

CULTURE, ADAPTATION, & MEANING [ANTH 457]

A Philosophical Prologue

According to Rappaport (1971:246),

Nature is seen by men through a screen composed of beliefs, knowledge, and purposes, and it is in terms of their cultural images of nature, rather than in terms of the actual structure of nature, that men act. Therefore...if we are to understand the environmental relations of men [it is necessary] to take into account their knowledge and beliefs concerning the world around them, and their culturally defined motives for acting as they do. But...although it is in terms of their conceptions and wishes that men act in nature it is upon nature herself that they do act, and it is nature herself that acts upon men, nurturing or destroying them.

Rappaport (p 247) goes on to say that in order to deal with discrepancy between cultural beliefs about the environment and the environment as it really is, the anthropologist must construct 2 models of reality: one = the "cognized model," the other = the "operational model"

He argues that the cognized model is part of a human population's "*distinctive means of maintaining itself in its environment*" (p 247)

Thus, a cognized model should be judged not on how *accurate* it is (i.e., in comparison with the operational model) but on its "functional and adaptive effectiveness" -- the extent to which it motivates behavior which favors the biological well-being of the population and its ecosystem (ibid)

What Rappaport is wrestling with here is an example of recurrent tension between *emic* & *etic* analyses in the human sciences:

- emic (after *phonemic*, and rhyming with it) = description or analysis in terms meaningful to member of a given culture (Rappaport's "cognized model")
- etic (after *phonetic*, and ditto) = description or analysis in terms meeting logical & empirical criteria of natural science (Rappaport's "operational model")

Some relativists argue that any so-called etic view is just another emic one; while this may be true, science is a special kind of emics that follows certain epistemological rules, and attempts to be continually self-correcting

(*Nota bene*: Although there is no way to show that science leads to truth in some absolute sense, there is also no way to show that it can't: a claim that there can be no absolute truth is after all a truth claim of a rather absolute sort, and hence self-negating)

In ecol. anth, the tension between emic vs. etic is manifest as a controversy over how to explain ecologically-significant practices of different cultures: as phenomena conforming to scientific principles (e.g., laws of physics, adaptation via natural selection) that apply everywhere; or as culturally specific ways of perceiving, valuing, and using environments

The first strategy is etic & generalizing; 2nd is emic & particularistic

Most ecol. anthros take a middle ground in this debate, holding that in order to understand how & why people do what they do in any sphere of their life (including ecological), one must include a systematic understanding of the beliefs and values which lead them to act in the way they do (emics), but that this can be done using epistemological procedures of standard science (etics)

The subdivision of ecol. anthro known as *ethnoecology* (or ethnobiology) tackles this issue most directly; indeed, ethnoecology can be described as the scientific (etic) study of ecologically-related emics

Ethnoecological Research

As a means of coordinating the UW curriculum in ecol. anthro, Gene Hunn and I have agreed to a certain division of labor between this course and his course on Ethnobiology (ANTH 458)

Among other things, this means that ethnoecology gets short shrift in this course while it is central to 458; nevertheless, for internal completeness it's necessary to pay some attention to ethnoecology here

Our assigned readings discusses some key concepts of ethnoecology, plus summarizing some representative studies, but there is a large literature on this (hence, ANTH 458)

A fundamental assumption of ethnoecology is that humans perceive and act on their environments on the basis of culturally-derived beliefs and goals

For example, Hunn (1989) contrasts cognitive *images* (taxonomies, maps, and other cultural/symbolic representations of the world) with cognitive *plans* (flow-charts, decision sequences, and other symbolic procedures for formulating behavior)

He suggests that the adaptive and ideational perspectives can be united in ethnoecology via the analogy *culture is to behavior as genotype is to phenotype*

Hunn argues that "culture [is] a system of information that serves as a blueprint for a way of life" and that culture "is ultimately judged by how well it sustains and promotes that way of life" (145)

So Hunn and Rappaport take rather similar positions in this regard, though Hunn draws on a more formal cognitive & semiotic (symbolic communication) theory

Various critics (incl. Vayda & Rappaport) have raised some criticisms of ethnoecological approach:

1. Ethnoecology leaves out environmental processes that are not understood or conceptualized by actors.
2. Studying people's cognitive models does not answer questions about cultural adaptation and the origins of their beliefs.
3. Verbal accounts may be post-hoc rationalizations (deception or self-deception).

Hunn and other ethnoecologists have responded to these criticisms in a variety of ways, including broadening the scope of ethnoecology in ways that avoid some of these limitations

Turning now from this brief examination of ethnoecology, we need to consider how to link decisions informed by cultural meanings to Darwinian concepts of adaptation discussed in previous lecture and reading (Irons)

Culture & Adaptation

The concept of "culture" has at least as many meanings as does "adaptation," so I want to begin by laying out the definition I follow: *Culture consists of socially acquired information*

By "information" I mean beliefs, values, ideas, knowledge, norms, etc.; by "socially acquired," I mean transmitted from another person (directly, through imitation or teaching, or indirectly via artifacts containing symbolic or iconic information, as in writing, images, etc.); it therefore follows that novel ideas or beliefs are not part of culture until they are socially transmitted

Note that by this "ideational" definition, behavior, artifacts, and the like are *not* culture per se, though these may be heavily informed or shaped by cultural information

This definitional move may seem counterintuitive, or even perverse, but it can be justified as follows:

- 1) culture as *information* ("memes", etc.) is analogous to genetically-inherited information ("genes");
- 2) artifacts and culturally-informed behavior represent the phenotypic expression of cultural information (in a manner analogous to the phenotypic expression of genes) -- in fact, behavior **is** an aspect of phenotype, and artifacts can be thought of as "extended phenotypes" (like beaver dams, beehives, bird nests, etc.);
- 3) behavior and artifacts are never purely cultural, since they also shaped by a) genetic information, and b) physical constraints (physics, chemistry, etc.)

Following this definitional detour, let's turn to the central question: Can we analyze culture using the adaptationist logic of evolutionary biology? Culture presents something of paradox for Darwinian theory:

On one hand, we know that cultural variation (variation in socially acquired beliefs and preferences) is due to social learning, and *not* genetic variation

On the other hand, the capacity for cultural transmission is a biologically evolved attribute of our species, and in fact requires complex biological structures (brain mechanisms, vocal structures, delayed maturation, etc.) that must almost certainly be products of evolution by natural selection; fundamental principles of biological evolution imply that these structures (the "capacity for culture") would only have evolved and be maintained by natural selection if they were used in ways that on *average* enhanced the fitness of their bearers

So while specific cultural *variation* is not caused by genetic *variation*, the *capacity* for culture is genetically evolved by natural selection; thus we have grounds to predict that cultural variation serves fitness-enhancing ends on average

(If this sounds rather like my earlier discussion of phenotypic adaptation as being ultimately a product of genetic evolution, that's exactly what I intend)

While the logic of natural selection and the evidence of human evolution (relatively rapid and steady selection for larger brains and mechanisms for symbolic communication, etc.) strongly suggest that cultural variation is adaptive, we need some additional theory to tell us *how* this might work--to fill in the mysterious processes of "ecological adaptation" presumed by Steward, Rappaport, and other ecol. anthros

Recent work suggests two pathways by which cultural variation may lead to adaptive behavior (hence, offers two complementary frameworks for integrating Darwinian and cultural views of human behavior):

- 1) via genetically evolved preferences and learning biases
- 2) via natural selection acting on *cultural* (not genetic) variation

The remainder of this lecture explores these two mechanisms of cultural adaptation (in the process taking us beyond ecological anthropology per se)

Learning Biases

First framework proposes that cultural variation is channeled by genetically-evolved cognitive mechanisms that guide learning -- brain structures that make learning a non-random process and produce (on average) fitness-enhancing behavior

All animal species are capable of learning to one degree or another, but humans have obviously elaborated this attribute the most

One evolutionary explanation for this is that the human lineage has evolved under a ecological circumstances in which learning many things as rapidly as possible has been *adaptive* (fitness enhancing), hence favoring genes that built brains best designed for this task

Specifically, humans are evolutionary products of turbulent Pleistocene epoch characterized by massive environmental change on a scale that dwarfs even global warming, deforestation, ozone depletion, and species extinction of contemporary industrial civilization; recent research (e.g., using Greenland ice cores) shows that this Pleistocene change was often extremely rapid (e.g., major climate shifts year by year)

Furthermore, much of the success of our species is due to our being ecological *generalists* who can exploit many different types of niches, be flexible about what we eat, habitats we live in, species we interact with, etc.

To large degree, this adaptive flexibility is due to culture: we learn what works in novel environments, invent new ways to adapt to them, and pass on this knowledge through cultural traditions

In other words, culture can be seen as a way of fine-tuning genetic adaptation -- just like individual (trial-and-error) learning, only more so, since through cultural transmission we can learn from trials of others as well!

In order to do this, we have to be relatively open to learning lots of different things: in simplistic language, we rely less on "instincts" and substitute learning and cultural transmission

But in order for this approach to be favored by natural selection (which, remember, has "designed" the human brain and other elements of the capacity for culture such as the vocal apparatus we use for linguistic communication), we have to be "programmed" to learn and culturally assimilate (at least preferentially) those strategies and innovations that are adaptive (fitness-enhancing)

This is the proposed role of innate learning mechanisms: they guide cultural variation by providing adaptive criteria (such as avoiding pain, and increasing access to food, status, and mates, etc.) that can be used to *evaluate* the "payoff" from cultural innovations

Put another way, cultural innovation & behavioral flexibility allow humans to generate novel behavioral responses, which are then *evaluated* in terms of their fitness-correlated *consequences*. This evaluation (though not necessarily conscious) is hypothesized to be handled by "learning biases" (cognitive mechanisms shaped by natural selection for this very purpose)

If some innovation leads to maladaptive consequences such as sickness, injury, loss of status, or the like, learning biases built into our brains should increase the chance that the innovation will be rejected--and conversely for innovations that lead to adaptive consequences

As an example, consider the adoption of a technological innovation: bow & arrow

We know from the archaeological record that bow & arrow replaced spear as main hunting projectile several thousand years ago

This happened when environmental & economic changes resulted in shift from big-game hunting, for which spears are most effective, to hunting of smaller game with more suitable bow & arrow

Since this occurred among fully evolved *Homo sapiens*, and was far too rapid to involve "genes for bow & arrow hunting" replacing "genes for spear hunting", it is clearly *not* a case of genetic evolution

On other hand, while initial development of new technology no doubt require individual trial-and-error, spread of bow & arrow technology is too rapid to be due solely to this process repeated over & over again; hence we conclude that it involves cultural transmission

So what does any of this have to do with Darwinian adaptation?

Learning-bias framework suggests that this cultural change occurred because people everywhere possess innate (and presumably genetically-evolved) learning biases to prefer outcomes that increase their own economic well-being

In other words, people chose to adopt bow & arrow because they valued the adaptive consequences of doing so: less work, more food, healthier children, etc.

This technological & behavioral shift happened without any genetic *change*, but it certainly required genes -- i.e., those that help produce the relevant learning biases; otherwise the shift from spears to bow & arrow would have been much slower, or never happened at all

[See [diagram](#) for differences between learning-bias framework and genetic adaptation]

Note that this is not by any means arguing that culture is "genetic determined," since (in this view) genes determine the learning biases, not cultural variation per se

Furthermore, we can expect most contemporary humans to possess the same learning biases, as with any broadly useful trait (just like most people have cognitive mechanisms and vocal/auditory apparatus to learn any one of thousands of languages)

But we might also expect rare genetic variants who exhibit deficits in acquiring or adaptively evaluating culture (just as there are people who lack certain neurological or physiological components needed to learn spoken language); and indeed there is some evidence for such genetically variable learning deficits

In sum, "learning bias" explanation of cultural variation proposes that human species has been "designed" via genetic evolution to evaluate consequences of behavior --

even novel behavior -- in terms of "payoffs" (like health, economic success, etc.) that are correlated with fitness, and to preferentially adopt those elements of culture that increase those payoffs; in most environments, this will keep us on "adaptive track"

If this view is correct, it follows that cultural differences reflect differences in what is adaptive in the local natural & social environment -- which is indeed the basic viewpoint of ecological anthropology (though most ecological anthropologists don't in fact consider that a history of natural selection is required to explain why people would behave adaptively -- it just seems like "common sense" to them)

Cultural Evolution

Rappaport (p 249) is one of many ecol. anthros. who suggests that the dialogue between culture and nature takes an evolutionary form:

Although cultures may be imposed upon ecological systems there are limits to such impositions, for cultures and components of culture are themselves subject to selective processes. In response to environmental changes cultures must transform themselves (in manners analogous to genetic transformation in response to changed environmental conditions) or the organisms bearing them will either perish or abandon them.

Unfortunately, Rappaport does not provide even a sketch or outline of how such a process of cultural evolution might work -- What mechanisms actually produce cultural adaptation?

Above, I have outlined one such mechanism: genetically-evolved learning biases that provide humans everywhere with adaptive criteria for judging the consequences of culturally-prescribed actions

But there is an alternative mechanism that can generate cultural adaptations (and maladaptations as well), and it is consistent with ethnoecology in taking cultural beliefs & values ("cognized model") directly into account

This involves looking at cultural change as an *evolutionary* process rather than simply a learning process [see [diagram](#)]

Remember (from the previous lecture notes) that all that is required for Darwinian evolution is 1) individual variation that is 2) heritable and 3) affects fitness

All three are present in systems of cultural inheritance:

1. Individual **variation** arises through learning errors, inventions, etc.
2. **Heritability** involves cultural transmission of beliefs & preferences (units of cultural inheritance for which Dawkins has coined the term "memes")

3. Differential **fitness** occurs through effects of memes on survival and reproduction, which can allow natural selection to act on culture

Table summarizes parallels as well as differences between genetic evolution vs. cultural evolution

While the parallels are important, the *differences* are equally so:

1. Unlike mutations, cultural innovations not necessarily random; instead, often chosen to solve problems ("directed variation")
2. Culture involves many different *transmission structures* besides parent-to-offspring:
 - a. Vertical (across generation) can be just one parent (e.g., matrilineal), or adoptive parent, or unrelated elder
 - b. Horizontal (members of same generation, like siblings or friends)
 - c. One-to-many (teacher/elder/priest/etc.)
 - d. Many-to-one (peer groups, conformism)
3. Memes rate of replication may vary because of differences in their attractiveness (due to genetically-evolved learning biases, as well as culturally-evolved preferences)
4. Memes may also increase in frequency if they lead one to achieve influential position in social hierarchy (discussed below)

These differences can produce very different outcomes from genetic evolution; specifically, they allow us to predict that:

- 1) Cultural evol. will generally be much more *rapid* than genetic evol.
- 2) Cultural evol. may sometimes favor neutral or even maladaptive outcomes (in terms of genetic fitness)

Two examples may help put flesh on these rather abstract bones

1. **Avoidance of disease:**

Among human populations various kinds of beliefs lead to behavior that can reduce (or increase) the risk of contracting infectious disease

One recurrent element in many (but not all) cultures is avoidance of prolonged contact with body or possessions of deceased

Thus, corpses are often buried or removed to distant location (e.g., platform); possessions of deceased often destroyed; in many cases house where death occurred is abandoned or even destroyed, and sometimes entire population moves

All these steps have effect of reducing chance of transmission of infection (if dead person died from infectious disease)

Since these steps are taken for essentially supernatural (e.g., avoidance of harmful ghosts) or unexplained customary reasons ("that is our tradition"), and usually without any indigenous theory of infectious disease, they seem unlikely to have arisen via rational decision-making to prevent spread of disease

From the ethnoecological point of view, we take these beliefs at face value, and note that actions of believers follow logically from the beliefs

An evolutionary perspective pushes us to ask *why* such beliefs persist and spread, however (an example of asking "Why?" questions to complement "How?" ones)

One evolutionary hypothesis is that once such beliefs arose (for whatever reason), those who adopted them would have a somewhat higher probability of surviving, hence more offspring on average (who in turn would be likely to culturally inherit these beliefs, thus increasing their frequency in the population over time)

This is just a way of saying that memes (*cultural variants*) can be favored by natural selection, if they spread & persist because people who hold such beliefs have higher average number of descendants, who in turn inherit the beliefs

2. **Maladaptive** variants:

But not all cultural variants are adaptive: debilitating drug abuse, religious celibacy, voluntary martyrdom for political causes, etc. are examples of persistent features of many cultures that seem likely to be maladaptive for the individuals who adopt them

Darwinian theory of cultural evolution predicts maladaptive cultural traits are more likely to occur or persist when:

- 1) cultural transmission is non-parental (hence *not* contingently linked to biological reproduction), and/or
- 2) there is some conflict or *trade-off* between maximizing one's reproductive success and maximizing one's cultural influence

One possible set of examples is certain religiously-specified dietary taboos: many of these exist, and some (e.g., the "sacred cow" beliefs of Hindus, the Jewish and Muslim taboo on eating pork) have been the subject of major debates in ecological anthropology

A not-so-famous food taboo is traditional rules among Inuit (Canadian Eskimos) regarding separation of land foods from sea foods: taboo on eating seal meat and caribou meat at same meal, taboo on sewing winter caribou garments once group had moved to winter seal-hunting camps, etc.

These taboos were part of traditional Inuit culture, but main role in generating and interpreting them fell to the shaman (an example of one-to-many, non-parental transmission), and it was shaman who diagnosed cause of bad weather or game scarcity as resulting from violation of a taboo such as these ones

Shaman had much to gain from propagating belief that he/she could diagnose causes of misfortunes, and even rectify them (I'm not saying that this involved conscious deceit -- might be even more effective if shaman believed it too!)

Arguably, shamans who successfully propagated such taboos would have better chance of diagnosing illness or misfortune, hence higher status, hence more likely to be believed by general populace, plus imitated by other shamans (leading to further propagation of the belief complex)

I'm *not* arguing that whenever culture is transmitted non-parentally, it will be maladaptive; to contrary, the capacity for culture probably evolved specifically because it allows us to learn from broad sample of others, not just our own family

But non-parental transmission also makes spread of maladaptations more *likely*; we can view this as a "cost" humans pay for benefit of having a generally adaptive system of quick adjustment to local and variable circumstances ("fast but noisy")

Although all human cultures exhibit some degree of non-parental transmission, it only becomes a widespread or dominant channel with the rise of complex, urbanized societies, particularly modern industrial ones (where cultural transmission is dominated by systems of formal education, occupational specialization, bureaucratic governance, mass media, etc.)

Is it just coincidence that maladaptive cultural practices (including widespread ecological damage) seem to become much more frequent & pervasive with development of such societies? We'll return to that issue toward the end of this course...

Hunn, Eugene (1989) Ethnoecology: the relevance of cognitive anthropology for human ecology. In *The Relevance of Culture*, ed. Morris Freilich, pp. 143-160. NY: Bergin and Garvey.

Rappaport, Roy A. (1971) Nature, culture, and ecological anthropology. In *Man, Culture and Society*, second edition., ed. H.L. Shapiro, pp. 237-67. Oxford: Oxford University Press.

<http://multispective.wordpress.com/2006/12/06/culture-is-a-system-of-adaptation-and-survival/>

Culture as a system of adaptation and survival

Culture is an adaptation tool, it is a knowledge base, a teacher, a nurturing system, it sets rules of thought and behavior, it has rituals, methodologies, punishments, languages, value concepts, thought models, expressions of itself, etc.

When we are born into a culture we quickly learn how to live within our environments. We soon learn how to interact with each other within the rules of the cultural system. We

immediately know how to bond, how to joke, how to seek a mate and all other natural human needs.

(if this is the case of one culture what can we learn from multiple cultures simultaneously?
Can our children be born into a multi-culturally competent dynamic culture?

Culture is a teacher, a mentor, the collection of wisdom of a group of people.

Most cultures reject change because it challenges the culture to transform. This is natural because nature will always challenge human-designed systems to keep innovating. Nature seeks innovation and most of our man-made systems are designed rigidly, in anti-innovation forms in order to “protect their own survival” (a thought model that may need re-thinking and re-understanding).

This may point to the “call of the hero” of the culture itself. Culture as an organism is called (by nature) to face the unknown challenge, to transform, innovate and to continuously become a new organism.

This may point to a pattern I have noticed. The more the survival of a culture is challenged the more extremist and closed it becomes. Culture as an organism is afraid of the unknown. This may be the direct result of denial of screaming innovation needs. This may be the result of denial of natural demand for cultural adaptation.

On another hand we may also see, the more open to change, innovation, and diversity, the culture is – the more a culture may adapt and survive.

Cultures come and go in their organic existence over the time line. Some transform. Some change identities. Some sub-divide, some re-integrate, migrate, re-organize, go underground, some re-configure themselves – these are all cultural survival methods.

Some natural tendencies in cultural adaptations may include:


- cultural sub-division (new sub-cultures constantly being created dynamically)
- sub-division of cultural identity (e.g. single culture and multi-identity, single culture and multi-culturalism and single culture and dynamic culturalism)
- ethnic, cultural and racial integration, racial hybridity, genetic mixing
- multi-linguistic hybridity, multi-linguistic fragmentation
- the emergence of multi-traditional cultures, and multi-contextual cultures
- the emergence of multi-philosophical cultures (multispective cultures)
- the emergence of truly multi-ideological cultures (e.g. the acceptance and co-existence of multiple concepts of God(s))
- the emergence of multi-methodological cultures (e.g. the realization that different methods may lead to related form of success)

- the emergence of multi-value concepts
- the emergence of simultaneous multiple parties, and co-existent, multi-governmental experimentation (innovation)
- the emergence of multi-economic models and dynamic value models
- the emergence of non-binary, context-aware philosophical models that understand that not all philosophies apply in all contexts
- etc.

In other words I foresee **dynamic cultures** as:

- open and experimental (innovative) in nature
- aligned with natural innovation tendencies, ecological concerns and humane concerns
- not just “tolerant” of diversity but fully encouraging diversity (in all fronts) as an effort towards maintaining an innovative nature and dynamic culture
- encouraging multi-traditions, multi-rituals, multi-languages, multi-meanings
- removing of “hard” cultural “classification borders” that delimit one culture from another
- removing of hierarchical systems and re-introduction of non-linear models
- dynamically able to draw from the wisdom of different cultures
- etc.

Daniel Montano

[You can find my feed here.](#) ...or at Technorati... 

This entry was posted on December 6, 2006 at 8:29 pm and is filed under [Cognitive Psychology](#), [Cultural anthropology](#), [Multispectives](#), [Philosophy of Mind](#), [Psychological adaptation](#), [Social theory](#). You can follow any responses to this entry through the [RSS 2.0](#) feed. You can [leave a response](#), or [trackback](#) from your own site.

<http://multispective.wordpress.com/2006/12/06/from-american-culture-to-american-cultures-in-search-of-diversity-beyond-skin-color/>

[Humane Systems Design \(HSD\)](#)

A transdisciplinary blog

« [The bipolar culture. How either/or thinking affects our society.](#)

[Culture as a system of adaptation and survival](#) »

From American culture to American Cultures. In search of diversity.

Every once in a while I have to remind myself that there may no longer be just “an American culture” but rather today we have both “American cultures” and “American Culture”.

Even more abstract, we may have “**remote American cultures**” (American’s living abroad) and those individuals that idealize the American culture (“**Adopted Generalized American Culture**”) and seek to emulate it’s generalized and stereotyped embodiment as a single culture.

So, yes, when we say “The American Culture” we may want to remain conscious of the fact that we are generalizing and stereotyping very large and diverse groups of people – groups of cultures within a single culture-umbrella.

This type of System made up of systems ideas may fall within the pattern of my proposal that every system sub-divides to adapt and evolve in search of diversity, innovation and survival.

This may also pose a notion that those that are worried about our “fragmentalized” society may be worried about a very natural process of cultural adaptation.

These individuals may also be in denial that we are not the same country we were 200 years ago – we have become a multi-cultural society. The very same sub-division and diversity has the potential to make our country “fit” for survival – but this won’t happen until we first come to terms with the realization that we have strenght in **full diversity**.

The idea of the melting pot as a single solution may be replaced by a more **dynamic multiculturalism**: one that melts and re-solidarizes dynamically as needed for the purpose of communication, and human connection within a variety of contexts and variables, goals etc.

This won’t happen until we realize that diversity is not just a skin color or an ethnic classification, (you can arguably have a racially and ethnically diverse group with other strong homogenous patterns, such as thinking models, concepts of value, belief networks, ethics, philosophies etc).

I am suggesting that when composing a diverse team we should aim towards getting a team where individuals don’t just look different from each other on a surface level but we need to go deeper into how they think. This type of diversity can only be detected by those who pay close attention as to how others process and transform information.

Full diversity may be composed of more complex collection of factors such as:

- diverse logic models, thought models, philosophies, ideologies, diverse modes of thinking
- skills, diverse problem solving methodologies, customs, rituals, etc
- diverse belief networks

- diverse concepts of value, etc.

[You can find my feed here.](#) ...or at Technorati...  ADD THIS BLOG TO MY Technorati FAVORITES

This entry was posted on December 6, 2006 at 7:02 pm and is filed under [Social theory](#). You can follow any responses to this entry through the [RSS 2.0](#) feed. You can [leave a response](#), or [trackback](#) from your own site.