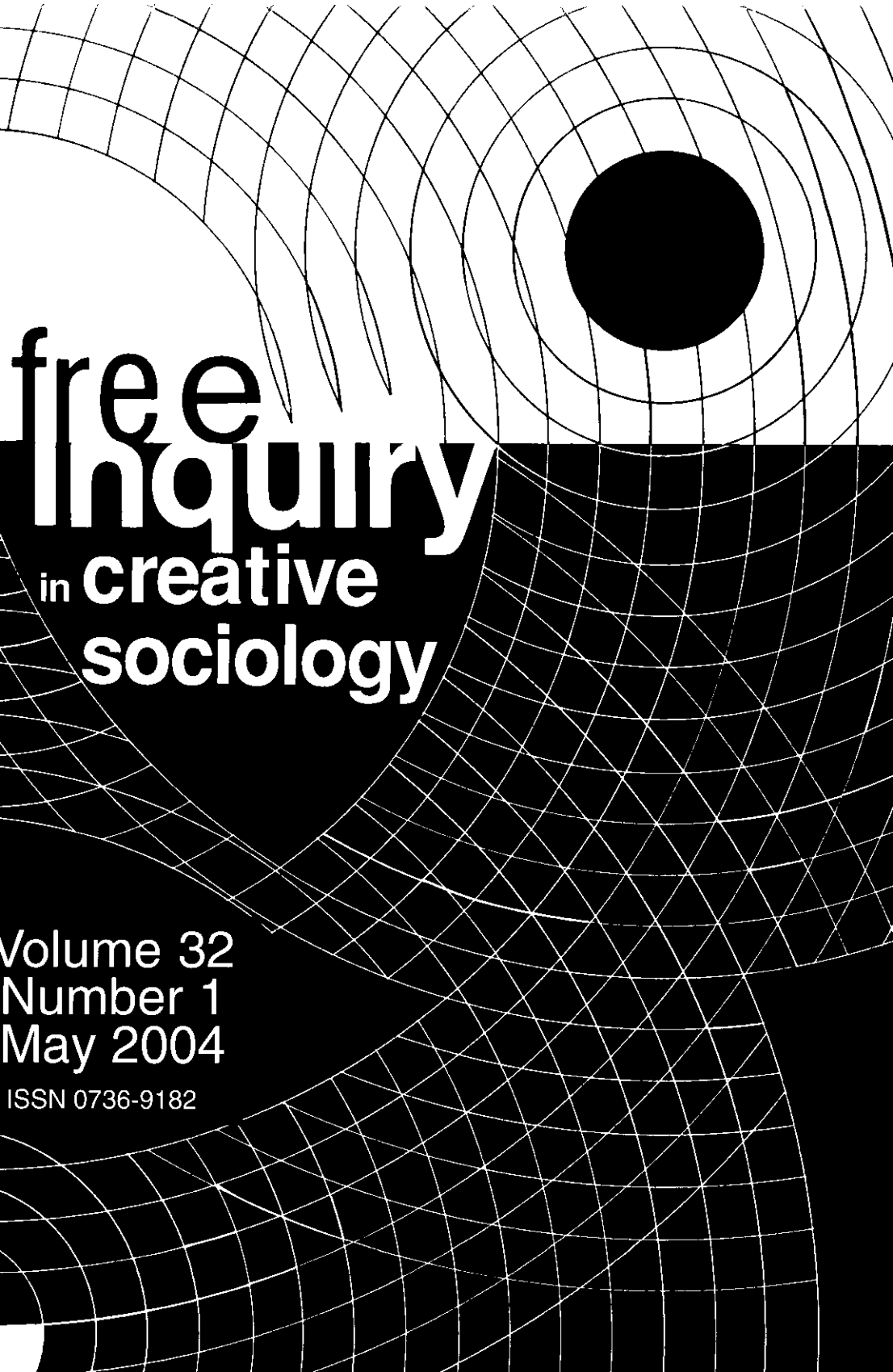

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TIME AND SOCIETY: A QUADRATIC THEORY OF TIME-CONSCIOUSNESS

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ABSTRACT

A general theory of the relationship between social organization and time-consciousness is presented. A model of time-consciousness is presented. A seven-part model of patterned-cyclical time-consciousness is constructed, inductively, from analysis of ethnographic and other studies of Australian Aborigines. When these aspects of patterned-cyclical time are turned into their opposites, the result is a full description of ordinary-linear time, based on clocks, calendars, and schedules. The gestalt-synthetic and logico-analytic modes of information processing of the left and right hemispheres of the brain are the infrastructure for these two kinds of time. A second temporal polarity is that between immediate-participatory time, which mindfully compresses future and past into the present, and episodic-futural time, which stretches temporal experience into future and past. The infrastructure for this polarity is the participatory processing of posterior cortex and the episodic processing of the frontal lobes and associated limbic structures.

INTRODUCTION

What distinguished human beings from the rest of the animal world? 'Intelligence' has been a keyword in answer to this philosophical and scientific question. One approach to this problem has been that of psychometric testing, the effort to measure and compare individual and group differences in the quality and effectiveness of mental functioning. An alternative approach is to study the use of important *categories* of human reasoning. In every culture the major notions used to conceptualize reality are what Aristotle called 'categories of the understanding'–including the seen and the unseen, the present and the absent, the changing and the changeless, matter and spirit. But the cosmologies, epistemologies, and metaphysics of modern societies, capitalist and socialist alike, are based above all else on two such cosmic categories–time and space. Perhaps the most basic aspect of a person's mentality is the way in which the major categories of life are lived. Of these categories, the person's experience of time and space are arguably the most fundamental. The essential categories of understanding that dominate our intellectual life, Durkheim explained,

> correspond to the most universal properties of things. They are like the solid frame which encloses all thought...for it seems that we cannot think of objects that are not in time and space, which have no number, etc.... They are like the framework of the intelligence. (1965 21-22)

While time and space are inseparable, time retains a certain priority over space in modern societies (Whitrow 1989 *vi-vii*). This priority, however, as will be shown in many ways, is nearly reversed among members of indigenous, oral cultures, such as the Australian Aborigines, where considerations of time are easily and commonly recast in terms of space.

In the sociological, anthropological, and related literatures on time and temporality, there are several empirical generalizations that, on the surface, would seem to be well-established. The literatures of this subject, from the 1920s to the present, reveal a general consensus that Western people have a 'linear' perspective on time, and that they tend to be 'future-oriented'. Additionally, it is known in the study of time and sociology (Adam 1990) and in social anthropology (Gell 1996), that members of 'primitive', preliterate, and pre-technological cultures have a 'holistic', 'cyclical' view of time that is a synoptic, all-at-once gestalt (e.g. Barnes 1974), and are also present-oriented. There is also evidence, in the social scientific literature, that these cross-cultural differences in time consciousness are somehow related to the cultural evolution of social life. For example, it is well-established that in hunting-and-gathering, preliterate, and tribal societies, communal social relations are given great emphasis, and that, in many instances, they show a remarkable insistence on a principal of social equality (Itani 1988). And in modern, Western societies, and far beyond, social relations of course *include* communal and equality-based informal social relations, but

in addition are organized in a more formal way, with an emphasis on economic activity, and on relations of social inequality and social hierarchy. In spite of these generalizations, there remains much to do in the study of time and social organization in an evolutionary context.

First, there remain daunting problems of concept definition. The linear-cyclical distinction is assumed and taken-for-granted by many 'temporal dualists' but is rejected out of hand by those who reject all kinds of 'dualistic' reasoning. Cyclical time is fundamentally a metaphor that might or might not include 'alternating' or 'flattened' time and remains badly in need of a clear definition (see Gell 1996 30-36, 84-85, 91-92) and linear time, assumed by many, is based on the thinnest of rationales to be the 'opposite' of cyclical time, and is in addition all too often assumed to have a clear meaning needing no definitional elaboration. A second distinction is that between a present or near-present orientation and of future orientation, which presents its own problems of clear conceptualization. Beyond these four concepts that are often, but not always, contrasted as two *pairs* of temporal orientation, of linear vs. cyclical, and of present/past vs. future, there are of course nearly endless ways to conceptualize temporal experience, but it should be conceded premature to give up on these broad notions of time awareness, because they are of fundamental importance and can be considered culturally universal cognitive structures. Attention is confined to four kinds of time-consciousness: cyclical, linear, present-oriented, and futuristit.

A seven-part definition of 'cyclical' time, which will be called 'patterned cyclical', has been developed inductively through a protracted study of the 'primitive' civilization with *the* most elaborated study of its time orientation, the Australian Aborigines. It will be found that when these seven aspects of patterned, cyclical time are, as a methodological operation, turned into their opposites or near-opposites, the result is a fully adequate definition of our ordinary, linear notion of time, based as it is on clocks, calendars, schedules, timetables. Neither of these two kinds of time-consciousness are dualities, and both can be regarded as, and measured as, continuous variables, so that cross-cultural differences are a matter not of kind but of degree. An effort is also needed, and made here, to clearly define present-oriented and future-oriented kinds of time consciousness. Moreover, these resulting definitions can and will be *criterion-validated* through showing that they are important aspects of the four most general kinds of information processing that contemporary cognitive neuroscience has been able to associate with the functioning of the organ of all thought and symbolic reason, the human brain.

There are also serious conceptual difficulties in relating social organization to time-consciousness. For example, it has been established in social anthropology and sociology that members of primitive culture tend in their social life to emphasize communal social relationships and hold to a principle of social equality. But how, in these cultures, are the social relations and forms of time-consciousness related? Might their cyclicity of time orientation be related to communal social relationships, or to effort to establish social equality, or to both, or to their interactions? And might their present-orientation result from communal interactions, or from equality in interactions, or from both, or from their interactions?

A similar situation obtains in the study of time in modern society. For modern, Western societies, there is, again, a vast literature linking industrialization, capitalism, urbanization, post-modernization, and other social macro-processes to both the linearity and to future orientation. These social macro-processes involve *social relations* based on economics and politics. There are other ways to conceptualize participation in modern life, but here attention is based on relations of money and power. There certainly would seem to be a consensus that market-pricing and authority-ranking social relations influence the modern tendency toward linearity and futurality, but again it is far from clear how these social variables and cognitive variable are linked. Is it economic relations that make us linear thinkers, or is it relations of social power that have this effect, or is it a combination of both? And what makes us futural in our temporal orientation? Is it economic social relations, or power-based social relations, or both? In the theory to be presented, four kinds of time-consciousness will be paired, in four propositions, to the *positive* experiences of four social relations. In one of these pairings, however, which sees linearity of time-conscious-

ness as influenced by market-oriented, economic social relations, we will be in for a surprise with respect to culture and the *valence* of involvement in market-pricing social relations.

Two theoretical possibilities which have not been raised in the study of time and societal development, are: 1) that cyclicity and present-orientation, which are obviously complementary and closely linked, might together form an *emergent* level of time time-consciousness; and 2) that linear and futural time orientations, which are also complementary and closely linked, might also interact to form an *emergent* level of time-consciousness. We have referred to four aspects of social relations that also seem to pair in a natural way. First, communal-sharing and market-pricing social relations, involving the principles of communion and agency, respectively, can be seen as opposite in meaning. And second, in instances of hierarchical, authority-based relations being set aside, or suspended, the result is an opposite situation, a *conditional equality.* It is also important to consider the valences of these social relations. Communal-sharing social relations are positive as we enjoy the company of companions, community members, and friends, but are negative as relations become hostile, abusive, and destructive. Thus, will, in the process of theory construction, confine attention to four social relations, which include eight variables. It will be proposed: 3) that communal-sharing and equality-based social relations, which are complementary in any society, and together are apt to be fundamental to primitive societies, together and in their interactions result in a higher-level social-organization, the basis of informal sociality, that can be called *hedonic community*; and 4) that economic and political social relations, which are also complementary and prevail in modern societies, result in a higher-level of social organization, the basis of formal sociality, that can be called *agonic society* (Chance 1988). This model finds its basis and its criterion-validation in primate and human ethology.

The theory requires two models, one of time-consciousness and one of social organization. Once this theory is presented, a methodology for the measurement of time-consciousness variables will be presented, along with a dataset with which the theory can be examined empirically. The data will be described and the proposition of the theory will be put to the test. The theory is tested in Part III by means of a radical cross-cultural comparison, that between Australian-Aborigines and Euro-Australians, which are viewed as exemplars of oral, indigenous and modern, Western culture. To this end, a lexical level content-analytic methodology is introduced, to create multiple indicators of eight social-relations variables (the negative and positive experiences of equality matching, communal sharing, authority ranking and market pricing) and of four time-consciousness variables. The data set consists of 658 transcripts of life-historical interviews with Aborigines and Euro-Australians obtained from throughout Australia in a wide range of ecological settings.

Regression analysis is made for each of the six propositions of the theory. In these analyses, the differences between Aboriginal and Euro-Australian forms of time-consciousness will be made clear, as will sex differences in time-consciousness. The variables Culture and Sex will be *controlled* as we examine the predicted relationships between social relations variables and time-consciousness variables.

A MODEL OF TIME-CONSCIOUSNESS

Aristotle, in his *Physica,* defined time as the measure of motion, and of rest, as he asserted, "For this is time: that which is counted in the movement which we encounter within the horizon of the earlier and the later" (1936). In the modern world this view of time, as a single dimension reaching from the past into the future, has been institutionalized and globally standardized by means of clocks, calendars, and schedules. This kind of time, that Heidegger called ordinary time, will be termed *ordinary-linear*, has in the modern world enjoyed a historically privileged place. Equally 'ordinary' has been the belief that while linear time is a unitary concept, there exists at least one more kind of time, an inference that follows from the intuitive senses of time as mentally and physiologically experienced duration and of human temporality, our certainty of a limited, finite life span. There are a wide variety of contrasting terms that are used to distinguish two meanings of time, including linear/cyclical, objective/subjective, cosmic/existential, quantitative/qualitative, time-as-measured/time-as-experienced (Wood 1989 13). It has

long been claimed by philosophers concerned with time and temporality that there is something amiss, even wrong, with this 'ordinary' concept of time. Critique of linear time has been advanced, e.g., by Derrida (1981) as a 'deconstruction' of 'chronophonism'. But ordinary, linear time is not an easy target for conceptual deconstruction because a concept must be constructed before it can be deconstructed, and the postmodernist deconstructionists in their critique of linearity have carried out no such construction.

Rather than assume the meaning of linear time, and then look for nonlinear time, an analysis of an archaic but extant time-consciousness—that of the tribal-living, tradition-maintaining Australian Aborigines, was carried out first. The result of this effort was a seven-part model of a *patterned-cyclical* time-consciousness (TenHouten 1999 126-33; Forthcoming). It is:

P1. Dualistic, split into two levels of reality, the sacred inner reality and the profane outer reality (Durkheim 1965; Munn 1970; Stanner 1979; Myers 1991). Durkheim (1965 488) saw the collective representation of the organization of society through temporal rhythms of everyday life being punctuated by extraordinary rituals in which the ancestral creator-beings of their inner reality are believed to signal their presence.

P2. A fusion of the past and the present: there is, for example, in significant ritual interactions a subtle manifestation of a sacred, inner reality fusing two separate levels of reality into a dialectical whole (Elkin 1979; Stanner 1979 24).

P3. Irregular, discontinuous, and heterogeneous: being made so, e.g., by the ritual alternation of profane and sacred times (Durkheim 1965 250).

P4. Event-oriented: In Aboriginal thought there is nothing beyond events themselves. This is entirely apparent in their cosmology, including sacred ceremonies and social dances which lack any reference to ultimate pre-event origins. As Swain (1993 19) put it: "For Aborigines, there is nothing more fundamental than the statement: events occur."

P5. Cyclical and based on overlapping and interdependent patterns and oscillations: Cyclicity pertains to four aspects of life–to cosmology and religious life, to natural and social cycles, to ceremonial cycles of the year, and to cycles embedded in Aboriginal social organization (importantly including reincarnation cycles) (Stanner 1979).

P6. Qualitative, with time existing on a multiplicity of levels which are synthesized not by logic or verbal clarification but rather by qualitative assessment of interdependent social and natural phenomena (Harris 1984 17; Rudder 1983).

P7. Based on the experience of long duration: There is in Aboriginal society a premium on likemindedness. Discussions in meetings, e.g., will typically not be based on a choice between two alternatives, but rather on a patient inching toward a collective consensus regarding events and consensus in times of troubles (Liberman 1985). The notion of long duration was given vitality by Whorf (1941), who described a 'ceaseless latering of events' embedded in the very grammar of the Hopi language, so that time is not a motion on a continuum but rather an accumulation and an intensification of events.

The opposites, or near-opposites, of these seven features of patterned-cyclical time provide a full description of time as a single dimension:

L1. Linear: the time-line is a single dimension;

L2. The present is linked, in a virtual fusion, to the future; linear time can be partitioned into past, present, and future merely by fixing the now as a point on the time-line;

L3. It is a measure of regular and homogeneous motion;

L4. Time-measurements are based on the use of clocks, calendars, and schedules;

L5. There is a diachronic ordering of events, a before and an after, a division of the time-line into past, present, and future;

L6. Measurement is quantitative, having a natural or arbitrary zero point; and

L7. Linear time can be imagined to be fleeting and 'flying by' along its single dimension.

It is not at all difficult to relate these two kinds of time-consciousness to the specialized information processing of the two cerebral hemispheres of the human brain. In the right-handed adult it is usually, but not al-

ways, the case that the left hemisphere (LH) and the right hemisphere (RH) are specialized for different modes of information processing (Bouma 1990; Davidson & Hugdahl 1995).

The right hemisphere is specialized for spatial, configurational, gestalt-oriented, pattern-recognition processes, such as face recognition, visual orientation, topographical orientation, and the tonal aspects of music. The RH is not devoid of language, as it participates in pragmatic and semantic as opposed to syntactic language use, and is involved in intonation, gesture, and prosody. The RH is important for spatial exploration, spatial orientation, visuoconstructive tasks, grasping and copying designs, visual memory, and visual closure or gestalt-completion. It is specialized for *simultaneous* stimulus processing, which lends to it capability for face and object recognition, facial-expression recognition and the melodic and chord-processing aspects of music. It synthesizes information from the environment; it recognizes forms, things, arrangements; it imagines, symbolizes, engages in visual closure (gestalts), and possesses a sense of totality.

The left hemisphere, in contrast, is specialized for verbal and nonverbal information that is asymmetrical and processed as a *sequence*. It is specialized for decoding and producing speech, naming and codifying, semantic relations, and for the meaning of words. The human use of complex tools, including language, requires thought that is sequential and uses syntactic mechanisms for generating new sequences according to grammatical rules.

The LH is involved in classifying and categorizing, programming rapid motor sequences, and for time-ordered stimulus sequencing. Insofar as 'linear' time can be thought of as an ordered sequence of moments, it is a specialization of the left cerebral hemisphere. On this, Bogen (1977 141, emphasis in text) writes of

> [w]hat may well be the most important distinction between the left and right hemisphere modes [of information processing,] ...the extent to which a linear *concept* of time participates in the [LH's] ordering of thought.

LH damage results in poor perception of sequence, whereas RH damage does not.

It is proposed–in contradistinction to Bergson (1910) and all other temporal dualists who restrict time to a single duality–that there exist, in addition to the ordinary-linear/patterned-cyclical polarity, a second polarity, consisting of exactly two additional forms of nonlinear time-consciousness–the episodic-futural and the immediate-participatory (for a fuller statement, see TenHouten 1998).

The timing, sequencing, and rhythmic organization of daily activities in the modern world depends on, but also goes beyond, being a mere 'linear' orientation, for such a notion of time refers not only to mundane routines but also to the uses of memory and intention along the past-present-future axis, in an effort to construct the future. Here, progress becomes a key concept, according to which the past is unrepeatable, the present is transient (L7), but the future is both infinite and exploitable. Heidegger's (1962) main contribution was his explication of this kind of temporality, which he disclosed through his study of the relationship between Being and Time. He saw that the unity of this primordial temporality is characterized by a priority of the future over the present, such that our experience of temporality exists not as a point on a time-line but rather as a temporality stretched into past and future. But what is it that is stretched? It is, by definition, the *episode* that is stretched. It is the person working toward specific aims and objectives that does the stretching, by means of a mental process constitutive of conation, as the thinker works with intentionality along a past-present-future complex. Because the past-present-future continuum also implies linear time, we can see that there is an intimate and complementary relationship between episodic-futural temporality and linear time-consciousness (TenHouten 1998), which is constitutive of a *Rational* time-experience.

Attunement to the environing nature, a mode of thought highly developed in oral, indigenous cultures, Abram explains, "is linked to a more primordial, *participatory* mode of perception... [P]erception is *always* participatory" (1996 27 emphasis added; 276 emphasis in text). This participatory mode of information processing has been shown by phenomenologists such as Husserl (1960) and Merleau-Ponty (1962) to turn toward the things themselves, the world itself, "as it is experienced in its felt immediacy." This intersubjective life-world (*Lebenswelt*) is, as Hus-

serl explained, the world of our immediately lived experience. Equality-matching, it is proposed, involves efforts to attaining, and maintaining, an equivalence of thought, mood, and behavior, i.e., a likemindedness. Immediate, participatory time-consciousness, then, is involvement with, and participation in, what is perceptually judged to be happening in the present; it is an immersion in the here and now. In this temporality of the ordinary, everyday life both the before and the after are contingent upon the now. This present-oriented temporality is brought about through real exertion and effective concentration in the now, in the knife-edged present moment, which, is of a single thought in which both past and future are *compressed* into a primordial immediacy. Their experience of this kind of time-consciousness is consistent with what James (1890) and Whitehead (1930) called the 'unifying moment' and the 'specious present' (Eisendrath 1971 48-51).

Just as linear and patterned-cyclical kinds of time-consciousness have as their biological bases the cognitive specializations of the LH and RH, episodic-futural and immediate-participatory temporalities have as their basis the workings of frontal and posterior cortical lobes, respectively, as is well-established in cognitive neuroscience.

The frontal lobes regulate the 'active state' of the organism, control the basic elements of the subjects' intentions, program complex forms of activity, and continually monitor all aspects of activity (Luria 1973 187-221). In order to act with intentionality, it is necessary that the frontal lobes are able to evaluate the results of one's own actions. The frontal lobes carry out a complex process of matching actions carried out with initial intentions, to evaluate success and error, so that actions can be corrected and modified as necessary. They abstract certain features from perceptual images and recombine these abstractions into models, which form the basis of decision-making and action. Sensory inputs not screened out by habituation are fitted into these images, or used as indexical summaries in episodic processing (Pribram 1981). These abstract mental images, or category prototypes, of prospective conduct enable rehearsal, in the mind, of acts. The frontal lobes constitute the command and control center of the brain. They are strongly connected to the parvicellular portions of the mediodorsal nucleus, which is phylogenetically the most recent thalamic area to evolve, and is the highest association area in the brain. The prefrontal cortex directly projects to and receives afference from cingulate and other limbic structures, which are heavily involved in the emotions. The brain regions most involved in intentional functions are the dorsolateral and orbital regions of prefrontal cortex (Fuster 1980). The principal and lateral dorsal limbic nuclei have an absolutely and relatively greater number of nerve cells in modern humans than in studied species of great ape (*pongid*) and of lesser ape (*hylobatid*). The larger size of these features might well modulate the integration of emotion and cognition, relaying a larger emotional component into the posterior cingulate gyrus (attention) and the posterior association areas (Armstrong 1991). This might help focus attention directed toward the external environment and enhance cause-and-effect reasoning and a Heideggerian 'anticipatory resoluteness'. The coordinated workings of thought and action across a temporal stretch define an *episode*. Episodic processing is not a neutral instrument of rationality. On the contrary, episodic processing is closely bound to emotional responses, which are important because the exercise of human reason requires a close interaction between "rational and emotional proclivities" (Boyle 1985 65). The emotionality of episodic processing has as its source the close anatomical connection between the frontal lobes and the limbic system. The development of the frontal lobes out of the limbic system is arguably the development of the human brain that most separates us from lower species and from the other primates such as chimpanzees.

There exists a dynamic, multi-level communication between posterior cortex, with its sense perception, and the frontal lobes and associated limbic structures. Channels of sensory information (other than olfactory) enters cortex at the primary association areas located behind the one-third of the cortex occupied by the frontal lobes. In both cerebral hemispheres, we find three lobes--the parietal (somatic, spatial), occipital (visual), and the temporal (auditory). All three sensory areas send information to any next highest association area(s) and to the prefrontal cortex. Sensory information enters the brain's cortex at the primary association areas, then is sent to adjacent 'secondary' and

'tertiary' association areas in these same posterior lobes, where the logical-analytic and gestalt-synthetic processing of the left and right hemispheres is accomplished. Thus there exists throughout the waking, conscious state of mind a never-ending complex, multilevel 'conversation' between the prefrontal and posterior areas of the brain. There are three major pathways originating in the somatic, visual, and auditory systems that converge on contiguous, but discreet areas of prefrontal cortex (Fuster 1980). Thus, among its many other duties, the prefrontal cortex functions as a multimodal sensory association area, which is concerned with 'egocentric spatial orientation' toward discreet events in sensorial space, and which also persistently integrates information about these events.

Just as our social relationship model consists of four elements that consist of two pairs of opposites and two pairs of complements, the present model of time-consciousness has the same logical structure and can on this basis be referred to as the *temporal quaternio*. It has been shown that patterned-cyclical and ordinary-linear kinds of time are opposites, because the seven aspects of patterned-cyclical time, P1-P7, when turned into their opposites, L1-L7, results in a full description of ordinary-linear time. When we examined the more general modes of thought of which patterned-cyclical and ordinary-linear time are based, the gestalt-synthetic and the logical-analytic, we further discovered that they, to some extent, are based on opposite principles of *simultaneous* and *sequential* information processing, respectively. And it has also been proposed that immediate-participatory and episodic-futural kinds of time-consciousness are also opposites, on the ground that the former requires a temporal *compression* of the present and future into the present, whereas the latter requires a temporal *stretching* of the present into both the past and the future. And when we look at the biological bases of these two kinds of time, the participatory and the episodic information of the posterior cortex and the frontal lobes, it was found that there is a 'dialectical' relationship between them, which Laughlin (1988) terms the prefronto-sensorial polarity principle.

Just as there is opposition, so there is also complementarity. There is a broad complementarity of immediate-participatory and patterned-cyclical time among the Aborigines. Consider an example from Sanson, who describes the process of reaching consensus among the fringe-dwellers of Darwin. Participation in the construction of a consensus, the 'word', takes the form of progressive recruitment of people to reveal the details of the story, thereby bearing witness, and engaging in the embodied work of righting and straightening a 'blaming' story. It would not be unusual for a primary witness to speak for hours in contributing to the story. Such a story is considered made "when all the righted details have been fitted together" (Sansom 1980 130). The blamed person will submit to the story and endure the patent social isolation of a person intentionally made lonely. The *gestalt* consisting of the entire social groups determinations needs to be *au courant*, up to the minute, so that people coming and going need to be updated with respect to the happening of important events. The objectified definition derives from the way in which "the determination in a warrant establishes a relationship between the present and the near but determined past" (Sansom 1980 133). Thus, there develops a shared consensus, a gestalt, that is built up and which must be up-to-date, in the present. *This temporal experience is constitutive of Natural time.*

The dominant value system of the modern, advanced societies includes universal education, a belief in equal opportunities for economic success, an emphasis on achievement, and a striving to 'get ahead'. Struggle is expected for influence, power, prestige, and wealth. Training in commerce facilitates the attainment of high status ranking in modern, capitalistic societies. Much of the world of commerce, such as banks and insurance companies, are based on a striving for the future. What is required of the successful individual's personality is a sense of ambition, initiative, and competitiveness. Very central to the reproduction of this value system is to learn early the importance of time in the struggle to get ahead. Striving for future economic success is linked to the mastery of ordinary-linear time and, more generally, on the attainment of logical-analytic reasoning skills, the result being an immersion in agonic society and the accomplishment of a rational time orientation. There is a complementarity of linear, clock time and episodic-futural time. Heidegger realized and made

clear, as we have seen, that future-directed action taken over time is apt to be described by members of modern societies in terms of *ordinary* time, such that accomplishment of objectives comes to be seen as being realized at some point in ordinary time in the future, perhaps as some date on the calendar marking a deadline. Heidegger, *to his credit*, has not gone entirely beyond and fully negated the concept of ordinary-linear time, as at least an approximate beginning and an approximated future end typically bind the temporal stretch, possessing the characteristic of *dateability*. Thus, ecstatic-futural, primordial temporality is, in the everyday modern world, described, either directly or indirectly, in a context of linear time. The tasks of life are never finished, and our goals, as we meet them, are talked about and scheduled in terms of clock- and calendrical-based time. There is thus, at least potentially, a veritable fusion of ordinary-linear time and episodic-futural time, which together can potentially result in a higher-level, *rational* time-awareness. *There is thus a fundamental complementarity of episodic-futural and ordinary-linear time, crystallized in the attainment of a Rational time awareness.*

[The cumulative references are at the end of the third part: "A Cross-Cultural Study".]

TIME AND SOCIETY: SOCIAL ORGANIZATION AND TIME-CONSCIOUSNESS

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ABSTRACT

Part II contrasts ordinary-linear and patterned-cyclical, and immediate-participatory and episodic-futural time. It is linked to an isomorphic model of social relationships. Hedonic society is based on identity and temporality; agonic community on hierarchy and territoriality. These aspects of social organization are generalized into four social relations: identity into equality-matching, temporality into communal-sharing, hierarchy into authority-ranking, territoriality into market-pricing. Four propositions are framed and examined through ethnographic evidence drawn from Australian Aboriginal and modern, Western culture, that link each kind of social relationship to a kind of time consciousness. Natural and rational time consciousness are seen as results of the unities of equality and community, and of authority and market-pricing and linked to hedonic and agonic sociality.

A MODEL OF SOCIAL ORGANIZATION

The idea that there exist two kinds of society has hoary antecedents and finds modern expression in psychology, sociology, anthropology, and primate ethology. The distinction between formal and informal social organization has found expression in the folk *Gemeinschaft* and the exchange *Gesellscaft*, and their associated mentalities of Natural Will and Rational Will (Tönnies 2000), in whose honor the Natural-Rational distinction to be developed below is introduced, and in that between mechanical and organic forms of social solidarity (Durkheim 1960).

A more recent model of societal-level organization can be found in primate ethology. Through comparative study of the behavior of the higher primates and the human's evolutionary history, it can be seen that Chance's (1988) distinction between *agonic* and *hedonic* forms of societal organization is fundamental to primate social organization. The agonic-hedonic distinction is valid but is at the same time theoretically underspecified, a limitation that can be resolved by conceptually 'unpacking' these two concepts, to reveal that each is based on two complementary social relationships.

Agonic-type societies are conflictual and hierarchically organized. This model of society can be clearly seen in non-human primate societies in which individuals are arranged in a series of status-levels. Such social organization is characteristic of Old World monkeys (the primate superfamily *Cercopithecoidea*), such as macaques and baboons, but not of apes. Any two individuals in such a society are either of the same or of different social rank. Social dominance is the primary dimension of agonic society. Those high in rank control resources and the behavior of those lower in rank. This control expresses itself spatially, through the proximity of the lower-ranking members to the centrally dominant figure. Chance (1988 4) explains that in agonic society, "the spatial arrangement is generated around a central dominant individual in hierarchical agonic-type societies." Thus hierarchy is inseparable from, and is articulated in terms of, territory.

Hedonic society appears in the *Hominoidea* (apes and humans). Power (1986), e.g., shows that the chimpanzee possesses a hedonic-type society that is highly flexible in its organizational form. Hedonic society is based on two fundamental social relations, *temporality*–because the mother-offspring reproductive unit is center to society, and *conditional equality*, which requires explanation. In agonic society, there is an inequality principle, with co-existence based on the self-restraint of the subordinate. A state of inequality precedes the state of conditional equality, the negation or suspension of inequality, in the process of primate social evolution. Conditional equality can be seen, e.g., in play, where rank order is ignored and there is self-handicapping by the stronger participant (Itani 1988). Agreement is also needed to open up a fictitious world, an agreement to render inequality non-existent. It is necessary to communicate in order to play, so that

> play participants attempt to form media [of communication] even out of their daily behavior by changing its ordinary tempo or rhythm. (Itani 1988 147)

The fictitious world of conditional equality extends beyond play, as it applies, e.g., to social grooming and to allomothering, formed on an agreement in accord with each separate context, which must always exist in the moment, as immediate, as participatory. Itani (1988) makes a compelling argument that

> the egalitarianism seen among the hunter-gatherer and nature-dependent people of today is nothing but a product of the evolutionary elaboration of its counterpart found among the chimpanzee.

The demand for equality among the group, he contends, "permeates every sector of life" (Itani 1988 148).

Plutchik (1991) bases his well-known psychoevolutionary classification of emotions on the proposition that members of *all* species of animals confront the same four fundamental, existential problems of life–identity, temporality/reproduction, hierarchy, and territoriality–the same four principles that result from unpacking Chance's hedonic-agonic social distinction. The negative and positive experiences of these life problems, Plutchik holds, lead to prototypical adaptive reaction, which comprise eight primary emotions, and which in turn are paired to form secondary emotions.

Plutchik's claim that his four problems of life apply to *all* animals is dubious. There is evidence, however, for a more modest claim, that these four problems are shared by *higher* animals, by reptiles, birds, and mammals (including the human). MacLean's (1964, 1973, 1977) triune brain theory holds that the reptilian brain (R-complex) was the infrastructure for the evolution of the paleomammalian brain of mammals, which in turn was the infrastructure for the evolution of the two neomammalian brain structures of higher primates, the left hemisphere (LH) and the right hemisphere (RH). In the human, the R-complex persists, roughly, as the brainstem. This theory, especially in its claim that the limbic 'system' (including the amygdale, hippocampus, hypothalamus, and septum) is the seat of the emotions, has its limitations and its harsh critics (LeDoux 1996 85-103), but here interest is limited to a non-controversial component of MacLean's (1977 211-12) model, to wit, his description of the R-complex as having just four concerns–identity, reproduction, hierarchy, and territoriality. Because mammals retain the R-complex as their first stage of brain evolution, it follows that mammals, including the human, share these four elementary problems of life (and, of course, perhaps other existential problems as well). Plutchik and MacLean apparently developed their biological models of the fundamental problems of life independently but their conceptualization is identical, notwithstanding a terminological difference: Plutchik refers to existential problem of 'temporality', meaning the cycle of life, which has the positive function of 'reproduction' and the negative function 'reintegration' of the group following a death or other loss of a community member, whereas MacLean simply refers to 'reproduction'.

The four problems of life identified by Plutchik, and implicit in MacLean and Chance, are characterized by a certain sociological emptiness. We live in a rich and complex social world. What we do in this world is much more than one might infer, e.g., from a reading of Plutchik's work. This is not a criticism of Plutchik, but does suggest that the four-dimensional model needs to be generalized in a way that gives it social and cultural content.

A corrective to this limitation was provided by Scheler, and more recently, by Fiske. Scheler (1926) conceptualized four elementary forms of sociality, paired under two larger principles: kinds of being with one another; and the kind and rank of values the members see with one another. Scheler conceptually unpacked the first, informal level of society, seeing that it contained two elements, identity and community. Formal society he saw as based on two kinds of social relations, rank and value, corresponding to the institutional domains of politics and economics. He argued that these social relations develop, in the life of the individual person, and in sociohistorical development, in the order identity, life-community, rank, and then value. Fiske (1991) has identified *the* four elementary forms of social life, which he terms equality-matching, communal-sharing, authority-ranking, and market-pricing.

THE COMMON STRUCTURE OF THE TWO MODELS

Both models are formed from a double polarity, which pair in such a way that the elements of one pair are the opposites of the elements of the other. Von Franz (1974

Figure 1 : A - The Communion-Agency Polarity; B - The Equality-Inequality Polarity; C - The Social Quaternio

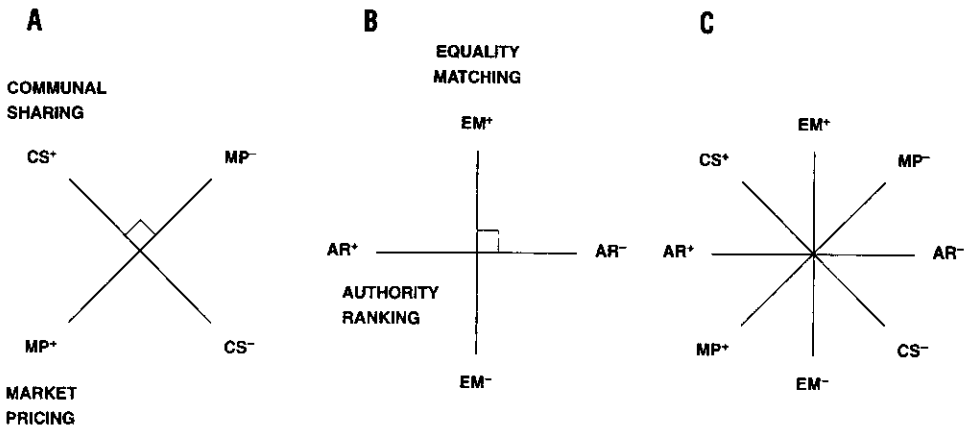

Table 1: Map of the Concepts of the Theory of Time and Society

Basic Problems of Life	Elementary Social Relations	Kinds of Society	Modes of Time Experience	Kinds of Time-Consciousness	Kinds of Information Processing	Brain Region Infrastructure
Identity, Equality	Equality Matching			Immediate-Participatory	Participatory	Posterior Cortex
		Hedonic	Natural			
Temporarlity, Reproduction	Communal Sharing			Patterned-Cyclical	Gestalt-Synthetic	Right Hemisphere
Hierarchy	Authroity Ranking			Episodic-Futural	Episodic	Frontal Lobes Limbic System
		Agonic	Rational			
Territory, Resources	Market Pricing			Ordinary-Linear	Logical-Analytic	Left Hemisphere

127) referred to such a dynamically-related double polarity as a *quaternio*, so that we can refer to the social quaternio and to the time-consciousness, more generally the mental, quaternio.

The social relations model is based on two pairs of opposite social relations, market-pricing (MP) and communal-sharing (CS), and authority-ranking (AR) and equality-matching (EM). First, MP and CS are opposites in that they refer to communion and agency, respectively, and insofar as they involve different mappings of individual and society: CS relations requiring the incorporation of shared paleosymbolic images in the mind of the individual, and MP relations involving the individual acting in her or his self-interest in the society. And second, EM and AR are also opposite tendencies, the first to make things equal between people, the second to make things unequal: This opposition has a logical basis, for if it is not the case that A > B or A < B, then A = B. By definition, hedonic society is the unity of CS and EM; agonic society, of MP and AR. Because their components are opposites, it follows that the agonic and the hedonic are not only different but opposites (see Figure 1).

The cognitive model is also based on two pairs of opposites: patterned-cyclical (PC) and ordinary-linear (OL) time-consciousnesses have been shown to be opposites insofar as the seven features of PC, when turned into their opposites, provide a full de-

scription of OL. Moreover, PC and OL, it is proposed, are aspects of larger cognitive structures, the gestalt-synthetic and logico-analytic modes of information usually lateralized to the left hemisphere (LH) and right hemisphere (RH), and which involve simultaneous and sequential time processing, respectively. RH- and LH-dependent processing has been widely seen as opposites (Bogen 1977) that are capable of a dialectical unity of creative thought (Bogen & Bogen 1969). Bogen (1973) has speculated that the RH and LH map the world and self in opposite ways, with the RH modeling the world as a subset of the self and the LH modeling the self as a subset of the world. IP and EF time-consciousnesses are also opposites, one involving temporal compression and the other a temporal stretch, and are aspects of the larger participatory and episodic forms of information processing that are united by what Laughlin (1988) calls the 'prefrontosensorial polarity principle'. Natural time-experience is conceptualized as a unity of the patterned-cyclical and the immediate-participatory; Rational time-experience, a unity of the ordinary linear and the episodic-futural. Because the components of these two kinds of time-consciousness are opposites, it follows that Natural time–present-oriented and cyclical, and Rational time–linear and futural, are also opposites (see Table 1).

PROPOSITONS OF THE THEORY

1. To the extent that members of a culture participate in social relations that involve territory, property, symbolic capital, and other resources that are valued, priced, or rendered marketable as individuals acting in their self interest, they will give emphasis to logical-analytic thinking, including a time-consciousness that is ordinary, linear, and based on clocks, calendars, and schedules.

2. To the extent that members of a culture participate in social relations that involve interrelatedness, communality, and collective representations, as a basis of social solidarity, they will give emphasis to gestalt-synthetic thinking, including a patterned-cyclical time-consciousness.

3. To the extent that members of a culture participate in social relations that involve power, prestige, influence, rank, authority, and other forms of social hierarchy that are prized, sought after, earned, or otherwise allocated to high-status individuals, they will emphasize episodic, conative, rational information processing, including an experience of temporality that is emotion-laden, future-oriented, episodic, and temporally stretched.

4. To the extent that members of a culture participate in social relations that result in agreement, likemindedness, consensus, reciprocity, and other forms of social equality that are shared, matched, and agreed-upon, they will emphasize the participatory mode of information processing, including an experience of time that is immediate-participatory, present-oriented, and temporally compressed.

5. To the extent that members of a culture participate in positive, agonic social relations (the unity of the positive experience of MP [MP-pos] and of HR [HR-pos]), their time consciousness should be simultaneously ordinary-linear and episodic-futural, i.e., they should have a Rational experience of time.

6. To the extent that cultural members participate in positive, hedonic social relations (the unity of the positive experiences of CS [CS-pos] and of IM [IM-pos]), their time-consciousness should be simultaneously immediate-participatory and patterned-cyclical, i.e., they should have a Natural experience of time.

A CASE STUDY OF AUSTRALIAN ABORIGINES AND EURO-AUSTRALIANS

The Australian Aborigines possess the world's most ancient civilization, based on a hunting-and-gathering mode of economic production, which has continually existed in Australia for an estimated 50,000 - 60,000 years.

Communal Sharing And Patterned-Cyclical Time

An exhaustive study of Aboriginal time-consciousness shows little evidence that 'cyclical' time is linked to equality-matching social relations. Patterned-cyclical time-consciousness can, however, be associated with all seven features of patterned-cyclical time as defined here, and, by inference, to patterned-cyclical time in general.

P1. Dualistic Time and Communal Sharing. Munn (1970) and Stanner (1979) see a split inherent in the Aboriginal conceptualization of time as a necessary aspect of the typical Aboriginal world-view within which moral autonomy is embedded. The putting together of that which is split, ordinary reality

and the extraordinary reality of the Dreaming, require a cognitive process of *synthesis*. Synthesis is, by definition, the mental process of putting together of parts, or elements, to make up a complex whole. This process, on the visual level, is well known in cognitive psychology as 'gestalt synthesis' or 'visual closure' (TenHouten 1985 129).

P2. Fusion of Past and Present and Communal Sharing. When communal sharing is interpreted on the level of temporality, it is the past that is reproduced through ritual and tradition. Communal sharing supports a kind of time-consciousness that links the past to the present and is stimulated by ritual. For Aborigines, there is for every tribe an elaborated cosmology, characterized by narratives, songs, dances, and other artful renderings of the exploits of cultural heroes during a primordial, creator-being time. In these sacred narratives–songs and stories–the riddle of time is the riddle of the 'beginning'. As van der Leeuw explains,

> In the beginning lies the whole past. The beginning is the past. Yet we say that we begin something, that we make a new beginning. And we call the long list of such beginnings, time. (1957 325)

This idea of a primordial time is not a fixed date in the distant past but is rather a connection of the past and the present, and a manifestation of the sacred, inner reality with the current reality of enacting the ritual and the story it tells. Thus, myth creates time, giving it content and form. This duality of being does not lead to alienation but rather to unity and–through protracted effort and successive initiations into the sacred-secret knowledge of the tribe–to a *sense of totality* brought about by the feeling of oneness with the Dreaming and by the psychologically pleasing experience of synthesis.

P3. Discontinuity, Irregularity, and Communal Sharing. The very discontinuity, irregularity, and heterogeneity of Aboriginal totemistic belief system creates a situation in which disparate, even contradictory elements, including the primal discontinuity of the sacred and the profane, creates the raw materials for a world-view that must be synthesized, much as fragments of a whole are put together as in the process of gestalt completion. Durkheim (1965) saw the alternation between times of the profane and the sacred as an oscillation of two distinct kinds of time, ordinary-life time and the sacred time, where emotionally evocative interaction rituals and other social events are carried out with law-like replication. Each replication provides for its participants the phenomenal experience of inner reality and awareness of the eternal. Through injunction, taboo, interdiction, ascetic practices, and negative rites, this replication both substantiates and separates the sacred and the profane. Thus, the Aborigines' time is not–as in ordinary linear, clock-time–an oscillation with a stable *frequency* pattern but is rather focused on the dialectics of *regularity* and *irregularity*, the punctuation of ordinary, secular time with the extraordinary, sacred time of interaction rituals.

P4. Event-Orientation and Communal Sharing. Aborigines are not, in general, future-value oriented but they do look with serious and concerned imminence to events that have not yet occurred. Aborigines are event-oriented because of "the extraordinary value they place on the sharing of experience" (Sansom 1980 3). The Aborigines' high level of event-orientation is an expression of the importance they place on communal life and the striving for likemindedness. At Wallaby Cross, Sansom (1980 84) reports, one cannot simply 'tell what bin happenin' and give a blow-by-blow account to someone who did not witness the event. There must rather be a public recounting of events before a general audience. Such verdicts communicate changes and shifts in camp affairs, telling interested people that as a result of a chain of un-recounted events, there is a new state of affairs, a new totality.

P5. Cycles, Patterns, and Communal Sharing. D. Rose writes of the Yarralin people that,

> Temporally, one's life progresses back toward the Dreaming. As generations are washed away, ordinary time is collapsed into the Dreaming... (1992 209)

She explains that people's lives expand in terms of spatially located knowledge, but toward the end of life,

> people refocus their attention on the country in which they wish to die. The whole of life, one might say, is a great circle from the earth, around the top, and back to the earth...

(1992 209)

Thus, in addition to reincarnation cycles, cyclicity also can be found within the lifetime. The rhythms of nature–associated with the day, the month, and the year–are for the Aborigine neither separated nor mutually exclusive. As Young writes,

> Organisms do not respond to the solar and lunar rhythms separately, one after another; we...reach to them simultaneously, synthesizing them into one response in a continuing present. (1988 30)

Insofar as Aborigines tend to have a gestalt-synthetic mode of, it is reasonable to presume that the times of the day and year, as described above, are perceived as a simultaneous and constantly-updated gestalt.

P6. Quality and Community. In their study of Australian Aboriginal religious categorization and classification, Durkheim (1965 488) and his followers developed a concept of 'qualitative time' (see Hassard 1990 2-3), emphasizing the rhythmic nature of human society but also acknowledging the necessity of understanding time on a multiplicity of levels which are synthesized not by logic or verbal clarification but rather by qualitative assessment of interdependent social and natural phenomena. The Aborigines' *qualitative time*, in this analysis, is "the sum of the temporal procedures which interlock to form the cultural rhythm of a given society" (Hassard 1990 3).

P7. Long Duration and Traditional Community. The individual's reflective self must endure by opposing its changeability in time to its permanence. The experience of patterned-cyclical time thus finds its fullest realization in the awareness of duration, an awareness of the "co-existence" of past, present, and future, and as the experience of time as a whole. The waking state of consciousness can be described as primarily the experience of succession with duration implicit in the continuous awareness of self-identity. An experience of long duration comes about through the archaic ideology of the punctilious repetition of rites and rituals that is required of group members, results in the participants experiencing an effervescent feeling of indissoluble connection with the Cosmos and with the cosmic rhythms. Continuing participation in ceremony and the ritual gradually leads to an "assent to the disclosed terms of life" (Stanner 1979 122), i.e., to an acceptance of the liturgical, moral order encoded in the rites and ceremonies and to an awareness and appreciation of the Abiding Law. What is done in the ritual has been done before, so that experience of inner reality comes about through ceaseless repetition of gestures initiated by others. Out of the past comes a cryptic determination for the here and now. Camp life is for witnessing, but this spatial openness is not extended in time. Sansom concludes,

> Instead...there is *a temporal closure. It is the present not the past that is open to inspection* even though a version of the detailed past could be easily represented. (1980 86 emphasis added)

EQUALITY-MATCHING AND A PRESENT ORIENTATION

The culture of the Australian Aborigines has been described as giving great emphasis to equality, to making things 'level'. When an Aborigine does a favor for another Aborigine, there is no felt need for a "Thank you," because it can be assumed that the favor will be returned in an appropriate way. It has also been described as giving great emphasis to family, community, clan, subsection, and tribe.

There is also evidence that Aboriginal culture predisposes its members to be present-oriented but not futural in their time-consciousness. Members of indigenous, oral cultures emphasize conditional equality in their social relations. Such equal social relations involves efforts to attaining an equivalence of thought, mood, and behavior, i.e., a likemindedness. The first principle of Aboriginal culture, as Stanner puts it, "...is the preservation of balance" (1979 40). The Aborigines place a profound importance on making things 'all-level', and to maintain a congenial consensus, in which everyone has an equal voice in developing the collective consensus, the 'word'. Great value is placed on shared experience.

For Aboriginal fringe dwellers, the source of all realized value is called 'Going through something longa somefellas'. Those who go through significant events together are made 'all same'. Sansom explains the Aboriginal principle of consociate identity:

> shared experience makes sharers [the] same; experience unshared signals, proves and constitutes difference. (1980 137)

Non-participants lose, and are considered to have 'thrown' the opportunity for shared experience 'away'. Tribal-living Aborigines throughout Australia have no chiefs and headmen, decision-making being rather left to the collective wisdom of the elders. Sansom refers to inter-mob balance and intra-mob balance. To imply such balance, countrymen might use the phrase 'being level' and its counterpoint, 'not level'. To 'level up' or 'come level' are phrases that refer to the leveling process. Two mobs might reestablish balance with the snatching of a potential wife of one mob by the other, with the celebrating captors saying, 'This mob n ol Frank mob, wefella all level now'. Equality matching is accomplished by such devices of settling inter-community differences, and also of resolving interpersonal indebtedness. 'To come clear' means to achieve balance in relationships that have a relevant history of consociation (Sansom 1980 196-98).

There is, in rituals and in spiritual life, a celebration of the identification of the community and the larger ecological field, ensuring an appropriate flow of nourishment from the totemic landscape to the human inhabitants back to the local earth, so that the relationship between human society and the larger society of totemic beings is balanced and reciprocal. Abram persuasively argues that what members of indigenous and oral cultures view with the greatest awe and respect is nature itself–the plants, animals, forests, mountains, and winds. It is the concern of the shaman, in Aboriginal culture the Clever Fellow, to slip out of the perceptual boundaries that demarcate his or her culture in order to make contact with, and learn from, the other powers of the land, through a heightened receptivity to "...the meaningful solicitation–songs, cries, gestures, of the larger, more than human field" (Abram 1996 9). This attunement to the environing nature of native cultures, Abram explains,

> is linked to a more primordial, *participatory* mode of perception... [P]erception is *always* participatory. (1996 27 emphasis added, 276 emphasis in text)

The best single term that we could use to characterize the events of perception as it disclosed by phenomenological attention is "participation," a term used by Levy-Bruhl (1985 69-104) to characterize the animistic logic of indigenous, oral people. For such people, including Australia's Aborigines, mountains, plants, and animals are felt to participate in one another's existence, influencing each other and being influenced in turn. Of the western-desert Pintupi, Myers concludes:

> The Pintupi are dominated by immediacy.... [T]he immediacy of *current* relations so dominates Pintupi social life that the production of an enduring structure that transcends the immediate and present is a cultural problem for the Pintupi, for other Aboriginal people, and for many other cultures as well..." (1991 17)

Aborigines exert little power over things. There is little use for a large store of food that will not keep, or of a pile of spears too heavy to move about. Stanner describes Aboriginal society as one in which the primary virtues are generosity and fair dealing, as he writes:

> Nearly every social affair involving goods–food in the family, payments in marriage, inter-tribal exchanges–is heavily influenced by equalitarian notions; a notion of reciprocity as a moral obligation; a notion of generously equivalent return; and a surprisingly clear notion of fair dealing, or making things 'level'". (1979 40)

Liberman (1985 5-32) similarly identifies "congenial fellowship" to be a basic organizing principle of Aboriginal social life. This congeniality of fellowship has been suggested in numerous ethnographic studies and reports (Myers 1991; Tonkinson 1991; Sansom 1980; Liberman 1985).

MODERNITY, AUTHORITY, AND FUTURALITY

Authority ranking social relations are always oriented to the future, to command and control of the future. In Western civilization there has developed a futural time-consciousness. Most definitions of education, for example, incorporate, either implicitly or explicitly, the concept of preparing the student–by means of transmitting information, knowledge, and civic values–for effective

participation in his or her future life. There are important class and cultural differences in future-time orientation. The Western 'core culture' emphasizes the deferring of gratification of needs and desires. This emphasis requires that the individual have goals set at various future times for which he or she is willing to work. This future-oriented time-perspective is less than fully shared with those at the lower end of the socioeconomic continuum with those of various minority-group memberships. One important characteristic of Western culture is its orientation towards the future, its striving for improvement and advancement, and its concern for what lies ahead.

Schedules are the means of temporal control within bureaucracies and formal organizations of all kinds. Schedules contribute to the routinization of short durations through endless repetition (by day or week). They also confine human productive activities by delimiting goals. Schedules involve authority by virtue of the fact that some agents must construct and then implement them, in the process appropriating the time of others. Schedules are used to impose discipline on workers and students, and are instruments of surveillance (Rutz 1992 5).

A Heideggerian ecstatic-futural temporality is a fundamental capability of human consciousness, a form of consciousness that has been developed in an exaggerated form in the modern, Western world. Such conscious action is, in most of its forms, teleological insofar as it plans to achieve and is situated not in the here-and-now but in the future. The immediate, first realization of the adaptability of time-consciousness is the concept of the future. In order to adapt to, and resolve, the problems that life presents, it is necessary to look to the future with careful planning, a projection of the likely outcomes of various courses of action, a getting-ahead-of-oneself that enables: anticipating; anticipatory resoluteness; commanding-and-controlling; editing, monitoring, planning, willing, and intending. This forecasting mind cares about itself, about others, and about the world. To adapt to changing circumstances is to take care of yourself. The future, according to the common wisdom of the Western world, is where we will spend the rest of our lives. Westerners tend to like new things and show a preoccupation with change and overcoming resistance to change. Progress historically became a key concept, meaning openness to change and innovation–to new ideas, new ways of doing things, and new things. With the concept of progress comes a new way of conceptualizing time, according to which the past is unrepeatable, the present is transient, but the future is both infinite and exploitable. Western civilization has developed, as a key belief, the notion that change and development are desirable and that future events can be shaped, planned, and scheduled. Members of modern societies strain toward the future.

MARKET-PRICING, ECONOMIC SOCIAL RELATIONS AND LINEAR TIME

The traditional Aboriginal culture sees the person as coming from, being part of, the land and country. They experience a totalistic involvement with, and a harmonious balance with, the forces and life forms of nature. Nature is humanized and the human is naturalized. In modern, Western, capitalistic society culture stands as the antithesis of nature. All of nature is seen as a resource available for conquest, 'development', and economic exploitation, so that the land, as in the Australian case, is partitioned into lots of real estate, which can be bought and sold as commodities in the market economy. The Aboriginal approach to land is through their social and religious institutions, whereas the Western approach to land is individualistic and materialistic.

Time has become commodified in the processes of market society, where the common practice has changed from the traditional notion of selling one's labor skills in product units to the new concept of selling one's labor power in units of time. The hourly wage helped to validate Benjamin Franklin's proverb, 'Time is money', which reflects the dominant time-orientation of the capitalist world-system. The calendar has historically been an effective instrument of power in large-scale social organizations that maintain continuity over long periods, such as empires, religious communities, and nation states.

Implicit in this notion of time as commodity and as the measure of work is that time becomes both linear and quantitative; insofar as labor is extracted from the worker by time measured on a ratio-level scale and workers are paid by the hour, day, or month. This abstract time is homogeneous, objective, measurable, and infinitely divisible (Has-

sard 1990 12). Thus, time becomes a scarce resource, potentially consumed by a vast number of competing claimants. Time now has value, the scarcity of which has enhanced its worth. Under capitalism, time and money become exchangeable commodities. Money can be used to buy time, and money has developed a future value, while time can be invested now to yield money at later times. Once time was created as a commodity, it became an ineradicable reality of industrial social life, which in turn structured the nature of control of the timing and temporality of everyday life.

[The cumulative references are at the end of the third part: "A Cross-Cultural Study".]

TIME AND SOCIETY: A CROSS-CULTURAL STUDY

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ABSTRACT

Spoken text of two cultural groups with broadly divergent forms of social organization–Australian Aborigines and Euro-Australians–is analyzed to reveal these two cultures' underlying form of social relations and temporal experience. A lexical-level content analysis of a corpus of 658 life-historical interviews is conducted to measure social-relationship and time-consciousness variables. Results of this analysis shows that members of Aboriginal culture, because of their emphasis on equality and community in their social relations, experience time as at once patterned-cyclical and present-oriented. Euro-Australians, in contrast, because of their greater emphasis on hierarchical and economic social relations, experience time as linear and episodic-futural. Moreover, it was found that Aboriginal culture is predominantly hedonic–a unity of conditional equality and communal sharing, with the result that their time-consciousness is Natural, a cognitive structure that is both patterned-cyclical and immersed in the present. Euro-Australian culture, in contrast, is predominantly agonic–a unity of hierarchical and economic social relationships, with a resulting Rational time-consciousness, based on a unity of linearity and futurality.

CONTENT ANALYSIS OF LIFE-HISTORY INTERVIEWS

The theory developed in the first two parts of this paper link four kinds of time-consciousness to four elementary forms of sociality. It is proposed that equality-matching social relations contribute to an immediate-participatory time; communal-sharing, to a patterned-cyclical time; authority-ranking, to an episodic-futural time; and market-pricing, to an ordinary-linear time. The combination of equality and community constitute hedonic society; of authority and market-oriented relations, agonic society. It is further proposed that participation in hedonic and agonic social relations contribute to a natural and rational experience of time, respectively, natural time being both present-oriented and cyclical, rational time both futural and linear.

The study of individual lives, as bearers of culture, in a general sense requires the use of text produced by individuals reflecting upon, and telling stories, 'yarning', about their lives and times. From Heidegger's (1962) notion of temporality stretched from birth to death as a basis of being, it becomes apparent that text appropriate for analysis of time-consciousness requires reflection upon one's entire life. The logic of this argument takes us immediately to life-historical interviews and autobiographies as arguably *the* most appropriate source of data. The life story represents an overall construction of the informant's past and anticipated future life, in which relevant experiences are linked up in temporally and thematically consistent patterns.

The dataset for this study consists of carefully edited transcripts from a corpus of 658 life-historical interviews: 204 Aboriginal males, 197 Aboriginal females, 155 Euro-Australian males, and 120 Euro-Australian females. These interviews were obtained throughout Australia and are roughly representative of the population. The Euro-Australians selected were, in large measure, selected with ancestry from the British Isles and Northern Europe, in an effort to reduce within-sample variation. Many of the interviews were obtained by the author, in collaboration with Aborigines from the New South Wales Aboriginal Family Education Centres Federation and others were obtained from institutes, libraries, private collections, and publications.

The methodology to be used is lexical-level content analysis of text, of all the words produced by the informant in the course of a life history. To this end, Roget's (1977) *International Thesaurus* was used. Roget provided a remarkable hierarchical classification of the English language. Roget developed an inventory of 1,042 "broad classes of words," here termed *folk-concepts,* which serve as multiple indicators of eight social relations variables and the four basic kinds of time-consciousness. Under the folk-concepts, Roget listed words and phrases which were used to generate lists of individual words. In many cases, the various forms of a word were assigned to different folk-categories. The division of words into their folk-concepts was based on the first meanings of the words and was a partition, such that words that fit two or more concepts equally

Table 2: Statistical Tests of Initial vs Final Quartiles for Roget's Folk Categories: Demand (Indicating the Positive Experience of Hierarchical Ranking) and Plan (Indicating Episodic-Futural Time-Consciousness)

Demand	t		t		t		t
ask	6.96	demand	4.81	insistent	2.02	taxed	1.42
asked	8.96	demanded	3.72	insisting	1.57	taxes	1.00
asking	6.12	demanding	3.74	insists	1.50	taxing	1.42
asks	1.42	demands	3.47	levy	1.00	tribute	2.15
blackmail	1.42	direction	3.66	requisition	1.51	tributes	1.00
blackmailed	1.41	directions	3.61	requisitions	1.51	ultimatum	1.00
claim	5.25	duties	2.73	stipulated	2.02	urge	2.49
claimed	2.83	duty	3.74	stipulation	1.00	urged	2.80
claiming	2.37	insist	2.39	superimposed	1.42	urging	2.89
claims	3.60	insisted	3.67	tax	2.84		
Will	**t**		**t**		**t**		**t**
choice	4.20	desire	3.65	solved	3.02	wish	5.57
choices	1.46	desired	1.07	solving	2.25	wished	4.22
choose	4.21	desires	1.46	volition	1.00	wishes	3.14
chooses	2.02	fate	3.07	will	8.80	wishing	3.02
choosing	1.16	initiative	2.44	willed	2.03		
chose	5.05	initiatives	2.00	willing	3.78		
chosen	5.12	solve	3.70	wills	3.38		

well were excluded from analysis, and no word was used in more than one word-list. If a person has a linear conceptualization of time, for example, we might expect the use of words that have to do with clocks, calendars, schedules, timing, durability and lateness, age in years, etc.

RESULTS

Measurement of Variables

In order to have some confidence that the words selected as indicators of folk-concepts are not measuring different concepts, for each candidate folk-concept, item analysis based on the method of summated ratings was carried out for all of the selected words assigned to every Roget folk-concept. This was done in two stages. In the first stage of item analysis, a summated rating–the proportion of total words spoken by the informant in the entire interview that were assigned to each folk-concept–was calculated. The top ¼ and the bottom ¼ of the sample were then compared, and then two-sample *t*-tests of differences between the means for the top and bottom fourths of the corpus were calculated separately for each word in the wordlist. If an individual word measures what the words measure collectively, then the mean for the top fourth should be higher than the mean for the bottom fourth. In the second stage, the top ½ and bottom ½ of the corpus were compared, with *t*-values again calculated for each word. In both stages, if one or both of the two *t*'s for a word was negative, the word was purged; if one *t* was greater than or equal to 1 and the other not computed (for rarely used words), or had a value between 0 and 1, the word was retained; and, of course, if both *t*-values were greater than or equal to 1, the word was retained. Two example wordlists, for *Will* (an indicator of episodic-futural time-consciousness) and *Demand* (an indicator of the positive experience of authority-ranking) are shown in Table 2. If a person in their cognitive structure emphasizes episodic information processing in general, and has an episodic-futural time-consciousness in particular, then that person should be expected to use the words grouped under the Roget category *Will*, as they refer to the exercise of will-power in the words they utter in their life stories. This, simply put, is the rationale for the content-analytic methodology.

Roget folk-categories were selected, on theoretical grounds, as indicators for: 1) the eight social-relations variables–the positive and negative experiences of communal sharing (*CS-pos*, *CS-neg*), of market pricing (*MP-*

pos, *MP-neg*), of authority ranking (*AR-pos*, *AR-neg*), and of equality matching (*EM-pos*, *EM-neg*); and 2) folk-concepts were selected to measure the four kinds of time-consciousness: patterned-cyclical (*PC*), ordinary-linear (*OL*), episodic-futural (*EF*), and immediate-participatory (*IP*).

The twelve sets of items were subjected to maximum likelihood factor analysis and Tucker-Lewis (TL) inter-indicator reliability coefficients were calculated. For these dozen variables, the final measure was the total number of words used from the list of folk-concept indicators, divided by the total words produced in the whole interview, with this quotient then multiplied by 10^4.

The ten *PC* and nine *CS* folk-category indicators span their seven-part definitions, as there is at least one measure for each of P1-P7 and for each of L1-L7, which contributes to their content validity. The second criteria for *PC* and *CS*, P2 and L2, were measured by interaction terms: P2, a fusion of the past and the present, was measured by *PastPres* =(Past*Present)$^{1/2}$ and L2, by *FuturePres*= (Future*Present)$^{1/2}$. For two of the *OL* criteria, wordlists were pooled: for L1, time as linear, the measure used was *Linear*=Length + Interval + Period; and for L6, *Quantity*=Measurement of Time + Frequency. While *OL* is, by definition, a single dimension, *PC* is by definition multidimensional, which is reflected in the Tucker-Lewis reliabilities *OL*=.90 and *PC*=.67, which suggests that *OL* came closer to being a single dimension than did *CS*.

EF time was measured by seven Roget wordlists that would appear to be face-valid and have good factor-score coefficients but the TL reliability of .49 was the lowest of the twelve variables. *IP* time had only three indicators, so one of them, *The Present*, was randomly split into two variables to over-identify the model and made possible a reliability estimate (TL=.81), which had no effect on the combined measure of *IP*.

The four most important independent variables–the positive experiences of the four social relations, were adequately measured, as the TLs were *CS-pos* .98, *MP-pos* .99, *AR-pos* .77, and *EM-pos* .88. For *EM-pos*, a random split of the Roget indicator *Equality* was carried out to make possible an assessment of reliability. The negative experiences of the four social relations were less well measured, as the TLs were *CS-neg* .61, *MP-neg* .83, *AR-neg* .91, and *EM-neg* .58. It should be mentioned that Roget provides many folk-concepts that have an unclear or neutral valence (especially for *MP*-related categories). For example, the potential *CS-pos* categories 'Birth' and 'Marriage' did not factor with the chosen indicators, and, upon reflection, cannot be assume to be positive experiences, for the interviews contained many stories of tragic problems in giving birth, failed and abusive marriages, and having children 'taken away'; however, they were included indirectly in the measure *Temporality* =(Birth * Reproduction * Marriage)$^{1/2}$.

To explore the construct validity of the social-relations variables, their means were calculated for each of the four culture-sex group. The data (not shown) are consistent with the literature and make common sense: 1) females were more verbally expressive of *CS* relations, both positive and negative, than were males; 2) Euro-Australians were more involved in *MP* relations, both positive and negative, than were Aborigines; 3) Aborigines expressed an insufficiency of social power (*AR-neg*) relative to the Euro-Australians; and 4) the Aborigines, relative to the Euro-Australians, expressed a high level of denigrated identity (*EM-neg*).

The positive and negative experiences of hedonic society were defined by the interaction terms: *Hedonic-pp* = (*CS-pos* * *EM-pos*)$^{1/2}$ and *Hedonic-nn* = (*CS-neg* * *EM-neg*)$^{1/2}$, respectively; the positive and negative experiences of agonic society, by *Agonic-pp* = (*MP-pos* * *AR-pos*)$^{1/2}$ and *Agonic-nn* = (*MP-neg* * *AR-neg*)$^{1/2}$. The four interaction terms, mixing positive and negative social relations and the two pairing negative relations, played no role in exploratory regression analyses, and were excluded from the final analyses.

The Natural time (*NT*) and Rational time (*RT*) variables were operationally defined as *NT* = (*PC* * *EM*)$^{1/2}$ and *RT* = (*OL* * *EF*)$^{1/2}$, respectively. The four measures of hedonic and agonic social relations were used only in the two regression analyses using *NT* and *RT* as the dependent variables.

The six criterion variables, the measures of time-consciousness, were then subjected to univariate analysis in order to normalize their distributions. Square-root transformations were necessary for PC, EF, and IP. After transformation, these measures were approximately normal, with the Shapiro-Wilk coefficients (1=perfectly normal) *PC* .96, *OL* .98,

Table 3: Roget Folk-Concept Indicators of the Four Time-Consciousness and Eight Social-Relational Variables, Factor Score Coefficients, Tucker-Lewis Reliability Coefficients (TL), and Total Number of Words (NW) for each Variable

Time-Consciousness Variables

Patterned-Cyclical		**Ordinary-Linear**		**Episodic-Futural**		**Immediate-Participatory**	
Duality (P1)	.30	Linear[a] (L1)	.52	Will	.34	The Present-a[d]	.75
Past-Pres (P2)	.16	Fut-Pres[b] (L2)	.36	Resolution	.40	The Present-b[d]	.13
Infrequency (P3)	.10	Regular (L3)	.39	Intent	.56	Presence	.12
Season (P4)	.06	Age Years (L4)	.36	Plan	.54	Imminence	.34
Youngster (P5)	.37	Timeliness (L4)	.33	Foresight	.43	(TL .81, NW 47)	
Adult (P5)	.20	Earliness (L5)	.22	Presentiment	.22		
Interim (P6)	.23	Sequel (L5)	.14	The Future	.27		
Durability (P7)	.57	Quantity[c] (L6)	.37	(TL .49, NW 285)			
Evening (P7)	.30	Transience (L7)	.17				
Lateness (P7)	.32	(TL .90, NW 294)					
(TL .67, NW 297)							

Social-Relations Variables

Communal-Sharing-pos		**Market-Pricing-pos**		**Authority-Ranking-pos**		**Equality-Matching-pos**	
Lovemaking	.21	Possessor	.13	Master	.05	Identity	.23
Friends	.50	Possession	.26	Demand	.33	Equality-a[g]	.84
Temporality[f]	.32	Acquisition	.91	Compulsion	.26	Equality-b[g]	.31
Welcome-Frnshp[e]	.34	Property	.16	Strictness	.40	Similarity	.10
Cooperation	.004	Wealth	.10	Disobedience	.28	(TL .88, NW 42)	
(TL .98, NW 297)		(TL .99, NW 120)		Opposition	.29		
				Resistance	.22		
				Contradiction	.31		
				(TL .77, NW 272)			

Communal-Sharing-neg		**Market-Pricing-neg**		**Authority-Ranking-neg**		**Equality-Matching-neg**	
Death	.32	Loss	.26	Lack Influence	.07	Contrariety	.18
Divorce	.08	Relinquish	.98	Confinement	.90	Difference	.08
Seclusion	.39	Poverty	.49	Obey	.12	Disapproval	.34
Selfishness	.29	Debt	.03	Prohibit	.07	Disagreement	.05
Dislike	.42	Payment	.23	Accuse	.73	Disrepute	.11
Discourtesy	.16	(TL .83, NW 138)		Condemnation	.15	Disparagement	.73
(TL .61, NW 118)				Punishment	.09	Ridicule	.04
				Atonement	.08	Injustice	.15
				(TL .91, NW 255)		(TL .58, NW 242)	

[a] Linear = Length + Interval + Period

[b] Fut-Pres = Future + Present

[c] Quantity = Measurement of Time + Frequency

[d] To over-identify the model, necessary for estimating inter-item reliability, the wordlist for The Present was randomly divided into two sublists

[e] Welcome-Frnshp = Welcome * Friendship

[f] Temporality = Birth * Reproduction * Marriage

[g] To over-identify the model, the wordlist for the folk-concept Equality was randomly divided into two sublists

EF .98, *IP* .97, *RT* .96, and *NT* .97. The measures of the twelve multi-indicator variables are summarized in Table 3.

A number of covariates and cofactors were defined. The informants' ecological location as a child and an adult were recorded, the settings being rural-outback, rural, small urban, and suburban-urban. Using *Small-urban* as a reference category, three dichotomous (1, 0) variables were defined: *Outback-tribal* = 1 if the informant lived in such a location both as a child and an adult, and 0 otherwise; *Rural* = 1 for rural residence at both stages of life, 0 otherwise; and *Urban* = 1 if location is suburban-urban at both life stages, 0 otherwise. The variable *Culture* was coded Aborigines 1 and Euro-Australians 0; Sex, males 1 and females 0; the Culture-Sex interaction, *CS* = Culture * Sex. The covariates *Age in Years* and *Year of Birth* had missing values assigned to the mean for exploratory regression analyses but the missing-values cases were excluded for these two variables in other analyses.

REGRESSION ANALYSES

The predicted standardized regression coefficient *beta*-values (which have *t*-distributions) and their associated probability ranges are shown in boldface along the main diagonal of the portion of Table 4 above the cofactors *Culture* and *Sex*. These six coefficients are predicted to be positive and in the range of statistical significance. The effects of social relations variables will be presented first, to test propositions 1-6, and then the effects of the cofactors and two covariates will be described.

Proposition 1. Patterned-Cyclical Time-Consciousness was regressed on the eight social relations variables (Table 4, column 1), *Culture*, and *Sex*. The prediction is that the positive experience of Communal Sharing, when all other variables are controlled, contributes to *PC* and this is the obtained result (the standardized partial regression coefficient, *beta* = 3.36, with a one-tailed probability $p < .001$). *CS-neg* was unrelated to *PC*, and all of the other six social relations variables had negative coefficients, one of which, *MP-neg*, was significant.

Proposition 2. Ordinary-Linear Time-Consciousness was regressed on the eight social variables, *Culture*, and *Sex*. As predicted, it was the positive experience of market pricing, *MP-pos* (*beta* = 2.85, one-tailed $p < .01$), that contributed to this time-orientation. The other component of agonic society, *AR-pos*, also made a significant positive contribution to *OL*, which is consistent with theory but was not predicted. It was also found that *EM-pos* significantly depressed *OL*.

E. P. Thompson (1967) argues that a linearity of time-consciousness has historically been imposed on working class persons. Given this argument, we might expect a similar difference by *Culture*, as we have seen evidence that linear time is imposed on Aborigines working for Euro-Australians under oppressive conditions. To investigate this possibility, *OL* was regressed on the same independent variables separately by *Culture*. For the Euro-Australians, *MP-pos* again had a strong effect on *OL* (*beta*=3.06, one-tailed p=.001) but *MP-neg* was no longer unrelated to *OL* but instead depressed *OL* (*beta*=–2.84, p=.002). But for Aborigines, *MP-pos* made only a directional and non-significant contribution to *OL* (*beta*=0.98, one-tailed p=.16) but *MP-neg*, the negative experience of market-pricing social relations, made a strong, positive, significant contribution to an ordinary linear time-consciousness (*beta*= 3.15, two-tailed p=.02)! This remarkable result is entirely consistent with Thompson.

Proposition 3. Episodic-Futural Time-Consciousness was, as predicted, strongly and positively influenced by *AR-pos* (*beta*= 6.57, one-tailed $p < .0001$), and also by the other positive component of agonic society, *MP-pos* (*beta*= 4.75, $p < .0001$), with the other six coefficients at chance level.

Proposition 4. An Immediate-Participatory Time-Consciousness was, as predicted, strongly and positively related only to *EM-pos* (*beta*= 9.21, one-tailed $p < .0001$) but not to *EM-neg* (*beta*= .44). The other six coefficients were negative, three of these results being statistically significant.

Proposition 5. For the *entire corpus* of interviews, Natural Time experience (*NT*) was, according to theory, expected to be predicted by the positive experience of hedonic social relations, *Hedonic-pp*, and this was obtained (*beta*= 2.51, one-tailed $p < .01$). There were other results, not predicted, but consistent with theory that are of interest:

1) *NT*, as predicted, responded positively to one component of hedonic sociality, the positive experience of equality-matching (for *EM-pos*, *beta*= 2.81, two-tailed $p < .01$) but not to the other component, the positive ex-

Table 4: Least-Squares Regression Analyses for the Combined Samples (Predicted betas in boldface)

Independent Variables	Patterned-Cyclical		Ordinary-Linear		Episodic-Futural		Immediate-Participatory		Natural = (PC * IP)		Rational = (OL * EF)	
	UC	Beta	UC	Beta	UC	Beta	UC	Beta	UC	Beta	UC	Beta
Communal Sharing-pos	.016	**3.36*** **	.089	1.11	-.005	-1.00	-.004	-0.73	-.187	-1.32	-.006	-.07
	(.005)		(.080)		(.005)		(.003)		(.141)		(.889)	
Communal Sharing-neg	-.000	0.01	-.054	-0.54	-.014	-2.21*	-.014	-2.226*	-.206	-1.76	-.064	.87
	(.006)		(.099)		(.006)		(.006)		(.117)		(.074)	
Market Pricing-pos	-.004	-2.03*	.392	**2.85****	.039	4.75***	-.042	-4.89***	-.344	-1.05	-.227	-1.11
	(.008)		(.138)		(.008)		(.009)		(.326)		(.205)	
Market Pricing-neg	-.008	-4.60***	-.027	-0.27	.010	1.72	-.016	-2.48*	-.347	-2.95**	.071	-0.96
	(.001)		(.099)		(.006)		(.006)		(.118)		(.074)	
Authority Ranking-pos	-.003	-1.06	.085	-0.97	.018	**6.57*** **	.001	-0.24	-.042	-0.66	.098	2.45*
	(.003)		(.088)		(.003)		(.003)		(.063)		(.040)	
Authority Ranking-neg	-.009	-1.70	-.085	-0.97	-.004	-0.72	-.020	-3.64***	-.313	-2.99**	-.055	-0.83
	(.005)		(.088)		(.005)		(.006)		(.105)		(.066)	
Equality Matching-pos	-.001	-0.53	-.080	-3.69***	-.006	-4.47***	.013	**9.22*** **	-.093	2.81*	-.069	-3.31**
	(.001)		(.022)		(.001)		(.001)		(.033)		(.021)	
Equality Matching-neg	-.014	-1.82*	-.077	-0.61	-.006	0.73	.004	0.44	-.184	-1.21	.019	-0.20
	(.008)		(.127)		(.008)		(.008)		(.153)		(.096)	
Hedonic-pp = (CS-pos * IM-pos)	---		---		---		---		.289	**2.41****	-.033	-0.44
									(.115)		(.072)	
Agonic-pp = (MP-pos * HR-pos)	---		---		---		---		-.260	-1.03	.696	**4.37*** **
									(.254)		(.159)	
Culture	1.26	**7.18*** **	-20.650	**-7.21*** **	-.847	**-4.90*** **	1.20	**6.61*** **	31.3	**9.00*** **	-12.97	**-3.35*** **
	(.175)		(2.86)		(.173)		(.181)		(3.474)		(2.183)	
Sex	-.999	-5.72***	11.420	4.01***	.427	2.48*	.524	2.90**	-6.08	-1.80	7.12	3.35***
	(.170)		(2.852)		(.172)		(.181)		(3.383)		(2.125)	
R^2	.190		.149		.198		.272		.251		.229	

*p<.05; **p<.01, ***p<.001 (all of the tailed tests are in boldface)

Note: Unstandardized coefficients (UC) are to the left of the standardized beta-values (Beta), with these coefficients' standard errors directly below them in parentheses.

perience of communal sharing (*beta*= –1.32, not statistically significant);

2) *NT* was diminished at least directionally by all six of the other social-relational variables and significantly so by the negative components of agonic sociality (for *MP-neg*, *beta*= –2.95, two-tailed $p<.01$; for *AR-neg*, *beta*= –2.99, two-tailed $p<.01$). These results suggests that the experience of economic deprivation and an insufficiency of social power do not enhance informal social and family life but rather would appear to have a destructive effect. The results are consistent with a vast sociological literature documenting the tangle of pathology resulting from economic disadvantage and social powerlessness.

Separate analyses were also carried out for each Culture.

For the *Aborigines only*, the results parallel that of the entire sample. The theoretical prediction that *NT* would respond positively to *Hedonic-pp* was satisfied (*beta*= 2.00, one-tailed $p=.02$). Again, there was a positive effect of hedonic component *EM-pos* (*beta*= 2.08, two-tailed $p=.02$) but not for component *CS-pos* (*beta*= –1.46, not significant). And again, the other six variables had negative regression coefficients, with the same two nearly significant or significant (for *MP-neg*, *beta*= –1.46, two-tailed $p=.14$; for *AR-neg*, *beta*= –3.23, two-tailed $p=.001$).

For the *Euro-Australians only*, the results again resemble those of the entire sample, and Aborigines only, but they tend to be weak and not significant. *NT* responded only directionally to *Hedonic-pp* (*beta*=.79, one-tailed $p=.21$). As before, *EM-pos* made a positive contribution (*beta*= 2.20, one-tailed $p=.01$) but *CS-pos* did not. Economic difficulty, as indicated by *MP-neg*, again had a significantly negative effect but a deficiency of social power had only a weakly negative effect.

Proposition 6. Again, we begin with analysis of the entire corpus. Rational Time experience (*RT*) was, as proposed, predicted by the positive involvement in *agonic* sociality, (*beta*=4.37, one-tailed $p<.0001$). One component of positive, agonic social relations, *AR-pos,* made an independent contribution to *RT* (*beta=2.45*, $p<.01$) but the other, *MP-pos*, had a non-significant negative coefficient.

Separate analyses by Culture were then carried out.

For the Aborigines, *RT* was successfully predicted by *Agonic-pp* (*beta*=2.00, one-tailed $p=.02$) with an independent contribution from *AR-pos* (*beta*=2.55, one-tailed $p<.01$). We again find an E. P. Thompson-type effect, as *MP-neg* has a significant effect (*beta* =2.17, two-tailed $p=.03$) but *MP-pos* had no effect whatever. There was also an unexpected negative effect of *EM-pos* (*beta*= –2.45, two-tailed $p=.01$), suggesting that agonic and hedonic orientations might to some extent be zero-sum in their effects.

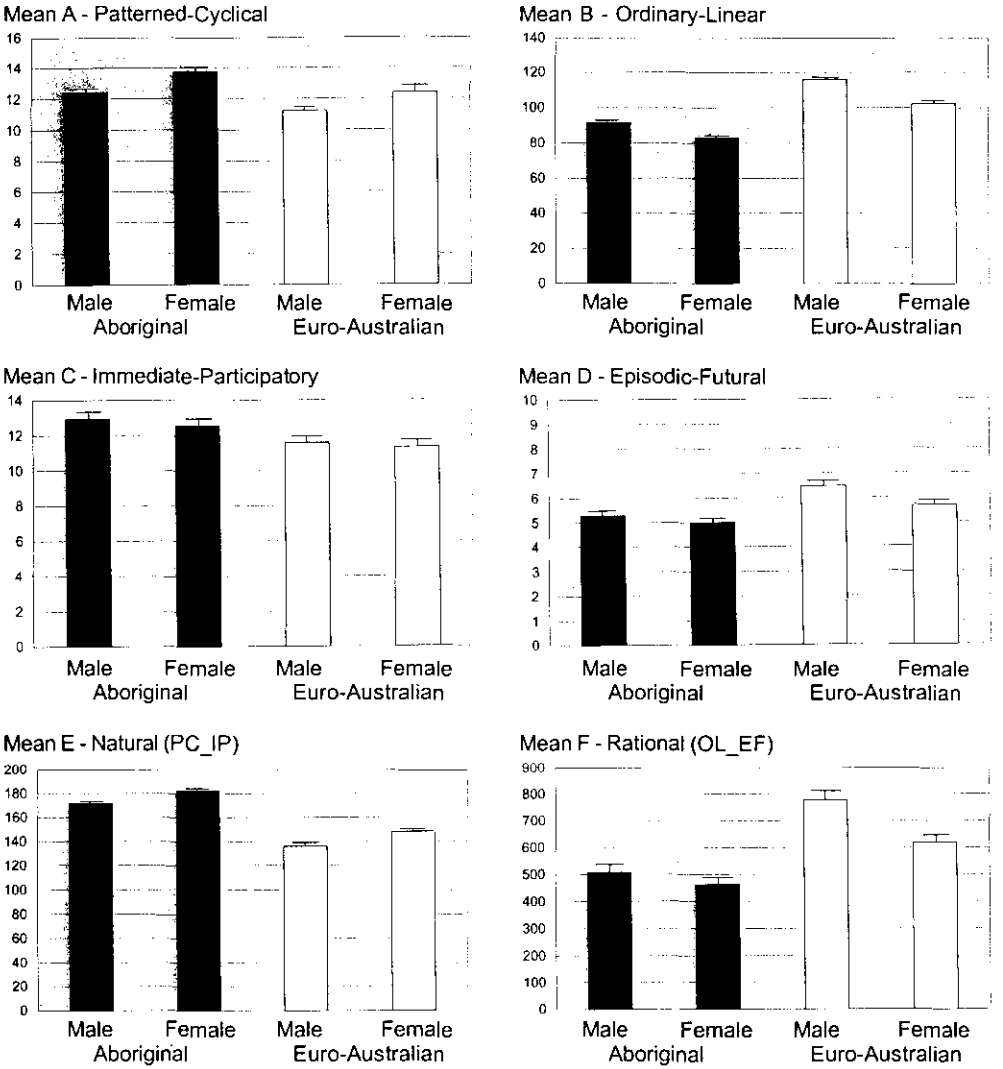
For Euro-Australians, *RT* was strongly influenced by *Agonic-pp* (*beta*=4.84, one-tailed $p<.0001$), the inclusion of which reduced the effects of the agonic components to *negative* status, with the effect of *MP-pos* significantly negative.

EFFECTS OF CULTURE, SEX, AND OTHER VARIABLES

The effects of *Culture* are consistent with the ethnographic literature on Aboriginal time-consciousness, and are strong and significant for all six kinds of time. As hypothesized, the Aborigines, in comparison to the Euro-Australians, were found to have a temporal orientation that is patterned-cyclical (*beta*=7.18, one-tailed $p<.0001$), present-oriented (*beta*=6.61, one-tailed $p<.0001$), and Natural (*beta*=9.00, one-tailed $p<.0001$), which follows from their culture's great emphasis on community life, on equality matching social relations, and on the combination of the two, which is constitutive of hedonic sociality. The Euro-Australians, in contrast and as hypothesized, give more emphasis to ordinary, linear time (*beta*=–7.21, one-tailed $p<.0001$), to the future (*beta*=–4.90, one-tailed $p<.0001$), and to a Rational time orientation (*beta*=–5.94, one-tailed $p<.0001$), which follows from their involvement in market-pricing, authority-ranking, and the combination of the two, which measures agonic sociality (see Figure 2).

The effects of *Sex* were generally weaker than those for *Culture*, and four of six were statistically significant. Female informants showed a time-consciousness that was strongly patterned-cyclical (*beta*= -.72, one-tailed $p<.0001$) but slightly less present-oriented (*beta*=2.90, two-tailed $p=.003$, a result not predicted); the net effect being a slightly lower level of Natural time (*beta*=1.80, two-tailed $p=.07$). Males, in contrast, were much more linear (*beta*=4.00, one-tailed $p<.0001$) and future-oriented (*beta*=2.48, $p<.01$), and

Figure 2. Time Consciousness by Culture and Gender



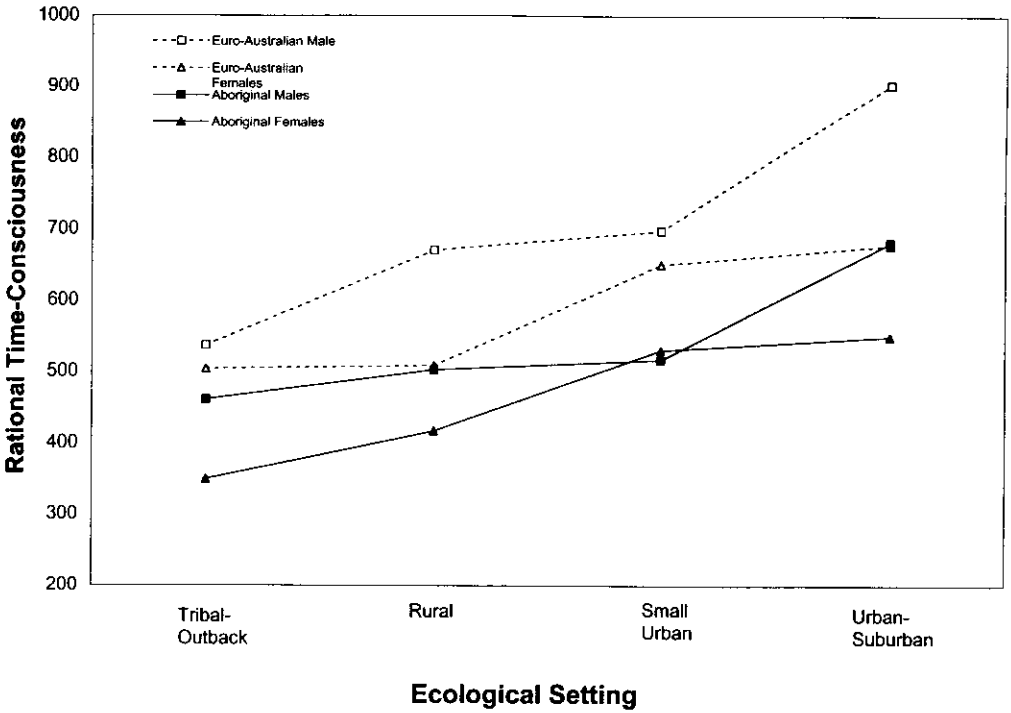
higher for Rational time (*beta*=3.35, $p<.001$).

The regression analyses presented in Table 4 were first done with the *Culture*-by-*Sex* interaction included, but none of these interaction terms were significant, so they were returned to residual status before the final analyses were carried out.

The above analyses were repeated, with the inclusion of other variables (data not shown). There was an interesting difference for Age: the older informants were more present-oriented but less future-oriented than were the younger ones.

The variable *Year of Birth* makes possible inferences about historical trends in the mentalities of the two cultural groups. The data show that as the decades (from the 1900s through the 1950s) go by, there has been a modest increase in linearity and in futurality, and a strong increase in Rational time. These trends can be seen in Figure 3, which also shows interesting culture-sex differences. This trend is strongest among the Euro-Australians (their line 'slopes' are steeper), with the females closing the gap for informants born in the 1940s and 1950s. Among the Aborigines, in contrast, the sex difference has not narrowed. The overall tendency toward a

Figure 3. Mean Level of Rational Time-Consciousness as a Function of Ecological Settings, for Four Culture-Sex Groups



Rational time-orientation with the development of modern, industrial society is well documented in the literature on time and temporality (see Heidegger 1962, Whitrow 1989). Natural Time, in contrast, has been stable over the decades, and least for these data (results not shown).

Rational Time is also strongly linked to ecological setting, as can be seen in Figure 4. As might be expected, it is the outback, 'bush'-dwelling Euro-Australians and the tribal-living Aborigines that have the lowest levels of Rational Time, with monotonic increased evident in larger settings, in Rural, Small Urban, and then in Suburban-Urban locations. The effect of location appears to be stronger for males than it was for females in both cultural groups.

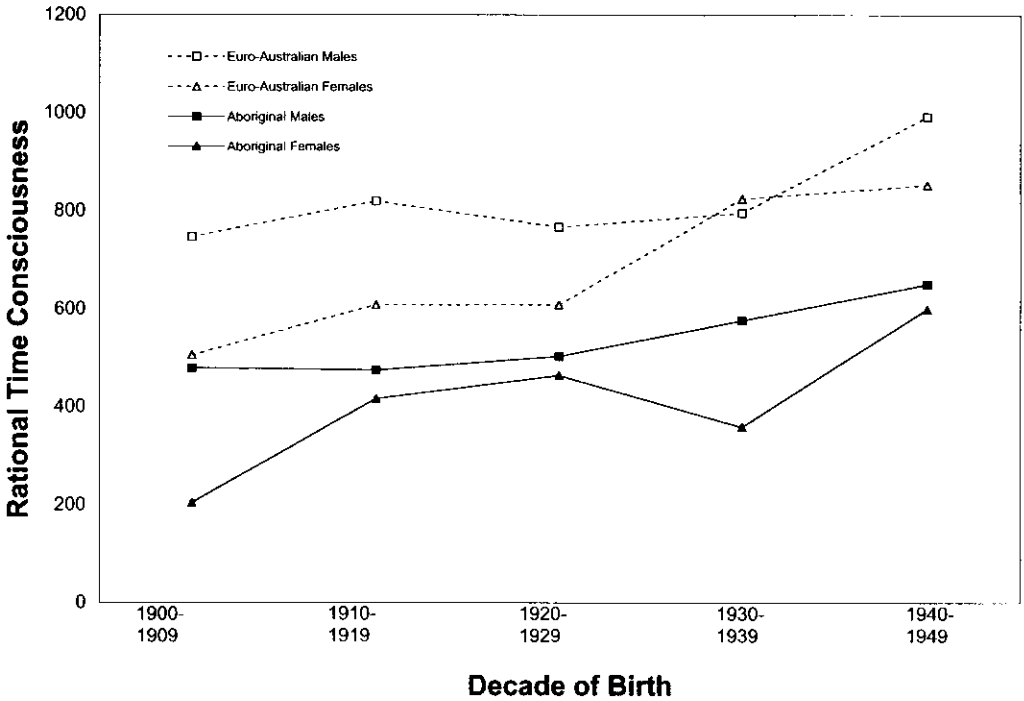
DISCUSSION

Discussion of Results

The present theory of time and society is based on two isomorphic models, one of social-relations and one of cognitive-structure. The four elementary forms of temporality identified in the cognitive model are seen as aspects of four larger cognitive structures, the four most major modes of information processing of the human brain. Once these models are developed, the theory is itself rather simple and, in this first empirical study of the theory, the fit to data is excellent. As predicted, patterned-cyclical time-consciousness is predicted by the positive experience of communal-sharing social relationships (but not by the positive experience of equality-matching relations); ordinary-linear time-consciousness, by the positive experience of market-pricing; episodic-futural time-consciousness, by the positive experience of authority-ranking; and immediate-participatory time-consciousness, by the positive experience of equality-matching (but not by the positive experience of communal sharing).

The negative experiences of these four kinds of social relations produced only 5 of 24 possible significant results in the whole-corpus analyses, all of which had negative coefficients. First, both *PC* and *NT* kinds of time-consciousness were significantly low-

Figure 4. Mean Level of Natural Time-Consciousness as a Function of Decade of Birth, for Four Culture-Sex Groups



ered by the negative experience of market-pricing, economic relationships. And second, a present orientation, *IP*, was significantly lowered by the negative experiences of *CS*, *MP*, and *AR;* it should be noted that the *positive* experiences of *MP* also depressed *IP*. None of these negative coefficients are of particular interest to the theory.

Fiske (1991) in his social-relations model pays little attention to the valences of his four social relations models. The importance of doing so is evident from these findings. For the entire sample, it was only the *positive* experiences of the four social relations that contributed positively to the four kinds of time consciousness, and it was only the *products* of the *positive* pairs of social relations that predicted Rational and Natural time experiences. The only negative social relationship that predicted a kind of time-consciousness that was of theoretical interest was found in the analysis of Aborigines only, where it was found, consistent with Thompson (1967), that negative experience of the work world contributed to a linearity of time-consciousness. Further analysis, with the addition of a measure of socioeconomic status, is of course needed to better understand this phenomenon.

The importance of the most general kinds of time-experience, the Natural and the Rational, is clearly evident in the results.

Natural Time is predicted by the interaction term for positive hedonic community, but when this variable is added to a regression analysis based on the eight social relations, only one of its two components–the positive experience of equality-matching, but not by the positive experience of communal-sharing–continue to have an effect.

Rational Time is predicted by the interaction term of positive agonic sociality, but when this variable is added to a regression analysis based on the eight social relations variables, again we find one component, the positive experience of authority-ranking, continues to have an effect. The conclusion is that the higher-level concepts, Natural-Rational, and hedonic-agonic, are hardly supererogatory to the theory but are rather essen-

tial. It cannot be said that the positive experience of communal-sharing has no effect on NT, nor can it be said that the positive effect of market-pricing has no effect on RT. What can be said is that the effects of *CS-pos* and *MP-pos* are not direct but rather come about in their interactions with their partners, *EM-pos* and *AR-pos*, respectively.

While it is claimed that the four social relationships–CS, MP, AR, and EM–are cultural universals, no such claim has been made for the two higher-order concepts, of hedonic and agonic sociality. Recall that propositions 5 and 6 are of an if-then nature, stating "to the extent that cultural members participate" in positive hedonic or agonic society, their time-consciousness should be Natural or Rational. The data suggest that Aborigines have a time-consciousness that, in addition to being patterned-cyclical and present-oriented, is also Natural, and the concept of Natural Time is given *predictive validity* by its responsiveness to positive hedonic sociality. The data also show that Euro-Australian time-consciousness, in addition to being linear and future-oriented, is also Rational, with the concept of Rational Time given predictive validity by its responsiveness to positive agonic sociality.

Whether there would be evidence that Aboriginal culture has also develop an agonic aspect, as a component of their level of cognitive assimilation, or cognitive adaptation, was at the beginning of data analysis an open question. What was found was that for Aborigines the measure of positive agonic sociality *did* predict Rational time, which provides predictive validity for the existence of agonic sociality among the Aborigines, most of whom are at least partially assimilated or integrated in modern Australia. But we did not find significant evidence that Euro-Australian culture is hedonic, because the hedonic sociality measure for them *did not* significantly predict Natural time. This, of course, does not mean that hedonic community is entirely absent among Euro-Australians, for there is abundant evidence that such community does exist, including the author's personal observations of Euro-Australian family and informal social life.

The finding that Rational time-experience has increased over decade of birth (Figure 4), whereas Natural time-experience has been relatively stable, while not part of the formal theory, is important. Linear, episodic, and Rational kinds of time-consciousness have, during the twentieth century, increased historically (increasing as a function of decade of birth), while cyclical, present-oriented, and Natural time-consciousness have not changed over decade of birth. Since Weber (1947), it has been widely believed that modern societies have undergone a period of progressive rationalization, and a progressive rationalization of time-consciousness can be considered part-and-parcel of this larger process. It certainly should not be inferred from the data presented that the progressive rationalization of time-consciousness has rendered a natural time-consciousness any less important to the overall effective functioning and adaptation of the human mind in its sociocultural context. In fact, it is very possible that a *pathological* lack of a Natural time-consciousness is part-and-parcel of a mentality that sees the earth and the life on it not as a fragile and delicately balanced web of life, but rather as resources to be developed, exploited, and consumed, even at the cost of the degradation and destruction of oral, indigenous cultures and of vast ecological damage to the entire planet and its life.

General Discussion

In her persuasive rejection of temporal dualism, Adam (1990 16-19) also refutes disciplinary isolation in the study of time and society. The present theory and research also refutes disciplinary isolation, as it is shown that a multi-level, multidisciplinary approach is required for an understanding of time and society, which models the sociocultural, the mental, and the biological as three necessary levels of analysis. The growing interests in time in sociology and related social- and behavioral-scientific disciplines is an expression of the growing appreciation of mind and society as *the* unifying topic of social theory. Cognitive sociologists, such as Zerubavel (1997 3), have urged that in this effort we steer a middle course between cognitive universalism on one hand and local knowledge and cognitive individualism on the other. But a theory of time and society *can* be constructed directly from the most modal sociocultural and cognitive universals, the elementary forms of sociality and the elementary forms of time-consciousness, which, it is proposed, require that these concepts be criterion-validated by showing that they have

a biological basis and an evolutionary history.

Much comparative research on culture and cognition has been carried out in psychology and has made extensive use of psychometric testing. The limitations of cross-cultural, cross-societal comparisons based on psychometric tests standardized on the norms of Western, modern society are well known. Comparisons of mentality and cognitive ability based on such tests are widely viewed as discriminating against members of 'primitive' or other non-modern societies (and to subdominant groups and classes in modern societies), which are generally outperformed by their comparatively 'modern' and/or 'advantaged' controls and on this basis have historically been invidiously stereotyped as lacking intelligence. This is socially important because life-chances will long remain linked to test performances. From a *scientific* point of view, such comparisons provide but limited information about the overall mentalities of people who live in different societies and cultures. Another level of analysis is required for a comparative, sociohistorical, and socioevolutionary understanding of human mentality, of the human mind in its sociocultural context. It is the author's conviction that the one of the deepest and most fundamental level of analysis that can possibly be used for comparative, historical, and cross-cultural analysis of mind and society is that of the relationship between sociocultural experience and time-consciousness. Thus, rather than rely on tests and measures, or focus on mind-in-general, a general theory of culture and time-consciousness is presented, which it is hoped can stimulate further research and other cross-cultural comparisons.

Australia's Aborigines, of course, do not live in isolation, and for them the modern, agonic society of modern Australia is an overwhelming reality that they must face every day of their lives. They have to deal every day with the existential problems of territory and authority. Nothing is more important to their cultural survival than access to their traditional lands, so that they can participate in a collectively represented meaning system that features a totemic landscape. While they trade in religious items and other things as well, they did not in their traditional culture develop money. As for authority, they traditionally have their Law, and invest decision-making for the group with tribal elders. They did not develop the institutions of tribal chiefs or headmen, so essentially possessed no political system. In general, Aboriginal culture can be described as primarily hedonic and secondarily agonic. The contrasted Euro-Australian, western culture, of course, also includes principles of equality and community. Australia is a democracy that, by law, is compelled to treat its citizens equally, and the family remains the basic institution of the society. But modern society has undergone great institutional elaboration of polity and economy, which is expressed in forms of sociality that emphasize authority ranking and market pricing social relations. Aborigines have been invidiously stereotyped as locked in a time warp, unable to cope with the modern world. But cope they must, and cope they do, and in the process they must undergo a process of cognitive development, which is in reality a manifestation not of weakness, or of mere cognitive assimilation, but rather of strength and resolve, and the involvement with agonic society requires knowledge of the clock and the calendar, and a concern with personal future and the continuing survival of their culture and way of life. It would be a sad state of affairs if Aborigines had not developed the cognitive flexibility to not only become, as Swain (1993) suggests, a people with two Laws, but also a people with two kinds of time orientation, the Natural and the Rational.

It has been argued here that there are universal structures of human social organization, and that there are universal structures of the human mind and human brain–which include four kinds of time-consciousness existing as aspects of four more general kinds of information processing. However, it is not the case that this work can be classified as some sort of structuralism, which it is most certainly not, or as ahistorical, which it is not, or as dualistic, which it is also not. Instead, I have argued that the human being has the capability for both hedonic and agonic society, for both natural and rational time-consciousness, and the responsibility to develop healthy and productive social arrangements that are both hedonic and agonic, and that in striving for a rational orientation, we do not lose sight of the natural, for to do so would be, and has been, a gross violation of human responsibility to make a better world, one in which peoples with differing mentali-

ties can understand they have a common responsibility to respect and celebrate both their differences and their commonalities.

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DURKHEIM ON CRIME AND SOCIETAL DEVELOPMENT: THE DURKHEIMIAN SCHOOL OF COMPARATIVE CRIMINOLOGY RECONSIDERED

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ABSTRACT

The assumption that crime is associated with urbanization and industrialization has had a strong influence on the development of criminology and especially comparative criminology. Indeed, the idea of a crime-development link guided much empirical study in comparative criminology beginning in the 1960s. The source of the assumption is often attributed to Emile Durkheim, although careful readers recall that Durkheim's original writings on crime and societal development stressed the functionality of crime and its universality as opposed to its socially dysfunctional causes and effects. Thus there is reason to question whether Durkheim was the original source. The purpose of this paper is to review what Durkheim had to say about the link between crime and societal development and then to look at the theoretical arguments of the Durkheim-inspired comparative criminologists to see if the latter's ideas were based upon Durkheim's original works. The analysis shows that the theoretical root of Durkheimian comparative criminology is traced to Modernization theory and to various reinterpretations of Durkheim's classic works. The implication of these findings is discussed as it relates to the formal education of professional sociologists in the new millennium.

The assumption that crime is associated with urbanization and industrialization has had a strong influence on the development of criminology. As Rogers (1989) points out, for most of the twentieth century the discipline has concentrated on the city, and especially on those urban residents who are young, male and poor. Inspired by the Chicago School, a theory that became very popular in criminology suggested that lower-class conditions lead to cultures of violence and thus to criminality (Cloward & Ohlin 1961; Wolfgang 1982; Cohen 1955; Miller 1958; Sykes & Matza 1957). This theory was closely related to and led to the development of a more general approach called the social disorganization perspective (Thomas & Znaniecki 1920; Shaw & McKay 1931, 1942, 1969; Shaw, Zorbaugh, McKay & Cottrell 1929; Sampson & Wilson 1995; Chilton, Teske & Arnold 1995; Jackson 1995; Baldassare 1995; Short & Jenness 1994; Lundman 1993; Park, Burgess & McKenzie 1928; Bursik & Grasmick 1993; Sampson & Groves 1989; Rose & McClain 1990; Anderson 1990; Warner & Pierce 1993; Bellair 1997; Wilson 1987; Bursik 1988; Gottfredson, McNeil & Gottfredson 1991; see also the brief but excellent review in Short 1997).

Comparative criminologists linked development to crime beginning in the 1960s, when attention was turned to the Third World (Kayira 1978; Kayode & Alemika 1984; Brillion 1974; Wasikhongo 1976; Mushanga 1974; Igbinovia 1984; Tanner 1970; Kercher 1979; Chang 1976; Clifford 1963, 1964, 1973, 1974; Ebbe 1985; Opolot 1976, 1979, 1980, 1981; Messner 1982; Clinard & Abbott 1973; Shelley 1981; Olurntimehim 1973; Krohn 1976, 1978; Webb 1972; Arthur 1989, 1991; Neumann & Berger 1988; Bennett 1991; Bennett, Shields & Daniels 1997; Rogers 1987, 1989). A considerable number of these scholars reasoned that as societies develop, crime increases. They believed that developing societies - as they rapidly industrialize, urbanize, and modernize - undergo the same social processes that occurred in Europe and America in the 1900s. Thus, as people in developing countries migrated to the newly developing cities, they broke the traditional personal, family and community ties of rural village life. Social controls, especially informal controls, weaken if not disappear, and deviant and criminal behavior increases (see especially Clinard & Abbott 1973; Shelley 1981). Because the experience of these people appeared quite close to what Durkheim had called "anomie" or normlessness, the theoretical approach of these comparative criminologists was called the "Durkheimian-Modernization" approach (Neumann & Berger 1988), and scholars promoting or testing the empirical accuracy of the approach were referred to informally as belonging to the Durkheimian School of comparative criminology.

A careful reader of Durkheim's classic works may express some initial concern about the Durkheimian School of compara-

tive criminologists; such readers may recall how Durkheim stressed the positive functions of crime: how crime was normal and how the societal reaction to crime promotes social solidarity. Moreover, crime is a moral issue, because by definition it is a violation of the sentiments of the collective conscience of the group. These ideas are compatible with what would later be called structural functionalism. Thus, at least with respect to the topic of crime, they may not recall Durkheim writing about how a societal breakdown or social disorganization leads to crime.

Additionally, Durkheim had distinct views about societal development–about the transition from a segmental to an organized type of society and how the nature of law changes –but what exactly did he say about crime rates? Would the rates increase or decrease as law and society changes? Hence there is, initially at least, room for a healthy skeptical view that comparative criminologists, in advocating a Durkheimian view, have left something out or overlooked something in Durkheim's classic writings.

The purpose of this paper is to explore what Durkheim had to say about crime and societal development in his original writings on the subject, and then to compare those views with the arguments constructed by the Durkheimian comparative criminologists. Are the arguments of the latter based on Durkheim's classic views on crime and societal development, or not? That is the key question to be answered.

DURKHEIM ON CRIME AND SOCIETAL DEVELOPMENT

This section reviews what Durkheim wrote about crime and societal development, as well as a careful consideration of the context in which it is written. We consider three well known works of Durkheim: *The Division of Labor in Society* (1960); *Rules of Sociological Method* (1958); and *Suicide* (1951a).

In *The Division of Labor in Society*, Durkheim argued that the division of labor, far from being responsible for the modern phenomena of crime and suicide, actually contributed to something far more significant: a firm basis for solidarity. Moreover, the division of labor is a moral phenomenon. To illustrate this, he searched for something that would provide evidence of the strong bonds and moral interconnections between people. Law, written or unwritten, became this indicator. Law governs connections between people, is identifiable, and provides evidence of the kind of connections existing in a given society. It is an observable expression of the moral bonds existing in a society at a given time. He thus set out to study legal and moral development systematically with a view to tracing the different factors affecting forms of bonds, and also the bases of unity and solidarity. Thus, issues of crime or law violation were tightly interwoven with a society's development at any point in its history, for this is essentially the same as its moral development. He decided that there were two fundamental bases for solidarity, likeness and interdependence (see generally the review in Hadden 1997).

Addressing the first kind of solidarity, which he called mechanical solidarity, Durkheim believed that societies with this type of solidarity have minimal internal differentiation, and likeness is therefore a basis of solidarity. In such a society, people are not divided very much as to function. They live remarkably similar lives, tend to know one another in fairly small communities, and share many ideas, beliefs, and experiences. The law which governs relations in such a society is what Durkheim called repressive or penal law.

Where this kind of law prevails, crime is any act that, regardless of degree, provokes against the perpetrator the characteristic reaction known as punishment (Durkheim 1960 70). Durkheim believed that crime was not the breaking of a rule *per se* but the breaking of the bond of social solidarity and the inflaming of the intense social sentiments that result in punishment of the offender. In addition, crime has an invariant quality in that it is ubiquitous, existing at all times and historical epochs. Speaking of the constancy of this collective will to punish, he writes:

> These variations of repressive law prove... that the constant characteristic could not be found among the intrinsic properties of acts imposed or prohibited by penal rules, since they present such diversity, but rather in the relations that they sustain with some condition external to them. (1960 71)

Durkheim believed that crime offends sentiments which are found among all normal individuals of any given society. These sentiments are strong and they are defined.

They must be of a certain average intensity. Not only are they written upon the consciousness of everyone, but they are deeply written. They are in no way halting, superficial caprices of the will, but emotions and dispositions strongly rooted within us. The sentiments, furthermore, must not be simply strongly held; they must also be precise and clear (Durkheim 1960 77-79).

Crime, then, in Durkheim's revised definition, is an act that offends the strong, well-defined states of the collective consciousness. The collective consciousness is the totality of beliefs and sentiments common to average citizens of the same society which forms a determinate system and which has its own life. Such strong and well-defined states are at the root of penal or repressive law (Durkheim 1960 79-80).

Such states of consciousness are fewer at the time Durkheim wrote *Division of Labor* (the late 19th century) than they had been in the past, and the number progressively decreases the more societies approximate to a modern type. This is because the average intensity and degree of determinateness of the collective states have themselves diminished (Durkheim 1960 152-153). Here Durkheim provides a hint, but falls short of stating explicitly, that rates of crime may well fall as societies develop.

In addition, he notes that a large number of criminological types have gradually disappeared over time (Durkheim 1960 154-156). For instance, at the time Durkheim wrote, the regulation of domestic life had almost entirely lost every trace of its penal or repressive character. Many crimes of traditional society, furthermore, were defunct. The most considerable loss from the penal code, however, is the one due to the total, or almost total, disappearance of religious crimes. Here, almost an entire category of sentiments has been dropped from the strong and well-defined state of the collective consciousness, and Durkheim believes this elimination has occurred regularly and progressively.

Further, Durkheim states that as a number of varieties of crime have progressively disappeared, there was no compensating factor, for no varieties that are distinctively new have arisen (Durkheim 1960 164). Begging was accepted at the time that he wrote, but he notes that in the past, in eras before his book was published, idleness was punished. The crime of *lese majeste* is another example of a crime that in modern times no longer offends a collective consciousness (Durkheim 1960 164). Once again, though Durkheim falls short of saying explicitly that crime rates would fall as the division of labor emerges, his statements above, taken in context, would seem to imply it: if varieties of crime have disappeared with no new forms arising, this would suggest a net decline in crime.

Durkheim argued that the solidarity to which the newer, restitutive law corresponds is of an altogether different nature (see Hadden 1997). The rules of conduct which it regulates lie in the realm of differences, outside of the common consciousness. The sentiments evoked by the violation of these rules are not sufficiently violent or severe enough to lead to a demand for punishment; a restoration of order is all that is necessary. We see then, that restitutive law is a manifestation of the type of social solidarity that is based on mutual and complementary differences, hence, on the division of labor. This solidarity is called "organic." Durkheim believed the bonds of organic solidarity to be stronger than those of mechanical solidarity. Mechanical solidarity, though enfeebled, would not die out completely.

There are four remaining passages of *Division of Labor* that are important in getting to the root of what Durkheim actually said about the relationship between crime and societal development. The first deals with Durkheim's discussion of the increasing rates of suicide as societies develop, noted in the first chapter of Book II of *Division of Labor*. Might this be evidence that deviancy or crime would rise as societies develop?

The answer to this question is unequivocally "no." Again, it is important to examine the context. Durhkeim is refuting the argument of economists that the division of labor is caused by the increasing need for human happiness (Durkheim 1960 234). He argues that if the achievement of happiness was the only cause of the division of labor, then the division of labor would quickly end once happiness has been achieved (1960 237). As another way of refuting the economists' arguments, he conceptualizes happiness in a more specific way, as a state of health. He then looks at the issue of whether health has improved with civilization. He compares the savage with civilized man, noting the greater

contentment of the former (Durkheim 1960 244). Then, he argues that the multiplication of suicide as civilization emerges could hardly be construed as happiness. Looking at rates of suicide, he notes that the rate may undergo periodic fluctuations, either up or down, but when headed rapidly upward, would be an indicator of a lowering of the general average happiness level of a population. This in turn he interpreted as a weakening of the public health (1960 249). He dances around the issue of whether the rise of suicide in Europe is normal or abnormal; that subject is covered in a later book. Significantly, nowhere in this section does Durkheim state or imply that other forms of deviancy or crime would "ride the coattails" of this increase in suicide.

A second issue that Durkheim addressed had to do with how traditional ways of doing things would become less binding, and long standing traditions would erode as societies change from the segmental (mechanical) to the organized (organic) type. This process leaves room for "individual variations" to arise, and some scholars speculated that Durkheim was really talking about deviance or crime in this section. But was he?

Durkheim notes that as societies develop and the social milieu extends itself, the collective conscience spreads itself over more and more concrete things, and accordingly becomes more abstract. For example, law, morality and civilization in general become more rational and universal, and less bound by local custom (1960 287-289). This "indetermination" of the collective conscience leaves a larger place for individual variability. In particular, as the segmental type of society characterized by mechanical solidarity declines, the individual is detached from his natal environment, thrust into a more populated environment, and is freed from the power of the local elders to judge and regulate his behavior. He is thus less and less bound by the authority of tradition in general (1960 291-297). With the effacement of the segmental type, society is losing hold of the individual.

There is tension in reading this section; one expects upon turning the page to find Durkheim using outbreaks of adolescent rebellion or crime to bolster his argument. This never happens. Instead, crime is mentioned only once in this section, near the end. He states that traditional kinds of authority will lose their hold upon individuals, but this does not mean that violations of the collective conscience will be ignored by the proper authorities:

> ...the crimes and delicts to which organized punishments are attached never leave the organs charged with suppressing them indifferent. Whether the city be great or small, whether society be dense or not, magistrates do not leave the criminal or delinquent go unpunished. (Durkheim 1960 301)

Durkheim continues by stating that some of the traditional behaviors that will erode or extinguish are likely to be minor, or to violate the collective conscience in less intense ways than does crime (1960 301).

Therefore, nowhere does Durkheim say explicitly or even imply that the individual variability that occurs as societies change will result specifically in crime or even deviance. Looking at his overall argument, it would not have been wise to do so, for he argues that the newer kind of solidarity is overall a stronger bond than the older type.

Third, there is the issue whether or not an abnormal form of the division of labor, an anomic form, might lead to crime. In this abnormal form, Durkheim refers mostly to the economic realm. Small product markets merge into larger ones, but because the producer has much less contact with buyers in this new contingency, he cannot "see" the limitations or boundaries of his market, and his production level becomes unbridled and unregulated (1960 370).

Moreover, large businesses may advance at such an unpredictable, successful rate that for a while there is a kind of chaos in the marketplace that is very unsettling to the worker. The long standing rules of workplace conduct seem not to apply in such situations. Machines replace men; manufacturing replaces hand-work; the worker is regimented, separated from his family throughout the day and estranged from his employer when not working (Durkheim 1960 370). Would this stress push people over the edge into deviant conduct or even crime? In this chapter, the word crime does not appear. Nowhere is there any suggestion at all that this form of the division of labor creates crime or even deviancy. Even if it did, it would not much concern Durkheim as he considered the anomic division of labor to be an abnormal, tempo-

rary condition.

Finally, there is the issue of whether or not the anomic period of the economic markets opens a window in which deviant or criminal conduct may develop. Here, the lag in time that it takes for organic solidarity to completely form itself is the issue, because it is during this lag time that the window of opportunity for crime to develop may appear.

Again, the context of Durkheim's writing is the key. This discussion appears in the conclusion to the work, where Durkheim not only sums up the basic points of Books I and II, where the functions, causes and conditions of the division of labor are spelled out, but also tries to reconcile those books with Book III, where the abnormal forms are mentioned. Going back to basics, he argues that the division of labor is a moral phenomenon. He reemphasizes that both mechanical and organic solidarity have moral value, in fact, morality is the totality of the conditions of social solidarity, regardless of type. The division of labor can give rise to solidarity only if it is moral and just. Without being specific as to any particular abnormal form of the division of labor, Durkheim observes:

> It has been said with justice that morality...is going through a real crisis. What precedes can help us to understand the nature and causes of this sick condition. Profound changes have been produced in the structure of our societies in a very short time... Accordingly, the morality which corresponds to this (segmental) social type has regressed but without another developing quickly enough to fill the ground that the first left vacant in our consciences...the functions which have been disrupted in the course of the upheaval have not had the time to adjust themselves to one another... (1960 408)

Durkheim makes the case that the abnormal forms are temporary, "sick" conditions, and by doing so, expressed confidence that they can be effectively neutralized at some future time. Note in addition that nowhere in this discussion does Durkheim say that deviancy or crime is the expected outcome of this crisis in morality.

Durkheim's extended discussion of crime in *Rules of Sociological Method* (1958) begins with a point discussed in *Division of Labor*: that crime is present not only in the majority of societies of one particular species but in all societies of all types. There is no society that is not confronted with the problem of criminality. Its form changes; the acts thus characterized are not the same everywhere; but, everywhere and always, there have been people who have behaved in such a way as to draw upon themselves penal repression. The basic point being made is that crime is a normal phenomenon. It is a general phenomenon that is bound up with the general conditions of collective life everywhere. It appears in all human societies. Though crime may be declining in some locales, it is increasing in others. A decline somewhere within a geographic boundary does not mean that crime in general is decreasing (Durkheim 1958 64-66).

At this juncture in *Rules*, Durkheim cites some statistics that appear at least on the surface to contradict arguments made in *Division of Labor*. He notes that from the beginning of the nineteenth century, European statistics indicate a marked increase in rates of criminality; they had everywhere increased - in France by 300 percent (1958 66). However, the context of this statement is very important. He is trying to demonstrate that the decline of crime in one specific place should not be construed as a general decline, because offsetting the decline are rates that are increasing elsewhere, namely France.

The larger parameter of this argument is the issue of the definition of normal and pathological social facts, and the differences between the two. In this narrative he is trying to make the case for crime as a normal social fact. Thus, the observation that crime is everywhere and that it is increasing is made within the context of demonstrating the generality or the normality of crime, based upon its general appearance in the collective life of all societies. The more crime the better, in making Durkheim's case; also, the more crime the more it is a regular pattern or persistent part of the social structure. The main contrast he is trying to draw here is with the arguments of criminologists of his time, such as Garafalo, who appeared to assume as a basic presupposition that crime is an abnormal phenomenon.

In a footnote to a later paragraph (1958 75), Durkheim clarifies what he meant about the increase of crime in France, and more generally, in Europe. Here, he says that the increase in crime in the nineteenth century

Table 1: Durkheim on Crime and Societal Development

I. *The Division of Labor in Society* (1960)
- A. Crime is an act that offends the strong, well-defined states of the collective consciousness (pp. 79-80).
- B. Such states are fewer now than in the past, and the number decreases more as societies approximate the modern type (pp. 152-153).
- C. A large number of crime types have disappeared over time (pp. 154-156).
- D. No new types of crime have arisen (p. 164).
- E. Increasing rates of suicide that accompany development demonstrate a lowering of the average happiness level of the population as well as a weakening of public health (pp. 237-249).
- F. Individual variations that advance as the segmental type recedes are minor infractions not likely to be crime (pp. 287-301).
- G. Common conscience will be enfeebled but will not die out (p. 301).
- H. Anomie in the economy contributes to stress, but not necessarily deviancy or crime (p. 370).
- I. Increase in crime not necessarily a result of inadequate development of organic solidarity (p. 408).

II. *Rules of Sociological Method* (1958)
- A. Crime is a normal pheonmenon (pp. 64-66).
- B. Increases in crime in one place likely offset by decreases elsewhere (p. 66).
- C. Difficult to tell if rapid increases in crime are normal or not; more study is needed (p. 75).

III. *Suicide* (1951a)
- A. Distinct social contexts encouraged suicide, anomie is only one of them (pp. 152-276).
- B. No positive correlation exists between suicide and crimes against property (pp. 338-339).
- C. No positive correlation exists between suicide and homicide (pp. 339-360).
- D. A tentative and exceptional link between suicide and homicide exists in the most economically advanced areas (p. 358).
- E. Suicide not a normal phenomena, nor is the rapid increase in suicide in Europe (pp. 361-392).

was not a normal phenomenon at all, and refers the reader to his book, *Suicide*, where certain social facts he uncovered show the increase in crime to be morbid and not normal. Following up on this, I found in *Suicide* a general discussion of the relationship between suicide and crime. Although there is no clear relationship between the two, there is embedded in the discussion the brief mention of a rapid rise in homicides in areas where economic development is most pronounced and a condition of "acute anomy" has settled in (Durkheim 1951a 358). In this case the increase in that specific kind of crime is morbid.

Notice that the conversation in Chapter 3 of *Rules*, where the aforementioned footnote appears, is along a similar line: it is about whether the *increase* in the crime is normal or abnormal. That is a different matter altogether and far different than the context of trying to prove normalcy. In proving normalcy, the more that Durkheim can show that crime exists, and the more consistent it is, the better. Increases in crime do not detract, but rather add to his argument. The increases simply demonstrate that crime is an important part of collective life.

Shifting his attention now to the issue of the normalcy of the *increase* of crime in Europe, Durkheim says in the footnote that it might happen that an increase of certain forms of criminality would be normal, "for each state of civilization has its own criminality. But on this, one can only formulate hypotheses" (Durkheim 1958 75). He is saying, then, that he could not say for sure if the increase of crime in France or Europe is normal or not; that it would depend upon careful study and examination of each country's situation and stage of evolutionary development, and that to speculate at present would be hypothetical.

In *Suicide*, as the title suggests, Durkheim (1951a) considers a fairly consistent and stable form of deviancy in late 19th century Europe. Suicide had been against the law at one time, but by the time of Durkheim's writing of the book, it was deviant behavior but for the most part no longer considered crimi-

nal. This deviancy met the criterion of a social fact and was not considered an immoral act. By looking at rates of suicide instead of looking at suicide as an individual problem and further by not judging the morality of the act, Durkheim's approach differs with much that was written by psychologists and psychiatrists of his era (1951a 41-81).

There were distinct social contexts that encouraged suicide, according to Durkheim's analysis. One was anomie - the sudden, abrupt changes in the society that rendered society a poor regulator of human conduct. In a condition of anomie, the rules guiding normal conduct are disrupted. Especially in the economic sphere, chronic anomie led to virtually unregulated markets and opportunities for wealth, and stresses of sudden success or failure may lead to suicide. Another form is egoistic suicide, where there is less than adequate integration of the individual into family life and society in general. A third type is called altruistic, where there is comparatively greater integration of the individual in society, as in the lower societies. Last, there is fatalistic suicide, where there are far too many norms for the individual to successfully follow (Durkheim 1951a 152-276).

Though not passing moral judgment upon suicide, Durkheim was not prepared at all to declare suicide a normal social phenomenon. Nor did he, after considerable careful study, determine that the increase in rates of suicide in Europe were normal. Here, he is clearly more prepared to pass judgment on the normality or morbidity of the increase in suicide, mostly because of the careful book length study that he gave the subject matter. Recall that he declined to comment on rapid increases of crime in *Division of Labor*, citing the need for further study.

However, he did not find any kind of general linkage between suicide and crime in the form of a consistent positive correlation between the two. There was no relationship between suicide and crimes against property. Comparing rates of suicide and homicide, he found that the two are generally inversely related to one another. The trend was so marked that Durkheim commented that in countries "where homicide is very common it confers a sort of immunity against suicide" (1951a 351). One of the few exceptions to this trend: there was a link of sorts between homicide rates and suicide rates in the most economically advanced areas (1951a 358), but this is a very small and basically insignificant discussion within a much larger one that points to little or no positive relationship between suicide and other forms of crime. Thus, Durkheim implies that a rate of suicide should not be considered a proxy for homicide rates or for any other form of crime. The converse would also hold true: homicide rates could not proxy for suicide rates or other forms of deviancy.

Table 1 provides a summary of this section. Nowhere in any of the three classic works reviewed does Durkheim state unequivocally that the division of labor leads to increased rates of crime. Most of his argument appears to suggest the opposite, although the issue is very complex. Durkheim believed crime and societal development to be closely intertwined. As societies develop, the nature of social solidarity changes as well as the nature of law. He notes that the average intensity and degree of determinateness of collective states of consciousness that demand an individual be punished diminishes as societies develop; also, that a large number of criminological types have disappeared over time without being replaced. These comments suggest or imply a net decline in crime, although nowhere does Durkheim make such a statement on his own. He also fails to link high suicide rates, increased opportunities for "individual variation" or an anomic form of the division of labor with increases in crime. The complexity of the issue of crime rates, however, is exposed in *Rules*, where Durkheim notes that increasing crime in France and, more generally, Europe (together with evidence that crime has existed in all societies and epochs) could be considered evidence for the normality of crime, i.e., for its patterned, regular occurrence in collective life; yet, whether the *increase* of crime in Europe, by itself, or in any given country in Europe was normal or abnormal would need to wait for further careful evaluation of that society and its stage of evolutionary development. Finally, in *Suicide*, Durkheim sees hardly any link between suicide and crime in general. There is a link between homicide and suicide in the most advanced countries. This is an exception and not the rule. He does acknowledge as well that the overall increase in suicides in Europe in the nineteenth century is morbid. Thus, he is suggesting that anomy may con-

Table 2: Linkages to Durkheim's Classic Work on Crime and Societal Development by Contemporary Comparative Criminologists

Linkage	Representative Theorists	Citation to Durkheim	Comments
Modernization Theory	Clinard & Abbott (1973)	Durkheim (1958)	Uses method but not theory of Durkheim
	Shelley (1981)	Lunden (1972)	Relies upon Lunden's Summary of Durkheim
	Neumann & Berger (1988)	Durkheim (1933, 1950)	Relied more on Shelley than on Durkheim
	Arthur (1991)	Durkheim (1951b)	Argument not based on Durkheim
	Bennett (1991)	Durkheim (1964)	Argument not based on Durkheim
	Bennett et al (1997)	Durkheim (1964)	Argument not based on Durkheim
Reinterpretations of Durkheim's Work	Webb (1972)	Durkheim (1933)	Rejects Durkheim's definition of crime; relies upon own interpretation
	Messner (1982)	Durkheim (1964)	The study is based on Giddens' reinterpretation
	Krohn (1978)	Durkheim (1953)	Uses interpretations based on secondary sources

tribute to abnormal increases in suicide in certain specific areas and that this may also contribute to homicide, but on an exception basis. A long discussion of the relationship between crime and suicide yields basically no relationship between the two. Durkheim does not say explicitly or recommend anywhere that a suicide rate could proxy for crime rates, nor is the converse of this statement true.

ARGUMENTS OF THE DURKHEIMIAN COMPARATIVE CRIMINOLOGISTS

Table 2 summarizes the analysis of the Durkheimian comparative criminology literature. Here we are tracing out the roots of the theoretical arguments put forth by scholars of the Durkheimian school. A writer was considered Durkheimian if he/she was mentioned in at least one comparative criminology literature review as having advocated or tested a Durkheimian theory, and an examination of the theoretical orientation of that author shows at least one reference to Durkheim or his classic works on crime and societal development. Having passed this hurdle, more questions were asked: How did they cite Durkheim and how did they use his writings to justify their research, or to provide a theoretical orientation for the research? We are not concerned with the actual empirical research results and whether they supported or failed to support a Durkheimian point of view. Nor are we concerned about the theoretical adequacy or inadequacy of Durkheim's writings for model building in comparative criminology.

There were two ways that these Durkheim-inspired criminologists managed to link themselves to Durkheim's classic works. The first was through the development of a new theory called Modernization Theory that had tenuous links at best to Durkheim's classic works. The second was through various reinterpretations of Durkheim's classic works.

Modernization Theory

The roots of modernization theory are often traced to the groundbreaking work of Clinard and Abbott (1973). The authors begin their cross cultural study of crime with a straightforward statement that in the lesser developed countries, a sure sign of a nation's ongoing development would be its increasing crime rate. The lesser developed countries of the Third World appeared to be going through the same kinds of transitions that led to increases in crime in Europe during the 19th century. These countries had been mostly ignored within criminology before Clinard and Abbott's book, thus the book fills a huge void in the research literature. Unexpectedly, the authors include no references to Durkheim's work on crime and societal development. There is a reference to *Rules of Sociological Method* because the comparative sociological method that Durkheim advocated in that book is the same method

that Clinard and Abbott use in their study:

> To obtain the objective of comparative criminological theory research should proceed, according to Durkheim's criteria of a comparative sociology, first in a single culture at one point in time, such as the United States, second, in societies generally alike, such as many countries in Europe which have similar cultural, economic, and technological conditions, and third, after proper modification, tested on completely dissimilar societies, yet sharing some common features such as those of many less developed countries. (Clinard & Abbott 1973 2)

Shelley's (1981) work is the most widely recognized as the preeminent statement of the modernization theory. She elaborated upon some of the themes drawn out by Clinard and Abbott, and an early chapter in her book has become a classic statement of modernization theory. She contends that youth in the developing countries, as they migrate to urban centers to escape economically deficient rural areas, break the traditional personal, family and community ties of a mechanical form of social integration. Social controls, both formal and especially informal, weaken (if not disappear) and deviant and criminal behavior increases. This theory became very influential in comparative criminology and many scholars subsequently adopted it as a theoretical perspective.

Shelley's ideas about crime and societal development follow Durkheim's closely at some junctures. Durkheim did in fact argue that, especially for the young, the transition to urban life in a more organized society would reduce down the influence of traditional ways upon those individuals. He fell well short, however, of explicitly stating that increased deviancy and/or crime would be the ultimate result of this process. So where did Shelley connect with the idea that deviancy or crime would be the outcome of the modernization process? Here is a quotation from her work (1981 5-6):

> When society is in a state of rapid transition, the rules of society break down and people no longer can appraise their situation. Ambition was perpetually stimulated but never satisfied. This condition Durkheim called "acute anomie." Chronic anomie occurs when overwhelming importance is attached to economic progress as the supreme goal in and of itself and secondary consideration is given to the regulation of human conduct and the control of individual ambition. These conditions which prevailed in the nineteenth century contributed significantly to the variety of social problems observed in that society.

Shelley's footnoted reference for this passage is Walter Lunden's biography of Durkheim that appeared in Hermann Mannheim's *Pioneers in Criminology* (1972). Lunden was a distinguished professor of criminal justice at Iowa State University and his opinion carried much weight in the criminological community, but the interpretation and emphasis given to Durkheim's work is clearly his own emphasis, and this was picked up by Shelley. Durkheim did mention acute anomy in *Suicide*, but it was an abnormal condition that was well outside the major trend that Durkheim reported. It was correlated with both homicide and suicide, but it was a minor exception to the overall trend of no relationship at all between suicide and homicide. Durkheim mentioned chronic anomie as well, also in *Suicide*, but the background discussion here was trying to explain the social contexts that fed the fairly consistent rates of suicide in Europe. It was only one social context–the one producing anomic suicide-among many he identified. By definition the word chronic means "of long duration," and not a permanent condition. Further, as we've seen, Durkheim does not suggest anywhere or imply in any of his works that a rate of suicide is a proxy for a rate of crime or any other kind of deviancy. Thus to argue that a society's rapid transition and change *must* lead to crime and other social problems is a generalization based upon very sparse evidence.

Neumann and Berger (1988) were among the first to explicitly state the debt owed by modernization theory to Durkheim's work, and they called the perspective that Clinard, Abbott, and Shelley had generated "Durkheimian-Modernization Theory." The authors also constructed some alternative and competing theories that could be tested with cross cultural data, the purpose being to discern which model had the best empirical support from the data.

As Neumann and Berger (1988) present

Durkheimian-Modernization theory, they made numerous references to Durkheim (1933, 1950) as well as to Clinard and Abbott (1973) and Shelley (1981). They recognize, as well, several other scholars who were influenced by these writers or who independently argued along similar lines. In the final analysis, however, the theory presented is based more on Modernization theory than on Durkheim, as the following quotations suggest:

> The diffusion of modern norms and values disrupts the equilibrium of traditional societies and breaks down the extended family, local community ties, sacred-religious institutions, traditional beliefs, and ascribed status relations. A complex division of labor weakens the collective consciousness, creates a growing differentiation among people, and enables individuals to challenge cultural values and social rules. (Neumann & Berger 1988 282)

> The transition from traditional to modern society creates a temporary disequilibrium... weakening informal social controls and traditional normative restraints on criminal impulses. Unless new social controls and norms develop, modern individualism and the social conflict associated with growing cultural heterogeneity increase crime. (Neumann & Berger 1988 282)

The first sentence of the first quotation resonates with Shelley's ideas; the second sentence is an effort to join Shelley with Durkheim. The second sentence is not reflective of Durkheim's views at the point where it states that (there is) "a growing differentiation among people, (that) enables individuals to challenge cultural values and social rules". Durkheim fell well short of saying this, so this has to be Lunden (1972) or another scholar who is really speaking here.

In the second quotation, (again an effort in joining Shelley to Durkheim) the second sentence is not an argument that Durkheim made in the three classic works that we reviewed earlier.

Arthur (1991), like Neumann and Berger, was concerned with testing the link between development and crime that is proposed in modernization theory with data from Africa. As he states in his paper, modernization theory emphasizes the influence of social structural changes such as industrialization, rapid urbanization, breakdown in familial relations, increased socioeconomic development, and population growth on criminal behavior. His general approach appears to be that of Shelley (1981) although phrased a bit differently. Perhaps influenced by Neumann and Berger's (1988) elaboration of a "Durkheimian-Modernization" approach, Arthur sees the need to link his work both to Shelley and to Durkheim. The links to Shelley are obvious enough to readers of the paper; however, the link to Durkheim is somewhat tenuous, based upon one sentence:

> According to Durkheim, dislocations in society brought about by increasing economic activity weaken the effectiveness of norms and rules, thus leading to anomie and deviant conduct. (Arthur 1991 500-501)

Arthur's reference here is to a 1951 edition of *Division of Labor*. I could not locate this particular edition, but it appears to be one of the many reprints of the 1933 edition and as such is essentially the same as the basic text I used to gather Durkheim's original views (Durkheim 1960). The section that Arthur appears to be referencing is the chapter on the anomic division of labor. As we've seen, anomie in the economic realm was acknowledged but nowhere was there a statement made to indicate that deviant conduct would necessarily be the result.

Richard Bennett gained a reputation in the 1990s for his statistically sophisticated tests of theoretical models utilizing cross-national data. In 1991 he weighed in with his own test of modernization theory, with data from over 40 countries in differing stages of development. His summary of modernization theory:

> ...with growth in size and density societies evolve more complex divisions of labor. This complexity transforms the dominant mode of social integration from mechanical solidarity with collective conscience to organic solidarity. Durkheim suggests that when development of normative systems attendant to organic solidarity lags behind the division of labor, an abnormal condition–anomie–exists within which variation and innovation take place, including deviance and crime. (Bennett 1991 344)

The author's reference to Durkheim in this quotation is to the 1964 edition of *Division of Labor*. Bennett is referring here to the section near the end of the book where Durkheim discusses the "moral crisis" of the modern world and how organic solidarity does in fact, in abnormal conditions, lag behind and not develop properly. However, as mentioned earlier, there is no suggestion on Durkheim's part that deviance and/or crime will absolutely be the result.

The Durkheimian perspective continues to be an important perspective today. Bennett, Shields and Daniels (1997) recently found it to be an important perspective to put to the test with data from three Caribbean nations. The explanation of Durkheim's perspective, however, has not changed much — in fact, it is expressed in just about the same way as in Bennett's 1991 paper.

Reinterpretations of Durkheim

Even before modernization theory took root in comparative criminology, scholars were contemplating the usefulness of Durkheim's work for comparative studies of crime. Webb's (1972) study utilizing American data is vitally important because it tests a sophisticated Durkheimian model. Even though cross-national data are not employed, I discuss the study here because Webb is a cross cultural sociologist based in New Zealand, and the theoretical section of the paper demonstrates a thorough reading of Durkheim's work on crime and societal development.

Webb (1972) purports to provide an empirical examination of what he calls an "unsubstantiated but generally accepted proposition" found in Durhkheim's *Division of Labor*: that deviance or crime will increase concomitant with an increasing division of labor. While various interpreters of Durkheim's work have insisted that Webb's proposition is true, there is no doubt at all, based upon the analysis of Durkheim's original views in *Division of Labor*, above, that Durkheim never argued this. Webb, to his credit, admits as much in a footnote:

> Nowhere in the *Division of Labor* does Durkheim explicitly indicate that an increased division of labor or differentiation leads to a rise in the rate of crime. (Webb 1972 644)

The lengthy footnote continues:

> His definition of crime, of course, precluded such a conclusion for he conceived of crime as actions which offend strongly defined states of the collective or common conscience, as represented in repressive law, and the violation of which engenders punishment rather than restitution...Furthermore, the collective conscience loses its intensity and diminishes as the society becomes more functionally integrated and thus, by definition, there would be less crime with increased differentiation. (Webb 1972 644)

Thus far, Webb is remarkably in line with what Durkheim wrote. Struggling, however, to justify the main theoretical argument of his paper, Webb continues the footnote:

> Thus, if we extend these arguments to their logical conclusion, in time nothing will offend the collective conscience or else it will cease to exist and there will be no crime. (1972 645)

As we've demonstrated, this is not what Durkheim said. He said the collective conscience would be enfeebled but that it would not die out. It does not retreat entirely, and at least a portion of it remains and will always remain. Durkheim wrote that even among the exceptionally well behaved, if the group had the power and authority to punish, there would be some kind of crime.

Webb concludes the footnote by saying that Durkheim suffered logical flaws in his classic work. Durkheim was wrong about crime and its relationship to societal development. Crime was increasing rapidly in Europe at just the time he had hinted that it might be decreasing. Durkheim's definition of crime is the culprit: if only the master theorist had defined crime as a violation of law, then he would have been all right, as specialty laws were increasing and would continue to increase with societal evolution. Facing a theoretical dead end, Webb chooses to focus on Durkheim's supposed view that individual variation and divergent tendencies would increase with societal differentiation. He chooses to operationalize these various divergent tendencies as deviancies and specifically as crime rates. This, of course, is something Durkheim himself would not have allowed, as implied from his writing in *Suicide*. Moreover, individual variation and di-

vergent tendencies did not necessarily mean more crime. In fact, Durkheim does not really tell us if there would be more crime. The hint he provides is that the behavioral infractions that would occur as societies become more organized would most likely be minor, but not criminal.

Stephen Messner's (1982) project is similar to Webb's, as it is an effort to formulate and test a Durkheimian model of societal development and crime. Messner is trying to test a link between development and homicide with cross-national data from 50 countries. Messner concedes up front that the "Durkheimian" model he is testing does not follow closely the writings of Durkheim because it is heavily influenced by a reinterpretation of Durkheim offered by Giddens (1971). Giddens argued forcefully against a conservative interpretation of Durkheim's thought and proceeded to draw out the implications of Durkheim's writings for political sociology.

Messner, like Webb, comes to the proper conclusion after reading Durkheim: there is no good reason to anticipate a significant association between development and crime on the basis of arguments present in *Division of Labor*. This confirms the arguments made in this paper. Messner then proceeds with Giddens' reinterpretation, which stresses the role of moral individualism in the shift from mechanical to organic solidarity. Giddens' argument is that as society becomes more developed, there is a shift in value orientations in the direction of greater moral individualism. The collective conscience no longer completely envelopes individual consciousness, thereby undercutting the effectiveness of mechanical solidarity. Messner concludes that this contributes to an increase in serious criminality (1982 229). This statement is informed by Gidden's reinterpretation, and is not something that Durkheim said.

Krohn's (1978) objective was to use Durkheim's theory of the emergence of the division of labor as a model by which the variance in international crime rates could be explained, and thus is trying to reach the same goal as Messner. Krohn argues that Durkheim recognized, in his later works, the possibility that a chronic state of anomie could occur concomitant with industrialization, and that this would produce an increase in the crime rate:

> Durkheim suggested that normally the emerging division of labor would produce an organic solidarity based on the functional interdependence demanded by the evolving forms of production. But he also recognized that the evolution to organic solidarity did not proceed rapidly or uniformly. He envisioned two situations in which the division of labor would not naturally elicit organic solidarity. One was an abnormal condition in which the evolution of the division of labor was proceeding adequately, but the expected concomitant evolution of a normative system appropriate for the new modes of production was lagging behind. The need for a normative system appropriate for the emerging division of labor stems directly from the fact that the division of labor increases individual variation and innovation. (Krohn 1978 655-656)

Krohn references the 1953 edition of *Division of Labor* which appears to be one of the many reprints of the 1933 edition. The part of the book he is referring to, as far as I can tell, is the one referring to "individual variations" that may occur with the enfeebling of the common conscience. Unfortunately, there is no necessary need, based on Durkheim's writings, to believe that this is an absolute precursor to deviancy or to criminal conduct. As for anomie becoming a "chronic" state of industrial society, Krohn draws on secondary sources (Nisbet 1965; Gouldner 1962; Parsons 1937; Zeitlin 1968).

With all due respect to the scholars mentioned, these are reinterpretations of Durkheim and not Durkheim's views. Earlier, we emphasized that Durkheim believed that anomie, though chronic, was not a permanent condition. It was one of many conditions feeding the stream of fairly consistent suicide rates. The rates he examined, though substantial and consistent, did not qualify as a normal social fact. Suicide was an abnormal condition. Only in the most exceptional of circumstances was anomie related to abnormally high suicide or homicide rates.

CONCLUSION

Returning to the question posed at the beginning – are the theoretical arguments of the comparative criminologists based upon Durkheim's classic work, or not – the question must be answered resoundingly in the negative. The arguments constructed by the

criminologists are not based upon Durkheim's classic writings about crime and societal development. Of all the writers reviewed, Webb (1972) gave the most careful reading and study to Durkheim's work and really did try to understand the master's work. Unfortunately his ultimate decision was to conclude that Durkheim had erred in his definition of crime and had made other logical missteps as well.

My purpose in writing this paper was not to set up a "straw man" situation where an "accurate" or "correct" reading of Durkheim's writings is held up as an impossible standard which scholars are then criticized for not reaching. Durkheim's writings are sufficiently complex that even among the great contemporary theorists there are debates about what he really meant. Let me be clear about this: I am not trying to negate the valuable efforts of the Durkheimians, who have been able to advance our knowledge of comparative criminology in spite of not getting the original concepts exactly right. For instance, Clinard and Abbott's (1973) book was an important work for future comparative studies. It was enhanced by the use of Durkheim's method although it was not based upon Durkheim's writings on crime and societal development. Though many of its assertions have been qualified by subsequent research, it successfully advanced the knowledge base of comparative criminology. Much the same could be said of Shelley, Webb, Messner, Krohn, and all the others studied here. These works are landmarks in their own right and often quoted and should continue to be quoted.

Just as healthy skepticism was evident early in this paper about the theoretical orientations of the comparative criminologists, a similarly critical view could be taken of the overall objective of this paper. What difference does it make whether the Durkheimians accurately portray the master's writings as long as the basic intellectual tradition of the work can be traced backwards to him? Does it really matter whether scholars borrowed incorrectly from the master works? Or more generally, is the paper "much ado about nothing" or "angels dancing upon the head of a pin" with respect the historical accuracy of the criminologists in quoting Durkheim's work?

I cannot disagree more. This paper is about intellectual honesty, integrity, and tradition. Having survived a rigorous doctoral training in social theory that included considerable reading of the original master works of sociological theory, I feel that it is best to read the original sources and have an appreciation for what the giants of the field actually meant by such concepts as collective conscience, crime, or anomie, or the division of labor. In fact, understanding the original work, logically, is a prerequisite for a full appreciation and understanding of the revision or reinterpretation of Durkheim's work by such greats as Nisbet, Gouldner, Zeitlin, and Parsons.

Again, I am not criticizing the method or motives of scholars of the Durkheimian school of comparative criminology here. I am much more concerned with the implications of what they have done for the current and future generations of sociology students. Perhaps I fear most an entire generation of sociologists reared on secondary sources, or even worse, Internet sources of questionable quality. They might rely more on these than on the classic works, believing - as Webb and the others did - that Durkheim's work is no longer relevant to today's world, or needs serious adjustment before it can be relevant. These individual students, in bypassing Durkheim for newer voices, may end up with little or no understanding of the master works beyond the level of rote memorization. By so doing, they will have forsaken a rich theoretical heritage. It is not a heritage they *must* utilize in their careers, but it is one that they should embrace as part of their complete study of the field of sociology. At worst, I fear that, in following the trail of secondary sources onward into projects of social research, student hypotheses might be constructed upon what they fully think is a Durkheimian base, but what is actually a kind of junk science far removed from the original masters. An effort to decrease, ward off or prevent this scenario from occurring was my motive in writing the paper. It is in this spirit that the paper was written.

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VICTIMIZATION, CITIZEN FEAR, AND ATTITUDES TOWARD POLICE

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ABSTRACT

Respondents from 1200 randomly selected households in Colorado reported via telephone on victimization, fear of crime, and attitudes toward police. Women, older respondents, and whites expressed more favorable attitudes toward police than men, younger respondents, and non-whites. Fear of being hurt during victimization for a personal crime moderated the relation between the seriousness of victimization and attitudes toward police. We discuss these results within a community policing perspective.

INTRODUCTION

Community-oriented policing (Goldstein 1990) has replaced traditional, arrest-oriented strategies in which police treated only the *symptoms* and not the causes of disorder. This change is similar to the one that has occurred in medicine. Doctors no longer treat just the symptoms of disease, but now they work in partnership with patients to promote healthy lifestyles, a primary condition of wellness.

According to Stevens,

> Community policing is a preventive approach through an empowered problem-solving partnership of police and community to control crime, reduce fear of crime and enhance lifestyle experiences of all community constituents. (2003 13)

This approach places a large responsibility on police to foster community involvement and to solve problems defined by citizens. The emphasis is on maintaining social order, a state of certainty and stability in social life (Wilson & Kelling 1982). Community policing also places a great burden on citizens to help police to maintain order and to control crime. In this partnership, evaluation of the police by citizens is a primary measure of police performance, and fear of crime is a key feature of citizens' attitudes toward police. This situation is complicated by the fact that citizen fear and attitudes toward police are not fully connected to the actual rate of crime (Brady 1995; Hoover 1996; Wilson & Kelling 1982). As Stevens pointed out, it is not that "police make an arrest, it is how they do it that counts" (Stevens 2003 17).

Ideally, community policing should decrease fear of crime and the crime rate, but it has not always done so. For instance, in Boston, violent crime was lower than it had been in ten years, but citizens were extremely fearful of becoming victims (Stevens 2003 249).

On a resource-allocation level, community policing is complicated by the sometimes conflicting goals of decreasing the crime rate and solving small problems before they escalate into larger ones. For instance, crime rates will appear to increase when police encourage greater citizen-police interaction because citizens are more likely to report crimes to them. Furthermore, disorder can make citizens fearful, even if it does not raise the crime rate (Stevens 2003 25; Wilson & Kelling 1982). Increased police presence can be an indication of disorder, so citizens may feel more fearful of crime, as in the example of Boston (Kelling & Coles 1996; Moore & Trojanowicz 2000). That is to say, when individuals define a situation as real, it becomes real in its consequences (Thomas & Znaniecki 1958). Overall, the United States has experienced a decreasing crime rate but increasing citizen fear (Stevens 2001 155). As Moore and Trojanowicz (2000) pointed out, a moderate level of fear can be productive if it causes citizens to take precautions against victimization, but higher levels of fear can restrict freedom.

Goffman (1971) argued that when one is fearful, feelings of *adaptive competency* break down and a zone of vulnerability expands. One cannot ignore people within this zone. Alarm results from a disruption between *designed* events (where others mean one harm, but try to act normally) and *unconnected* events (where others do not mean one harm; Goffman 1971 329; see also Warr 1990).

Since community policing focuses on solving problems *as defined by citizens*, police are placing an emphasis on making people feel safe. This process may result in a focus on public order, code violations, and misdemeanors. Therefore, citizens may become less fearful about crime in their communi-

ties, and their views of police may become more positive, but the actual rate of serious crimes could remain unaffected (Kramer & McElderry 1994; Moore & Trojanowicz 2000; Stevens 2003 15).

Surveys of Victims

Victim surveys have been used to gauge the seriousness and rate of crime that is not reported to police. The National Crime Victimization Survey [NCVS] (Bureau of Justice Statistics 2004) provides national estimates of crime rates. Beginning in 1993 the Census Bureau reintroduced a victimization survey of 12 large cities that gathers information on fear of crime and satisfaction with police (Bureau of Justice Statistics 2003; Smith, Steadman, Minton & Townsend 1999). Together, these surveys allow the estimation of true rates of crime—not just reported crime.

Interestingly, when differences between rates of reported crime (as measured by Uniform Crime Reports) and rates measured from victim surveys (NCVS) were controlled, the findings were highly consistent (Biderman & Lynch 1991). Unfortunately, neither of the two victimization surveys provides data for a small city or county because it will not be among the 12 Census Bureau cities, and it will be too small to provide an adequate number of cases from the NCVS sample. While we do not have a particular reason to expect great differences between our city and those in the other surveys, the possibility of differences seem to warrant surveys of smaller localities.

Reportage

Overall, 39 percent of all crimes discovered through the NCVS were reported to the police in 2000 (Hart & Rennison 2003 1). The reporting rates ranged from a high of 92 percent for completed motor vehicle thefts to a low of 29 percent for other thefts. Overall, 49 percent of violent personal crimes and 36 percent of personal crimes were reported to police (Hart & Rennison 2003 2).

The following factors have been shown to increase victim reporting and formal response by the police: seriousness of the crime, the extent of loss or injury, lack of prior relationship between victim and offender (i.e., the incident was not merely a personal misunderstanding), the likelihood that police action will be effective, and the extent to which police action would be appropriate (Walker 1994; Black 1989; Vera Institute of Justice 1981). Overall, from 1992 to 2000 the rates at which victims reported incidents to the police have increased steadily (Hart & Rennison 2003 3).

Attitudes toward Police

Race, gender, class and age are important predictors of attitudes toward the police (Baker, Nienstedt, Everett & McCleary 1983; Smith et al 1999). Negative perceptions of the police have been most pronounced among young African-Americans (Huang & Vaughn 1996; Parker 1995). Generally, women have held more favorable attitudes toward police, but in several studies, gender differences have not reached statistical significance (Baker et al 1983; Huang & Vaughn 1996).

Smith et al (1999) analyzed victimization surveys for 12 U.S. cities. Results revealed that satisfaction with local police varied by race of the respondent, fear of victimization, and whether or not the respondent had been a victim of a crime. Among white respondents, 90 percent were satisfied with the local police. Among Latino respondents, 77 percent were satisfied, and among African American respondents, 76 percent were satisfied with police.

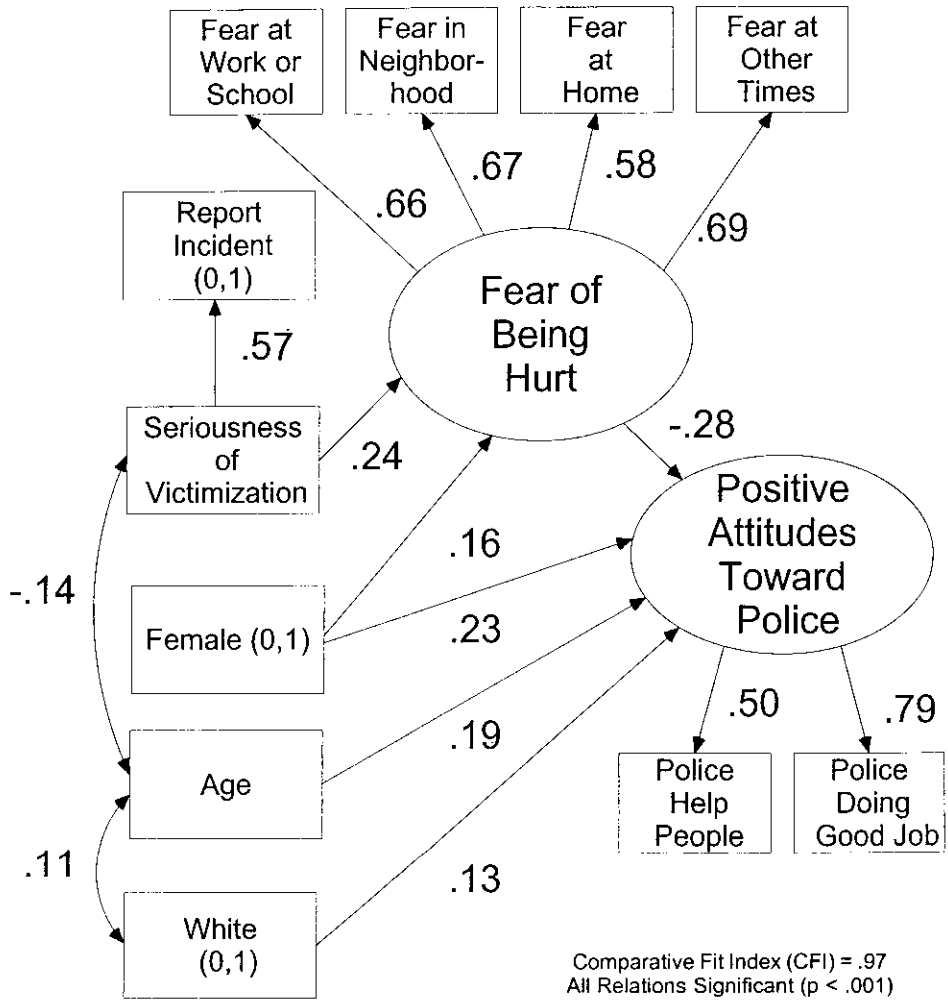
Similarly, 89 percent of respondents who indicated they were not fearful of crime in their neighborhood expressed satisfaction with police compared to 79 percent of respondents who were fearful. A total of 86 percent of respondents who had not been a victim of crime indicated satisfaction with police compared to 69 percent who had been victimized (Smith et al 1999).

Perceived Risk

Using a national sample of 1101 cases, Ferraro (1995) attempted to predict fear of crime. Perception of risk of becoming a victim was the most important predictor of fear. Responses to fear can include avoidance of dangerous situations (*constrained behavior)*, or *defensive behaviors* such as installing extra locks, engraving ID numbers on possessions, getting a dog, or carrying a weapon (Ferraro 1995 55; Moore & Trojanowicz 2000). A response to fear also can be less positive attitudes toward police.

Fear is connected to an individual's *definition of the situation* (Thomas & Znaniecki 1958), that is, how a victim interprets the pos-

Figure 1. Structural Equations Model of Positive Attitudes Toward Police



sibility of a future victimization. In this complex process, the individual takes into account objective circumstances of her situation as well as her subjective reactions to it. In this process, actors "determine the vague," because they can not know the true risks of future victimization (Ferraro 1995 11). Estimates of risk emerge in interactions with others, and various definitions of the situation may compete for acceptance. Fear is part of a process of imaginative rehearsal (Mead 1934). To the extent that a real victimization has occurred, the imaginative rehearsal becomes more vivid.

In Ferraro's model, the relation between "Fear of Crime" and demographic variables was mediated by "Perceived Risk of Victimization". Younger people perceived more risks than older people did. This finding was new, and it held as either a linear or a non-linear effect (Ferraro 1995 62). A consistent finding was that women perceived more risks than men did. Further analyses showed that this difference in genders was due to women being afraid that any crime could become a sexual crime (Ferraro 1995 100). In addition, members of ethnic minority groups perceived more risk than whites did (Ferraro 1995 62).

Theoretical Model

Our research is consistent with Ferraro's Risk Interpretation Model, but unfortunately, we could not test risk interpretation because we did not measure perceived risks. Our model used perceived risks as a rationale for predicted relations between independent variables of gender, age, and minority status, and seriousness of victimization, on one hand, and fear of being hurt on the other hand (see Figure 1).

We used our model to predict "Attitudes toward the Police". We investigated "Fear of Being Hurt" as a possible mediating variable that interpreted the relations between demographic variables of gender, age, and minority status and "Attitudes toward Police". We also investigated "Fear of Being Hurt" as a mediating variable that interpreted the relation between "Seriousness of Victimization" and "Attitudes toward Police".

METHOD

Survey Sampling (SSI) of Fairfield, Connecticut drew the sample. Within the area code for El Paso County, Colorado, SSI selected exchanges and working blocks of 100 contiguous numbers. SSI used a random start to select exchanges and working blocks of telephone numbers. Within each selected block, SSI randomly selected the final two digits of the telephone number. SSI verified the eligibility of the telephone number by checking it against a database of businesses. If SSI found the number to be ineligible, they systematically and sequentially checked possible replacement numbers; and they selected the first eligible number for the block.

Interviewing Procedures

Interviewers from Voter/Consumer Research (V/CR) of Houston, Texas conducted twelve-hundred interviews. Interviewers made four attempts to contact respondents. They completed 644 interviews on the first attempt (54%). They completed 304 interviews (25%) on the second attempt, and they completed 164 interviews (14%) on the third attempt. They completed 43 interviews (3%) on the fourth attempt. In addition, interviewers completed 45 interviews (4%) during scheduled callbacks.

Interviewers used a screening method to insure that younger respondents were adequately represented in the sample. The interviewer asked for the youngest man in the household who was over eighteen years of age. If the person was not available, the interviewer asked for the youngest woman over eighteen years of age. After screening, the interviewer promised confidentiality to the respondent and obtained informed consent.

Respondents

Interviewers contacted one respondent over eighteen years via telephone from a random sample of 1200 households in El Paso County, Colorado. The respondent reported on three important issues: victimization for the household during the previous six months, fear of being hurt in a personal crime, and attitudes toward police.

Fifty-one percent of respondents were men and forty-nine percent were women. The median age of respondents was 39 years. Of the respondents, 80 percent were white. Census figures show the county as 80 percent white. Percentages of respondents in other racial and ethnic groups also closely matched census figures for the county. Census figures are shown in parentheses. Five percent of respondents were African-American (7.7%), 7.5 percent were Hispanic/Latino (8.4%), 2 percent were Asian (2.9%) and .4 percent were Native American (.9%). In addition, 4.9 percent of the respondents classified themselves as other and .2 percent refused to answer. Census data do not contain information on these latter two categories, but if the respondents in them are considered to be non-white, the sample and census percentages match almost exactly.

Instrument

The interview began with screening items from NCVS-1 (National Crime Victimization Survey, Bureau of Justice Statistics 1993). If no victimization had taken place during the previous six months, interviewers gathered information on attitudes toward law enforcement and demographics. If a respondent's answers to the NCVS-1 instrument determined that victimization had taken place, interviewers gathered information for the first occurrence of each type of crime using NCVS-2 (Incident Report). If a respondent wished to report a previously unreported crime or sought counseling, interviewers referred the respondent to police or to a counselor.

To measure attitudes regarding crime, interviewers asked respondents a root ques-

Table 1: Descriptive Statistics for Measured Variables (n=1026)

Item	Mean	S.D.
Fear of Being Hurt		
How often do you feel someone might try to harm you:		
at work or school?	1.79	1.44
in your neighborhood?	1.51	.78
at home?	1.30	.62
at other times?	1.69	.81
Positive Attitudes Toward Police		
How good a job is being done by your local law enforcement agency?	3.08	.76
Law enforcement officers would rather catch you doing something wrong than try to help you.	2.32	1.28
Seriousness of Victimization	.48	.62
Report Incident to Police (0,1)	.22	.51

tion, "How often do you feel that someone might try to physically harm you?" Specific items said, "At work or school," "In my neighborhood," "At home," and "At other times." Interviewers recorded answers on a five-point response scale of "Never" (1), "Rarely" (2), "Some days" (3), "Most days" (4), and "Every day" (5). Interviewers asked, "In general, how good a job is being done by your local law enforcement agency?" They recorded responses on a four-point response scale, "An excellent job" (4), "A good job" (3), "An average job" (2), "A poor job" (1). A Likert-type item said, "Law enforcement officers would rather catch you doing something wrong than try to help you." Interviewers used a five-point, Likert-type response scale of Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), and Strongly Agree (5).

We coded a variable of Seriousness of Victimization for each occurrence. This scale ranged from zero for no victimization to four for a serious victimization. If the respondent reported that something was stolen worth less than $150, or they reported a burglary in which nothing was taken, we coded it as "one." If the respondent reported that something was stolen or vandalized in which the loss was more than $150, or if the respondent reported a burglary in which something was taken, we coded it as "two." If a respondent reported that someone in the household was attacked without a weapon but not hurt, we coded it as "three." Finally, if the respondent reported that someone in the household was attacked without a weapon and hurt, or if someone in the household was attacked with a weapon, we coded it as "four."

For each incident, interviewers asked the respondent if the crime was reported to police. We coded this item one for a reported incident and zero for an unreported one. Analyses used listwise deletion of missing data, so if information was missing on any item, the entire case was omitted from further consideration. An answer of "don't know" was counted as missing. Analyses were based on 1026 cases.

RESULTS

Comparison of national and local rates of victimization and rates of reporting crime to police are important considerations in judging the extent to which findings from local analyses can be generalized to other populations. Local rates of victimization for theft were about half of the national rate, and for burglary the local rate was about one-third of the national one. The local rate of sexual assault was about equal to the national rate. By contrast, the local rates for motor vehicle theft and assault were more than twice the national rates, and the local rate for assault with a weapon exceeded the national rate by a factor of almost four.

Local rates of reporting crime fell within national confidence intervals, so we regarded them as similar to the national rates. The only exception to these results was that local residents were more likely to report theft than victims nationwide were.

Fear of Victimization

Means on Table 1 showed that when respondents told interviewers how often they felt that someone might try to harm them at work or school, the average response (Mean = 1.79) fell between "never" (1) and "rarely"

(2) on the response scale. Similar mean scores were reported by respondents for fear of harm in their neighborhood, at home, and at other times.

Attitudes toward Police

Means on Table 1 showed that when interviewers asked respondents whether law enforcement officers would rather catch them doing something wrong than try to help them, the average response (Mean = 2.32) fell between "Disagree" (2) and "Neutral" (3) on the response scale. When interviewers asked respondents how good a job was being done by your local law enforcement agency, their average response (Mean = 3.08) was just above "a good job" (3).

Seriousness of Victimization

The average seriousness was .48 on the four-point scale described above. This mean response was midway between no incident (0) and a theft of less than $150 or a burglary in which nothing was taken (1).

Reporting the Incident to Police

The average response was .22. This average means that 22 percent of all households reported an incident to police.

Structural Equation Model

We conducted a multivariate analysis of attitudes toward police using a structural equation model (SEM). This technique is unsurpassed in the ability to capture relations among variables in a single model. Excellent introductions to Structural Equation Modeling appear in Bentler (1995) and in Ullman (1996).

Structural Equation Modeling [SEM] goes a step beyond factor analysis because not only does it create factors from items, but also it allows for the examination of relations among factors. In SEM, factors are called *latent variables*. SEM has two main advantages over other statistical techniques. First, in contrast to *ad hoc*, additive scales, latent variables are better able to represent the subtleties of higher-level, more abstract, constructs such as fear of victimization and attitudes toward police.

Second, latent variables are error-free constructs. These constructs, such as Fear of Being Hurt or Attitudes Toward Police, represent the shared variance among a set of measured variables (items). By using latent variables, relationships among them can be assessed without the usual "noise" of measurement error that is present in additive scales.

Figure 1 summarizes results of how well the factors capture the interrelations among the measured variables (items). Two latent variables (factors) are shown by ovals—Fear of Being Hurt and Positive Attitudes toward Police. Measured variables are shown by rectangles.

Four arrows point away from the latent variable, Fear of Being Hurt. The coefficients next to these arrows show the maximum likelihood factor loadings of the four items on this latent variable. All of the coefficients are above .58. They show that the latent variable of Fear of Being Hurt subsumes the items very well.

Two arrows point away from the latent variable, Positive Attitudes toward Police. They show the maximum likelihood factor loadings of two items on this latent variable. The coefficients showing the loadings are .50 and .79, indicating that the latent variable of Positive Attitudes toward Police subsumes the items very well.

Beginning on the left top of the model, the reader can see that the more Serious the Victimization, the greater the Reporting of the Incident to police, and this relation is strong (regression coefficient = .57). The more Serious the Victimization the greater the Fear of Being Hurt (.24). Women are more fearful of being hurt than men are (.16), and women hold more Positive Attitudes toward Police (.23) than men do. Older respondents (.19) and white respondents (.13) hold more Positive Attitudes toward Police than younger respondents and non-whites. Curved, double-headed arrows show correlation coefficients that are not presumed to be causal. One of these coefficients shows that the households of older respondents experienced less serious victimization (-.14). The other coefficient shows that respondents who are white also are older (.11). All relations shown in the model in Figure 1 are statistically significant beyond the .001 level.

One of the main advantages of structural equation models is that indices of overall fit of the model to the data are available. These indices compare the covariances among all the variables (saturated model) with covariances captured by the relations shown by the arrows in the model shown on Figure 1

(restricted model). One of the most useful fit indices is the Comparative Fit Index (CFI; Bentler 1990). A value of .90 on a fit index is considered to show a well-fitting model. The obtained CFI of .97 for the model on Figure 1 shows that the model fits the data very well.

DISCUSSION

The model showed that the Seriousness of Victimization was the only variable that affected whether or not the incident was reported to police. This relation is well known (Hart & Rennison 2003).

Age of the respondent was the only variable in the model that affected the Seriousness of Victimization. Because the relation between age and Fear of Being Hurt was mediated by Seriousness of Victimization (and was not a direct relation), our findings support Ferraro's position (1995) that older persons do not have greater fear of crime than persons in other age groups.

Results showed that Positive Attitudes toward Police were a result of several small-to-moderate direct effects of demographic variables. Women, older persons, and whites held more positive attitudes toward police than men, younger persons and nonwhites. These findings also supported those of previous research (Ackerman, Anderson, Jensen, Ludwig, Montero, Plante & Yanez 2001; Dull & Wint 1997; Huang & Vaughn 1996; Parker 1995; Smith et al 1999).

Fear of Being Hurt was a mediating variable in the model. We did not observe a direct, negative effect between Seriousness of Victimization and Positive Attitudes toward Police. Rather, Fear of Being Hurt mediated this relation. The more Serious the Victimization, the greater the Fear of Being Hurt, and the greater the Fear of Being Hurt, the less positive were Attitudes Toward Police. These findings are new. They imply that police can improve citizen evaluations by lowering the crime rate and by reassuring victims (Homant, Kennedy & Fleming 1984; Maguire 1991).

Neither our findings, nor those of Ferraro, support the notion *of perceptional criminology* in which fear of crime is independent of the actual risks (Ferraro 1995 3). Along with Ferraro, we found a moderate relation between Seriousness of Victimization and Fear of Being Hurt. Therefore, police should focus on decreasing the seriousness and rate of crime. Because of this process, citizens will accurately perceive the risks, and they can act to lower the risks. Lower perception of risks is expected lower the rate of victimization and fear of victimization.

A second mediated effect was observed. Women were more afraid of being hurt than men were. This finding supported those of Ferraro. It suggests that police should work toward a high level of public safety, and they should define the situation as safe. They should reassure victims in both words and actions. The finding also suggests that police should continue to take seriously crimes of domestic violence and sexual assault, since women tend to fear that any crime can become a sexual crime. This *Symbolic Reassurance* (Henig & Maxfield 1978) by police should be especially effective for women. We expect these measures will decrease victim fear and improve attitudes toward police (Maguire 1991).

Community policing represents an attempt by police to create relations with citizens that are more personal. These personal relations can do much to counteract sensational media accounts that raise fear of crime. A study by Whitman and Loftus (1996 30) reported that although 83 percent of Americans thought crime was a big problem, only 17 percent thought it was a big problem in their community. Their findings also showed that 76 percent of respondents said they had learned about the issue from television or the newspaper. Only 22 percent of the respondents based their belief about the seriousness of crime on personal experience (Whitman & Loftus 1996 32).

Our analyses suggest that police should continue to address serious crimes as well as to solve problems as defined by citizens. In this way, crime will decrease, and so will risk of victimization. Citizens will feel safe, they will work well with police, and they will evaluate police highly.

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DRUG USE IN MIDDLE SCHOOL: ASSESSING ATTITUDINAL AND BEHAVIORAL PREDICTORS*

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ABSTRACT

Generally speaking, theories of adolescent drug use emphasize either attitudinal variables, such as self-esteem or self control, or behavioral variables, such as interactions with delinquent peers. This research uses variables such as self-esteem, impulsiveness, parental attachment, commitment to education, and peer drug use to predict adolescent substance use. The analysis is conducted on a sample of 312 middle-school children from South Carolina. Results indicate that while attitudinal variables are important for predicting use, behavioral variables are superior predictors of adolescent drug use. Involvement in non-drug related crimes, associating with drug-using peers, and involvement in a recreational routine activity pattern, all behavioral variables, were the best predictors of adolescent drug use. Attachment was the best attitudinal predictor of drug use.

This research implies that dynamic models are needed to adequately explain the variation in adolescent drug use. Researchers and theorists are reminded that recreational drug use among adolescents is often a behavior that conforms to sub-group norms and not simply behavior that deviates from the dominant culture's norms.

We as a nation dedicate countless hours and billions of dollars each year to keep our youth from using drugs and to punish or rehabilitate those who do. We use guides and strategies, programs and commercials, and, yet, millions of youth still "experiment" with drugs. Despite all we know about why adolescents use drugs, we too often fail to understand a basic principle about adolescent drug use. By considering some leading sociological explanations of drug use, this principle can be highlighted.

Generally speaking, sociologists use two broad classes of theories to explain variations in illicit drug use. Although most theories tend to be somewhat eclectic, we can classify the theories based on their primary explanatory variables. One theoretical set uses social-psychological variables and personality traits to account for drug-using patterns. These theories rely on attitudinal variables to account for the variations in drug use. The second theoretical set emphasizes an individual's social relations and how the setting of drug use attracts or deters potential users. In general, these theories rely on behavioral variables to explain drug-using patterns. In this paper, some theoretical explanations that represent these two schools of thought on illicit drug use are outlined. Then, variables representing each theoretic "school" are used to predict illicit drug use among a randomly-selected sample of 312 middle-school children from a small city in South Carolina. While the analysis cannot be considered a critical test of competing theories because data limitations prohibit including all of the relevant variables the various perspectives discuss, it can offer a partial test of the theories' central assertions.

THEORIES OF DRUG USE:

Attitudinal-based Theories

Although there are several variants of attitudinal theories, three of the most prominent are the self degradation/self-esteem theory, the self-control theory, and the problem-behavior proneness theory. All of these theories locate the primary causal factor or factors for drug use within the individual's psyche and emphasize individualistic factors. It is the individual's perception of him or herself, and occasionally the social environment, that generate the motives and rationalizations for using illicit drugs.

Self-Degradation/Self-Esteem Theory

One set of social-psychological theories is the "inadequate personality theories." In short, these theories argue that drug-using individuals suffer from some personality flaw or inadequacy. Drug use is used in an attempt to escape this flaw; it is a defense mechanism and a means of compensating for their inferiority (see Wurmser 1980). Kaplan's (1975) self-degradation/self-esteem theory is a prime example of this line of thought. Kaplan maintains that all adolescents seek acceptance and approval for their behavior. However, when their behavior is defined as unacceptable by their parents, teachers or conforming friends, adolescents

will experience psychological distress. This distress produces feelings of self-rejection and, if left unresolved, low self-esteem. Distressed adolescents will either alter their behavior or withdraw from the source of the distress and develop a disposition toward deviance. Those adolescents that select the deviant path will likely drift toward a deviant peer group where their behavior is rewarded. In their deviant peer group, drug use will provide the distressed adolescents with a source of status and alleviate, at least temporarily, their sense of rejection. Thus, low self-esteem leads to a disposition toward deviance, participation in a drug-using peer group, and, eventually, drug use. Several empirical tests have found support for Kaplan's model. This support is generally found most often in longitudinal analyses (see Kaplan & Fukurai 1992; Kaplan & Johnson 1991; Kaplan, Johnson & Baily 1986, 1987; Vega, Apospori, Gil, Zimmerman, & Warheit 1996; Vega & Gil 1998; Miller, Alberts, Hecht, Trost & Krizek 2000; contrast Jang & Thornberry 1998).

Self-Control Theory

Another version of the "inadequate personality theory" is Gottfredson and Hirschi's (1990) "general theory of crime" or "self-control theory." Simply put, these authors argue that criminals and deviants lack the ability to regulate their behavior. That is, they lack self control. Claiming that levels of self-control are determined early in life and remain invariant over the life-course, Gottfredson and Hirschi (1990) argue that the correlations between deviant behavior, dangerous-but-legal behaviors, drug use and crime are so high because these are all manifestations of the same lack of self-control. Similarly, the correlations between crime and such factors as intelligence, educational attainment, divorce, and a host of other personal problems are due to these all being "manifestations of low self-control." In short,

> people who lack self-control will tend to be impulsive, insensitive, physical (as a opposed to mental), risk-taking, short-sighted, and nonverbal, and they will tend therefore to engage in criminal and analogous acts. (Gottfredson & Hirschi 1990 90)

In essence, self-control theory is a variant of rational choice theory. That is, those with low self-control are more likely to value the rewards of deviance over the punishments associated with it because they fail to properly calculate the negative outcomes of their behavior. As Gottfredson and Hirschi (1990 95) say,

> So, the dimensions of self-control are, in our view, factors affecting calculation of the consequences of one's acts. The impulsive or short-sighted person fails to consider the negative or painful consequences of his acts; the insensitive person has few negative consequences to consider; the less intelligent person also has fewer negative consequences to consider.

Thus, those with low self-control emphasize the immediate rewards associated with drug use or other deviant behaviors and fail to recognize the potential dangers or pains associated with the behavior. The inability to recognize the negative consequences of crime or drug use are "largely products of ineffective or incomplete socialization" (Gottfredson & Hirschi 1990 96). According to Gottfredson and Hirschi (1990 97), "the major 'cause' of low self-control thus appears to be ineffective child-rearing." To effectively socialize children, parents must feel an attachment to the child, provide supervision, recognize the child's deviant behavior, and punish the child's deviant acts.

The "general theory of crime" has produced numerous attempts to test it and various assertions made by Gottfredson and Hirschi. In general, these tests have been favorable, although several authors note that some of the more general claims of the theory are somewhat limited. Nevertheless, there is empirical support for the claim that low self-control is related to drug use, delinquency and crime (Arneklev, Grasmick & Bursik 1999; Gottfredson & Hirschi 1990; Hope & Damphousse 2002; Leeman & Wapner 2001; Mason & Windle 2002; Turner & Piquero 2002; Vazsonyi, Pickering, Junger & Hessing 2001; contrast Wang, Qiao, Hong & Zhang 2002).

Problem-Behavior Proneness

A third social-psychological perspective is more eclectic than Gottfredson and Hirschi's univariate theory. Jessor's (1979, 1987) *Problem-Behavior Proneness Theory* includes several psychological variables but

also begins to consider the social setting in which the adolescent is involved. Problem-behavior Proneness Theory asserts that drug users' personalities increase the likelihood that drugs and other types of deviant behavior will be attractive. According to the theory, there are three systems of psycho-social influence: the Personality System, the Perceived Environment System, and the Behavior System. Within each system, variables reflect either "instigations" to problem behavior or "controls" against it. Together the systems generate "proneness." The more prone to problem behavior, the greater the probability the adolescent will find drug use attractive and engage in the behavior.

Within the personality system there are two distal and one proximate "structures." The *instigation structure* is a "distal cause" of drug use and includes three variables: value toward academic achievement, value toward independence, and value toward peer affection. The *personal beliefs* structure centers on

> beliefs about the self, society, and self in relation to society. The conceptual role of such variables is to constrain against the instigations to engage in problem behavior. (Jessor & Jessor 1977 20)

And it includes the variables alienation, social criticism (the degree of acceptance or rejection of the values, norms, and practices of the larger society), and self-esteem. The *Personal Control Structure* includes the adolescents' attitudinal intolerance of deviance, religiosity, and perceptions of positive or negative functions of the problem behavior.

The Perceived Environment System includes the *distal environment structure* and the *proximal environment structure*. The distal environment structure includes the adolescents' perceived strictness and perceived sanctions for transgressions from parents and friends. The *proximal environmental structure* includes the social support for problem behavior available in the social environment. Low parental controls, low compatibility between parent and peer expectations, high peer versus parent influence, low parental disapprovals of different problem behaviors, and exposure to friends' approval for engaging in problem behavior all increase the likelihood of deviant behavior. Finally, the Behavior System includes the *problem-behavior structure* and the *conventional behavior structure*. Problem behaviors include the use of alcohol, marijuana, and other illicit drugs as well as engaging in other deviant behaviors. The conventional behaviors that control deviance include involvement in religious organizations and school.

If the three psycho-social systems generate "proneness," the adolescent is more likely to have

> a concern with autonomy, a lack of interest in the goals of conventional institutions, like church and school, a jaundiced view of the larger society, and a more tolerant view of transgression. (Jessor & Jessor 1980 109)

That is, drug users tend to be unconventional while non-users tend to be conventional (Jessor & Jessor 1980). As with the self-esteem theory, the problem-behavior proneness theory has received considerable empirical support over the years (Jessor & Jessor 1977, 1980; Donovan, Jessor & Costa 1991, 1993; Donovan 1996; Jessor, Chase & Donovan 1980; Jessor, Donovan & Coasta 1991).

Behavioral-Based Theories

While social-psychological theories emphasize individualistic factors and attitudinal variables, sociological theories of drug use typically stress structural factors and behavioral variables. As Goode (1999 100) notes when discussing sociological theories of drugs,

> the most crucial factor to be examined is not the characteristics of the individual, but the situations, social relations, or social structure which the individual is, or has been located.

Although there are others, two sets of social theories of drug use, social control/bond theory and differential association/social learning theory/subcultural theories, are discussed.

Social Control/Bond Theory

Hirschi's (1969) bond theory is most frequently classified as a sociological theory (e.g. Goode 1999). However, three of the four "elements of the bond" are attitudinal. Hirschi's well-known theory begins with the assumption that everyone has the motive to de-

viate because deviance is fun, exciting, and easy. Why, then, do we conform to normative standards most of the time? According to Hirschi, individuals conform because they are bonded to society through four "elements of the bond," which include *attachment, commitment, belief* and *involvement.* The greater the strength of the bond, the lower the probability that deviance will occur.

Attachment is the extent to which individuals value the opinions of conventional others such as parents, teachers, clergy, and peers. *Commitment* is the extent to which individuals pursue conventional goals within conventional institutions. The more committed one is to conventional institutions such as family, school, religion and community, the less likely he or she will deviate. *Belief* is the extent to which an individual holds the normative standards of the society as legitimate. Finally, *involvement* is extent to which individuals participate in conventional activities. According to Hirschi, drug use, or other deviant activity, is contained by these bonds. Hirschi's theory is one of the most influential and widely tested criminological theories (Kempf 1993). The theory has, generally speaking, received considerable empirical support (Agnew 1985; Hawdon 1996, 1999; LaGrange & White 1985; Marcos, Bahr & Johnson 1986; Kempf 1993).

The Routine Activity Perspective

According to the *routine activity perspective*, the routine activities in which individuals engage determine the probability of being victimized because they place individuals in situations that facilitate or are likely to encourage crime. Guardianship of one's self and belongings can be reduced because of the activities he or she routinely performs (see Cohen & Felson 1979; Messner & Tardiff 1985; Meithe, Stafford & Long 1987). The original perspective concerning victimization has been elaborated to explore if routine activities also alter one's ability to commit crimes and therefore explain not only victimization but also crime and delinquency (see Hawdon 1996, 1999; Osgood, Wilson, O'Malley, Bachman & Johnston 1996; Felson & Gottfredson 1984; Meithe & Meier 1994; Riley 1987). Hawdon (1996, 1999) argues that involvement can be re-conceptualized as *routine activity patterns*, or RAPs. The activities comprising a RAP vary in terms of their visibility and instrumentality. The higher the visibility and instrumentality of a set of activities, the more social control those engaging in such activities confront and, therefore, the lower the likelihood of delinquent behavior. Specifically, delinquents engage in a *recreational oriented RAP.* The re-conceptualization has been empirically supported in two separate analyses (Hawdon 1996, 1999).

Differential Association/Social Learning Theory and Subcultural Theories

Although there are differences among them (see Goode 1999), *differential association/social learning, subcultural* and *selective interaction theories* of drug use overlap. All of these perspectives emphasize the socialization process. In addition, they all maintain that crime is learned through intimate interactions. All of these perspectives underscore how associating with deviant peers increase the likelihood of crime, delinquency and drug use.

Sutherland's (1939) *differential association theory* has been one of the most prominent criminological theories ever professed and is the fundamental theory upon which other subcultural theories were developed. The central tenet of the theory is that individuals learn the specific motives, directions, techniques, and rationalizations for crime and deviance from intimate interactions. Through interactions with significant others, individuals are taught definitions of behavior that either favor the violation of law or favor conformity. The principle of differential association states that a person becomes delinquent because of an excess of definitions favorable to the violation of law over definitions unfavorable to the violation of the law (Sutherland 1939).

Akers (1977, 1992) and his associates (Akers, Krohn, Lanza-Kaduce, & Radosevich 1979) extend Sutherland's basic theory by adding principles of behavioral psychology to the theory to clarify the process by which individuals learn to deviate. As the basic principle of behavioral psychology asserts, behavior is modeled through the application of rewards and punishments. Certain groups, however, reward deviant behavior thereby teaching the individual that such behavior is "good" or "acceptable." Thus, drug use is a result of exposure to and participation in groups that use illicit drugs and define this behavior as "good." These groups provide

Table 1: Summary of Available Theoretic Variables

	Self-esteem	Problem Behavior Proness	Self Control	Bond	Routine Activity	Social Learning/ Subculture
Self-esteem	X	X				
Impulsive		X	X			
Risk Taker		X	X			
Commitment		X		X		
Attachment				X		
Recreational Pattern				X	X	X
Adult Supervision		X			X	
Peer Drug Use	X	X				X
Criminal Orientation				X (belief)		X
Criminal Behavior		X				X

> the environments in which exposure to definitions... and social reinforcements for use of or abstinence from any particular substance takes place. (Akers et al 1979 638)

While there are differences between the differential association / social learning theories, these theories overlap. Both perspectives emphasize the socialization process and that crime is learned through intimate interactions through a process of rewards and punishments. Subcultural theories further specify that the socialization into a drug-using lifestyle occurs in a stable peer group or a subculture and that this socialization process results in a transformation in the user's identity and normative belief system. Becker (1953) notes the specific factors–the techniques of use, the ability to recognize the effects of the drug, and the ability to define those effects as pleasurable–that are taught to individuals involved in the marijuana subculture. Yet, again, these factors are taught to the individual user by his or her intimate associates.

Others, most notably Johnson (1973), Kandel (1980; also see Kandel & Yamaguchi 1993, 1999, 2002) and Thornberry (1987, 1996; Thornberry, Lizotte, Krohn Farnworth & Jang 1991, 1994; Krohn, Lizotte, Thornberry, Smith & McDowall 1996), have elaborated the processes through which individuals become involved in deviant peer groups. Whether the process is due to alienation and isolation from the parental subculture (Johnson), the drifting into a delinquent peer group (Kandel), or a weakening of the social bond that ties youth to conformity (Thornberry) is undoubtedly important but beyond the scope of this paper. Similarly, whether users are forced into a drug using social network (Becker 1963) or seek them out (Kandel 1978) is beyond the scope of this paper. What is critical for our purpose is that these related theories note the importance of being socialized into drug use. Plus, this socialization process most frequently occurs in a peer group, and, once involved in a delinquent subculture, adolescents will likely engage in a range of deviant and criminal activities that reinforce their newly formed delinquent identity and belief system. Drug-using peers, therefore, increase the probability of use through their positive reactions to use.

The number of an adolescent's peers who use drugs is often used to measure the effects of differential association or subcultural involvement (Marcos et al 1986), and peer drug use has consistently been found to be a strong predictor of adolescent drug use (Akers et al 1979; Andrews, Tildesley, Hops & Li 2002; Ary, Tildesley, Hops & Andres 1993; Aseltine 1995; Bailey & Hubbard 1991; Elliot, Huizinga & Ageton 1985; Flay, Hu, Siddiqui, Day, Hedeker, Petraitis, Richardson & Sussman 1994; Hawdon 1996, 1999; LaGrange & White 1985; Marcos et al 1986). In addition, having a criminal orientation indicates involvement in a deviant subculture. This variable, in essence, is the converse of Hirschi's (1969) concept of *belief*. While Hirschi's *belief* is the extent to which individuals consider the law to be legitimate, a criminal orientation is the extent to which individuals consider violating the legal code as being acceptable. Finally, involvement in other criminal activities can serve as a proxy measure for the involvement in a delinquent peer

Table 2: Correlations

	Drug Use	Self-esteem	Impul-sive	Risk taker	Commit-ment	Attach-ment	Criminal orienta-tion	Recrea-tional RAP	Super-vision	Peer drug use	Criminal behavior	Age	Females
Drug use	1												
Self-esteem	**-.147**	1											
Impulsive	**.192**	**-.352**	1										
Risk taker	**.213**	-.080	**.242**	1									
Commitment	**-.142**	**.137**	**-.128**	**-.150**	1								
Attachment	**-.253**	**.311**	**-.170**	**-.181**	**.198**	1							
Criminal orientation	**.255**	**-.181**	**.221**	**.211**	**-.347**	**-.141**	1						
Recreational RAP	**.298**	-.016	**.233**	**.247**	**-.112**	**-.154**	**.189**	1					
Supervision	-.022	-.022	-.023	-.097	-.007	**-.117**	-.043	-.048	1				
Peer drug use	**.396**	**-.233**	**.205**	**.194**	**-.268**	**-.208**	**.400**	**.223**	-.043	1			
Criminal behavior	**.302**	**-.206**	**.265**	**.170**	**-.149**	**-.172**	**.212**	**.252**	.086	**.165**	1		
Age	**.233**	.017	.073	-.072	-.077	**-.120**	**.163**	**.218**	.083	**.334**	.432	1	
Female	.045	.034	**-.159**	-.108	.029	-.109	-.035	.083	.041	**.127**	-.164	.042	1
Minority	.096	-.037	**.124**	**.219**	**-.192**	.008	**.141**	.074	**-.150**	.058	-.012	**-.180**	**.239**

Bolded correlations are significant at the p<.05 or better.

group.

The above discussion does not pretend to exhaust the theories of drug use; however, it does cover many of the major perspectives. From this discussion, several concepts emerge as potential "causes" of adolescent drug use. These concepts include self-esteem, self-control, non-conventional beliefs and behaviors, the elements of the bond, routine activities, engaging in non-drug related criminal behaviors, and associating with delinquent peers. These theories and the variables they suggest are summarized in Table 1. Which set of concepts, the social-psychological or the social environmental, best predict adolescent drug use? Let us turn to an empirical test.

METHODS

A logistic regression analysis is used to determine which perspective best predicts adolescent drug use. The data were collected in 2000 from a middle school in South Carolina. The school is located in a small city of approximately 40,000 persons in the western part of the state. All enrolled students in the seventh and eighth grades were asked to complete a questionnaire. All those who did participate were entered into a raffle for $50 in gift certificates to a local music store. Of the 457 eligible students, 327 (70.2%) were granted permission by their legal guardian to participate in the survey and completed the questionnaire. Of the 321 complete questionnaires, 317 were usable. After listwise deletion of missing cases, the final analysis was conducted on 312 students.

Measures

The dependent variable for the analysis was measured using a single item. Respondents were asked if they had ever used a drug that was not prescribed to them by a doctor, such as marijuana or cocaine. Responses were coded as yes (1) or no (0). Thirty-five of the 312 respondents (11.2%) had used an illicit drug. This rate of use is slightly lower than the 13.6 percent reported by the National Household Survey on Drug Abuse (1999) for persons 13 years of age; however, the difference is not statistically significant ($t = 1.45$; $p = .148$) and well within the expected margin of error for this sample.

Several attitudinal variables were used in the analysis. *Self-esteem* was measured using an additive index of seven five-point Likert items derived from Rosenberg's self-esteem scale and frequently used to measure self-esteem. The seven items were: 1) I feel I do not have much to be proud of; 2) I feel I have a number of good qualities; 3) I feel I am as good as most others my age; 4) at times I think I am no good at all; 5) I can do things as well as most other people; 6) on the whole, I am satisfied with myself; and 7) I feel useless at times. Items (1), (4), and (7) were reversed coded so that higher scores reflect high self-esteem. The index had good internal reliability (alpha=.748). *Impulsiveness* was measured using a three-item index. The three items were: 1) when I get mad, I act before I think; 2) I lose my temper easily; and 3) sometimes the only way to solve a problem is to fight. The alpha coefficient for the index (.694) was somewhat low but acceptable. *Risk-taking behavior* was measured using a single five-point Likert item. Respondents were asked if they strongly agreed with, agreed with, had mixed feelings about, disagreed with, or strongly disagreed with the statement "I enjoy taking risks." *Commitment* was measured with the single item "how important to you is getting a good education." Responses on this item ranged from 1 (not at all important) to 5 (very important). *Attachment* was measured with the item "how would you describe your family life," which ranged from (1) "it is not good at all" to (5) "it is very good." Finally, *criminal orientation* was measured using a three-item index. The three five-point Likert items "you should obey the rules of adults," "sometimes it is alright to break the law," and "kids should respect their parents a lot." The first and third items were reverse coded so that high scores indicated a criminal orientation. The alpha for this item was .682.

In addition to the attitudinal items, several behavioral items were included in the analysis. Peer drug use was measured using the single item that asked how many of the respondent's friends used drugs like marijuana or cocaine. The responses for this item ranged from (1) "none" to (6) "almost all of them." Parental supervision was measured using the five-point Likert item "some adult is always watching me." Participation in a *recreational routine activity pattern* was measured with an additive index. The four items were: 1) "go out at night with your friends"; 2) "visit or hang out with friends"; 3) "ride in a car with friends for fun"; and 4) "go to movies

Table 3: Logistic Regression of Illicit Drug Use

	B	Standard Error	Exp(B)
Self-esteem	-.015	.051	.986
Impulsive	.068	.091	1.070
Risk taker	.337	.191	1.401
Commitment	.335	.444	1.398
Attachment	-.491*	.232	.612
Criminal Orientation	.069	.216	1.072
Peer Drug Use	.491**	.177	1.633
Recreational pattern	.167	.075	1.182
Adult Supervision	-.060	.185	.941
Criminal Behavior	.506*	.205	1.659
Female	-.400	.566	.670
Ethnic Minority	-.549	.522	.578
Age	.601*	.268	1.823
Constant	-6.765*	3.066	.001

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

Model $x^2 = 83.676$; $p<.001$

Hosmer and Lemeshow Goodnes of fit $x^2 = 8.300$; $p = .405$

Nagelkerke $R^2 = .463$

with friends." Each of these items ranged from (1) "never" to (5) "almost every day." The alpha coefficient for this item was .735. Finally, a summative index was used to measure *involvement in non-drug related crimes*. Respondents were asked to indicate if they had: 1) avoided paying for things like movies, bus rides, or food; 2) broke into a building to look for something to steal or to steal something; 3) used a weapon, like a club, knife or gun, in a fight; 4) hit someone with their fists; 5) stole or tried to steal a motor vehicle; 6) hit or struck one of their parents; 7) used a knife or gun or club to get something from a person; 8) ran away from home; 9) hurt someone badly enough so they needed a doctor; 10) damaged property on purpose; 11) stole something worth less than $50; and 12) stole something worth more than $50. Each of these items was coded as "0" if the respondent had not engaged in the behavior and "1" if they had. The final variable was re-coded to range from "0" (had committed no crime) to "4" (committed four or more crimes) because the data were extremely skewed and only 6 students claimed to have committed more than four crimes.

To control for various demographic factors that have been found to be related to adolescent drug use, the respondent's age, gender, and ethnic status were entered into the equation. The ages of the respondents ranged from 12 to 15 (one respondent was 16 years old and one was 17. These respondents were re-coded to "15 and older" category). Gender and ethnic status were coded as dummy variables. Females (coded as 1) comprised 33.7 percent of the sample. Ethnic status was coded as a "1" for African-Americans, Hispanic, and Asian and as "0" for Anglos. Approximately fifty-four percent of the surveyed youths were ethnic minorities. Although the sample over-represents males relative to the school's population, it accurately reflects the school's ethnic composition. The univariate statistics for all variables are presented in the Appendix.

RESULTS

The bi-variate correlations between illicit drug use and the attitudinal and behavioral measures are presented in Table 2. Referring to Table 2, it can be seen that the variables are correlated with illicit drug use in the predicted direction. All of the correlations between drug use and the theoretically interesting variables are significant at conventional levels except the correlation between illicit drug use and adult supervision. It should be noted that this variable measures *perceptions of supervision* and not the actual amount of time the respondent is supervised by an adult. Age is the only demographic variable that is significantly correlated with illicit drug use.

Similar to other research findings, the

number of peers who use drugs had the strongest correlation with illicit drug use (r = .396; $p<.001$). Participation in non-drug related criminal activity had the next strongest bi-variate correlation (r =.336; $p<.001$). Participation in a recreational routine activity pattern was also positively correlated with illicit drug use (r =.301; $p<.001$). Attachment produced the strongest correlation among the attitudinal variables (-.253; $p<.001$). As predicted, being a risk-taker, being impulsive and having a criminally oriented belief system were positively correlated with illicit drug use (r =.213, .176, and .231, respectively). Commitment and self-esteem were inversely related to drug use.

Moving from a bi-variate to a multivariate analysis, a logistic regression model was used to predict illicit drug use. The model was statistically significant ($X^2_{df(13)}$ =87.15; $p<.001$), indicating that the model produced a significant improvement over a model containing only the constant. The model fit the data well (Hosmer and Lemeshow Goodness of Fit $X^2_{df(8)}$ =5.16; p=.741) and explained 48.3 percent of the variance in illicit drug use. Overall, 92.3 percent of the cases were correctly classified by the model. The results of this analysis are presented in Table 3.

As reported in Table 3, only five of the thirteen predictor variables were statistically significant at conventional levels. Involvement in non-drug related criminal activity significantly increased the likelihood of using illicit drugs. Those involved in criminal behaviors were nearly twice as likely to use illicit drugs than those who were not criminal (exp B = 1.920). Having drug-using peers increases the odds of using by 74 percent (exp B = 1.735). Participating in a recreational RAP also increased the likelihood of using illicit drugs. Increasing one's involvement in this activity pattern by one unit increased the odds of using illicit drugs by 20 percent (exp B = 1.203). Among the attitudinal variables, attachment was a significant predictor of illicit drug use, and being a risk taker significantly predicted drug use if a one-tailed test of significance is used ($p_{one\text{-}tail}$ =.044). Being attached to one's family decreased the odds of using drugs by 40 percent (exp B=.598). Being a risk-taker increased the odds of using illicit drugs by 41 percent (exp B=1.411). The only demographic variable that achieved statistical significance was age. Not surprisingly given the ages of the respondents in the analysis, each year increased the odds of using illicit drugs by 80 percent (exp B = 1.805). Self-esteem, impulsiveness, commitment, having a criminally-oriented belief system, and adult supervision failed to achieve statistical significance in the model. Similarly, there were no significant differences between males and females or between ethnic minorities and non-minorities.

DISCUSSION

Based on these results, both attitudinal and behavioral variables can significantly predict adolescent drug use. However, generally speaking, the behavioral variables seem to be better at predicted drug use than the attitudinal variables. Among the attitudinal variables, only attachment–a variable introduced to the literature through a "social" theory–was statistically significant at conventional levels. Risk taking was significant using a one-tailed test of significance. Conversely, three of the behavioral variables significantly predicted illicit drug use. Being involved in a delinquent subculture, as measured through peer drug use and involvement in non-drug related criminal activities, were both significant predictors of drug use. These results are not surprising. Research has consistently found that associating with drug-using peers is one of the best predictors of adolescent drug use (Elliot et al 1985; Hawdon 1996; Marcos et al 1986), and drug use and non-drug related crime are highly correlated. Similarly, being involved in a recreational routine activity pattern also significantly increased the likelihood of using illicit drugs. This variable can also be seen as an indication of involvement in a delinquent subculture.

As far as the theories reviewed in this paper are concerned, at least given the operationalization of the relevant concepts of each, the social theories receive the most support. Specifically, the differential association/social learning/subculture theory received substantial empirical support. The routine activity perspective also received support. Involvement in a recreational *activity pattern*, not simply specific activities analyzed separately, can significantly predict delinquent behavior. Hirschi's bond theory received relatively more support than his self-control theory. While attachment and the reconceptualized measure of involvement were significant predictors of use, only one of the

"many manifestations" of self-control (risk-taking) approached statistical significance. Jessor's eclectic theory, or at least the behavioral aspect of the theory, also receives support.

These results should not be interpreted to mean that the attitudinal variables are ultimately unimportant. This analysis, like most others, was conducted on cross-sectional data. With respect to the "true" etiology of drug use, the attitudinal variables may be extremely important. It is likely, for example, that more impulsive youths or risk-takers are much more likely to become involved in a delinquent subculture than youth with higher levels of self-control. It is also quite possible that the self-esteem model is accurate. That is, low levels of self-esteem may lead to compensatory behaviors that include associating with delinquents who reward the behaviors that their parents and conforming peers reject. With respect to the entire process of becoming a drug user, attitudinal variables are likely the "distal causes" of the phenomena. Nevertheless, behavioral variables appear to be the more "proximate causes" of adolescent drug use and the better predictors of use in a cross-sectional analysis.

This research certainly has limitations that should be consider. First, it is based on cross-sectional data and therefore cannot test *the process* of becoming a drug user. Such tests conducted on longitudinal data could verify that attitudinal variables *lead to* the behavioral variables that were found to be good predictors of use in this research. Indeed, several of the social-psychological theories predict just that. Assuming the behavioral variables are indeed intervening variables in the causal process between attitudinal variables and drug use, one would expect that these variables would no longer be correlated with drug use once the intervening variables are entered into the model. Therefore, this analysis does not critically test these theories. Instead, it implies that the behavioral variables must be included in any process model of becoming a drug user.

Next, the operationalizations of some concepts is less than perfect. Most notably, a good measure of parental supervision was unavailable in the data. Instead, the respondent's perception of supervision was used as a proxy measure. This variable failed to be a significant predictor of drug use (indeed, it was not even correlated with drug use at the bi-variate level). It is possible that those who wish to deviate perceive that they are under intense supervision even if they are not. Conversely, conforming youth may not perceive the actual amount of supervision they are under because they do not wish to engage in deviant acts and therefore do not need to avoid the watchful eyes of their parents or teachers. A measure of the actual amount of time the youth spends being supervised could improve the model significantly. Despite these limitations, the findings are consistent with other research efforts.

IMPLICATIONS

The above limitations not withstanding, this research has theoretical and practical implications. First, theories that fail to include behavioral concepts are unlikely to be very successful in explaining variations in adolescent drug use. Although attitudinal variables are important, more dynamic models are needed to adequately explain delinquent behavior (see Mason & Windle 2002). Empirical tests, including the one conducted here, consistently find that behavioral variables are critically important. Thus, social-psychological theories, such as Kaplan's and the Jessors', that link attitudinal variables with behavioral variables may prove most fruitful. Moreover, it appears that more than one psychological process is involved in generating the motives for associating with deviant peers and becoming involved in a delinquent subculture. Although risk-taking and impulsiveness are correlated with the behavioral measures as Gottfredson and Hirschi would predict, self-esteem, commitment, and attachment are also correlated with the behavioral variables.

Again it is emphasized that this argument is not meant to imply that social-psychological or attitudinal variables are unimportant. Instead, it is meant to re-emphasize the importance of social variables. One simply cannot understand deviance in general and drug use specifically without understanding the setting in which it occurs. We must understand that the use of intoxicating drugs is often about conforming, not deviating. Indeed, cross-culturally and historically speaking, drug use is often not deviant behavior. The use of peyote during the ritual celebrations of the *Native American Church* is not deviant (French 2000). Nor is the use of the hallucinogen *paricá* by the Desana of Brazil

and Columbia (Buchillet 1992). Similarly, Christians who consume wine during Holy Communion are not deviants. Of course, these uses of drugs are not what people generally have in mind when they talk about drug use or drug abuse. Yet even the recreational use of intoxicants among adolescents can be "normal," or non-deviant. The use of *qat* to stimulate discussion at a party is not deviant in Yemeni culture (see Weir 1985). The vast majority of adult Americans have legally used alcohol to recreate. Even the use of illegal drugs for recreation includes elements of conforming behavior. The use of marijuana by American teens, for example, is often as much of a result of *conforming* to subcultural norms as it is about *deviating* from the dominant culture's norms. In many western cultures, adolescent drug use, according to some, has become normalized (see, for example, Parker, Aldridge & Measham 1998). Failing to understand the social context of recreational drug use directs us down the wrong path. We must understand that adolescent drug use is as much about conforming to sub-group norms as it is about deviating from social norms.

The recognition of the importance of setting for understanding adolescent drug use recalls Talcott Parson's basic insight that action is directed and governed by norms (see Parsons & Shils 1951). Understanding where these norms originate and how they are maintained is critical to understanding behavior. With respect to the illicit use of drugs by adolescents, this analytic strategy would lead to trying to better understand the norms of the drug subculture. Understanding how these groups have evolved and why they are so attractive to so many youth could offer great insights to how better address the nation's drug problem.

The recognition of how important the setting of drug use is to understanding it also has practical implications. If we are to successfully deter adolescents from using drugs or rehabilitate those who already do, we would be wise to focus our attention on the social setting of recreational drug use. We could possibly manipulate the leisure activities of our youth by providing more visible and instrumental activities, by structuring these activities in ways that make them more attractive to drug-using youth, and by fostering friendship networks with non-delinquent peers. This strategy may be easier to accomplish than trying to undue fifteen years of poor socialization.

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Appendix

Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
Drug use	.00	1.0	.110	.313
Self-esteem	13.0	36.0	27.59	4.80
Impulsive	3.0	15.0	8.07	2.74
Risk taker	1.0	5.0	2.93	1.32
Commitment	2.0	5.0	4.84	0.44
Attachment	1.0	5.0	4.12	0.94
Peer drug use	1.0	5.0	1.71	1.22
Recreational RAP	4.0	20.0	12.07	3.71
Adult supervision	1.0	5.0	3.47	1.16
Criminal orientation	1.0	5.0	1.63	1.02
Criminal behavior	0.0	4.0	0.79	0.98
Age	12.0	15.0	13.86	0.81
Female (1)	.00	1.0	.347	0.48
Minority (1)	.00	1.0	.536	0.50

PUBLIC PERCEPTIONS OF CHILD ABUSE

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ABSTRACT

A longitudinal cross sectional 10 year study was conducted measuring public attitudes toward the definition and criminalization of physical child abuse, psychological child abuse, and child neglect. The study found that the public endorses a fairly broad liberal definition of child abuse and that this definition of child abuse is fairly stable over time. Subjects also strongly endorsed the creation of misdemeanor and felony statutes and strongly endorsed the use of prison to punish child abusers.

Child abuse continues to be a social problem that is not easily understood. Whether a particular act is an abusive act or a justified act of a well meaning parent is often open to interpretation. While parents have a duty to their children, they have few restrictions on the manner in which they choose to raise their children. In matters of discipline, religious instruction, style of living, and support, parents are permitted to apply their own values. Only in extreme situations will the court intervene in the family's affairs. In regard to children, the court will intervene in three areas: neglect, sexual abuse, or violence. While child abuse has been identified as one of the more serious domestic issues of our time that must be addressed (Flowers 2000), sound empirical investigation of the extent to which people identify child abuse as serious has been limited. This article reports a longitudinal cross sectional study of public attitudes toward child abuse based on data gathered from one medium sized southern city.

HISTORICAL PERSPECTIVE

Change in the orientation of society to children has developed slowly. The Fifteenth and Sixteenth Centuries brought the beginning of recognition that children had individual personalities and needed special care and attention. By the seventeenth century, children were dressed differently than adults and harsh treatment of them was criticized (Aries 1962). By the late nineteenth century, a new concept of childhood was emerging which held that children must be safeguarded and properly prepared for adulthood (Hobbes 1972). In the United States, under pressure from the child savers, the juvenile court emerged and society accepted responsibility for assuring a safe and correct up-bringing for all children (Platt 1969). It should be noted that, at the same time, discipline was stressed as an essential ingredient in child rearing and the use of physical force in this context was to be anticipated rather than criticized (Bremmer 1970).

The concept of a public interest in protecting neglected and abused children did not emerge until late in the nineteenth century. The first highly publicized case of public intervention occurred when neighbors reported the abuse of a young girl named Mary Ellen. When the friends of Mary Ellen sought to intervene in her behalf in 1874 after finding her undernourished and apparently physically abused, they discovered that such treatment of a child was not a violation of the law (McCrea 1910). Until quite recently, the juvenile court has hesitated to extend its broad powers to exert control and discipline over the abusing adults. In most jurisdictions, adults who abuse children had to be charged with an offense in the adult courts. The appropriateness of the referral of child victims to the juvenile court has been argued from the earliest years of the juvenile court based on the assertion that the court will damage rather than assist child victims because of its basic orientation (Flexner & Balwin 1914). Public acceptance of child abuse as a social problem was still slow to develop. It was 1962 before a national survey of the prevalence of child battering was reported in the *Journal of the American Medical Association*. The report introduced the battered child syndrome and produced movement toward public awareness and public concern (Kempe, Silverman, Steele, Droegemueller & Silver 1962). The feminist movement, in raising public awareness of the plight of women in the home, developed an environment receptive to the pleas of those who sought to place boundaries around those behaviors that are unacceptable when directed toward children.

DIMENSIONS OF CHILD ABUSE

Child abuse includes physical abuse, sexual abuse, psychological abuse, neglect, and abandonment (Larson 2001; Sigler 1989).

Each of these reflects damage to the child; some reflect acts of commission, and others reflect acts of omission.

Neglect and abandonment are acts of omission that are not consistently classified as abuse (Sigler 1989). The adults responsible for the child fail to provide for the child the things needed for healthy development. Neglect cannot be defined clearly as there are no standards available that address the minimal needs of growing children. In addition, some parents who provide few resources would provide more for their children if they had the means to do so. In evaluating the care and support provided for children, cultural or class values frequently come into conflict, and questions are raised as to the proportion of the family resources which should be allocated to meet specific family needs. While some degree of consensus on these issues has been identified among middle-class mothers, working class mothers, and social workers (Dubowitz, Klockner, Star & Black 1998; Polansky 1978; Rose 1999; Rose & Selwyn 2000; Scourfield 2000) lack of resources and the perspectives of the very poor have not been assessed

Child psychological abuse is the exposure of a child by an adult to experiences that can cause psychological or emotional distress (Russell & Bolen 2000; Sigler 1989). Psychological abuse is more difficult to address than other types of abuse because of issues such as intent, level of knowledge, difficulty of diagnosis, and difficulty of obtaining proof. Psychological damage can occur even when the adults in the child's environment have no intention of abusing the child. The adults are meeting their own needs or are doing things that they think are right. It some cases, not only do they lack intent to do harm, but they will argue that no harm is occurring or likely to occur from their acts and that they are doing the best that they can do with the resources which are available to them (Sigler 1989). Psychological and emotional abuse of children is a cause for concern, but the potential for effective intervention is very low; thus causing psychological abuse to be a neglected area.

Child sexual abuse is the exposure of a child by an adult to any experience that is designed to or which could be reasonably expected to produce sexual stimulation in either party. This is also a form of abuse that is difficult to process (Stroud, Martens & Barker 2000). There is usually no physical evidence of the abuse, the victim is not a reliable witness, and there is a usually a denial of the situation by the child victim and other children and adults in the environment. Cases are rarely successfully prosecuted. Frequently a complaining adult will regret statements made to the police and will recant his or her testimony. In these cases, the adults will bring pressure on the child to recant his or her statements, sometimes with no more pressure than the need to protect daddy (or some other relative) from a bad justice system (Stroud, Martens & Barker 2000).

The remaining area of child abuse, physical abuse, is the form of child abuse that is most often the focus of successful intervention efforts; however, it defies precise definition (Larson 2001). The definition of physical child abuse contains subjective components because of the lack of consensus about the extent to which adults can use physical force to discipline their children (Sigler 1989). As a practical matter, only extreme use of physical force is defined as abuse. Even with this limitation of definition, physical abuse is more amenable to intervention than other types of abuse. Because the abuse must be extreme, it leaves physical traces which can be introduced as evidence and which are difficult to deny. Intervention can be maintained even if the key witnesses recant. The abuse can't be concealed as bruises are visible and broken bones, bad sprains, and burns must be treated. The offender can not deny the damage, but denial can be maintained if the damage can be successfully blamed on another cause; however, if there is a consistent pattern of "accidents", system interest can be justified and intervention can be initiated and sustained.

PREVALENCE AND INCIDENCE OF CHILD ABUSE

The incidence of child abuse in the United States (Larson 2001) and around the world is difficult to assess (Forrester & Harwin 2000). Much of the behavior that could be classified as child abuse is hidden and known only to the actors in the situation. A national report stated that 631 children died in 1974 due to abuse (Kadushim 1978). This number seems small for a nation the size of the United States and seems suspect, especially when one considers that in 1973, 41,104 cases of child abuse were reported for the ten largest states alone (Cohen & Sussman 1975), and that this number of reported abuses does not take into account the large numbers of cases that undoubtedly go unreported. It is probable that many

deaths caused by child abuse were officially attributed to other causes such as accidental death. In general, it is probable that only cases of abuse severe enough to require treatment in the emergency room of a hospital were reported. There is a hesitancy on the part of health care providers to report all of the cases which are suspect because of potential liability and because of the risk that a vigorous program of reporting abuse to the authorities would cause parents to withhold treatment from their children because of fear of investigation and possible prosecution (Fontana & Besharov 1977). One estimate suggests that about 5 percent of all cases involving injured children treated by health care providers involves a case of child abuse (Gelles 1985). Reported prevalence of physical abuse has varied with 23 per 1,000 children reported exposed to serious violence in the early 1980's (Straus & Gelles 1988). These same authors found that rates of severe violence decreased by about 47 percent from 1975 to 1985 (Gelles & Straus 1987). Official reports indicated 4.3 physically abused children per 1,000 children in 1988 raising to 5.7 per 1,000 children in 1993 (Sedlak & Broadhurst 1996). The recent Canadian Incidence Study of Reported Child Maltreatment found 3,780 cases in which child maltreatment was substantiated from October to December of 1998 for selected communities (Trocme, MacMillan, Fallon & De Marco 2003). A similar assessment in Australia found an increase in cases from 27,367 in 2000 to 30,473 in 2001 (Colman & Colman 2003).

Under-reporting is influenced by the fact that the natural parent is the most likely abuser. Two early studies focused on family abuse. In one, it was found that 55 percent of those who abuse children were fathers and that 68 percent of those who neglect children are mothers (American Humane Society 1978); while in the other study 50 percent of the abuse was attributed to mothers and stepmothers while fathers were held accountable for 40 percent (Gil 1979).

Sexual abuse of children is also under-reported, possibly for the same reasons. Incidences of sexual abuse of this type have been estimated at from fifty thousand to seventy-five thousand incidents a year (De Francis 1971). More recent studies have found that prevalence increased from .7 per 1,000 children in 1980 to 3.2 per 1,000 children in 1993 (Sedlak & Broadhurst 1996) and that girls are more likely to be victims than boys (US Department of Health and Human Services 1998). Finkelhor (1994) reviewed the data from 19 surveys and found that at least 20 percent of US women and 5 percent of men reported some form of sexual abuse as children. Attempts to predict or identify potential abusers have met with limited success (McMurtry 1985; Wolfe 1985) with contemporary programs which use broad based peer group counseling with a focus on coping skills and anger management demonstrating some success (Winton & Mara 2001) in treatment of abusers.

PUBLIC ATTITUDES TOWARD DOMESTIC ABUSE

Very little empirical research has focused on public attitudes toward domestic abuse. There is abundant information available regarding rates of physical and, to a lesser extent, sexual abuse and an equally rich body of research focusing on the impact of abuse on victims such as the recent Canadian Incidence Study of Reported Child Maltreatment (Trocmé, Tourigny, MacLaurin & Fallon 2003). More recently, social scientists have focused on public attitudes toward justice system responses but interest in the criminalization process as reflecting changes in public attitudes has been limited at best.

Amanda Robinson (1999) reviewed the studies that have focused on attitudes toward domestic violence as a part of her report on public attitudes toward arrest policies. Most of the studies that she reports focused on justice system responses and the attitudes of justice and social service agency staff. In addition to citing Johnson and Sigler (1995) she presents facts reported by Rossi, Waite, Bose and Berk in 1974. The Rossi et al study measured the relative ranking of offenses by the general public. Consistently, subjects rated offenses against spouses as substantially less severe than the same offenses when committed against other actors such as strangers and neighbors. Korbin and Coulton (2000) also measured community attitudes in 20 neighborhoods in Cleveland. While they found minor differences by race, they concluded that the subjects demonstrated substantial consistency in their definitions of child abuse and neglect. Greene, Glenwick, and Schiaffino (1999) also found substantial consistency when they measured the definitions of physical, sexual, and psychological abuse of children among social workers and attorneys. Price, Islam,

Gruhler, Dove, Knowles, & Stults, (2001) found similarity in attitudes among subjects from urban areas in Canada and the United States.

A number of studies have measured attitudes and definitions relating to defining child abuse in other countries. Variation in definitions and attitudes related to culture have been found in the literature and in studies conducted in Singapore (Chan, Elliot, Chow & Thomas 2002). Horn measured a limited number of attitudinal variables in her study of sexual and physical abuse of children in Germany (Horn 1996). She identified reasons why the subjects believed that people abused children, willingness to intervene, and the extent to which professionals working with abused children were willing to endorse a legal remedy. Christopherson (1998) measured social work student's perceptions of child abuse finding differences between English and Swedish students while Elliot, Tong, and Tan (1997) measured the attitudes of the Singapore public on the acceptability of abusive behaviors. Segal and Iwai (2004) found that social workers, lawyers, doctors, and the general public in Japan held similar definitions for child abuse. Paavialainen & Tarkka (2003) measured the attitudes and definitions of child abuse held by nurses in Finland.

This line of research was designed to provide a specific measure of the public's definition of various types of domestic abuse and to assess the stability of these definitions over time. The present study focuses on public attitudes toward child abuse. Willingness to identify specific acts as child abuse and the willingness to criminalize child abuse were measured on three occasions over a ten year period.

METHODOLOGY

Design Characteristic

Data were collected with four self-administered questionnaires that were delivered and retrieved from randomly selected households within the city limits of Tuscaloosa, Alabama, a southern city with major educational and mental health institutions and a light industrial base. The four separate surveys shared a common sampling frame, common variables, and common data collection techniques. Each survey was an independent project focusing on one aspect of violence or domestic violence. Data were collected in 1986-87, in 1991-92, and in 1996-97.

The first instrument focused on the location of domestic violence within the broader context of social violence. The second, third, and fourth instruments focused on the dimensions of domestic abuse and perceived need for criminalization for specific types of domestic abuse. The types were determined by victim profiles presently in use. They were spouse abuse, child abuse, and elder abuse. Each survey focused on one victim type in an attempt to avoid generalization to a common victim group by the subjects. The decision to conduct four relatively short surveys produced high response rates but limits its analysis across types of abuse. This report focuses on data gathered with the child abuse instrument.

Variables

While the variables remain fairly constant across the four instruments, there are some differences from one instrument to another in the scales used to measure some of the variables. In the child abuse instrument, the subjects' willingness to label specific acts that could be seen as neglect or as psychological or physical abuse was measured by a set of 15 items (see Appendix) that they were asked to label as: always child abuse, sometimes child abuse, or never child abuse. Physical acts were measured in terms of degree of force and in terms of frequency of use of force. Additional items measured willingness to criminalize child abuse and preferred penalties. Attitudes toward child sexual abuse were not measured. It is the authors' belief that including child sexual abuse measures would distort measures of attitude toward other forms of child abuse.

In addition to the primary variables, a number of standard demographic variables were measured. These variables included gender, race, age, education, occupation, marital status, religious activity, and political activity. The last two variables were measured on scales that measured affiliation and perceived level of activity.

The Population

The population for the four surveys was the adult resident population of the city of Tuscaloosa. The geographical boundaries of the city constituted the physical boundaries for the study. Several areas within these boundaries were excluded to eliminate non-

resident adults in order to obtain a sample that would be representative of the permanent residents of the town. The campuses of Stillman College and the University of Alabama and the student housing area adjacent to the university campus were excluded to eliminate non-resident students from the population. The inclusion of large numbers of students in the sample would have made the sample less representative of the residential population. The reservations of the mental health facilities and the Veterans Administration Hospital were excluded to eliminate non-resident patients from the population. This process may have excluded a small number of Tuscaloosa residents, introducing a small bias, which is outweighed by the bias that would result if the student and patient populations were included.

The Sample

In the first data collection period (1986-87) four separate stratified random samples were drawn from the population. The questionnaires for the acceptance of violence and elder abuse were administered at separate times. Spouse abuse and child abuse instruments were administered at the same time to different samples. The data were collected in three separate two to three month periods. In the second and third data gathering period (1991-92 and 1996-97), a single stratified random sample was drawn from the population, with all four instruments delivered during a nine-month period.

At the beginning of each data gathering session, a city map was obtained from the City Engineer's Office. The grids formed by the latitude and longitude lines on the maps constituted the first set of strata, and city blocks constituted the second strata. The number of city blocks in each section were counted, and a number of units were assigned to each section based on its portion of the total blocks in the city. Most sections were roughly equivalent, producing a situation in which all of the main sections were assigned the same number of units with four peripheral sections assigned a reduced number of units. In all, 150 units were selected for each instrument in the first period, and 200 units were selected for each instrument in the second and third periods. The blocks were selected from each grid using a table of random numbers. One house was selected from each block using a list of two-place random numbers drawn from a table of random numbers by the researcher during the first collection period. Four houses were selected from each block during the second and third data gathering period. Each randomly selected household received one questionnaire. If an apartment building was selected, the list of random numbers was used to select an apartment. The next-oldest-birthday method was used to select one adult from each household. Adult was defined as a permanent Tuscaloosa resident over eighteen years of age.

The Collection of Data

The questionnaires were placed in campus mail envelopes (reusable nine by twelve manila envelopes) for delivery. All of the campus mail envelopes had been used several times and listed a lead researcher as the last recipient. These envelopes were delivered and retrieved by research assistants working in teams. Each team consisted of one driver and one contact person. All of the contact persons were women. The research assistants working for the researchers during the first data collection session were all women. While the use of women might introduce a bias, restricting the data collection to women in the second and third sessions made the potential bias consistent over time.

The team would locate a block. Using the list of random numbers they would select a house. The contact person would introduce herself and ask for the adult with the next birthday. If the subject was not at home, the contact person would leave the questionnaire with the person who answered the door with instructions to give the questionnaire to the subject with an explanation and request for assistance. She would leave the envelope and questionnaire with instructions to place the questionnaire in the envelope when completed or to place the uncompleted questionnaire in the envelope if the subject decided not to participate.

The contact person would make arrangements to return to retrieve the questionnaire two days later. Subjects were asked to leave the completed instruments outside the front door for retrieval if they left home. If an instrument was not retrieved on the return trip, the team would make up to three additional trips in an attempt to retrieve the questionnaire.

If no one answered the door at the first house selected, the next house in the ran-

Table 1: Endorsement of Types of Behavior as Child Abuse by Year

	Year								
	1986-7			1991-2			1996-7		
Type of behavior	never	sometimes	always	never	sometimes	always	never	sometimes	always
PSYCHOLOGICAL ABUSE SUBSCALE									
Critize child publicly*	12.6%	64.7%	22.7%	8.9%	61.5%	29.6%	14.1%	45.6%	40.3%
Call child worthless	10.1%	15.1%	74.8%	4.4%	11.8%	83.8%	14.8%	18.1%	67.1%
Curse child	11.8%	25.2%	63.0%	3.6%	13.8%	82.6%	10.7%	24.8%	64.4%
Not loving child***	9.4%	8.5%	82.1%	3.7%	9.6%	86.7%	20.1%	35.6%	44.3%
NEGLECT SUBSCALE									
Make child stay in house	10.9%	43.7%	45.4%	4.4%	46.0%	49.6%	18.1%	24.8%	57.0%
Tie or lock up child***	6.7%	.8%	92.4%	3.6%	2.2%	94.2%	14.8%	20.1%	65.1%
Deny child food	6.8%	15.3%	78.0%	2.2%	13.0%	84.8%	16.8%	12.8%	70.5%
Provide poor clothing***	10.1%	26.1%	63.9%	2.2%	30.4%	67.4%	19.5%	35.6%	45.0%
PHYSICAL ABUSE SUBSCALE									
Put child in extremely hot water***[a]	8.4%	0.8%	90.8%	2.9%	1.4%	95.7%	17.6%	10.8%	71.6%
Hit with open hand occasionally***	14.4%	67.8%	17.8%	8.7%	63.0%	28.3%	15.4%	8.7%	75.8%
Hit open hand frequenlty	7.6%	20.2%	72.3%	3.6%	21.9%	74.5%	16.1%	4.0%	79.9%
Hit with fist occasionally**	5.9%	3.4%	90.8%	2.9%	2.2%	95.0%	15.4%	4.7%	79.9%
Hit with fist frequently***[a]	5.9%	0%	84.1%	2.2%	0.7%	97.1%	16.1%	1.2%	90.4%
Hit with stick occasionally***	11.0%	45.8%	43.2%	3.8%	54.1%	42.1%	16.1%	3.4%	80.5%
Hit with stick frequently	8.4%	13.4%	78.2%	2.9%	16.2%	80.9%	16.8%	2.7%	80.5%

*p less than or equal to .05 Pearson's for chi square

**p less than or equal to .01 Pearson's for chi square

***p less than or equal to .001 Pearson's for chi square

[a] Never and sometimes combined for tests of significance

dom sampling sequence on the block was selected. If the door was not answered at the second house, the researchers returned to the original selection at a later date. If the selected subject refused to accept the questionnaire, the next house in the sampling sequence was selected. If a block had no homes, the next block in the sampling sequence was selected.

This approach was relatively successful in delivering the questionnaires. There were only five refusals to accept a questionnaire, and about 75 percent of the instruments were retrieved in completed usable form from each sample. All blocks selected had more than ten homes.

In the first data gathering period, 120 child abuse instruments were returned from the 150 instruments distributed. In the second data gathering period, 139 completed instruments were returned of the 200 delivered. In the third data gathering period, 149 completed instruments were returned of 200 delivered.

Table 2: Differential Endorsement of Abuse Items by Race and Sex

Race and Sex	Means[a] Neglect	Physical Abuse	Psychological Abuse
Race			
Black	9.726	17.299	
White	10.388	19.083	
Other	10.767	18.000	
Sex			
Male	9.357	16.808	8.870
Female	10.951	19.329	10.691
Sex and Race			
Male			
Black	8.910	15.765	8.570
White	10.089	18.789	9.626
Other	8.500	14.000	7.500
Female			
Black	10.538	18.834	10.499
White	10.686	19.377	10.476
Other	11.900	20.000	11.300

[a] Only means for significant relationships for analysis of variance are displayed.

Limitations of the Study

The decision to conduct the four surveys as independent research projects limited the breadth of statistical analysis that can be conducted. Each data set is analyzed as an independent set with different measures of abuse thus comparisons across data sets can not be conducted. In particular, spouse abuse and child abuse have been found to be co-occurring (Williams 2003). With a major university and college presence and four mental health facilities, Tuscaloosa is a unique city to the extent that it has a larger than average professional population. The presence of this group might limit the generalization of the findings to towns of similar size without this presence.

FINDINGS

A comparison of totals from the 1980 (1986-87) and 1990 (1991-92) census adjusted for the removal of students and patients found a number of irregularities. There were more women in the sample than in the population for all three sessions. While women are slightly over-represented in the population of Tuscaloosa, they are moderately over-represented in the two samples. In the first sample 71.5 percent of the subjects were women, and in the second sample 68.8 percent of the sample were women. In the third sample, 60.5 percent of the sample were women. Instruments were delivered in afternoon and evening shifts. While the day shifts were expected to encounter a greater number of women as first contacts, the next birthday method should have neutralized this potential bias. While there were differences in the three other samples, the variations tended to be much smaller then in the child abuse sample. Disparities were also found for race. Americans of African decent were underrepresented in the 1991-2 (21.0%) sample, slightly over represented in the 1986-7 (49.1%) sample, and over represented in the 1996-7 samples (51.4%). Married subjects were underrepresented in the 1996-7 sample (43.2%). None of the comparisons between marital status and measurements of attitude were significant, however, all of the measures between race and gender and the measurements of attitude were significant. Race and gender were not significantly related (p=.80).

First, it should be noted that the subjects strongly endorsed all of the physical force items in all years as child abuse (see Table 1). While there was some fluctuation from 1986-7 to 1996-7, the trend was for some milder forms of physical force to be more strongly endorsed with some reduction in

Table 3: Perceptions of the Impact of and Potential for Criminilization by Year

	Year					
	1986-7		1991-2		1996-7	
Criminalization Item	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**
Others will see child abuse as wrong if illegal	77.9%	22.1%	76.7%	23.3%	82.5%	17.5%
If child abuse were illegal, law would be enforced	68.4%	31.6%	64.2%	35.8%	66.0%	34.0%
A new law would prevent child abuse	56.9%	43.1%	56.3%	43.7%	57.4%	42.6%
In favor of a new misdemeanor statute	63.7%	36.3%	69.0%	31.0%	64.3%	35.7%
In favor of a new felony statute	91.1%	8.9%	86.2%	13.8%	84.9%	15.1%
Punish by putting child abuser in prison	67.6%	32.4%	68.2%	31.8%	74.3%	25.7%

endorsement of the more extreme forms of force. There was a general reduction in level of endorsement for most of the non-physical force items. As mentioned earlier, when comparing sex and race by these measures, significant relationships were found for all comparisons. Women were consistently more likely to define an act as always child abuse then men by more than 10 percent in all comparisons. With the exception of criticize publicly, more white subjects than black subjects defined the acts as always child abuse but the differences between the groups were smaller than those for sex.

In order to investigate the interaction among the three factors, year, sex, and race, three subscales were constructed by summing the values for neglect, physical abuse, and psychological abuse items. The neglect and abuse subscales were composed of four items each and had ranges of 4 to 12 with means of about 10 and medians of 11. Physical abuse was composed of 7 items with a range of 7-21, a mean of 18.5 and a median of 20. All comparisons for all scales with year, sex, and race were significant using chi square with the scales truncated by combining lower values (less than 7 for physical abuse and psychological abuse and less than 17 for physical abuse) to eliminate cells with low values. Although these scales are high level ordinal data, they were treated as low level interval scales to allow the use of a univariate analysis of variance to examine the interplay between the three factors. In all three cases, the relationship between year and abuse was not significant. For psychological abuse, only sex was significant with a significant interaction between sex and race. Women are more likely to label acts in the subscale as abuse with white males and females classified as other by race more likely to label the items in the scale as abuse while other males and black females are less likely to label the acts in the scales as abuse (see Table 2). For both physical abuse and neglect, race, sex, and the interaction between race and sex are significant with the same pattern—white males and women who are classified other by race are more likely to label the items in the scale as abuse while other males and black females are less likely to label the acts in the scales as abuse.

There were no significant shifts in orientation toward criminalization from 1986-7 to 1996-7 (see Table 3). The subjects tended to endorse new criminal legislation at relatively high levels (65% to 85%), thought that child abuse would be more likely to be seen as wrong if it were criminalized but were less certain that it would be enforced (about 65%) or that it would prevent child abuse (about 45%). About 70 percent of the subjects believed that child abusers should be punished by being sent to prison. There were no significant differences for race or marital status. For sex, while men tended to endorse higher penalties ($p=.011$) women were more likely (92%) then men (77%) to endorse the need for a new felony statute ($p<.001$).

DISCUSSION

Given the distortions in the sample, confidence in the accuracy of the levels of endorsement of various attitudinal items is less than ideal. It should be noted that the levels of endorsement are relatively high for the child abuse items regardless of the patterns among the demographic variables. The fact that we have more women responding than men might be attributable to time of day but given that this pattern did not appear in the

other samples, which were measured at the same time using the same procedures, it is possible that women were more likely to respond because women are still held responsible for matters involving children. Neither our experience nor the data we have collected provides a basis for addressing the differences by race. We will note, however, that Americans of African descent were more likely to respond in all of the samples than their white counterparts.

SUMMARY

Child abuse has been identified as a major social problem in the United States today. While the figures are not necessarily reliable (probable high levels of under reporting), statistical data are regularly collected from each state by the federal government. The official rates are still substantial, reflecting a need to better understand both the nature of child abuse and the position of the public regarding the criminalization of child abuse. Presently there is a substantial volume of research and theory that focuses on the dynamics and impact of child abuse. We know quite a bit about the damage suffered by child victims and about the characteristics of the offenders. Treatment programs are in place and are being evaluated with mixed results as to effectiveness. What has been missing is attention to the willingness of the public to identify child abuse and the willingness of the public to endorse a justice system response.

The data here indicate that the general public has a clear, relatively broad, definition of child abuse. The subjects also support the criminalization of child abuse. As concern for children's rights has matured, the willingness to take child abuse out of the family context has increased. Conventional wisdom holds, however, that this willingness is limited by concepts of parental rights and responsibilities. That is, parents have the right to treat and control their children as they see fit. These findings indicate that this wisdom may not be founded in reality. With exception of hitting with an open hand occasionally in 1985-6 and 1991-2, over 70 percent of these subjects stated that use of physical force is always child abuse with the rate of endorsement increasing as the level of force increased. These subjects also endorsed items measuring psychological abuse and neglect as child abuse at substantial levels. More than two thirds of the subjects were in favor of a new misdemeanor statute, a new felony statute, and the use of prison to punish child abusers. These subjects appear to support the use of the justice system to enforce a fairly liberal standard for child abuse through the justice system and these positions have been fairly stable over ten years.

These data support a more aggressive public response to the control of Child abuse. Public policy driven by an unwillingness to develop aggressive intervention programs based on a belief that the public will not accept aggressive intervention should be re-evaluated.

Future research should focus on a broader population and should expand the measurement of the variables of interest to provide more precise measures of public sentiment regarding the appropriate disposition of cases of child abuse. In particular, public perceptions of the effectiveness of various approaches to treatment and the addition of discipline as a variable might clarify public sentiment in this area.

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APPENDIX

Child Abuse Items	**Never Child Abuse**	**Sometimes Child Abuse**	**Always Child Abuse**
14. Criticizing child in front of others			
15. Telling child they are worthless			
16. Cursing child			
17. Not loving child			
18. Not allowing child out of house			
19. Tying or locking child up			
20. Not feeding child enough			
21. Not giving child adequate clothing			
22. Hitting occasionally with open hand			
23. Hitting frequently with open hand			
24. Hitting occasionally with fist			
25. Hitting frequently with fist			
26. Hitting occasionally with belt or stick			
27. Hitting frequenlty with belt or stick			
28. Putting child in extremely hot water			

PROGRAM DEVELOPMENT AND EVALUATION: MINIMIZING PITFALLS AND MAXIMIZING OPPORTUNITIES

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ABSTRACT

Program development and evaluation in any setting constitutes no simple task, particularly when faced with problems that could have been anticipated and perhaps averted with better initial planning and administrative support. This article discusses potential obstacles in program development and evaluation and makes suggestions concerning how they might be avoided. Circumstances surrounding the design, implementation, and evaluation of a child sexual abuse prevention/education program in a private non-profit social service organization in a Midwestern metropolitan city are used for contextual and illustrative purposes. Recommendations for future programmatic efforts are also provided.

Program development and evaluation in any setting constitutes no simple task, particularly when faced with problems which could have been anticipated and perhaps averted with better initial planning and administrative support. The development of a new program entails the ability to secure sufficient resources, obtain access to designated clients, and provide a service to these clients (Tripodi, Fellin & Epstein 1978). One legitimate expectation of program development is program effectiveness. Program effectiveness depends upon numerous other factors, such as specific delineation of program objectives, clear conceptualization of program elements, and establishment of criteria for assessing quality and/or quantity of services provided, and possession of the necessary resources with which to carry out a specified program (Sylvia & Sylvia 2004). During the process of program development if obstacles emerge, yet fail to be resolved, they can serve to complicate development, undermine implementation, and ultimately negatively influence program effectiveness overall (Schram 1997).

Research evaluations are also an essential component of program development (Caputo 1988; Weiss 1998). Without concrete evidence of a program's impact or its outcomes, continuation of the effort may range from difficult to nearly impossible to justify. Moreover, funding sources or other stakeholders increasingly require evidence that monies awarded have been spent effectively (Grinnell 2001; Rossi, Freeman & Lipsey 2003; Royse, Thyer, Padgett & Logan 2001; Unrau, Gabor & Grinnell 2001).

Many standard texts on evaluation research tend to ignore the developmental aspects of evaluation strategies (Tripodi 1983; Weiss 1998). This paper lends support for an evaluation framework that parallels the stages of program development. Such a framework assists in identifying obstacles that preclude effective and efficient programs and evaluations and affords an opportunity to suggest what administrators and evaluators can do to ensure a more harmonious parallel process of program and evaluation development.

Early on, Leviton and Boruch (1983) indicated that evaluations could be helpful in influencing and perhaps even motivating decisions. In any event, without greater openness and cooperation between program administrators, evaluators and other decision makers, it is likely that evaluations will continue to have a secondary role in programs overall (Berg & Theado 1981). More importantly, if program evaluations are not conducted, there will be no information concerning a program's effectiveness or efficiency (Fink & McCloskey 1990; Krause 1998; Rossi et al 2003).

Circumstances surrounding the design, implementation, and evaluation of a child sexual abuse prevention program in a private nonprofit social service organization in a midwestern metropolitan city are used for contextual and illustrative purposes. The program's exact location is unidentified and the time frame of the program has been changed in order to avoid any potential hard feelings and ensure the confidentiality and privacy of everyone involved. Recommendations for future program planning, development, implementation, and evaluation are provided.

OVERVIEW OF THE PROGRAM

A child sexual abuse education program (CSAEP) was conceptualized to aid in the

prevention of the sexual victimization of children through an extensive education effort provided through the public elementary school system in an urban city. A multipronged approach, CSAEP targeted three groups: children, parents, and teachers. The public school system's cooperation and support were critical in maximizing the number of program participants. While the actual details of the CSAEP had not been shared with the school's administration until funding was actually obtained, the administration's verbal commitment in terms of access to the target groups was contingent upon final approval of all program materials.

The primary goal of the CSAEP was to empower third through sixth graders with skills in self-protection since this group was cited at the highest risk for intrafamilial abuse, with child victims being between 8 and 12 years (Alter-Reid, Gibbs, Lachenmeyer, Sigal & Massoth 1986; Brassard, Tyler & Kehle 1983; Finkelhor & Baron 1986; Herrerías 2002). The children's program component consisted of presentations that lasted one hour each on four consecutive school days. Children were taught basic decision-making and assertiveness skills to employ in potentially abusive situations, emphasizing that children report all problematic incidents to adults until the child's report is believed. The message of "say no, get away, and tell someone" was continuously reinforced with children (Herrerías 1989). Due to the nature of the curriculum content, parental consent was required preceding program participation for every child.

Two-hour separate parent and teacher presentations were also developed. The goal of these presentations was familiarization with the common elements of child sexual abuse (e.g., the likely victims and perpetrators, examples of sexual abuse, and general incidence and prevalence statistics); teaching what behaviors exhibited by children might be more indicative of sexual victimization (e.g., early sexual activity or acting-out); where parents and teachers might be able to obtain other than medical care for victims; and the importance of reporting and where to report potentially abusive incidents. Participants in all three program components would be administered pre- and post-test questionnaires to evaluate one aspect of program effectiveness as measured by increases in learning. Moreover, the adults' questionnaire would contain a series of questions on the quality of the program.

PARALLEL PROCESS OF PROGRAM DEVELOPMENT AND EVALUATION STRATEGIES

Social programs tend to progress through comparable stages of development (Tripodi et al 1978). Although the CSAEP may not reflect a *typical* social program, its developmental stages of program initiation, contact, and implementation are relatively similar. As programs are being developed, evaluation strategies ideally should follow corresponding paths to allow for concurrent exchange of information and necessary modifications in program or evaluation frameworks.

During the initiation phase, the necessary program materials and resources must be acquired. Beyond establishing a compelling need for the program, stipulating objectives, and targeting appropriate recipients, the overall planning effort could stand to benefit considerably with the inclusion of a stakeholder survey (Lawrence & Cook 1982; Rubin & Babbie 1997). Primarily directed toward the design and implementation of more useful evaluations, the stakeholder survey gathers valuable information from individuals and organizations directly or indirectly involved with a program (e.g., program administrators, staff, and clients). A stakeholder survey can contribute suggestions from several different perspectives, help to minimize or prevent possible problems, and facilitate program implementation.

The contact phase includes communication with potential clients while ineligible individuals are screened out. During the final stage of development—program implementation—clients are engaged, goals are met, and outcomes are measured (Tripodi et al 1978).

Each stage of program development made its own demands on evaluation strategies. They presented formidable obstacles about which administrators and evaluators need to be aware. Initial problems arose when the originator of the program concept, who also authored the grant proposal, would be unable to oversee the project as a consequence of other work commitments. The author would be responsible for the program's evaluation; however, someone else would coordinate the overall effort. Throughout the remainder of this paper, these two individu-

als will be identified as the *Evaluator* and *Coordinator*.

The organization that received the nearly half-million dollar grant for the CSAEP abdicated significant responsibility up front. Rather than encourage or help facilitate the collaboration of the Evaluator and Coordinator, the agency's administrator simply gave each authority over their respective areas. First and foremost, a decision maker with responsibility for overseeing the program and its evaluation needed to be delineated (Maher 1979). In this particular case, divided authority with minimal to no guidance from administration significantly precluded the harmonious parallel process of program development and evaluation strategies. As a result, obstacles emerged both in and out of the organization aside from every level of program development.

OBSTRUCTING THE DEVELOPMENT OF PROGRAM INITIATION AND EVALUATION STRATEGIES

The Coordinator was responsible for identifying appropriate program materials, writing a parents' brochure about sexual abuse which would elaborate on the group presentations, and develop the presentation structure and content. This program effort commenced January 2001; however, the Evaluator was not included in any of the program planning until the third week of March. Weiss (1998) states that an Evaluator should be involved in planning from the outset as a means of acquiring valuable knowledge about the program that will subsequently inform the evaluation. She indicates that firsthand programmatic knowledge is important in helping the evaluator formulate questions, better understand the data, and make recommendations. This was not the case. Few of the Evaluator's program concerns were taken seriously. Rather, suggestions or constructive criticism by the Evaluator further alienated the Coordinator, subsequently deteriorating communication. The Evaluator was also excluded from essential contacts with the school system's administrators, who would ultimately furnish access to the target groups and be responsible for giving final approval on all program materials and content to be used during presentations.

Pilot testing of the various program components found that mean scores on children's, parents', and teachers' pre- and post-test measures yielded minimal, if any, increases in learning. The Coordinator argued that there was too much program material to be covered overall to be concerned with any specific items on the questionnaires. The Evaluator countered that if the items on the questionnaires were not addressed in terms of program content, there would be a lack of information on which to assess program viability. When the agency administration was approached, the response was that the Coordinator and Evaluator needed to "work things out" for themselves.

Questionnaire items were expected to tap knowledge gains on significant points. For example, one of the CSAEP objectives of teaching parents and teachers how to identify children's behavior that might indicate sexual abuse was not accomplished. The power struggle escalated, particularly without constructive guidance or direction from the agency administration. The details of some of the more critical obstacles in design, implementation, and evaluation follow.

Problems in the Initiation of the Program

The Evaluator was not included in the preliminary program planning phase of the CSAEP. This is contrary to the recommendations found in the program evaluation literature (King, Morris & Fitz-Gibbon 1987; Schram 1997; Sylvia & Sylvia 2004). No input was made in terms of curriculum, structure, content, or presentation of material at the level of children's, parents', or teachers' programs. Hence, the Evaluator was in the position of reacting to existing mechanisms. Another conflict arose when the Evaluator made a suggestion to the Coordinator that the language employed in writing the brochure for dissemination to parents be more easily understood, clear, and free of jargon. Although most parents would likely comprehend the written material and verbally presented content, a large percentage was from working poor households or homes reliant on public assistance. In particular, many Spanish-monolingual or bilingual/Spanish-dominant families in the organization's service area averaged a fifth grade education.

The Evaluator was also excluded from the preliminary contact with the public school system's administration. This caused the Evaluator's role to be perceived as a peripheral, perhaps even frivolous one, in relation to the CSAEP. When the Evaluator finally at-

tended a school system meeting, the sole purpose was to review the instruments that had been developed for use in the pre- and post-test time period. Since the Evaluator had not been afforded the opportunity of meeting or even knowing who the responsible school system administrators were no networking or establishing trust and rapport was possible.

In revising the proposed pre- and post-test questionnaires, the school system's administrators indicated they saw many problems with the instruments. First, they did not want questions which reinforced stereotypes for the children (e.g., "Only girls are sexually abused" or "Most abusers are strange, funny looking people.") School system administrators were resistant to the fact that measured changes in children's perceptions were expected to reflect increased knowledge about sexual abuse, in addition to *dispelling* rather than reinforcing stereotypes. A significant amount of meeting time was devoted on two occasions toward explaining and persuading school system officials to agree to the questionnaire content. Ultimately, some items were omitted and others reworded.

Second, school system administrators did not want children asked the question: "Have you ever been sexually abused?" It was feared that children might be left unduly vulnerable if they were to affirmatively respond to that query. It was explained that if more children responded positively on the post-test than on the pre-test, they may likely respond to the question in light of having learned added information during program participation. A number of professional resources were identified for those children that may need further assistance.

Third, under no circumstances were the pre- and post-test questionnaires to obtain demographic information (e.g., gender, age, education, ethnic origin, or marital status) from any of the program participants—clearly not all questions were intended for every level of participant. This point was convincingly argued by the Evaluator, and the school system conceded with allowing age, gender and grade for children; age, gender, and educational achievement for parents; and age, gender, and number of years teaching for teachers. The question pertaining to educational achievement was conditionally allowed for parents' questionnaires, pending negative feedback from parents taking part in the pilot test. None of the pilot group parents (N=34) objected to the education question, and it was retained for wider use. However, the school system was adamant that should ethnic background/racial data be collected that *all* support for the CSAEP would be withdrawn immediately. Both the Coordinator and Agency administration were silent on this issue.

Problems in the Contact/Implementation Phase

The Evaluator established written criteria for administration of the pre- and post-test questionnaires, with responsibility for training the newly hired sexual abuse specialists who would function as program presenters to the various target groups. Miscommunication between the Coordinator, Agency Administration, and the Evaluator resulted in the Evaluator attempting to train the Presenters without having had the opportunity to review the finalized program materials. The program materials had already been provided to and discussed with the Presenters by the Coordinator. Further, the Evaluator was not given the opportunity of seeing copies of the final pre- and post-test questionnaires, which were printed in large quantity.

The Coordinator declined to attend the Evaluator's training session, even though she would be making some of the program presentations and would need to administer pre- and post-test questionnaires in the process. Consequently, some of the questionnaires were haphazardly administered and appropriate procedures could neither be reliably monitored nor controlled. At one point during the Evaluator's training session on questionnaire administration, all eight of the sexual abuse specialists complained about the fragmentation of program materials and expressed their disappointment with overall program administration due to "disorganization" and "inconsistent procedural guidelines."

Regarding pre- and post-test questionnaires, the process for participants' completion encompassed several tasks. Program participants that arrived pursuant to pre-test completion were asked to write an "X" on the bottom of the last page of the post-test questionnaire in order to distinguish between those completing pre- and post-tests from those completing post-tests only. This protocol was often not followed.

Program presenters were also to place completed questionnaires collected from their respective groups in separate brown envelopes noted with their name, elementary school, and date of presentation. All questionnaire responses were kept confidential, but occasionally children would report that they had been sexually abused and provide their names on the questionnaires themselves. When a child discloses any kind of sexual victimization, it is imperative to follow through with timely assistance as well as mandatory reporting. There were times that children disclosed sexual abuse on questionnaires, but the presenters had failed to record the school's name and date of presentation. Trying to identify abuse victims after the fact was very complicated, if not impossible, without the pertinent information. More than 9,000 children from 102 elementary and middle schools participated in the CSAEP during a four-month period.

Problems also surfaced on the part of the school system. The school system's administrators virtually handpicked the elementary and middle schools for participation, thereby excluding random selection. Since none of the schools were given the option to participate in the child sexual abuse prevention program, resistance from some of the principals, teachers, and school staff was intense.

In order for children to be admitted into the program, a consent form signed by either a parent or legal guardian was required. Many children never returned consent forms, and it was never clear how many children actually received the forms to take home. An example of the suggested letter to parents had been provided all school principals as a way of informing families about the CSAEP. Few of the schools used the recommended example. Others never apprised families about the parent's program and simply sent notes home indicating that a parent's meeting was to take place at a given date and time. Many of these parents were not happy for being "summoned" without a clear understanding or explanation of the meeting's purpose. The logistical problems were sufficiently complex, and it was unfair to expect overburdened, understaffed schools to write, duplicate, and disseminate letters announcing the CSAEP. Instead, standard letters on school system letterhead should have been provided for distribution to each elementary and middle school involved in this program.

Problems in the Evaluation Phase

It was expected that at the point of the program evaluation, most of the obstacles and conflicts would have been abated. Not so. Initial miscommunication and subsequent unreliable data collection that necessitated the elimination of hundreds of questionnaires resulted in growing resentment that confounded the evaluation as well. The omitted questionnaires were not included in the evaluation as program participants responded to questionnaire items without needed information. Consequently, these questionnaires contained missing data (e.g., demographics, prior sexual abuse history, site of the program presentation, and distinction between pre- and post-test takers and post-test takers only). Moreover, a couple of the presenters had skipped pertinent information due to time constraints.

The Evaluator was to identify five individuals who would be responsible for numbering, pre-coding, and entering data from approximately 38,000 completed pre-and post-test questionnaires. Blank employee applications were mailed to the Evaluator who resided an hour's drive from the community served by the program agency. Once prospective data coders were obtained from the Evaluator's area of residence, employee applications were completed and mailed along with pre-screening interview information to the employing agency. The agreement with the agency was that data coders would be paid by check mailed from the agency twice monthly for work accomplished and verified by the Evaluator. As contract employees, individuals were to be responsible for their own tax liability and receive no fringe benefits. This plan was unexpectedly changed *after* five eligible employees had filled out the necessary forms, passed pre-screening interviews, and were in the process of being trained by the Evaluator.

Agency administration communicated a requirement for additional documentation from data coders through a newly hired personnel manager. Further, data coders were asked to: 1) obtain a medical examination; 2) provide a copy of educational transcripts, diploma/GED, or other certificates; and 3) participate in an in-agency employment interview. Individuals would, moreover, be required to personally pick up their paychecks twice monthly at the agency, a two-hour round trip drive for everyone involved. Needless to

say, the five prospective data coders—some graduate students and other gainfully employed individuals—declined to complete the additional agency requirements and withdrew their applications for employment.

The renewed search for data coders took place through word-of-mouth in the metropolitan city where the agency was located to facilitate access to the agency for pay purposes. The change of plan involved significantly more time for the Evaluator. This involved the Evaluator making the trip to the agency to pick up the completed questionnaires, returning home to review the paperwork for completeness, assigning identification numbers on each document, and making a return trip to distribute the questionnaires among five data coders. The geographic factor substantially hampered the timely resolution of coding questions, as well as impacted quality control. This was more conducive to a reactive rather than proactive approach to working with data coders.

RECOMMENDATIONS FOR FUTURE PROGRAM EFFORTS

Multiple issues emerged from the circumstances surrounding the planning, development, implementation, and evaluation of the CSAEP. A number of recommendations are offered toward helping others avoid some of the obstacles experienced with the CSAEP in the hopes of: 1) heightening awareness of multiple complications that may arise during programmatic initiatives; 2) encouraging open dialog with funding sources, agency administrators, program coordinators, and evaluators; and 3) helping to enhance the success of future programs.

With the exception of program participants, all individuals involved with any aspect of a prospective program should be engaged in its planning and design to the extent possible (King et al 1987; Schram 1997; Sylvia & Sylvia 2004; Weiss 1998). Maximum involvement will help facilitate an understanding of how, when, and where everyone's expected contribution to the program effort will fit in. Knowing who is to be involved and the nature of that involvement will ensure time for the various tasks necessary to be included in the design and planning. This represents the most appropriate time for individuals' roles to be identified, discussed, and delineated.

Program participants play a critical role in design and planning as well, particularly when they are the intended recipients of the benefits to be derived from the initiative itself. Admittedly, every potential participant could not be involved—many are as yet unidentified and the scope of the process would be impractical. Nevertheless, a small number of representatives from each of the groups targeted by a program will provide useful information and should be included (Herrerías, Mata, & Ramos 2002).

A constructive working relationship should be established within program staff, as well as between individuals and other systems involved in the program effort. Respecting one another's viewpoints will help to enhance rapport and trust among staff invested in the overall planning and also help in working toward a collective goal. This is greatly enhanced when individuals' contributions are understood and accepted by those involved.

Program materials to be considered for use should be discussed by all program staff. While the Coordinator (e.g., program director, team leader, etc.) may have approval authority concerning what materials are actually utilized, staff will benefit by both learning about core content and raising essential questions during the program's formative stages. It is more productive and less threatening to explore questions during the planning period than after the fact.

In order to maximize any and all available personal resources, a stakeholder survey is recommended (Rossi et al 2003; Grinnell 2001; Unrau et al 2001). It is likely that cooperation and quality of communication will increase when individuals' views and suggestions are thoughtfully considered. While a stakeholder survey may take additional time, the range of perspectives reflected may help strengthen and afford greater clarity to the program generally, as well as acknowledge and avert potential obstacles.

Available literature, prior reports and research in the program area should be shared with all interested individuals as a way of sensitizing and educating program staff, and any other supportive personnel to relevant issues. Sharing information is a way of providing answers to questions as yet not asked. Providing this kind of initial data may also serve to explain, for example, why particular demographic or other information is desired from participants.

When pre- and post-test measures are planned, sufficient time must be allotted for their administration. The evaluation component is an integral part of program planning and should be included in the structure of the program. It is no easy task to accommodate an evaluation once the program is in place, and might even necessitate the elimination of pre-test measures.

All program staff should participate in training sessions containing curriculum content, including any program evaluators, if feasible. Similarly, all staff should participate in training sessions, which explain program evaluation methods. When pre- and post-tests are employed, it is best for administration procedures to be clearly specified. It is also necessary for program staff to understand the importance of a standardized method of administering questionnaires, rather than attempting to establish a unique one.

If a program is being provided by one agency through the auspices of another, the staff from the provider agency should furnish as much assistance to the sponsoring agency as possible. For example, as in the case of the CSAEP, explanatory letters and mailings announcing the program to prospective participants would have helped facilitate implementation by fostering goodwill instead of engendering resistance. This would have also helped avoid last-minute mailings or other more desperate measures to generate one or more participant groups at each targeted site.

Program pilot testing is an important first step in determining whether the structure and content are compatible and consistent. In the event presentations are made by more than one presenter, video or audio recording can be used to help staff work on a more standard format. Pilot testing is also useful in assessing the existence of problems with any measuring instruments and further simplifying and clarifying questionnaire items.

Reading or reciting a common instruction note to participants is a substantial help toward standardizing administration procedures of any measuring instruments employed (e.g., pre- or post-tests or other assessments). Although most child and adult program participants may be able to work autonomously on questionnaires, consideration should be given to staff reading each question out loud to facilitate understanding for those that may have more limited English proficiency. When participants' ask questions, those responses must be standardized as well as a way of minimizing biased, inconsistent, or irrelevant responses.

A concerted effort should be made to standardize program content and length of presentations across participant groups. Differences in questionnaire responses between participants exposed to shorter and longer program presentations are generally due to not having received the benefit of the same content. This can influence reliability and validity of the measuring instruments. Also, when multiple program presenters are involved, the name of the presenting individual, identification of participant group (e.g., name of school or location where program was held), date and time of day should be noted for questionnaires or other materials collected from participants. This information will allow for better control of situational factors and help maintain the integrity of the data gathered.

Guidelines for hiring consultants to assist with any aspect of the program effort should be clearly spelled out to avoid misunderstandings, valuable time wasted, and work backlogs. At the same time, some flexibility for engaging short-term contractual employees may help expedite the hiring process. All manner or category of potential hires should be considered and clearly described in an agency's human resources' policy.

When program content is of a sensitive nature, such as child sexual abuse prevention education, the involvement of a social worker, counselor, or psychologist may provide necessary support for children who disclose victimization resulting from their program participation. Similarly, program staff should anticipate disclosures from adult participants and be able to provide referral information as needed (Herrerías 1989). Written pamphlets are another valuable resource for dissemination to participants.

As a professional courtesy to the sponsoring agency, the provider agency should ensure that copies of preliminary, interim, and final reports are shared with their stakeholders. It enhances feelings of collegiality, encourages future collaborative efforts, and helps avert unpleasant or unexpected surprises. The Evaluator presented findings from the CSAEP at a regional conference pursuant to having completed the evaluation and

submitted the results to the provider agency for which she did the work. Agency administration did not share the findings with the school system (sponsoring agency) unbeknownst to the Evaluator. A newspaper journalist in the conference audience reported some of the findings in the next morning's edition relative to the percentage of school children ages 8-12 that disclosed they had been sexually abused. The school system was put in a highly awkward position as they attempted to respond to the media's report without corroborating data. The sensationalism surrounding the evaluation findings even involved the funding source who was displeased with how the entire matter was handled.

Finally, appreciation should be expressed to program participants at the end of each session. Their participation and feedback are critical to program success and certainly warrants acknowledgement and appreciation. If possible, brief evaluation findings might also be provided to the participants in some form.

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