masculine strength, mutual assistance, and cooperation. In the Andes, drink is thought to facilitate men's work by acting as a social bond and by supplying individual strength.

3.6 DOMESTIC VIOLENCE AND SOCIAL PROBLEMS

Increased rates of physical and mental health disorders, high rates of accidental death, suicide, homicide, arrest, domestic violence and other social problems are often said to be caused by increased rates of problematic alcohol use. These claims demonstrate a simplistic and biased understanding of the complex interaction between alcohol use and social problems. An example from the Andes shows why. Harvey's (1994) Andean ethnography illustrates that while physical abuse occasionally does accompany alcohol abuse, the relationship is much more complex than the frequently stated notion whereby alcohol use causes physical abuse (Pyne, Claeson, & Correia, 2002). In Ocongate, Harvey insists that abuse is the result of the relatively weak and subordinate position of females in society, coupled with the fundamental identity crisis present in males who as men, "celebrate the relationship between maleness and social dominance yet simultaneously associate an indigenous identity with subordination and lack of social status" (p.

226). As men drink, they “are likely to experience strong cultural pressure to reassert a recognition of themselves as dominant, and to overcome the negative implications of their subordinate, indigenous, feminized identity” (p. 226). Thus males use violence against women as a mechanism by which they can establish their cultural identity in the midst of subordination to dominant social groups. Harvey convincingly shows that historic and systematic oppression and marginalization of the indigenous in Ocongate are the root causes of domestic violence, while alcohol is a mediating factor.

3.7 ANOMIE & SOCIAL STRESS

The concepts of depression and/or stress felt at the level of society are also often suggested uncritically as causal determinants of drinking within a given culture. In current literature discussing the acculturating effects of globalization, many articles report anecdotal accounts of sharp increases in alcohol consumption and often link these to the various pressures of acculturation or assimilation (Dressler, Ribeiro, Balieiro, Oths, & Dos Santos, 2004; Grant, Houghton, & Kast, 1998). However, serious anthropological work does not often accompany these assertions. Heath (1987) suggests that this “viewing-with-alarm is based on brief visits in which no attempt is made to understand the meanings and values that are attached to drinking or to compare those rates over time” (p. 30). Heath argues convincingly that what is often perceived by “experts” as new problematic drinking patterns accompanying social change are in fact not new, though they may be newly observed by outsiders. On this point however, Heath is inconsistent. In his later book, Heath (1995b) presents contradictory examples. In one section

he notes that acculturative stress following the fall of communism in Russia is one of the many factors that leads to heavy drinking among minorities there. He then goes on to say that

most other countries where there are significantly disadvantaged populations could probably say the same. As third and fourth world populations become increasingly involved with the capitalist economy and with manufactured beverages, this is a frequent (but not universal) trend” (p. 341).

However in his earlier review article, Heath (1987) cites a study by Kunitz and Levy (1971) which “demonstrated that ‘degree of acculturation’ did not correlate significantly with quantity or frequency of drinking among Navajos” (p. 31). Another study cited in that volume seems to confuse the debate further. De Walt (1979) found positive correlations between heavy drinking and both wealth and the adoption of modern methods in agriculture. In this example it is impossible to know what variables are causal, but either way in De Walt’s study, heavy drinking is associated with a better economic position and a more modern lifestyle, which seems to refute the folk wisdom that the modern world often drives peasants into poverty, causing individuals to use alcohol as a coping mechanism to deal with the stress associated with being poor.

4.0 POLITICAL & ECONOMIC THEORIES

The previous sections detailed the efforts of psychologists and anthropologists to understand and explain the determinants of alcohol use and abuse. The difference between the two perspectives is the unit of analysis employed. Psychologists study the interaction between the substance and the individual. Anthropologists focus on the level of the group, insisting that the social and normative context surrounding the individual and the substance is of primary importance in the search to understand behavior. The anthropological perspective informs what is known as the socio-cultural model of alcohol use, which holds to three basic pillars: (1) drinking behavior is primarily mediated by socio-cultural factors; (2) drinking patterns vary by culture in accordance to cultural differences and; (3) drinking and drunkenness serve a bevy of socio-cultural and psycho-social functions (Singer, 1986).

Singer (1986), writing in the journal *Social Science Medicine*, was the first to sharply criticize the approach of anthropologists and the socio-cultural model. In his article he notes that anthropology's almost exclusive concern with the local setting and context surrounding drinking can lead to a biased view of culture as a steady-state system. Singer rightly observed that since the European colonization of much of the world the idea of autonomous, temporally and spatially bounded cultures is in fact a myth. Colonization exposed cultures around the globe to powerful exogenous political and economic forces that actively and passively sought to modify values, markets, and social structures. Five hundred years later the same phenomena are accelerating.

The rapid improvement of communication and transportation infrastructure constantly shrinks distances and swiftly integrates global political and economic movements, magnifying cross-cultural contact that can prompt cultural shifts. Singer insisted that “life in a world system demands a global view” (p. 114). He called for the integration of a political-economy perspective into the study of alcohol use so that researchers could gain an understanding of the forces that “create the settings, bring into being the social groups, produce and promote the intoxicants, and generate the motivations for prodigious consumption” (p. 116).

The political-economy of health as defined by Baer (1982) is “a critical endeavor which attempts to understand health-related issues within the context of the class and imperialist relations inherent in the capitalist world system” (quoted in Singer 1986, p. 116). Based on this definition, Singer proposed a framework for the political-economic study of alcohol use built on the foundation of Frederick Engels’ seminal work, *The Condition of the Working Class in England*, which first appeared in 1845. In his study, Engels observes that alcohol use results in significant health and social problems. He then explains this use as the product of the interaction between capitalistic social conditions that cause class stratification coupled with increased availability of alcohol and the promotion of drinking through capital penetration of informal markets, amplified by advertising, and the influence of corporations on the state regulatory and tax apparatuses.

4.1 SOCIAL CONDITIONS, CLASS STRATIFICATION AND DRINKING

The capitalist system gives rise to distinct classes that differ by social and economic status and it has long been an axiom in the study of alcohol use in developed nations that drinking patterns

vary by class. Specifically, people of lower status were thought to drink more and to have more problems associated with drinking. The explanations given for this phenomenon are many: the rising industrial class encouraged consumption in the labor class by paying workers directly in alcohol; or by doling out their wages in a setting, such as a saloon, that encouraged drinking (which is still the case in some parts of the developing world); or alternatively that lower class citizens turn to alcohol to cope with the stress of being at the bottom of a new social hierarchy; or that drinking is an expression of lower class solidarity.

More recently, however, the assumption that higher alcohol consumption is strongly correlated with low socio-economic status has been challenged. Park (1983, as cited in Singer 1986) argues that the use of statistical data gathered from non-random samples such as treatment facilities and arrest records may significantly inflate the rate of alcohol use among the lower class. He and other authors point out the political convenience of the (incorrect) statistics, noting that high rates of alcohol use among the poor is commonly portrayed as causing, or at the very least contributing to, poverty (Grant, Houghton, & Kast, 1998; Heath, 1995a; Madrigal, 1998; Singer, 1986). This view is politically appealing to the rich and powerful classes because alcohol can then be used -- in place of class exploitation -- as the root cause of social and economic inequality.

4.1.1 Political Factors and Drinking

The state plays a role in shaping culture, which affects drinking patterns. Singer (1986) calls attention to three historic phases of state influence in developed nations. Before industrialization, the state primarily saw alcohol as a taxable revenue generating commodity and therefore sought to promote (or at least to not inhibit) consumption. Industrialization brought

with it a new mechanized mode of production along with the capital class' obsession for efficiency and its fear of a large, uncontrolled labor class. Temperance movements ensued as the capitalist class, working through the state, sought to improve efficiency and control the labor class by curbing drinking. Following World War II, large transnational corporations began to consolidate the alcohol beverage industry worldwide, producing a powerful lobby and special interest groups that pushed the state back toward promoting the industry through corporate subsidies, tax breaks and relaxed regulations (Jernigan, 2000a, 2000b).

4.1.2 Economic Factors and Drinking

Although alcohol can be a food, a symbol, or a poison, within the capitalist system it is almost always a commodity first. As such, it is subject to the economic laws of supply and demand as is any other product from which corporations derive profit. One path to greater corporate revenues is to increase demand for, and consumption of, a product. Increased demand is generated through marketing and advertising. These tactics, coupled with increased availability, work in concert to increase consumption.

Jernigan (2000a, 2000b, 2002a) argues that marketing and advertising campaigns of a globally consolidated network of trans-national alcohol-producing corporations have the potential to affect large cultural shifts in the developing world. Following World War II, a wave of corporate consolidation swept across the alcohol industry. For a variety of reasons, beer and spirits industries were especially susceptible to consolidation. Currently ten transnational companies control more than a third of global beer sales. Furthermore, those same ten companies have alliances with, or are part owners of, many of the world's other primary beer producers. For example, Anheuser-Busch, the undisputed international leader, owns a 25% stake

in Grupo Modelo, the largest Mexican firm, ranked 12th internationally in sales. Heineken, the world's second largest producer is allied with the world's 14th largest producer, Guinness, in most markets (Jernigan, 2000a).

Over the past 50 years, the world has been chopped up by multi-nationals into regional pieces such that each of the world's leading producers now has its own "sphere of influence." Together, Carlsberg and Heineken control Southeast Asia; South African Breweries (4th largest brewer in the world) and Guinness dominate Africa; Anheuser-Busch and Philip Morris' Miller are major players in Latin America.

Although transportation costs and a limited shelf life conspire to make economies of scale top out at the sub-national or regional level, a multiplicity of small producers does not proliferate at this level as would be expected in economic theory. Jernigan (2000a) explains this phenomenon and points to the implications for global alcohol consumption patterns.

Ideally, in a diverse local market, products compete against each other on the basis of price, quality, and availability. However, in the modern world where alcohol is produced in factories under mechanized conditions, the quality, price of production, and availability of different brands vary little. Thus competition between brands hinges on marketing and advertising. Here trans-national corporations have an advantage. A small set of brand images, developed through a single advertising campaign, can be used the world over and thus greatly reduces the price of advertising per barrel of beer sold for larger, globalized corporations. It is at the marketing and advertising node in the commodity production chain that trans-nationals exploit monopoly power, which allows them to flood the marketplace with a single commercial message. The potential impact on cultural assumptions and normative values surrounding alcohol use is vast. Rather than a world composed of a multitude of cultures receiving a

multitude of culturally specific, targeted, marketing campaigns from local producers, the situation is now this: a multitude of cultures receiving massive amounts of advertising material to develop and secure the image of one brand in each world region. Encoded in these global messages are critical (Western⁴) assumptions about the meaning, value, and appropriate use of alcohol that are often at odds with traditional cultural models of alcohol use.

The campaigns work. The entry of beverage advertising into a given market has been shown to increase consumption by at least 10% (Atkin & Bloch, 1980, as cited in Singer 1986). Globally, “mass advertising’s effectiveness in moulding consumer choice is...more pronounced in most developing countries where far fewer corporations bombard the consumer and where less effective consumer protection mechanisms exist” (Cavanagh & Clairmonte, 1983, p 36, quoted in Singer 1986, p 123).

⁴ “Western” refers to Western Europe and the United States.

5.0 UNIFYING THEORY

Examining alcohol use in the preceding sections, moving from the isolated individual, to the autonomous culture, and finally to the integrated global view, the preceding sections help to illuminate the psychological, socio-cultural, and political-economic forces at work in behavior change. My review of the literature points to three areas of enquiry that deserve more research attention:

- (1) Is the risk of problem drinking in subaltern groups, including the lower social and economic classes actually increasing over time?
- (2) If so, to what extent is this increased risk due to the effects of macro-structural changes commonly referred to as “globalization?” and;
- (3) What are the pathways by which macro-structural changes associated with globalization result in cultural and social shifts that eventually lead to behavior outcomes at the individual level?

Elucidating the first node of enquiry is rather straightforward. It requires detailed, consistent, long-term, and unbiased epidemiological studies, combined with a culturally and biologically relevant definition of “problem drinking”. While neither the data nor the methods for problem definition are unchallenged, there appears to be some consensus in the literature that problem drinking is in fact increasing in subaltern groups and populations with low social and economic status (Grant, Houghton, & Kast, 1998). For the purposes of this paper, I accept this assumption and focus on the second and third questions posed above.

A review of the literature reveals that each social science discipline has generated an impressive body of descriptive and theoretical work that seeks to understand and explain problem drinking patterns. Yet the insights generated by the disciplines of psychology, sociology, anthropology, and the political and economic sciences remain isolated and circumscribed by academic field. Furthermore, they are often portrayed as competing, rather than, complementary explanations. While theories from each of these fields may remain individually consistent internally and may explain the piece of reality they examine, each field is blind to the ways in which the forces each discipline studies often interact, react, combine, converge, and synergistically evolve over time to change, perpetuate, or create, patterns of problem drinking. The dismal record of international alcohol interventions (Grant, Houghton, & Kast, 1998), most of which are designed around a narrowly circumscribed understanding of drinking patterns drawn from one or another academic discipline, is testament to the fact that in reality problems are more than just a sum of their parts. What is needed to truly understand alcohol use in the developing world is a kind of nomadic social science theory⁵ that bridges disciplines and integrates influences from various social-ecological strata to produce a unified conceptualization of the relative magnitudes of causal forces that create and modify problem drinking patterns. In the following sections, I lay the groundwork for such a theory.

⁵ A term first used by Nestor Garcia Canclini (Garcia Canclini, 1995).

5.1 CULTURAL CONSONANCE

In three publications, Dressler and his colleagues⁶ (Dressler, Balieiro, & Dos Santos, 1997; Dressler, Balieiro, Ribeiro, & Ernesto Dos Santos, 2005; Dressler, Ribeiro, Balieiro, Oths, & Dos Santos, 2004) sketch out one such nomadic social science theory that could be of fundamental importance to gaining a holistic understanding of the interplay of macro-economic, socio-cultural and social-psychological dynamics that lead to an increased risk of problem alcohol use in groups with low SES in the developing world. The Dressler Group argues from a cognitive theory of culture perspective, suggesting that within any society there are “cultural models” of “how life is to be lived.” These cultural models are manifest in many domains such as material lifestyles, social support systems, family life, and diet. For each of these domains, a community (or cultural) consensus develops over time, which crystallizes the “ideal” type conceptualization of lifestyle, or family, or social support system. Working simultaneously, the various domains of cultural consensus constructed by a given culture combine to order behavior, determine normative values, and define how life is to be lived within that culture. The Dressler Group insists that these cultural consensuses are “cognitive representations, [that] guide behavior and enable others’ behaviors to be interpreted” (Dressler, Ribeiro, Balieiro, Oths, & Dos Santos, 2004, p. 711).

As originally explained by D’Andrade (1995) and Shore (1996), the cognitive view of culture was criticized because it lacked two important, related conceptual links: that between thought and action, and that between the cultural model of life and individual behavior. People within a given culture may all share a common cultural idea of how life is to be lived in the

⁶For the remainder of this paper, Dressler and the co-authors of these three papers will be referred to as the, “Dressler Group.”

various domains of material lifestyle, social support, and family life, but in actuality they do different things, believe different things, and engage in different behaviors. Thus, to the cognitive view of culture, the Dressler Group introduces a

theoretical construct and measure that can link the cultural to the individual. This is the concept of ‘cultural consonance,’ defined as the degree to which an individual approximates in his or her own behavior or belief the collective representation of a particular domain encoded in a cultural model (Dressler, Balieiro, Ribeiro, & Ernesto Dos Santos, 2005, p. 529).

In studies conducted in Brazil, the Dressler Group investigated the link between cultural consonance and blood pressure (Dressler, Balieiro, Ribeiro, & Ernesto Dos Santos, 2005). The group measured cultural consonance among individuals in four distinct socio-economic groups in a moderately sized Brazilian city in two domains: material lifestyles and social support. Their study showed that blood pressure differences across different SES groups are mediated by levels of cultural consonance in these two domains and that individuals with higher cultural consonance in either domain had lower blood pressures.

Measurement of cultural consonance was derived from a two-step process. First, the existence of a cultural model was tested by gathering data from a group of key informants to determine if cultural consensus around that model indeed exists. For example, the Dressler Group found that material lifestyle was best understood by his informants as composed of two main elements: consumer goods and leisure activities. Within each of these categories informants generated a list of items that could be used to understand the dimensions of the domain. According to the Dressler Group, “items ranged from basic domestic items (e.g., owning a house, basic furniture and appliances) to various forms of social participation (e.g., going out with friends, participation in voluntary associations)” (Dressler, Balieiro, Ribeiro, & Ernesto Dos Santos, 2005, p. 531). Informants then engaged in various ranking tasks to delineate a hierarchy of culturally derived importance placed on the items that represent the cultural meaning of “lifestyle” as it is expressed

through consumer goods and leisure activities. In the Dressler Group's study, a list of 33 items representing "lifestyle" was generated by the open ended key informant interviewing and participant observation process. Sixty six respondents representing all social and economic groups were then asked to rank the items on the list. The Dressler Group found that there was strong consensus among all respondents, irrespective of age, gender and SES as to the proper ranking of the items on the list. Therefore, "the results suggest there is a cultural model of lifestyle shared across socioeconomic levels" (p. 531).

The second step of the measurement process was a survey. Respondents were interviewed to determine to what extent their behavior (ownership of a house, basic furniture, participation in certain social events) approximates the cultural model. The closer the individual's behavior approximates the "ideal type" generated in the first step of the measurement process, the higher the individual's degree of cultural consonance.

The Venn diagram in Figure 1 can be used to visually understand the application of the construct of cultural consonance in this study⁷. Circles A and B represent the cultural models of social support and material lifestyle respectively. Circle C represents an individual's actual behavioral approximation of the "ideal" culturally constructed model. The overlap of circle C, with either A or B can be thought of as cultural consonance with the cultural model in that domain.

⁷ Figure 1 is my graphic interpretation of the construct of cultural consonance as described by the Dressler Group. The group does not present a graphic depiction of this construct in their articles.

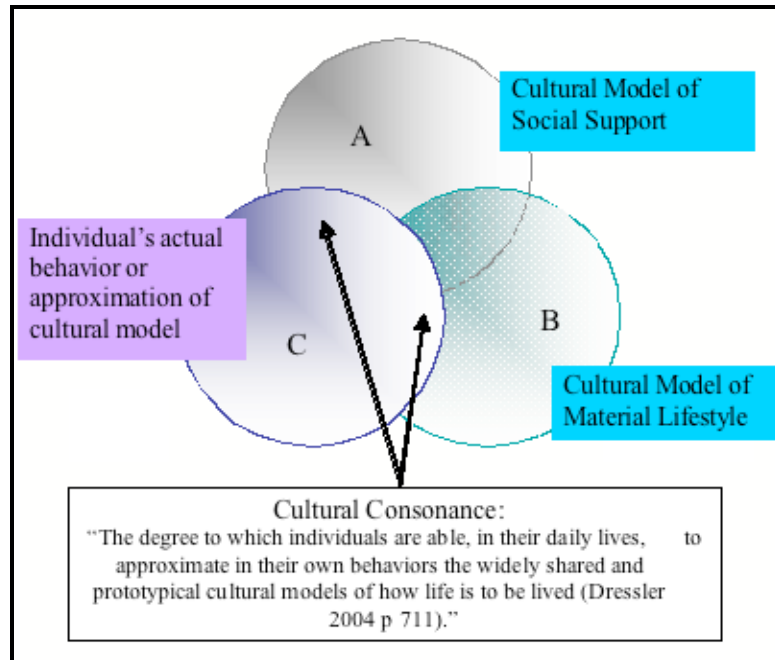


Figure 1. A Visual Representation of Cultural Consonance

Though the Dressler group did not initially set out to investigate patterns of alcohol consumption, an interesting finding emerged in the analysis of the blood pressure study: low cultural consonance was not only associated with higher blood pressure, but also with higher depressive symptoms and an increased likelihood of consuming five or more drinks a day. Furthermore, these variables completely account for the association of SES and drinking behavior. The Dressler Group also found that low cultural consonance was associated with an increased risk of heavy drinking even apart from an individual's level of depression.

In its discussion, the Dressler Group argues that the data support two possible mechanisms through which low SES influences drinking patterns. Each pathway may be at work simultaneously:

1. Low SES leads to low cultural consonance in lifestyle, which in turn leads to higher depressive symptoms, which in turn leads to more drinking behavior and/or;

2. Low SES leads to low cultural consonance in lifestyle, which leads directly to increased drinking due to “socio-cultural” stress⁸.

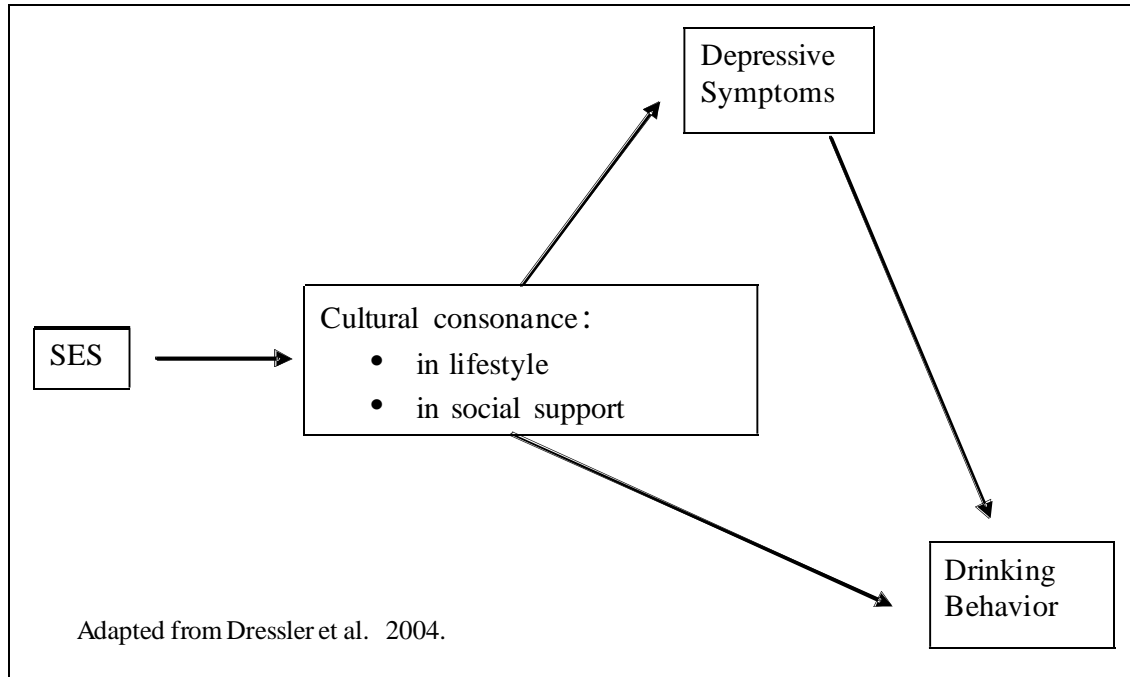


Figure 2. Pathways Connecting Social and Economic Status to Drinking Behavior

Figure 2 presents a graphical representation of the two pathways proposed by the Dressler Group. There are interesting implications of the two pathways mentioned above. First, changes on a socio-cultural level may lead to changes in behavior that are mediated by psychological conditions. Second, changes on a socio-cultural level may produce changes in behavior directly (or at least mediated by some alternative psychological condition other than depression). Based on these implications, the Dressler Group proposed that drinking among the poor is best understood as an adaptive coping mechanism that helps poor people deal with the

⁸ For whatever reason, the Dressler Group only alludes to this pathway and does not adequately define what “socio-cultural” stress truly is. By way of a definition the authors state, “in terms of low cultural consonance, in addition to the need to cope with the feelings of stress and depression that are its correlates, there may be a less conscious, but equally problematic sense of being left behind in life. The measurement of cultural consonance depends upon the existence of widely shared (and hence cultural) models of how life is to be lived. Persons with low cultural consonance (or low behavioral correspondence to the model) share in that knowledge, but are unable to act on it. Heavy drinking may be a means of coping with what is, in a culturally constructed sense, an existential dilemma. (2004 p, 717).”

“active psychological distress measured by the depression scale, along with the issue of coping with the socio-cultural stresses of low cultural consonance” (Dressler, Ribeiro, Balieiro, Oths, & Dos Santos, 2004, p 717).

The Dressler Group’s theoretical framework and data suggest the following conceptualization of the mechanism by which the effects of globalization disproportionately impact the drinking patterns of the poor. Globalization brings with it a new cultural model of how life is to be lived. In the process, culturally derived conceptions of lifestyle, social support, and perhaps other domains are radically and quickly changed as formerly closed markets open and multi-national corporations rush in, promoting all kinds of products through massive advertising campaigns. As important cultural domains shift, wealthy individuals are those most able to approximate these newly created cultural models in their own behaviors. The poor, however, are unable to live their lives according to the new cultural models that globalization exposes them to. Thus they are likely to have lower cultural consonance, which results in socio-cultural (feeling of being left behind) and psycho-social (depression) stress that in turn lead to increased use of alcohol as a coping mechanism.

5.2 THE LIMITATIONS OF THE DRESSLER GROUP’S MODEL

The Dressler Group’s model is a powerful analytic beginning to a unified understanding of how economic, political, social, cultural, and psychological factors influence drinking patterns in the developing world in the context of globalization. However, the model fails to accommodate two prominent themes that emerge from the literature review above. First, anthropological data reviewed by Heath suggest that patterns of increased drinking within

cultures serve various important purposes, not the least of which is to build solidarity and reinforce group cohesion, an observation first made by Engels as far back as 1845 (Heath, 1990, 1995a, 1995b, 1998). Increased drinking in subaltern groups need not necessarily be caused only by socio-cultural stress. Second, the Dressler Group's model does not acknowledge the fact that drinking behavior is often controlled by cultural norms and customs that limit and define appropriate consumption. Importantly, these cultural norms and customs are not static. Rather, they are malleable and may fluctuate or drift "naturally" over time as the entire culture changes, or they may be actively targeted and modified by sophisticated advertising and marketing techniques.

The limitations of the Dressler Group's model and research do not preclude the legitimacy of the pathways it suggests that link macro-structural transformations to individual behavior modifications by way of social and cultural variables. However, many other mechanisms, mediated by the two themes that are absent from the Dressler Group's model, are also possible. Figure 3 below maps alternative mechanisms through which macro-structural changes could lead to individual behavior changes via social, cultural, and psychological pathways⁹.

⁹ In my review of the literature I did not find a single published work that sought to categorically and systematically map the multitude of pathways through which behavior change at the individual level may be mediated by social, cultural, political and economic factors stemming from globalization. In all likelihood, the silence in the bibliography results because only a fool would presume to be able to comprehensibly describe the seemingly infinite causal chains that may be responsible. Furthermore, causal chains are certainly not the best conceptual rendering of the globalized reality surrounding alcohol use; a causal web is more appropriate. However, in light of my naiveté and aware that reducing reality down to a series of simple, linear causal mechanisms risks rendering the model impotent of any descriptive powers, I proceed.

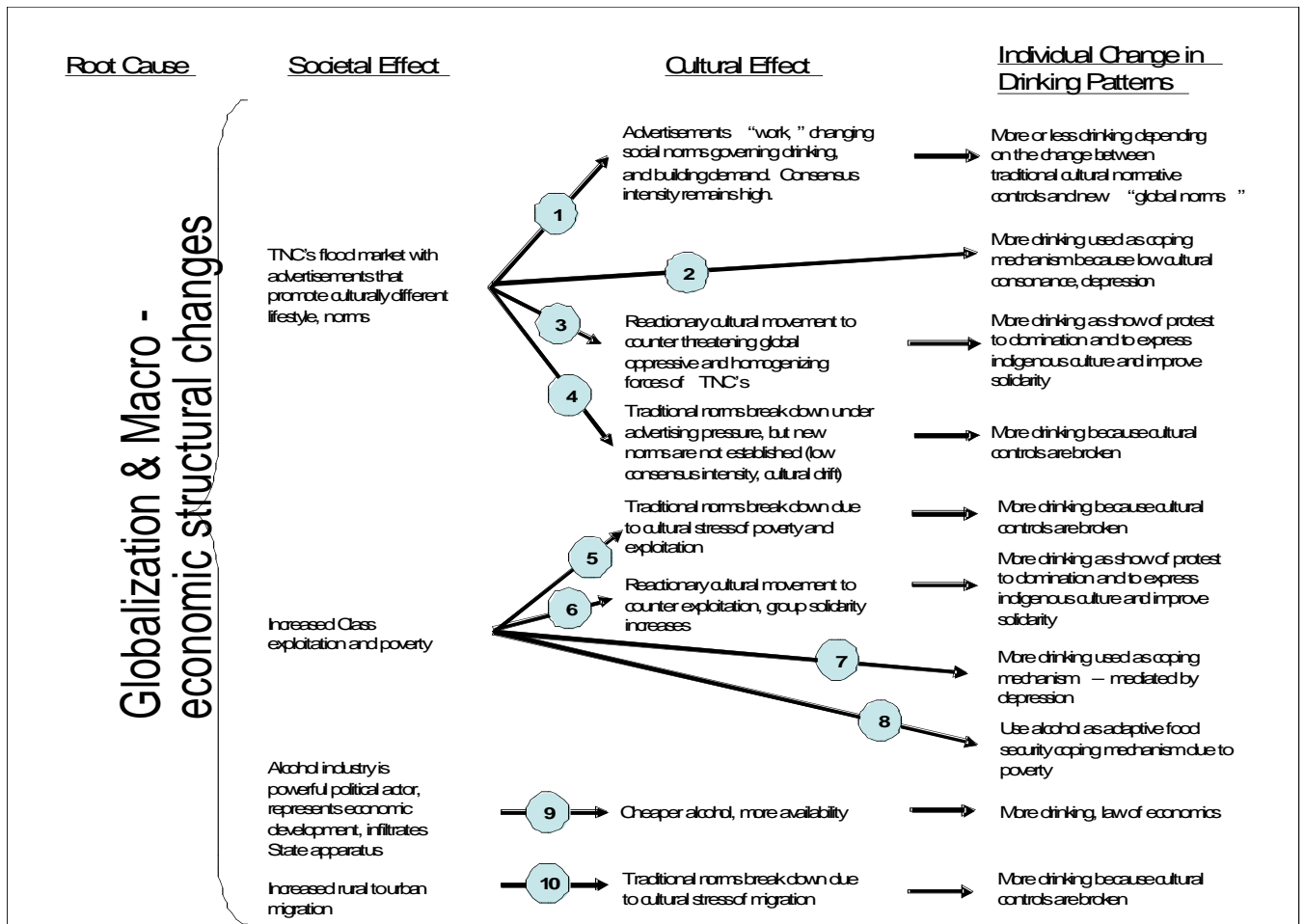


Figure 3. Pathways Through Which Macro-Structural Changes Affect Individual Drinking Patterns

Several features of the figure are important to highlight. The pathways numbered 2, 7, and 8, are meant to show that behavior change as a result of social change need not always be modified by cultural change¹⁰. In my model, an individual has “free will,” some degree of autonomy, and can be subject to psychological conditions that do not necessarily depend heavily on culture. The remaining pathways (1, 3, 4, 9 & 10) work through changes that take place at all levels, from the macro-structural all the way down to the individual. In some cases, the identical social change (increased advertising) may produce the same ultimate behavior change (more

¹⁰ According to Knipe (1995) “culture” is understood as a cognitive map of shared expectations that guide ideal behavior, while “society” refers to actual behaviors that are adapted to fit the particular economic and environmental resources and constraints.

drinking), but the mediating shift at the cultural level may be different (class solidarity vs loss of traditional norms). Specifically, pathways 3 and 6 incorporate the influence of the quest for cultural solidarity and group cohesion in the face of globalization on drinking patterns. Pathways 1, 4, 5, and 10 address the hypothesis that globalization may alter the cultural norms and customs that order, structure, and control drinking patterns. The list is almost certainly not exhaustive. I urge the reader to remember that multiple pathways are, in most cases, simultaneously at work and that they likely interact synergistically.

5.3 BEYOND THE DRESSLER GROUP

The following paragraphs build on the Dressler Group's model and sketch a unified theoretical base that can accommodate each of the pathways described in Figure 3. Recall, the Dressler Group investigated the relationship between cultural consonance in the domains of lifestyle and social support with drinking behavior (Dressler, Ribeiro, Balieiro, Oths, & Dos Santos, 2004). They found that lower cultural consonance in lifestyle was associated with an increased risk of heavy drinking *even without* the mediating psychological factor of depression, suggesting that another (or many) mediating factor(s) may be at work. They believe that factor is socio-cultural stress, which as they put it is the existential dilemma that results when an individual shares in the knowledge of a cultural ideal type model of lifestyle or social support, but is unable to act on that knowledge. Yet my review of anthropological studies in this paper suggests that drinking is also often an expression of a class-based social identity that is formed in the face of oppression and is characterized by a resistance to the norms of dominant social groups. Based on these data, I theorize that another entirely different cultural model may exist

within the society of a developing country and that this cultural model is based on a sub-altern class or ethnic identity^{11,12}. My model therefore builds on that of the Dressler Group, acknowledging the influence of cultural consonance in the domains of material lifestyle and social support on individual drinking patterns, but posits that drinking behavior is in actuality determined by the individual's interaction with three cultural domains rather than two: material lifestyle, social support, *and* sub-altern identity. A cultural model of sub-altern class or ethnic identity would necessarily have to include drinking behavior (how much, when, where, for religious purposes or not), and may also include ownership of certain items (traditional dress), and/or participation in traditional religious ceremonies or certain sporting events, and/or use of traditional healers. As noted, Figure 1 (p. 36) visually presents my interpretation of Dressler's model. Figure 4 below presents my new model and shows the interaction between the individual and the three domains of cultural consonance I propose.

¹¹ The idea for my hypothesis comes from a footnote in which Dressler himself suggests this alternative hypothesis (Dressler, Ribeiro, Balieiro, Oths, & Dos Santos, 2004, p. 718).

¹²For the purposes of this paper the idea of sub-alternate, class based identity represents the collective identity of groups that have lower social and economic status (i.e. lower class) or that are "indigenous," or cultural minorities, or any combination of low economic status and sub-altern group.

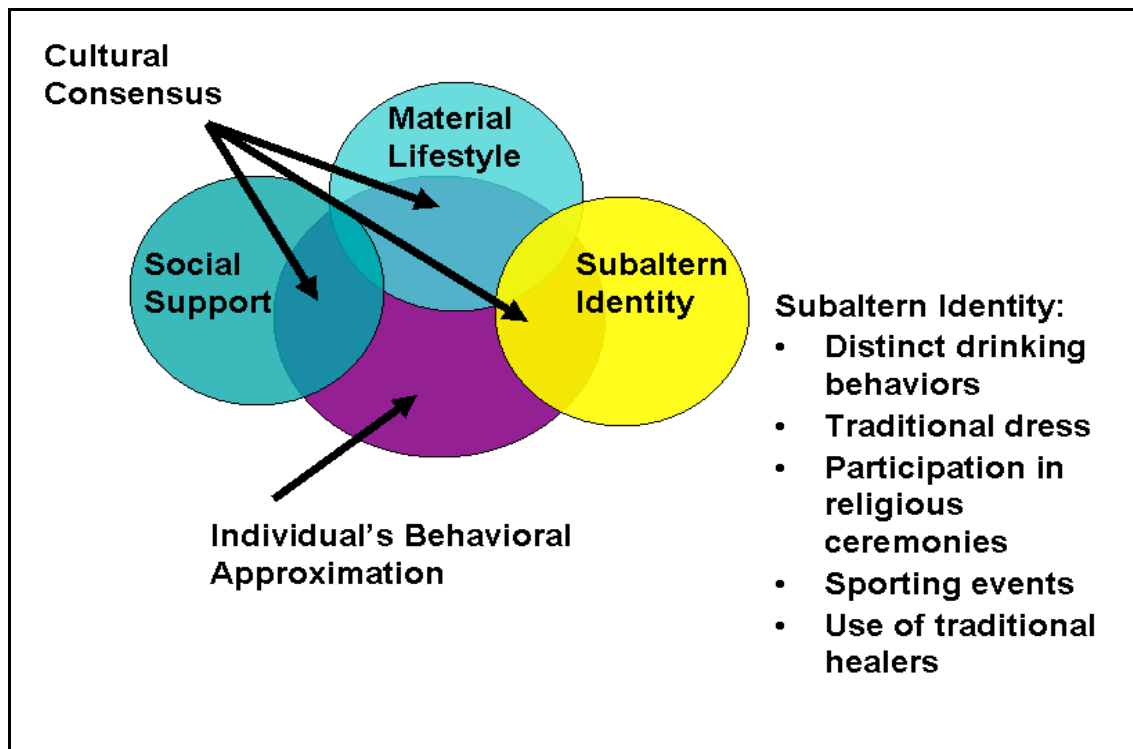
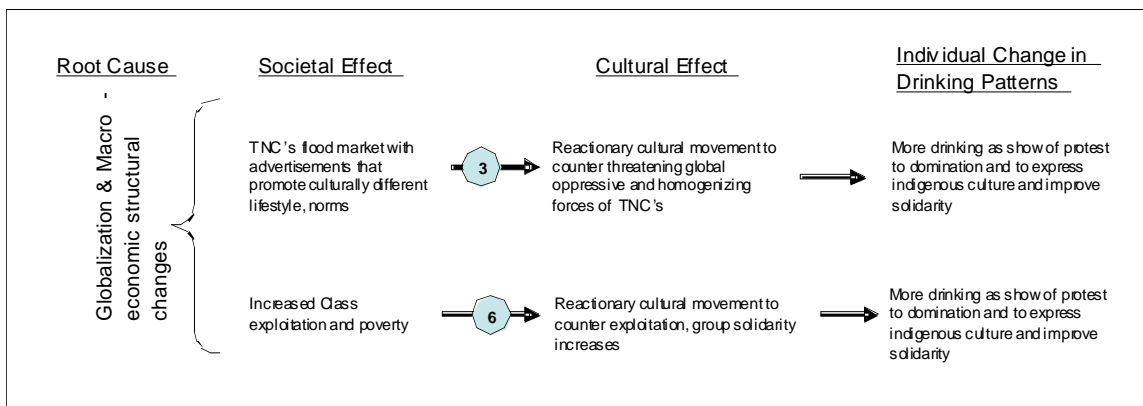


Figure 4. Three Domains of Cultural Consonance

Building on the Dressler group's model, the addition of a new cultural domain facilitates the investigation of the legitimacy of pathways 3 and 6 of Figure 3 that are reproduced below.



If these pathways are responsible for changes in drinking patterns, then empirical research would show that drinking behavior was indeed a constituent element in the domain of “indigenous identity” and that a high degree of cultural consonance in that domain was correlated with increased drinking behavior.

While my new model is able to accommodate pathways through which the need for sub-altern group solidarity and cohesion impacts drinking behavior, it does not yet address the notion of drifting or changing cultural norms that govern drinking over time. In my model, cultural norms that specifically govern drinking behavior are part of the larger cultural domain I refer to as “sub-alternate class identity.” Importantly culturally constructed domains are not static, but rather can be highly contested at particular moments in time and changes to the collective consensus resulting from a cultural “negotiation” process can happen. I hypothesize that the progression of change proceeds through these steps:

Initially, at some time point in history, a cultural domain may be defined in a certain way and a consensus of that definition is widely shared throughout the community. As time passes internal or external forces may influence an individual’s notion of the constituent elements that form the definition of a cultural domain. Though a consensus that the cultural domain exists within a community may be shared by individuals, during this period the important elements that define its nature are contested, and a consensus upon the definition of the domain does not exist. At a later time point a consensus re-emerges around a new set of constituent elements; the cultural domain remains, but its nature is fundamentally altered.

A simplified, concrete, hypothetical example may be helpful. Let us say that when prompted in a survey to describe the prototypical cultural model of “having an indigenous identity,” 95% of Aymara people living in Bolivia in 1950 would have depicted a cultural model based on the following three elements: (1) drinking at religious ceremonies to the point of unconsciousness, (2) eating a diet based on several kinds of potatoes, and (3) owning llamas (Figure 5).

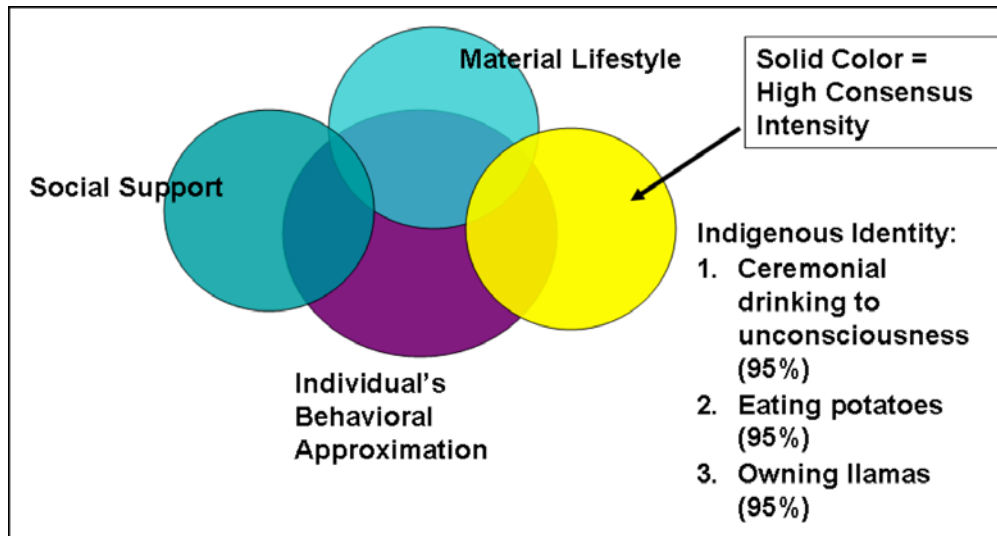


Figure 5. Consensus Intensity and Stability in Hypothetical Aymara Example (1950)

In 1970, while 95% of Aymara people would still respond that eating potatoes and owning llamas were constituent elements of an indigenous identity, drinking to the point of unconsciousness at religious ceremonies would only appear in half of all responses. Drinking smaller amounts every afternoon following work in La Paz at local indigenous pubs would now appear in the other half of responses (Figure 6).

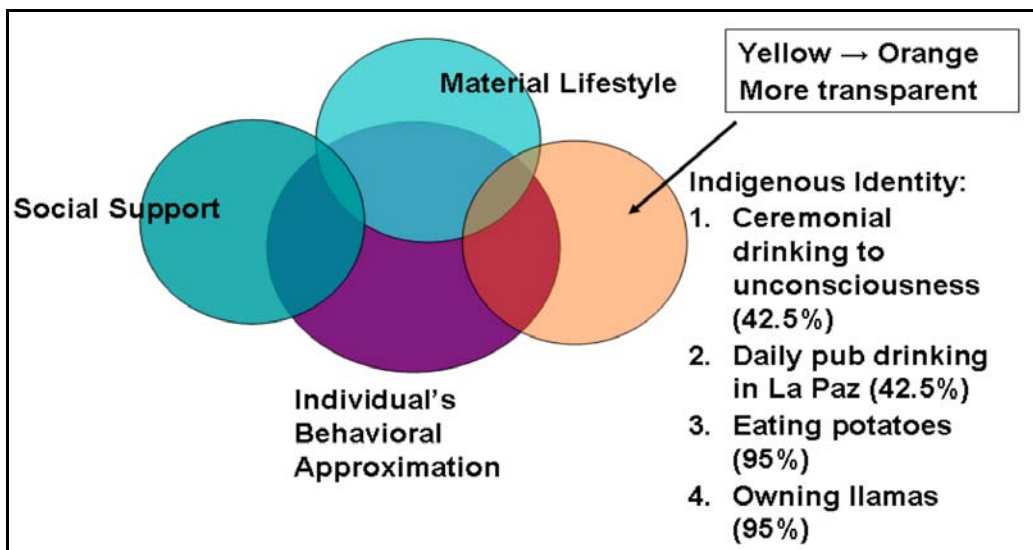


Figure 6. Consensus Intensity and Stability in Hypothetical Aymara Example (1970)

In 1980, 95% of Aymara people would again agree that eating potatoes and owning llamas were constituent elements of an indigenous identity. Further, drinking at local pubs after work now appears in 95% of responses, while drinking to the point of unconsciousness at religious ceremonies appears in only 5% of responses (Figure 7).

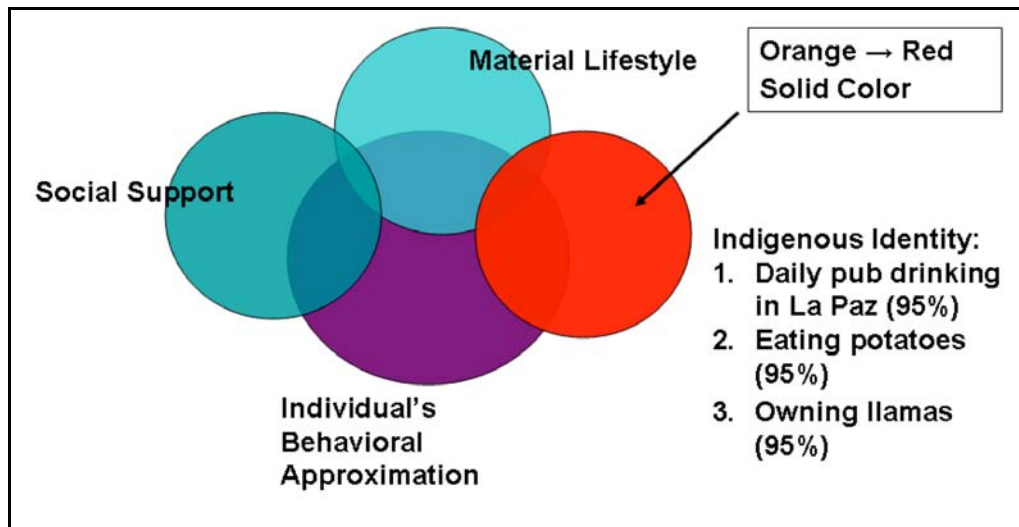


Figure 7. Consensus Intensity and Stability in Hypothetical Aymara Example (1980)

Thus over a 30 year period a new consensus governing drinking norms and defining the cultural domain of indigenous identity emerged. Though the cultural domain of “indigenous identity” never disappears, some of its constituent elements change for whatever reason. At certain moments the fundamental nature of the domain is highly contested, and there is little consensus surrounding certain important constituent elements.

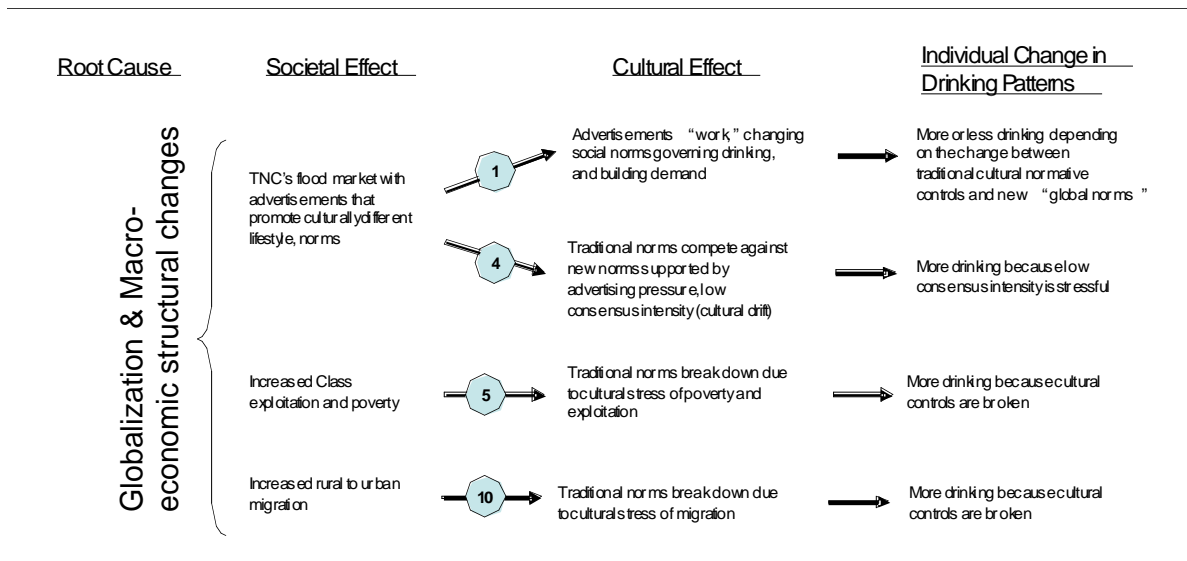
Linking the insights that cultural models themselves may shift, and that in the process the degree of cultural consensus surrounding cultural models varies, with my expanded version of the Dressler Group’s static cultural consonance model generates a new model with increased descriptive power. Two new constructs and measures improve the model’s reflection of reality. First, the construct of “consensus intensity” or the degree of cultural consensus must be assessed. A consensus is not a dichotomous construct. While there are qualities of life that nearly all

individuals in a given community probably share, other qualities, or values, or beliefs may be more highly contested or less widely shared. This concept could be measured by a scale derived from the statistical likelihood that any two individuals in a community would select and rank constituent elements of a given domain in the same way. Second, the construct of “temporal stability” must be assessed as it relates to both the intensity of consensus, as well as to the actual definition of the cultural domain over time. How much does the degree of consensus today match the degree of consensus yesterday? What is the rate of change over time? Temporal stability as it relates to consensus intensity could be measured as a percentage change in consensus intensity compared to some based year. The temporal stability of the constituent elements that compose the cultural domain could be measured based on the degree of change in the rank of importance of constituent definitional elements by the group consensus compared against a base year.

Using the simplified Aymara example above helps to clarify the meaning of the new constructs. Visually on the Venn diagrams of Figure 5, 6, and 7, constructs of the enhanced model are represented through color and opaqueness. Changes in the color of the circles that represent the cultural domain of indigenous identity from yellow in 1950 to red in 1980 represent changes over time (temporal stability) in the actual definition of the domain (the shift in culturally shared models of drinking from that which results in unconsciousness for religious reasons to daily pub drinking in La Paz). Changes in the intensity of consensus are represented by movements along a scale between opaque and transparent, where opaque signifies complete cultural consensus and transparent signals very little consensus. In the example, consensus intensity in 1950 is high because 95 percent of Aymara people agree on the three constituent elements of the domain definition. Thus the yellow circle that represents the domain is opaque.

However in 1970, consensus intensity is diminished as Aymara people clash over the nature of the ideal type drinking behavior included in the domain of indigenous identity (pub drinking or ceremonial). Diminished consensus intensity is shown in Figure 6 by a more transparent circle representing indigenous identity. As consensus intensity resettles around a changed domain definition in 1980, the opacity of the circle representing the domain in Figure 7 also returns. Thus over the 30 year period examined in the example, the definition of the domain shifted (represented by color changes from yellow to orange, to red) and the consensus intensity fluctuated (represented by changes in opacity)

Changes in the cultural domain definitions and consensus intensity over time help to understand the salience of pathways 1, 4, 5, and 10 from Figure 3 that are reproduced below.



If changes in drinking patterns proceed through pathway 1 in a given society, then longitudinal empirical research would demonstrate changes in the definition of the cultural domains that govern drinking behavior (cultural identity) over time. Though at certain points throughout the definitional shift, consensus intensity may wane, pathway 1 predicts that eventually consensus intensity is rebuilt around a new set of rules governing drinking behavior.

Changes in drinking patterns could result in either more or less drinking depending upon how the new cultural definition compares with the old definition.

Pathway 4 describes a scenario in which the concept of a cultural domain that governs drinking patterns exists, but there is very little consensus intensity surrounding any particular definition. New definitions, supported by internal (changes in lifestyle) or external forces (i.e. advertising), compete against old definitions and low consensus intensity results. It seems likely that low consensus intensity may be a stressful situation for the individual. In the absence of other mediating factors, this situation may produce more drinking in the individual who uses alcohol as a coping response.

Pathways 5 and 10 describe situations of complete domain breakdown or disappearance. The cultural stress of poverty or migration may produce a situation where the very cultural domain of “cultural identity” disappears completely. Normative regulations that control drinking and that are fundamental constituent elements of this domain therefore also disappear and consensus intensity becomes irrelevant. Drinking may increase for two reasons. First, the demise of any cultural domain is likely to be a stressful event for the individual; the consequences of stress may lead to the use of alcohol as a coping mechanism. Second the demise of the cultural domain that also happens to govern drinking patterns produces a situation in which drinking is no longer tied to any cultural controls.

6.0 DISCUSSION

The trans-disciplinary literature review I present earlier in this paper demonstrates that drinking patterns are determined by a complex web of powerful influences. Multiple psychological, biological, social, cultural, political and economic forces interact to limit, control and proscribe drinking behavior at the individual level. Even the very definition of “problem” drinking is highly contested and up for intercultural debate. Drinking patterns in any culture are governed by a set of internal social and cultural normative guidelines that determine who drinks, how much to drink, when to drink, and with whom to drink. Problem drinking within any culture occurs when any of these normative guidelines are violated.

The anthropological literature points out that while drinking is subject to culturally constructed rules and regulation, drinking behavior itself is also a fundamental component of the majority of cultures worldwide. Drinking behavior is integral to the maintenance of religious beliefs, cultural and class identity, social interaction, and ritual collective expressions of joy and sorrow. Alcohol is a powerful substance with many faces indeed; it can be a symbol, a commodity, a food, a beverage, a drug, a poison, or a tool for domination, depending on the context in which it is ingested.

The anthropological literature demonstrates that alcohol policy simply cannot be determined at the national level. No matter how well intentioned, outsider public health professionals who lack in-depth knowledge of the social and cultural meaning surrounding and

governing alcohol use in any given place are ill advised to uniformly and globally define what problematic drinking is, what its causes are, and what the most effective policy and intervention solutions should be. At best they risk squandering scarce and valuable resources on poorly designed policy prescriptions. At worst they risk contributing to cultural destruction and weakened community solidarity; their interventions may even violate social and cultural human rights.

Due to the complex and locally variable nature of alcohol related problems, the search for effective and ethical interventions must begin with the generation of rigorous and systematic knowledge guided by theory. Yet theory guided research is often circumscribed by academic discipline and often oversimplifies the situation it seeks to explain. Interventions generated from this narrow-sighted perspective are weak and ineffective. The unified model I propose here could be used to guide investigations into the mechanisms by which cultural constructions at the aggregate level affect behavior and health at the individual level. The model is ethical because it places culture in the center of the causal web that creates drinking patterns. Yet the model is powerful because it spans social-ecological levels and connects culture to both macro-structural change and individual behavior over time. Furthermore, the model is rigorous because it uses quantifiable theoretical concepts derived from multiple disciplines that become measurable through the use of diverse methods to gather data.

Knowledge derived from the application of this research model can be used by policy makers, and even communities themselves, to help explain the mechanism through which globalization causes (if indeed it does) an increase in alcohol consumption at a local level. Is it purely the result of macro-economic forces as the economists theorize? Or is it the result of abrupt shifts in the cultural models of life style and social support, to which the rich can adapt

quickly, but the poor are left behind and therefore turn to alcohol to help them cope? Or does increased consumption occur as the result of the revitalization of indigenous identity that often follows as a “backlash” or counter to globalization from subaltern groups in the third world? Or does globalization cause a shift toward western cultural norms and values surrounding drinking and thus change the culturally constructed limits placed on drinking? Is the process of shifting cultural domains inherently stressful and does that stress cause more drinking? Does waning consensus intensity provoke stress in the individual and does that cause more drinking? Or does globalization simply result in the destruction of traditional cultural norms and values without replacing them with a new set, leaving a gapping void, no limits, and cultural chaos?

Finding the answers to these questions is important. A thorough understanding of the root causes of drinking is fundamental to the efficacy of any intervention. An intervention program informed by the notion that problem drinking is a coping mechanism used by those with low cultural consonance in lifestyle would not be appropriate to a population whose drinking problem is really the result of a high degree of cultural consonance with indigenous identity.

Nuanced information is essential because if we are to ameliorate health disparities it is simply not enough to know that they exist; we must know why they exist. A problem definition rooted strictly on the economic theory that as globalization marches on the supply of alcohol available in the developing world becomes greater and cheaper, and thus causes increased consumption -- is much too simplistic. The force of economics is but one driver among many in creating patterns of alcohol consumption. Unweaving the strands of the causal web may be a complex, difficult, and messy task, but ultimately, that is the only path to creating effective, ethical interventions that promote and celebrate cultural diversity and power.

7.0 CONCLUSION

This paper sought to develop a hybrid, unified model of alcohol use. In that quest I reviewed literature relevant to alcohol consumption patterns written from multiple academic disciplines. Bringing perspectives from psychology, sociology, anthropology, political science and the study of economics together, I organized my review around three distinct levels of the social-ecological continuum: the personal, the community, and the global. To these diverse perspectives, I introduced the Dressler Group's conceptualization of cultural consonance, which is founded on a cognitive theory of culture perspective. To its model I added the new cultural domain of "indigenous identity" and two new constructs, consensus intensity and temporal stability, which imbue the framework with broader and stronger descriptive powers to better accommodate the rapidly shifting cultural domains likely to be found in the globalizing world. Finally, I discussed the implications of knowledge generated by the application of my new model. The developing world is replete with complex, multi-dimensional problems to which easy solutions are unlikely to be forthcoming. Yet, I believe that solutions do exist and that often, the solution is partly in the process of studying the problem. In the process of studying how culture at the aggregate affects behavior at the individual, in-depth cultural understanding will be generated. Windows that help us look onto different conceptions of health may open and the door for cross-cultural dialog may be flung wide. At the very least, these opportunities seem justification enough for culturally centered research. But there is value to empirical research

beyond that found in the process. The outcome of in-depth empirical study, if properly incorporated into intervention design, will be better mental and physical health for many individuals in many countries – key steps toward a better world.

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