ANTHROPOLOGICA

N.S. Vol. XVIII, No. 1, 1976

LE CENTRE CANADIEN
DE RECHERCHES
EN ANTHROPOLOGIE
UNIVERSITÉ SAINT-PAUL

THE CANADIAN RESEARCH
CENTRE
FOR ANTHROPOLOGY
SAINT PAUL UNIVERSITY

COLLABORATEURS — CONTRIBUTORS

Thomas W. Neumann
Bonnie C. Wade
Bruce C. Trigger
Toni Flores Fratto
Jean Bernabé
Jean Lapointe
H. Russell Bernard

ISSN 0003-5459

ANTHROPOLOGICA is the official publication of the Canadian Research Centre for Anthropology, Saint Paul University, Ottawa, Canada.

Anthropologica is published twice a year and features articles in the fields of cultural and social anthropology and related disciplines.

La revue ANTHROPOLOGICA est l'organe officiel du Centre canadien de recherches en anthropologie, Université Saint-Paul, Ottawa, Canada.

Anthropologica paraît deux fois par année et publie des articles relevant de l'anthropologie culturelle et sociale et des disciplines connexes.

Manuscripts, publications for review, book reviews, communications relative to editorial matters, subscriptions, and all other correspondence should be addressed to:

Les manuscrits, les publications pour comptes rendus, les comptes rendus, la correspondance concernant la rédaction, les abonnements, et toute autre correspondance doivent être adressés à:

THE CANADIAN RESEARCH CENTRE FOR ANTHROPOLOGY
LE CENTRE CANADIEN DE RECHERCHES EN ANTHROPOLOGIE
223 Main, Ottawa, Ont., Canada K1S 1C4
Tel.: (613) 235-1421

Subscription rate: $14.00 per annum.

Le prix de l'abonnement est de $14.00 par année.

ANTHROPOLOGICA

N.S. VOL. XVIII, NO. 1, 1976

CONTENTS — SOMMAIRE

The Physiological Consequences of Child-Rearing among the Creek, Chicasaw, and Choctaw

THOMAS W. NEUMANN
University of Minnesota
Minneapolis

RÉSUMÉ

La culture est le mécanisme humain d'adaptation extrasomatique. Donc le comportement parental/adulte envers un enfant produit chez celui-ci un comportement culturellement adaptif. L'auteur soutient que la socialisation ne produit pas directement le comportement attendu par la société, mais que certaines pratiques envers les enfants produisent des effets physiologiques qui eux, causent le comportement voulu. Chez les Creek, les Chicasaw et les Choctaw, certaines pratiques de socialisation ont produit un système adrenal bien développé et équilibré, qui produit à son tour le désir d'explorer des milieux nouveaux et les aide à affronter des expériences difficiles. Donc, le comportement normal des adultes n'est pas tellement une fonction de la conformité aux attentes culturelles qu'un "conditionnement" physiologique qui permet à ces attentes d'être comblées.

An aspect of anthropology often overlooked is the interplay between the physical stress experienced by a child and the expected behavior of that child as an adult. Part of this oversight seems to be a consequence of defining culture as a non-biological mental set of standards. There is nothing novel about this stance, but it does, indirectly, preclude a relationship between the customs of a people and the survival, health, well-being, and so forth of those same people. But if culture is viewed as a human adaptive mechanism, what then are the implications for various cultural

practices? Would this exclude any biological constituents? This position is also not new, yet it is not as pervasive an operating view as the mentalist definition. However, it does have the benefit of being a little more relevant and practical. This short paper is an attempt to deal with one such implication of an adaptive stance: the physiology-behavior relationship as it affected personality development in the members of the Creek, Chicasaw, and Choctaw tribes.

Barry, *et al.* (1959), present a study on the relationship of child training to subsistence economy. The cultures studied were first divided into four subsistence categories: animal husbandry, hunting and/or fishing, agriculture, and agriculture with hunting and/or fishing (1959: 60). Compliance versus assertion in child training were correlated with these subsistence activities. The results related compliance with those cultures practicing either animal husbandry or agriculture, and assertion with the remaining groups. Achievement, self-reliance, and independence were all subsumed under assertion, while responsibility, nurturance, and obedience were placed under compliance. The conclusions were that such training varied with the nature of each culture's subsistence system, but tended to be suitable for the subsistence system concerned.

Taking these findings into account, it is proposed that the consequences of the parental/adult behavior toward children in the Creek, Chicasaw, and Choctaw tribes were in accord with the culture, *and* that these consequences (*i.e.*, expected adult behavior) had a physiological source. To evaluate this thesis it will be necessary to first examine some of the physiological factors which influence human behavior. After these have been outlined, child-rearing as well as observed adult behavior within the three Southeastern tribes will be described. Finally, the physiological responses to child-training will be set against the adult behavior and the thesis evaluated from there.

PHYSIOLOGICAL AND BEHAVIORAL FACTORS

What might be some of the factors contributing to compliance or assertion in a child? To understand this question two components

will be considered: the effects of stimulation on the pituitary-adrenal system, and the effects of the pituitary-adrenal response on human behavior.

a) *Effects of stimulation on the pituitary-adrenal system*

The physiological response to stimulation and stress includes the release of ACTH (adrenocorticotrophic hormone) which induces the adrenal cortex to secrete somatic regulating hormones. The adrenal cortex helps to maintain metabolic equilibrium by secreting hormones which regulate such functions as carbohydrate metabolism, blood pressure, and body temperature (Di Raimondo 1961: 70; Levi 1967: 31). The pituitary-adrenocortical system is exceptionally responsive to distressful or agitative stimuli (Hilton 1965: 483). Regulation of the structure and function of the adrenal cortex is affected by ACTH, which stimulates the cortex to increase secretion of adrenal cortical steroids. Any stimulus requiring a homeostatic readjustment of the organism is met with an increased release of ACTH, and after an imposed stress, be it emotional or physical, the adrenal cortex enlarges in response to this hormone (Selye 1950: 35; Di Raimondo 1961: 176, 178, 289).

The magnitude of reaction to stress depends both on when in the 24-hour adrenocortical cycle the organism is stimulated and on the duration of the stimulation (Shenkin 1964: 1112; Friedman and Ader 1967: 209; Ader and Friedman 1968: 384). In humans this cycle is not present during the first week of life; however, by the fourth to twentieth week level-differences in the rhythm appear, and this rhythm is fully established by the age of seven years (Hellbrügge, *et al.* 1964: 363, 364, 366). Cortisol levels tend to be high in newborns during the first 24 hours of life because of the influence of the maternal circulation. Cortisol production remains somewhat higher than what is typical for older individuals during the first week of life (Bacon and Spencer 1973: 1265). It is important to note that the ACTH-releasing factor may also be discharged without regard to the plasma corticoid concentration when a person is subjected to stress (Bondy 1967: 1302).

The adrenocortical response to environmental stimulation is also a function of the psychophysiological state of the organism

(Ader and Friedman 1968: 378). This defensive reaction can be activated by fear, apprehension, anxiety, or exposure to novel situations (Levine 1971: 26; Luce 1971: 150). Such reactions are also present during the stress of infection (Beisel and Rapoport 1969a: 541). This response to stress includes the sympathetic and parasympathetic nervous systems; stimulation of both results in adrenalin production. This in turn stimulates the pituitary to release ACTH which activates the adrenal cortex to release somatic regulating hormones (Levi 1967: 37). High levels of steroids in the plasma are therefore indicative of a person's panic or misery (Shenkin 1964: 116; Luce 1971: 153).

Acute infection leads to increased adrenocortical secretions which contributes significantly to widespread catabolic losses from host tissues (Beisel and Rapoport 1969a: 541). A functioning adrenal cortex is necessary to permit increased synthesis of certain proteins during infection, though these catabolic events begin only after the onset of the disease symptoms (Beisel and Rapoport 1969b: 596). The human host of an infectious disease organism fares best when his own pituitary-adrenal axis is normally responsive. Susceptibility and lethality of infectious diseases increases toward the extremes of either hypoadrenocorticism or hyperadrenocorticism (Beisel and Rapoport 1969a: 541).

In infant mammals manipulation and handling hastens maturation of the adrenal system, and consequently the stress response (Levine 1960: 83; Luce 1971: 99). Animals handled in infancy will, as adults, produce adrenal-steroids quicker than those not handled in infancy. Though they react faster, the manipulated animals cease adrenocortical secretion about fifteen minutes after stimulation, whereas those who have not been exposed to stress as infants continue adrenocortical secretion long after stimulation has terminated (Levine 1960: 82).

Psychological stress is generally more potent than physical stimuli in activating pituitary ACTH production (Shenkin 1964: 117; Friedman and Ader 1967: 209). Novelty or environmental change are sufficient in themselves to produce significant elevations in plasma corticosteroid levels (Friedman and Ader 1967: 209). Friedman and Ader suggest that this reaction is most likely a

function of the experimental animal's psychological perception of its environment (1967: 212).

b) *Effects of stress and physiological responses on behavior*

Among the responses elicited by environmental stress are those that alter behavior and thereby serve to mitigate or remove the stress. Adaptation to these circumstances implies the development of properties by the organism that allow maintenance of physiological function and survival when the surroundings are changed in any (organism perceived) important respect (Hardy 1967: 1705). For organisms capable of regulating internal environment in accord with changes in external environment, adaptation results in changes in the limits of the control system without significantly changing the output of the system (Hardy 1967: 1706). Therefore, adaptive change in such organisms

> is caused by continued operation of the regulating system at a high level and results... in a more responsive controller with a greater capacity and capable of closer regulation of the controlled variable [Hardy 1967: 1707].

What, then, do the physiological responses suggest for animal and human behavior? Levine has noted that adult animals stressed in infancy are more likely to freely explore their surroundings, are better capable of coping with stress, and are not cowered by novel and trying situations, compared to adults left unstressed in infancy (Levine 1960: 81, 83; Levine 1971: 26). The unmanipulated controls in Levine's experiments were found to be timid and deviant in their behavior (1971: 26). In the adult stage these two groups differ sharply in the responsiveness of the pituitary-adrenal system (*ibid.*). Luce comments that

> it appeared that some early demands, experiences, or stresses actually benefited the animal and helped his adrenal system calibrate its output and the speed of its response to the demands of living. Experience, rather than a vacuum-like protection, seems to be necessary for the development of human infants, too [1971: 100].

Infant experience in humans has a profound effect in shaping the character and constitution of the adult (Levine 1960: 86). "Some degree of stress in infancy is necessary for the development of normal, adaptive behavior" (Levine 1971: 31).

The pituitary-adrenal system plays a key role in learning and in adapting to novel stimulation (Levine 1971: 31). ACTH inhibits the extinction of an avoidance response, while removal of the pituitary retards the learning of a conditioned avoidance response (Levine 1971: 27). In humans, those deprived of ACTH habituate to new stimuli faster than those injected with ACTH (Levine 1971: 29). Those humans with an untreated adrenal cortical insufficiency, or those who have had the adrenal cortex removed, exhibit a markedly increased sensitivity to taste, hearing, and smell, but at the same time a decrease in perceptive and integrative abilities (Henkin and Daly 1968: 1269, 1270). Some mental symptoms of hypoadrenocorticism are apathy and irritability, and of hyperadrenocorticism are insomnia, hyperactivity, and restlessness. In both cases anxiety and occasional psychotic reactions are manifest (Dale 1972: 1033). These represent changes from normal adrenocortical function, and indicate why a *balance* response, especially during stress, is critical. Disorders of memory, intellectual function, and personality attend many endocrine imbalances (Dale 1972: 1038). In addition, noted side effects of injected corticosteroids in children include personality changes, susceptibility to infection, and steroid diabetes (Bacon and Spencer 1973: 1267).

Lundin, in his analysis of behavioral psychology, notes an interplay between stimulation and child development. He describes the results of environmental restriction of institutionally raised children: some could not walk without help, some could not speak, and all showed signs of a marked retardation in their behavioral development (Lundin 1971: 213). He further comments that one possible explanation for this hinderance could be the lack of sensory stimuli: "children were rarely handled so kinesthetic and tactile stimulation was at a minimum" (*ibid.*). Personality studies also indicate that those suffering from anxiety find new learning difficult, and are characteristically ridden with an "endless chain of avoidance reactions" that seem impossible to eliminate (Lundin 1971: 289). As is known from the discussion above, anxious behavior stimulates the pituitary to secrete ACTH which in turn impedes the extinction of avoidance responses.

In brief summary: persons who are exposed to stress or stimulation in infancy will, as adults, tend to be willing to

investigate their surroudings, react quickly to noxious or novel stimulation, be capable of re-formulating behavioral patterns, and not be intimidated by new or trying situations. Persons who experience a paucity of stimulation in infancy will be hesitant in exploring their environment, react slowly but intensely to trying circumstances, be conservative in changing behavior, and cower from unexpected or difficult situations.

CHILD-REARING AMONG THE CREEK, CHICASAW, AND CHOCTAW

Keeping in mind that infantile stimulation and experience result in better abilities to cope with new circumstances, let us examine child-rearing data for three Southeastern tribes: the Creek, the Chicasaw, and the Choctaw. It must be cautioned at the outset that, unfortunately, child-training and adult behavior as recorded by Southeastern ethnohistorians applies almost categorically to males. This is a consequence of the male explorers and observers, what *their* cultural backgrounds dictated as relevant behavior to record, and the accessibility of a male observer to the life-styles of each sex in the tribes.

Each of the three tribes had a combined agriculture-hunting-gathering subsistence base (Swanton 1918: 56; Swanton 1928b: 725). Cultivated plants such as corn, beans, and squash provided a source of food for only part of the year (Swanton 1928a: 443; Swanton 1946: 256). Harvesting was done in the late summer, and in the fall hunting began in earnest with the men away from the villages for much of the time (Swanton 1928a: 404).

The lack of commitment to one food supply or another is best described by Swanton:

> As the harvest was seldom sufficient to last — nor was it expected to last — until another crop came in, the Indians were obliged to seek natural food supplies elsewhere and, since such supplies were not usually concentrated, this meant that the people themselves scattered about in camps where they remained until planting [1946: 257].

Among the Creeks, Chicasaw, and Choctaw post-natal care was also similar; in terms of mode of living and general habits these

groups can be treated as one people (Malone 1922: 178). Immediately after birth the child was dipped into cold water, to strengthen and harden it. Tubby states that the Choctaw:

> believed that if a child was not tempered like a piece of metal it was likely to die and so they plunged infants into water just after their birth [quoted in Swanton 1931: 118].

Among the Creek and Chicasaw the child also went through this process, which would continue for the remainder of its life (Swanton 1928a: 361; Swanton 1946: 714, 716). From the youngest to the oldest member, everyone was expected to bathe every morning regardless of weather, though among the Creeks one had the option of rolling in snow if such was present (Swanton 1928a: 365; Swanton 1946: 125).

Other practices were introduced to harden the child as it grew older. Among the Creeks a child was required to lie upon the ground, to accustom himself to fatigue. The result was that "the surfaces of their bodies [were] as tough as the skin of their hands and feet" (Swanton 1928a: 366). Means of correction were also introduced at this time in the child's life. One method was the throwing of cold water over the errant child (Swanton 1931: 124). Scratching, however, was the principle means of determent. A practice characteristic of the Southeast in general, scratching was done in identical ways by all three tribes considered here (Swanton 1928a: 364; Swanton 1946: 715, 716). However, though administered as a punishment, it was also considered contributory to good health and endurance (Swanton 1928a: 364). Swanton quotes Swan on this mode of correction:

> if a child requires punishment, the mother scratches its legs and thighs with the point of a pin or needle until it bleeds; some keep a jaw-bone of a gar-fish, having two teeth, entirely for this purpose [1928a: 363].

The rationale behind the practice was that it strengthened and hardened the child, enabling it to withstand the dangers of life (Swanton 1928a: 363, 365).

Aside from penal actions, children were also exposed to other 'strenghtening' customs, some formal, others informal. The 'huskana,' generally ascribed solely to the Carolina Sioux, was also

present among the Chicasaw (Malone 1922: 179). Described by Lawson as a "diabolical purgation," it was a five to six week confinement usually reserved for boys, in which the youngsters were starved and not permitted to leave their 'cabin.' The reason this was done was that the experience hardened the child, enabling him or her to endure the hardships of living (Swanton 1946: 712).

Among the Choctaw little restraint was placed on children and they roamed from village to village (Cushman 1899: 215). Some of the activities boys engaged in while growing up were wrestling, running, and lifting heaving weights, all of which Swanton describes as violent exercises (1931: 124). To cure children of their laziness, the adults made them play ball and run races, as well as scratch themselves (Swanton 1931: 127). Boys were encouraged to roam through the woods, and would "test one another's endurance by stirring up yellow jackets and seeing who could withstand their stings the longest" (Cushman 1899: 214). They would also place hot coals on the backs of their hands and forearms, with no manifestation of pain (*ibid.*). This relation of the tolerance of pain to good health also permeated hunting, where a tiring person would take a fish-tooth scratcher and scratch one thigh until the blood ran to prevent him from wearing out (Swanton 1928a: 445). The efficiency with which this worked is exhibited in the account by Adair (in Swanton 1928a: 446) of how a Choctaw warrior, by scratching himself, ran down and killed a French trader mounted on a swift horse.

How did the children of these tribes behave as adults? Malone states that the Chicasaw had an air of magnanimity, superiority, and independence (1922: 175). They were known to be just, honest, liberal, and hospitable to strangers (1922: 179). The Choctaws had a calm and peaceful disposition, and prized unrestrained freedom (Swanton 1931: 125, 126). They were also known to have little difficulty in making their way about in unfamiliar territory (Swanton 1931: 160).

The Choctaw estimated their success, both in war and hunting, as depending almost exclusively upon their unwearied patience and capability of great endurance (Cushman 1899: 214). Among the Creeks acquisition of prestige was based upon abilities as a warrior

and hunter (Swanton 1928a: 366), as it was among the Chicasaw (Malone 1922: 180).

EVALUATION

Given the information on child-rearing for the Creek, Chicasaw, and Choctaw, what should be the physiological consequences, and how do the consequences relate to the cultural behavior? The premise is that parental/adult behavior toward the child produced culturally adaptative behavior in the latter, *and* that this behavior has a physiological basis.

According to the discussion above on the adrenocortical system, the results of year-round bathing, of scratching, and of the exposure to painful stimuli would be an early maturation of the adrenal system in the children. This in turn would produce the following behavioral tendencies: a well-calibrated and mature adrenal system, a willingness to explore unknown surroundings, and a failure to be cowered by new and trying experiences. As we know from the ethnohistorical data, the children actively sought novel situations, were not cowered by trying or painful circumstances, and were willing to explore beyond their home villages.

According to Barry, *et al.* (1959), cultures with an agriculture-hunting-gathering subsistence base, such as the tribes considered here, should encourage self-reliance and achievement in the young. Such encouragement, including prestige achievement for the males, was present among the Creek, Chicasaw, and Choctaw. Among these peoples the children were trained to be "venturesome, independent adults who [could] take the initiative in wrestling food daily from nature, and thus ensure survival in societies with a low-accumulation economy" (Barry, *et al.* 1959: 63). It appears that the physiological tendencies for such a behavioral pattern may be interpreted as largely a result of the child-rearing practices of the Creek, Chicasaw, and Choctaw. Further, approved adult behavior was not so much a function of adherence to cultural expectations or cultural standards as it was of physiological 'conditioning' enabling those expectations to be fulfilled.

REFERENCES

ADER, R., and S.B. FRIEDMAN
1968 Plasma Corticosterone Response to Environmental Stimulation: Effects of Duration of Stimulation and the 24-Hour Adrenocortical Rhythm. *Neuroendocrinology,* Vol. 3, pp. 378-386.

BACON, George E., and Martha L. SPENCER
1973 Pediatric Uses of Steroids. *The Medical Clinics of North America,* Vol. 57, No. 5, pp. 1265-1276.

BARRY, Herbert, III, Irvin L. CHILD, and Margaret K. BACON
1959 Relation of Child Training to Subsistence Economy. *American Anthropologist,* Vol. 61, No. 1, pp. 51-63.

BEISEL, William R., and Morton I. RAPOPORT
1969a Inter-relations between Adrenocortical Functions and Infectious Illness. *The New England Journal of Medicine,* Vol. 280, No. 10, pp. 541-546.
1969b Inter-relations between Adrenocortical Functions and Infectious Illness (Concluded). *The New England Journal of Medicine,* Vol. 280, No. 11, pp. 596-604.

BONDY, Philip K.
1967 Adrenocortical Hormones and Tests of Function. In: Beeson Paul B. and Walsh McDermott (eds.), *Textbook of Medicine,* Vol. II, W.B. Saunders Company, Philadelphia.

CUSHMAN, H.B.
1899 *History of the Choctaw, Chickasaw, and Natchez Indians.* Headlight Printing House. Greenville.

DALE, Allan J.D.
1972 Neurological Problems in Endocrine Diseases. *The Medical Clinics of North America,* Vol. 56, No. 4, pp. 1029-1039.

DI RAIMONDO, Vincent
1961 Functions of the Adrenal Cortex. In: Moon, Henry D. (ed.) *The Adrenal Cortex,* International Academy of Pathology. Monographs in Pathology Number 2, Hoeber. New York.

FRIEDMAN, S.B., and R. ADER
1967 Adrenocortinal Response to Novelty and Noxious Stimulation. *Neuroendocrinology,* Vol. 2, pp. 209-212.

HARDY, James D.
1967 Adaptation to Physical Stress. In: Beeson Paul B. and Walsh Saunders (eds.), *Textbook of Medicine,* Vol, II, W. B. Saunders Company, Philadelphia.

HELLBRÜGGE, T., J. Ehrengut LANGE, J. RUTENFRANZ, and K. STEHR
1964 Circadian Periodicity of Physiological Functions in Different Stages of Infancy and Childhood. *Annals of the New York Academy of Sciences,* Vol. 117, Part 1, pp. 361-373.

HENKIN, Robert I., and Robert L. DALY
1968 Auditory Detection and Perception in Normal Man and in Patients with Adrenal Cortical Insufficiency: Effect of Adrenal Cortical Steroids. *The Journal of Clinical Investigation,* Vol. 47, No. 6, pp. 1269-1280.

HILTON, S.M.
1965 Emotion. In: Edholm, O.G. and A.L. Bacharach (eds), *The Physiology of Human Survival,* Academic Press, New York.

LEVI, Lennart
1967 *Stress: Sources, Management, and Prevention.* Translated by Patrick Hort. Liveright Publishing Corporation. New York.

LEVINE, Seymore
1960 Stimulation in Infancy. *Scientific American,* Vol. 202, No. 5, pp. 80-86.
1971 Stress and Behavior. *Scientific American,* Vol. 224, No. 1, pp. 26-31.

LUNDIN, Robert W.
1971 *Personality: A Behavioral Analysis.* The Macmillan Company. New York

LUCE, Gary Gaer
1971 *Body Time.* Bantam Books. New York.

MALONE, James H.
1922 *The Chickasaw Nation: A Short Sketch of a Noble People.* John P. Morton and Company. Louisville.

SELYE, Hans
1950 *Stress.* ACTA, Inc. Montreal.

SHENKIN, Henry A.
1964 The Effect of Pain on the Diurnal Pattern of Plasma Corticoid Levels. *Neurology,* Vol. 14, No. 12, pp. 1112-1117.

SWANTON, John R.
1918 An Early Account of the Choctaw Indians. *Memoirs.* American Anthropological Association. Vol. 5, pp. 53-74.
1928a Social Organization of Social Usages of the Indians of the Creek Confederacy. *Bureau of American Ethnology Annual Report for 1924-25.* XLII, pp. 23-472.
1928b Religious Beliefs and Medical Practices of the Creek Indians. *Bureau of American Ethnology Annual Report for 1924-25.* XLII, pp. 473-672.
1931 *Source Material for the Social and Ceremonial Life of the Chocktaw Indians.* Bureau of American Ethnology Bulletin 103. Smithsonian Institution. Washington.
1946 *The Indians of the Southeastern United States.* Bureau of American Ethnology Bulletin 137. Smithsonian Institution. Washington.

Fixity and Flexibility: From Musical Structure to Cultural Structure[1]

BONNIE C. WADE
University of California, Berkeley

RÉSUMÉ

Au lieu de prendre l'approche fonctionnaliste d'étudier la musique à l'intérieur de la culture, cet article propose une approche "structuraliste-fonctionnaliste": plus spécifiquement, plutôt que d'étudier d'abord la culture et ensuite se demander comment la musique s'y intègre, étudier la musique d'abord et ensuite définir la culture en terme de musique. Les possibilités de cette approche sont explorées au moyen d'un principe structurel de la musique classique du nord de l'Inde, l'interaction entre la fixité et la flexibilité, c'est-à-dire, entre la composition traditionnelle et l'improvisation.

This is a theoretical essay on the subject of ethnomusicology, presented via the medium of information and questions on Indian classical music. The format of presentation consists of generalizations, *because no in-depth knowledge of Indian classical musical traditions is assumed for the reader,* and also because the information is primarily a springboard for questions that

[1] This essay was originally presented in skeletal form for a public lecture at the University of California, Berkeley, February, 1975. It was later presented in elaborated form at the Regional meeting of the Northeast Chapter of the American Anthropological Association, Potsdam, New York, April, 1975. I especially wish to thank my fellow ethnomusicologists, Dr. Roxane Carlisle of Carleton University and of the National Museum of Man, Ottawa, and Prof. Daniel Neuman, Department of Anthropology, Dartmouth College for encouraging me to present these ideas in print.

demonstrate what this author considers to be possibilities for an ethnomusicological approach to the study of music.[2]

Until recently, most ethnomusicology has been of two types. Ethnomusicologists trained primarily in music usually have undertaken musicological studies of non-Western musics; most work on Indian classical music, for example, is musicological, passing under the rubric of ethnomusicology because the subject matter is not Western music. Ethnomusicologists trained primarily in anthropology have undertaken studies of music and musical cultures from the vantage point of the so-called functionalist approach to music; i.e., examination of the function of music in culture.

The ethnomusicological approach I am suggesting, as applicable to any music and musical culture, is one that takes cognizance of structure. Implicit in this approach is a strong grounding in music analysis and firm understanding of musical structure without which, I believe, it is not possible to understand the subtleties of the music and thus the musical culture with which one is working. The basis for my belief in the need for training in analysis of music structures is generated by the realization that ethnomusicological methodology, to be a methodology, must proceed from the music itself. Heretofore, practically all ethnomusicological method has utilized the methodology of various disciplines, especially anthropology and musicology, rather than attempting to develop a methodology of its own. This short paper, then, is an attempt to establish a schema for an ethnomusicological method which derives from analysis of structure as well as function of music and application of same to an understanding of the structure as well as function of the musical culture of which the music is a part. Hence the subtitle, "from Musical Structure to Cultural Structure."

The conceptual scheme of this essay derives from the perceived duality in Indian musical structure and in Indian culture and

[2] For an introduction to Indian classical music, see the author's forthcoming volume, *Introduction to Indian Classical Musics* (Englewood Cliffs, N. J.: Prentice-Hall, October 1976). For a detailed statement of definitions, methodologies, and theories as regards the author's view of ethnomusicology, see her introduction to the end-of-the-year review of "ethnomusicology" books for *Notes* (Spring 1976).

society. Indic civilization frequently is refered to as one of "unity and diversity," of "stasis yet mobility," and other dichotomous generalizations. It is commonplace to say this duality is inherent in all cultures, but in the Indic purview the juxtaposition of dual concepts seems particularly implicit as well as explicit. In the past ethnomusicologists or other scholars of Indian classical music might have taken concepts such as these *from the culture* and applied them *to the music.* What I propose to do here is to take dual concepts *from the music* and apply them *to the culture,* i.e. applying conceptual polarities from the musical structure to cultural structure. In particular, I have chosen to work with concepts of fixity and flexibility, composed and improvised.

The primary generalization I am going to explore is: *At present greater emphasis is placed on improvisation in North Indian classical music than in South Indian classical music — relatively speaking.* Lest South Indian music enthusiasts become agitated at this statement, let me stress the final phrase — "relatively speaking." Improvisation is certainly at the heart of several types of South Indian music.

First, a word of explanation about the division of India into North and South Indian classical music traditions. A key to understanding Indic civilization is to realize that the subcontinent has been subject to recurring waves of invaders. The Indian subcontinent has, for as long as the historical process can be traced, housed innumerable culture groups. The earliest, pre-Aryan civilization for which we have some substantive information is the Harappa culture, a city-based civilization extending north to south nearly 1000 miles along the Indus valley, and including such other sites as Mohenjo Daro. It has been suggested, with growing linguistic evidence, that this was the culture of Dravidian, proto-Tamil speaking peoples.

From about the second millenium BC groups of Aryas (Indo-European peoples) filtered into the subcontinent. Gradually they settled over a wide geographical area and either routed or imposed their culture on indigenous Dravidian and other ethnic subdivisions of the subcontinent. Records of the Aryan civilization, transmitted in the Sanskrit language, consist largely of literature — hymns and epics — and also of treatises on many subjects,

among them music. Music treatises from the early centuries AD reveal an already greatly theorized musical system.

Relatively recently in the history of the subcontinent groups of Islamic-culture peoples began to settle into the subcontinent.[3] By the eleventh century AD their political rule began to take hold and Islamic-dominated culture at the top layers of society began to spread, particularly in the northern part of the subcontinent.

The major point to keep in mind in this long-recorded historical process is the pattern of culture movement that resulted from these periodic invasions. As each wave of invaders trickled then poured through the northwestern reaches, the peoples they found in the northern areas, through time either fled toward the south sections of the subcontinent or were absorbed by the alien groups. The Aryan invasion of India was one that covered centuries and involved many ethnic groups. So, too, was the invasion of peoples of the Islamic belief system the product of centuries and diverse ethnic groups. Thus, in the northern regions of the subcontinent we have rather an accordion effect, of spacing and impacting of sub-cultures, while in the southern regions timing and spacing of peoples in retreat would seem to have allowed for consolidation and conservation of indigenous traditions — as indigenous traditions were perceived through time. Pertinent to our discussion here are those dual effects, particularly as they concern music, after the permanentizing of rule in the North by culture groups of the Islamic faith.

In the North the literary and court language changed from Sanskrit to Persian. In increasing numbers through time, musicians employed in Muslim courts converted to Islam. The ancient treatises in Sanskrit became less and less meaningful, and reference

[3] Peoples of Islamic faith arrived in three different waves. In the early eighth century small groups of Arab merchants, reaching by sea, settled temporarily in the Sind, around present-day Karachi, Pakistan. From the tenth century, bands of Afghani tribesmen came, in periodic invasions, through the northwest passes, more to plunder than to proselytize. This second segment of invaders endured and began to establish sultanates. But the third, and most enduring wave, and the one we associate with Muslim influence in India, were groups of Turki, Persian, Afghani, and Mongol people, from the end of the eleventh century. These persisted in the North and, eventually, with the triumph of Babar, in 1526 established the Mughal Empire.

to older traditions would appear to have decreased in importance. However, many learned Hindus — musicians among them — are said to have left the North for the southern part of the subcontinent where [Aryan] culture flourished relatively untouched, even at the top levels of society. In the South, knowledge of Sanskrit and the Sanskritic tradition of musical scholarship continued.

In all the writings on classical music the overall picture is one of a common ancient tradition that provided a set of basic musical concepts. But the practices based on those principles began to differ in North and South, and by the fifteenth and sixteenth centuries those differences began to show up in theoretical writings in a codified fashion. In time, the musical concepts themselves were recognized to be somewhat different on such a widespread basis that the differences were associated with geographic regions: Hindustani tradition in the North, Karnatak in the South. That process of change in musical practice and theory has been documented to some extent, but not altogether clearly.

By the nineteenth century one of the performance practices that had become different involved the relative amount of fixed and improvised in musical performance. When this first became a distinguishable differentiation between North and South is impossible to say. Although it is difficult to demonstrate what is meant by fixed and improvisatory without recourse to musical sound, let me attempt to explain it briefly in words.

The two primary performances genres in South India are *kriti* and the *ragam-tanam-pallavi* sequence. A *kriti* is a traditional composition, a song; it is likely that the composer of the song is known. Many *kriti* are notated — albeit in skeleton form. *Kriti* are appropriate for varying performance contexts and the events in the performance of a *kriti* depend on that context. In a formal concert situation where an accomplished artist is featured, more esoteric *kriti* will be heard and improvisation will be an important element in those performances. When groups of music lovers gather for informal music-making with the expectation that even those who are not particularly accomplished will contribute a *kriti* or two in the course of the evening, *kriti* will be heard that are more accessible musically and improvisation may or may not be

part of the peformance. Two or three persons might even sing such a composition together.

In North Indian classical music there is no parallel to the *kriti,* in the sense that a traditional composition could be sung by a group, with improvisation an optional part of the performance. Notations are far fewer in Hindustani tradition; improvisation is the heart of every classical music genre in the North.

The second most prominent South Indian performance genre is *ragam-tanam-pallavi.* It is an improvisational genre performed primarily by concert artists; only one short passage of melody (ten seconds or so long) is "composed" — the *pallavi* of the long, improvised *pallavi* section of the performance sequence. The North Indian performance genre that most closely parallels that sequence is the instrumental *alap-jor-jhala-gat,* in which the *gat* is the only "composed" melodic element and it, too, is an extremely brief melody.

For the purpose of relating this particular performance practice to a wider Indic cultural sphere, it is necessary to take a somewhat closer look at the practice itself. In these types of performances, in both Hindustani and Karnatak traditions, the musical elements besides the compositions that are considered "fixed" are the *rāga* and the *tāla,* or the mode and the meter which provide the material for both the compositions and improvisation. In addition, the song's text is fixed. Improvisation in a performance of a *kriti* includes manipulation of the text, of the melody within the context of the mode, and rhythmic play within the context of the meter. More specifically, certain types of manipulation of the text, melody, and rhythm are associated with *kriti* improvisation; this can be explained only in musical terms and is too specific for this article.

My working definition of improvisation here, then, is flexibility in the manipulation of those fixed musical and textual constructs. My working generalization here is based on the fact that the degree of flexibility — in terms of time in a performance allotted to improvisation — is much greater on the whole in North Indian classical music than in South Indian classical music — relatively speaking. Mode and meter are still the underpinnings of North

Indian performances but the role of compositions is considerably smaller.

If I were to ask musical questions about this "composed" vs. "improvised" business, I could ask such things as: In an improvised performance, how much in fact is FIXED? And how much of that which is fixed is composed "on the spot" and how much is traditional — that is to say, learned from someone else?

If learned from someone else, who is that someone? What is the sense of "ownership" of a melody? Is it proper to "learn" it by hearing it in another performance and adopt it? Or is it associated with a tradition and passed on as a piece of property? Whose property is it? The composer's? Or does ownership matter? Is in fact the composer known? Further, does it matter if the composer is known? What is the relationship between composer (if any) and performer in an improvisatory performance?

If the fixed material is learned, what was the method of transmission — oral or written? If written, what is the relationship between what is written and what is performed? How much of the tradition is written? Why was it written? If it was written, who wrote it down?

If it was transmitted orally, is an effort made to render it exactly as learned, i.e. to preserve it? Or can it be changed? If it can be changed in performance, then what is traditional about it?

If I were a musicologist my first inclination would be to look at this matter historically, to ask how great a part improvisation played in musical performance in ancient times, in the fifteenth-sixteenth centuries, and even in the nineteenth century. The documentation for that is scarce, however; Indian musicologists were theorists, and wrote of the melodic system as a system and single melodic modes as such rather than speaking in detail to the events of a particular type of performance.

The belief of South Indian musicians has been that their present-day musical traditions are those that existed in ancient times and South Indians have held the North responsible for departing from those traditions. In South Indian perception that is a negative thing. In the area of melodic theory, however, it is

now admitted that change must have taken place in the South, as well. A second possibility — but one not supported by lore — is that the musical traditions in the North are the more traditional ones. It is, of course, most likely that traditions have changed in both North and South through time.

What I would like to bring to the fore here are the sorts of things we could look at ethnomusicologically to learn from Indian music about Indic culture by this one general statement that much greater emphasis is placed on improvisation in North India than in South India.

In a society which is as stratified socially and economically as the Indian culture is, and where the stratification is upheld by religious sanctions, what is the relationship between fixed and improvised — or should I say — fixed and flexible? Has there been in recent centuries perhaps a greater degree of flexibility in the social system in North India than in the South to parallel the greater degree of flexibility in musical performance? It is not an unreasonable question. It is said of the Punjabis of north-west India, for example, that they are the group most receptive to change of all the people of the subcontinent because their territory lies in the path of communication and incursion through the mountains that separate India from West Asia and they have had to live with constant change for many, many centuries. North India faced what was potentially a very disruptive series of changes when peoples of Muslim faith settled in, and were absorbed into the greater Indian civilization. Or conversely, did the socio-cultural situation in the North become more rigid under Muslim rule, and the arts increasingly become relied upon as one means of expressing a sense of flexibility?

As mentioned before, in the face of incompatible cultural ideas many learned Hindus left North India for the southern reaches of the subcontinent where even at the height of Mughal rule the interference in Hindu lifeways seems to have been less severe. Is it possible that the degree of *awareness* of socio-cultural differences led to a hardening in the attitude toward flexibility in the South which was ultimately reflected in diverse facets of cultural life, including music? Could the threat to what was Hindu have resulted in a desire for preservation, and the desire for

preservation resulted in such processes as the notating of musical compositions and the standardization of musical pedagogical techniques when they had not been important before? It would appear that retention of specific compositions through teaching has resulted in a growing body of compositions which have been known for so long that they can be dubbed a repertoire of traditional compositions. We must rely on historians of Indian culture to aid us in putting this musical change in perspective with the greater culture's change.

The Hindu or Muslim political domination had one indisputable effect on the musical world and this may have had a great deal to do with the degree of improvisation in performances: the contexts of performances under Hindu kings were private court and home situations to be sure, but at *public* temple festivities, the best musicians were heard, as well. This was apparently the custom throughout India. Under Muslim rulers the public in the North lost all opportunity of hearing classical music because such music plays no part in Muslim religious festivities. The cloistered Muslim courts became the arena and knowledge of classical music was limited to the elite few. In those circumstances attention to the fine detail that improvisation demands had free reign. In the South the temple performance tradition continued unabated, and in fact was the base for continuity when royal courts declined. It is possible that in South India the general audiences at public occasions demanded music which could be more easily enjoyed (i.e. less improvisatory) so the repertoire of traditional songs developed along with improvised *ragam-tanam-pallavi* that could satisfy the better educated musical taste in more conducive performance contexts.

Another facet of the improvisatory vs. composed contrast is the relative attention which is paid to the individual performer or the individual composer. In the South individual composers have been remembered and some revered as Hindu saints. The most famous of Karnatak composers lived in the nineteenth century; they are spoken of as the trinity — Tyagaraja, Syama Sastri, and Muttuswami Dikshitar. All were from the same geographic area, all were archetypes of the Hindu musician-type, and all are still written about with a consistency in types of statements. After

centuries in which the fame of composers was scattered in nature, this trinity suddenly became extremely prominent. I would ask why. True, they were all good composers. But Sastri's compositions are scarcely written for a run-of-the-mill musical audience. I would suggest that events were happening in the greater culture that brought about the enormous amount of attention to the compositions of those men — particularly the continuing unabating adulation that their works receive.

In short, why is the individual composer in the South adulated, where in the North little attention is paid to who composed what — as might be expected when compositions themselves are of little importance? Is the South Indian composer an innovator or someone who upholds the tradition most manifestly? If a Karnatak performer, too, is singled out for attention, is the reason for this similar to the reason for a composer's prominence? What other individuals are spotlighted in South Indian culture, and why? Is there a pattern of thought about outstanding individuals which runs through various facets of the culture from music to politics?

In the North it is the outstanding artist (who could be called a composer in the improvisatory performance) who receives the adulation. Again the question could be asked why? Is it because he is an innovator in some sense of the words, or is the truest to a particular tradition? And again, is there a correspondence between the reasons for his prominence and the prominence of individuals in other facets of life in North India?

This inquiry is as potentially endless as an improvised Indian musical performance. In sum, I hope I have demonstrated, through a musical generalization observed in the structure of Indian classical music and musical culture, a mode for interpretations about the structure of the culture and society in which Indian musics and musical cultures flourish. These theoretical constructs are the lines of enquiry which I believe are part of the ethnomusicological approach to the study of music.

REFERENCES

For those who are interested in further exploring musical structure and cultural structure and their potential and real relationships, I offer a very select list of works.

Musical Studies

For the most recent survey in the English language — indeed in any language — of Indian classical music and musical culture see:

WADE, Bonnie C.
1976 *Introduction to Indian Classical Musics* (Englewood Cliffs: Prentice Hall.

For those particularly interested in melodic structure and the overall concept of *rāga* one should consult:

JAIRAZBHOY, Nazir A.
1971 *The Rags of North Indian Music,* Middleton: Wesleyan University Press.

POWERS, Harold Stone
1958 "The background of the South Indian raga-system", Unpub. PhD. dissertation, Princeton University.

For particular attention to metric structure and the overall concept of *tāla* one should consult:

BROWN, Robert E.
1965/1974 *The Mrdanga: A Study of Drumming in South India,* Ann Arbor: University Microfilms.

and for North Indian (or the Hindustani tradition):

STEWART, Rebecca
1974 *The Tabla in Perspective,* Ann Arbor: University Microfilms, and sources cited in both studies.

A general study of musical culture is:

NEUMAN, Daniel
1974 *The Cultural Structure and Social Organization of Musicians in India: The Perspective from Delhi,* Ann Arbor: University Microfilms.

A major study of a genre of music in musico-cultural perspective is:

WADE, Bonnie C.
1971 *Khyāl: A Study in Hindustani Classical Vocal Music,* Ann Arbor: University Microfilms.

STUDIES OF INDIC CULTURE

BASHAM, A.L.
1968 *The Wonder that was India: A Survey of the History and Culture of the Subcontinent Before the Coming of the Muslims.* 3rd ed., New York: Taplinger.

COHN, Bernard S.
1971 *India: The Social Anthropology of a Civilization,* Englewood Cliffs: Prentice Hall.

DUMONT, Louis
1970 *Homo Hierarchus: The Caste System and its Implications,* Chicago: University of Chicago Press.

MANDELBAUM, David G.
1972 *Society in India.* 2 vols., Berkeley and Los Angeles: University of California Press.

SINGER, Milton, ed.
1958 *Traditional India: Structure and Change,* Philadelphia: American Folklore Society.
1972 *When a Great Tradition Modernizes. An Anthropological Approach to Indian Civilization,* New York, Praeger.

SINGER, Milton and Bernard S. COHN, eds.
1968 *Structure and Change in Indian Society,* Chicago: Aldine Publishing Co.

SRINIVAS, M.N.
1968 *Social Change in Modern India,* Berkeley and Los Angeles: University of California Press.

The Bibliographies cited in each of the works noted under Musical Studies and Studies of Indic Culture provide a fairly comprehensive list of the work available in areas of music and musical culture of India.

Inequality and Communication in Early Civilizations

BRUCE G. TRIGGER
McGill University, Montréal*

RÉSUMÉ

Cet article compare les implications politiques des systèmes de communication dans les sociétés pré-industrielles à différents niveaux de complexité socio-économique. À mesure que le groupe s'accroît, l'accès de l'individu à l'information devient une question de spécialisation.

L'organisation de l'information nécessaire pour coordonner de grands groupes engendre une structure administrative qui se différencie en plusieurs niveaux et acquiert plus de complexité à chaque niveau à mesure que les unités politiques deviennent plus grandes et économiquement plus complexes. Dans une telle hiérarchie, le pouvoir est en corrélation directe avec la capacité d'un individu de recueillir l'information jugée vitale pour gérer la société, l'organiser et en contrôler la distribution. Les difficultés de communication dans la plupart des états pré-industriels ont encouragé la délégation des processus de décision dans toutes les sphères qui ne sont pas vitales dans l'obtention des objectifs spécifiques des groupes dominants.

INTRODUCTION

Canadian social scientists have made some of their best contributions to the study of communications. Among the first

* This paper is a revised version of one presented on February 12, 1976 to the *Seminar on Social Inequality* sponsored by the Department of Anthropology of the University of Western Ontario. It was also presented February 26, 1976 to the *Seminar on Stratification and State Formation* of the Department of Anthropology, McGill University. I wish to thank the members of both seminars for constructive comments which have been incorporated into the final draft of this paper.

and most important was Harold Innis, who late in his career paid considerable attention specifically to the nature of communications in the early civilizations. In particular, this is evident in his book *The Bias of Communication* (1951). More recently, although unfortunately not in Canada, the latter subject has attracted interest among archaeologists. David Clarke (1968: 88-101) was among the first to point out the potential value for archaeologists to treat culture as an information system. Since then a growing number of British and American archaeologists have argued the importance of communications as part of a broader systemic analysis of prehistoric cultures (Flannery 1972; Renfrew 1975; Johnson 1973; see also Segraves 1974).

In this paper I wish to compare and contrast some general features of communication in societies at differing levels of sociocultural complexity. My aim is to shed fresh light on functional relationships that previously have tended to be overlooked. I will also make tentative efforts at quantification, although these will concern the technologically-simpler rather than more complex societies. In my opinion, the need for quantification is great if anthropologists are to deal with the major theoretical problems of their discipline in more than a conjectural fashion.

BAND SOCIETIES AND AUTONOMOUS VILLAGES

Since the work of Emile Durkheim (1893) no social scientist has been able to ignore the importance of the division of labour as a key to understanding society. It is often claimed that a jack-of-all-trades is a master of none. Yet this proverb embodies a comparative perspective that is possible only in a technologically-evolved society. In the most small-scale societies, whether they have hunting and gathering economies or are small, politically-autonomous horticultural communities, everyone knows and performs all the essential tasks appropriate to his or her sex. This does not rule out the possession of specialized esoteric knowledge by individuals, although such knowledge will be limited in complexity and its transmission is frequently hazardous. In such societies, the small scale also makes it possible for those individuals who must interact with one another to do so on a familiar basis. It is possible for each member of such a society to know in a general way

what the total network of individual relationships within his or her society is like at any one time. Resources tend to be shared as far as individuals are in need, with prestige rather than material riches accruing to unusually skilful or industrious producers. Each male and sometimes each female member of such a society is viewed as an independent agent, who is as free as any other to determine his or her own conduct. The only effective sanctions that can be brought to bear against an individual are those supported by strong public opinion (Sahlins 1968; Service 1966; 1971: 46-132).

Even the smallest bands, however, have members who in certain respects act as leaders. Such a role may be acquired in an informal manner or the office may be the prerogative of a particular family or lineage, as among the Montagnais of southern Quebec in the seventeenth century (Bailey 1969: 91). While this sort of leader may play an important role in directing the economic affairs of his people and in mediating their internal disagreements, his primary role is as a spokesman when his band has dealings with other groups. Yet in speaking for his band the headman must reflect faithfully the opinions of his followers since no agreement he makes can have more force than each individual is willing to give it. The necessity for headmen to secure the personal adherence of each of their followers for every agreement they negotiated was not understood by the Europeans who first dealt with the Indians. The Europeans interpreted the failure of headmen to enforce what seemed like firm commitments as acts of bad faith.

On the basis of data from New Guinea, Anthony Forge (1972: 374) has argued that in societies with no more than 30 adult male members (or a total population of about 150), basic egalitarian principles are generally respected and internal rivalry tends to be low-keyed because there is an insufficiency of challengers to leaders of strong personality. In societies of up to 75 or 80 adult males (or a total population of 350 to 400) individualized competition occurs, but this too safeguards the egalitarian structure of society. Only when the number of males rises above 80 do their face-to-face relationships reach the limit that each player can handle successfully. Above that limit, for lack of sufficient information the game becomes disorganized and unbalanced, causing tension to increase. If the ecological situation allows for dispersal, such a group may

split apart, establishing two separate bands or communities. Kroeber (1955: 309) set the limit at which Indian tribes in many parts of North America tended to break apart at 500 members. Alternatively, the society may increase in size, but in order to do so it must adopt new principles of organization. It is at this point that internal segmentation is resorted to, thereby permitting a classification of relationships. This facilitates a reduction in the amount of information that any one actor has to carry about in his head.

TRIBAL SOCIETIES

The type of society thereby created, like the sedentary groups discussed above, is also at the tribal level. It is exemplified by larger, sedentary, and frequently horticultural groups such as the Huron. In these societies, as in the smaller-scale ones, each man and woman possesses the full range of skills necessary for his or her nuclear family's subsistence. Craft specialization is limited and constitutes a minor part of any individual's routine. Within communities, redistribution is highly-valued and reinforced by public opinion. Those who are stingy risk being accused of witchcraft, which in turn may entail severe penalties. At the same time, self-reliance and individual autonomy are prized highly (Trigger 1976: 27-90).

Among the Huron, the minimal unit of settlement was equivalent in size to the individual band-type societies discussed above. It was a village consisting of about 300 people. Its core of lifelong inhabitants apparently were members of a single clan composed of a number of matrilineal extended families. Like many other American Indian groups, each clan unit had two headmen; one for peace and one for war. At least the former office was the property of a specific lineage of each clan.

The advantage of a small village was that it kept cultivators in proximity to their fields and exhausted surrounding soil and sources of firewood more slowly than did larger ones. Yet, as a defence against warfare and blood feud many villages had 1500 or more inhabitants. Such a village was composed of four or five clan groups, each of which appears to have occupied its own portion of the community. Each clan group retained as much political

independence within a large village as it had when it constituted a separate community. Suspected interference in the internal affairs of a clan unit by members of other clans was deeply resented and not infrequently resulted in the break-up of large villages.

The collective affairs of a large village were regulated by a council attended by the peace chiefs of the various clan groups and less regularly by lineage heads and old men. One of the clan heads was recognized as spokesman for the entire village. This office also tended to be hereditary. The council concerned itself with coordinating the ritual activities of the community, supervising village-wide redistribution of resources (when necessary), and resolving disputes between (but never within) the clans making up the village. The recognition of one clan chief as village spokesman constituted a categorization and implicit ranking among headmen not found within smaller-scale societies.

Among the Huron, several villages constituted a tribe, each of which averaged 5000 members. Each tribe had its affairs co-ordinated by a council, which at least in theory appears to have been made up of the peace chiefs of all of the clan groups within the tribe. One of these chiefs, again usually on a hereditary basis, was recognized as being the official spokesman for the tribe. The tribal councils were concerned primarily with coordinating trading with other groups, and foreign policy generally, and with preventing blood feuds when disputes involved more than one village. Finally, at least in historic times, four or five neighbouring Iroquoian tribes often constituted a confederacy embracing up to 20,000 people. Each of the tribes belonging to the confederacy might be separated from the rest by its own hunting territory (as among the Iroquois) or they might all live in close proximity (as among the Huron). The confederacy council was composed of the same peace chiefs who sat on the tribal councils. One chief may have been the traditional convenor of the council, but various specific functions were assigned on an hereditary basis to individual council chiefs, so that it is unclear to what degree any of them could be considered a spokesman for the confederacy. The French quickly recognized the tribal spokesmen among the Huron and had important dealings with them. By contrast, the convenor of the confederacy council remained a shadowy figure, even to the Jesuits

after they had lived among the Huron for many years. The primary concern of the confederacy was to avoid blood feud and other forms of conflict among its members. Efforts were also made to coordinate warfare, although relations with other groups were handled mainly at the tribal level.

The Huron regarded it as a matter of principle that an individual could not be regarded as bound against his will by any decision made by the confederacy council or by tribal, village, or clan spokesmen. Public opinion might influence an individual's conduct but coercion could only be practised openly by a man or woman's nearest kinsmen, usually in the form of a threatened expulsion from an extended household. Any other coercion would anger the victim's lineage and clansmen and constitute a threat to the stability of community life. Because of this, spokesmen had to refer every decision that was made back to their constituents for individual approval and implementation. It was therefore essential for a spokesman to be well-informed about his constituents' opinions. Discussions aimed at achieving a consensus and a decision was normally reached when any remaining supporters of a minority opinion would neither support nor oppose a particular policy. A minority faction would remain silent and inactive until changing events produced a shift in public opinion and their policies might once again attract support. European observers regarded such latent factions as a source of strength rather than weakness to the Iroquoians since they allowed for great flexibility in dealing with changing circumstances, especially in intertribal relations.

The one coercive power that chiefs possessed was to pronounce an individual guilty of witchcraft. According to Huron law anyone might slay a known witch while the victim's relatives were forbidden to resort to blood revenge to avenge such a killing. It was, however, only the chiefs who could publicly determine whether an accused person was in fact a witch. This power could be exercised only for the benefit of the society as a whole or of the chiefs as a collective interest group since to be effective all of the chiefs, including the spokesman for the accused person's own clan, had to co-operate in condemning him. In spite of this limitation, threat of a formal accusation for witchcraft appears to have been a potent instrument of social control (Trigger 1963).

The Huron demonstrate that individual villages of up to 1500 people and societies of up to 20,000 people and with as many as four levels of government could be made to work relying only on public opinion and on the individual's voluntary implementation of each decision. Most of an individual's regular activities were related to his clan, a unit that was structurally very similar to the bands and autonomous villages discussed above. It was in terms of the clan that all of an individual's basic rights and responsibilities were defined. Larger communities consisted of a number of clan modules politically integrated by a council on which the clans were represented primarily by their peace chiefs. These headmen attempted to coordinate policy but could not commit their individual constituents to a particular line of action. The principal innovation of such a council was to recognize one clan chief as spokesman for the whole village. Factionalism can be documented as endemic in the larger Huron settlements and it would appear that a population of approximately 1500 represents the upper limits of stability for this type of political organization (Heidenreich 1971: 129-134).

In a study comparing settlement size and social organization in 30 pre-urban societies, Naroll (1956: 690) has observed that "when settlements contain more than about five hundred people they must have authoritative officials [a Huron council-type arrangement?], and if they contain over a thousand, some kind of specialized organization or corps of officials to perform police functions." Murdock (1957: 674) places the lower limit for his minimal state (implying some sort of coercion or police function) at 1500, although it is unclear whether or not Murdock had a single community in mind. Foster (1960: 379) likewise has suggested 1500 as the upper limit at which a settlement "can function as a single community." This suggests that if a settlement is to have a population larger than 1500 on a long-term basis, some form of coercion may be required as part of the regulatory mechanism of its government. From a communication point of view, no mystique or even the necessity to invoke class considerations is required to explain this sort of development. As a community grows in population above 1500, it becomes cumbersome and often dangerously time-consuming to refer all of the routine decisions necessary to govern the community back to the population at

large. In place of generalized consultation, some form of executive representation is required for government at even a minimal level of effectiveness. Coercion can be viewed as one means by which community decision-makers are assured that their routine decisions will be executed.

The Huron example also demonstrates, however, that in the form of tribes and confederacies multi-community political units of 20,000 people or more may function without recourse to coercion or the delegation of decision-making powers. In terms of population, the confederacy appears to fall within the same size range as the chiefdom, to which Baker and Sanders (1972: 163) attribute an average of 10,000 to 12,000 members. The higher levels of Huron government seem to have worked because the issues with which they dealt were limited and because the same clan representatives functioned at each level. Moving from village to tribe to confederacy, these clan representatives met in larger groups, but less frequently and to handle fewer issues. The continuity of these clan personnel through the higher levels of government minimized the misunderstandings and conflicts that might have arisen from misinformation. It also ensured that every Huron clansman had ready access to information about what was being discussed at every level.

It is unclear whether it is realistic to ask if there is a demographic point at which an entire society (as opposed to a community) must delegate decision-making authority and equip its leaders with coercive powers. Baker and Sanders (1972: 163) suggest that chiefdoms may grow to about 50,000 inhabitants but that in the long run large ones will tend either to fall apart or to develop into coercive states. Apart from demographic factors, it seems clear that at a certain point entire socio-cultural systems grow sufficiently complex that delegated decision-making becomes necessary for their regulation, which in turn requires some form of coercion.

STATE SOCIETIES

There is another saying which is only partially true that knowledge is power. This was certainly not so for the skilled craftsmen of ancient Egypt, who were scorned as mere manual labourers by

the bureaucratic scribes who integrated the national processes of production and distribution (Childe 1958: 93-97). While some craftsmen may have enjoyed prestige, power traditionally has accrued to those who integrate the processes of production and distribution. In the ancient civilizations governments developed for the first time as a fully-specialized subsystem within the social order and ruling for the first time constituted a fully-specialized profession. The rulers of these early civilizations were assisted by various categories of full-time personnel: scribes (bureaucrats), soldiers, personal retainers, and elite craftsmen. The societies were administered by a multi-tiered hierarchy in which officials at each level owed their services to a superior official or officials and were answerable to those officials for the conduct of lesser people who were in their charge. It has recently been proposed that the state may be equated with an administrative hierarchy that consists of three or more levels as reflected in a hierarchical arrangement of settlements of varying size and complexity (Johnson 1973: 2, 15). If the employment of coercion to supplement public opinion as a means of effecting policy is still accepted as an important criterion of the state (as I believe it must be), this operational definition may not serve to identify the smallest and simplest states. Nevertheless, the hierarchical characteristics that it stresses are associated with all state-organized societies from Renfrew's (1975: 12-21) Early State Modules to the largest empires of antiquity or modern times.

Kent Flannery (1972) has noted that cultural evolution correlates with an expanding capacity to process, store, and analyse information and has specifically characterized political and religious institutions as data-processing systems. Johnson (1973: 3) has identified the functions of such institutions as being to collect data, make decisions, and disseminate information. Flannery (1972) views these institutions as achieving power by *promotion,* that is by rising in a developing hierarchy of control to assume a higher-level and often transformed role. Their power is further enhanced by *linearization,* or cutting past lower-order controls, often after the latter have failed to function in an increasingly complex situation.

Yet, however much administrative hierarchies are concerned with processing information, they are by no means neutral entities

attending impartially to the interests of the whole society. On the contrary, rulers regard such hierarchies as the means by which their personal (albeit culturally-conditioned) ambitions may be realized. The truism that provides the point of departure for most of Service's (1975) recent arguments about the nature of early civilizations is the observation that no state can be held together by force alone. For a regime to survive, a majority of its subjects must remain convinced that there is no reasonable chance of seeing it replaced by a regime that might better serve their interests.

Yet even if no government can ignore public opinion totally, the elimination of the ruler's accountability for routine decisions introduces an element of privacy and secrecy into the governing process. This change correlates with major alterations in the fabric of society. Prestige is no longer maintained by massive redistribution on the part of leaders. Instead, vast surpluses are placed at the disposal of rulers, which they may employ in a wide variety of ways. Powerful individuals are not compelled to redistribute by fear of being accused of witchcraft if they do not. On the contrary, they can reverse the former practise by directing accusations of witchcraft against the traditional recipients of their bounty, should individuals' claims prove burdensome (Macfarlane 1970). This lays the basis for the development of extensive usufruct and private property. Not being in a position to know for certain what a public figure possesses or does make it harder for a subject to accuse him of wrongdoing.

Concomitant with rulers obscuring many of the everyday details of government business is their energetic promotion of a mystique of office. Few rulers even today do not try to claim some element of supernatural sanction for their power. Michael Coe (1972) notes that early kings sought to have themselves credited with divine status and for their lineages to be regarded as of divine origin and therefore generically different from those of their subjects. These claims helped to justify not only their failure to redistribute goods equitably but also the conspicuous consumption in which the elite of the early civilizations indulged so heartily. Yet familiarity breeds contempt. Rulers of small-scale societies, in particular of city states, always had a much harder time establishing claims of omnipotence than have the rulers of

large empires. Conversely, the more agrarian large states were, the less scepticism there seems to have been. Some of the most far-reaching claims of divinity were advanced by the Inca rulers of Peru and by the Egyptian Pharaohs (Spath 1973; Trigger, in press).

We have assumed that the need for complex societies to make and implement decisions quickly requires the majority of individuals to surrender a direct role in the decision-making process. This allows political systems to develop that are hierarchical and centralized; hence can process information and respond to challenges more efficiently. Within such a system the officials who channel and process the sorts of information that the state regards as vital to its functioning are in a position to decide how quickly and by whom this information can be used. Rulers may withhold information from their subordinates and from dissenting and competing groups or feed false information to these groups if they believe it to be in their own interest to do so (Adams 1975: 453). The system also permits subordinate officials to withhold information from their superiors.

The ability to control a system of this type, even imperfectly, allows rulers to use the surplus resources of society to pursue goals that are to some degree of their own choosing (Eisenstadt 1963). These may be to conquer neighbouring kingdoms, to increase the extent and value of royal domains, to alter the religious system, or to engage in the personal excesses of a Nero or Akhenaton. The successful pursuit of these goals depends upon the effectiveness with which the ruler is able to mobilize the surpluses of society for his own ends. To do this well he must control not only the primary producers but also his officials. In a state that is controlled effectively by its king or his chief officers, these officials function above all else as tax collectors and civil servants for their royal master.

The more neighbouring regions a king can dominate, the more resources he can control and the more effectively he may promote and reward his own followers. As A.L. Oppenheim (1964: 117) has observed "real prosperity came to a Mesopotamian city only when it had in its midst the palace of a victorious king". Because the fortunes of a militarily-successful monarch and his own people are so mutually interdependent, the internal authority exercised by

such a ruler is likely to be great. By contrast, a weak and tributary ruler is less likely to enjoy the respect of his own people and the affairs of his kingdom may be turbulent and disordered. This no doubt explains why, in their relations with other states, powerful rulers of ancient states or those who believed they had a chance to become powerful were willing to hazard their fortunes by adopting strategies emphasizing maximization of returns rather than maximization of security, such as normally characterizes the behaviour of the poorer elements of society and possibly of petty rulers as well (Shimkin 1973: 275). Yet Robert M. Adams (1975: 453-454) has observed that these rulers had to make important decisions about internal as well as external policies in the face of vast uncertainties about the actual situations that were confronting them and the possible consequences of particular lines of action. Today political leaders must cope with awesome imponderables but it seems likely that, in spite of the greater size and complexity of modern states, advances in communication and data processing, as well as improved scientific knowledge about the consequences of policy decisions, have reduced this uncertainty by comparison with what confronted the rulers of the early civilizations.

DATA PROCESSING SYSTEMS

Rulers find it advantageous to be regarded as omniscient as well as omnipotent. Yet in the early civilizations data collecting and record keeping were expensive, labour-intensive undertakings frequently requiring highly-trained staff. Maintaining lines of communication grew increasingly burdensome as the size of political units increased. The far-flung Persian, Roman, and Inca empires had extensive road systems that were built and maintained to facilitate the movement of their armies and of the government courier service. Innis (1951: 40) has described the government of the Persian Empire as "an elaborate administration based on a system of roads and the use of horses to maintain communication by post with the capital". He also accepted the suggestion that the greater stability of Near Eastern empires in the second millennium B.C., as compared with those of earlier times, can be attributed to the acceleration of official journeys as a result of the introduction of the chariot (ibid. p. 95). Yet the speed at which messages could

be transmitted along even the best roads was that at which a relay of couriers could run or ride. A week or more might elapse before the report of an invasion or revolt in an outlying province reached the imperial capital; meanwhile, the road system might accelerate the advance of the enemy. The only more rapid form of communication, using signal fires, was vulnerable to bad weather and limited in terms of the messages that could be conveyed. The principal advantage of a royal courier service could scarcely have been its absolute speed (which was far from ideal) but that it was faster than what was available to those who were not authorized to use it.

Not long ago anthropologists equated civilization with literacy. Many archaeologists working in the Near East still believe that writing is highly likely to develop as a data-storage technique when a given level of complexity is reached (Johnson 1973: 3). This seems to be supported, for example, by the apparently extensive use of writing for bureaucratic purposes in ancient Egypt: to record ownership of land, payment of taxes, the assignment of materials to individual workmen, and the presence or absence of men on specific work shifts. Yet, evidence from Africa and the New World reveals that complex societies can exist without fully-developed (initially logosyllabic) writing systems and that those early civilizations that lacked writing were of comparable complexity to those that had it. Whether we are considering collections of city states, such as the Maya or the ancient Mesopotamians who were literate or the highland Mexicans who were not, or much larger polities, such as Dynastic Egypt which was literate or the Inca Empire which was not, there is no obvious functional reason why some of these should have developed writing systems and not the rest. The Inca managed to do their book-keeping with knotted ropes (*quipu*) and by conceiving of work teams as decimal units. The eighteenth century Dahomeans did the same by means of pebble counting and appointing female officials to note and remember what their male counterparts did. This suggests that writing *per se* was not as vital for data-storage in the early civilizations as has been imagined. Karl Polanyi coined the term "operational device" to cover the wide range of techniques other than literacy that were used for accounting, census-taking, and record-keeping in pre-industrial societies (Dalton 1975: 99-100).

The rationale for the development of writing may have to be sought in the detailed structure of specific cultures. It is here that the seminal writings of Harold Innis (1951) may yet prove to be of special value. In particular, writing appears to have assisted the development of private property, of specific types of long distance banking, and of promulgated as opposed to traditional law. The survival over very long periods of time of cumbersome logosyllabic scripts and the fact that the Roman Empire was able and (what is more significant) willing to keep its accounts in Roman numerals suggest that governments made relatively small demands upon ancient writing systems as a means of data-storage and manipulation.

In a recent study, William Rathje (1975) has utilized certain propositions derived from General Systems Theory to attempt to construct a developmental scheme that accounts for the manner in which a developing early civilization coped with the problem of processing an increasing amount of information. By implication, what he says can be applied specifically to the evolution of political institutions. Rathje proposes that in the early stages increasing complexity was coped with by a markedly disproportional increase in information processing and deciding components (that is, by having more bureaucrats). Later, an attempt would be made to forestall the growth of bureaucracy beyond economically-acceptable limits by greater standardization. The development of standard, system-wide codes decreased the amount of recoding, and therefore accounting, that was necessary. Still later, efficiencies were effected by encouraging more autonomy at lower levels; the whole society being integrated as a series of interdependent, interacting components. Rathje's scheme looks like a rationalization of American laissez-faire idealism and examples of each of these processes probably can be shown to have been employed in the governmental institutions of any early civilization at any one phase of its development. As a whole, the scheme does not impress me as being plausible. The principal means by which ancient bureaucracies at any stage of their development had their task rendered manageable was by limiting linearization to essentials. In this respect, any comparison between a modern state and those of former times is inappropriate. The detailed penetration of the information-processing organs of the modern state into the lives

of its members which electronic computers make possible was impossible for the smaller, preindustrial states. On the contrary, officals at the highest levels of such societies limited their interventions into the affairs of the common people or of distant provinces to matters directly related to securing the goods and services necessary to achieve their own particular goals. Local rulers and officials generally were accorded something approaching plenipotentiary powers over their province, district, or village, so long as they could convince their superiors that they were in control of the situation and could supply them with what they wanted or what traditionally was owing to them. Such relationships produced curious behaviour. Chinese provincial officials frequently claimed that their districts had smaller populations than they really had so that they did not have to admit to the central government that they were unable to collect the full rate of taxes from powerful landowners. So long as such behaviour produced adequate revenue, the central government tolerated it rather than admit a lack of control which would imply the weakening of the Mandate of Heaven (Ho 1959: 3-97).

POLITICS AND COMMUNICATION

The avoidance of having to establish lower-level controls is dramatically evident in city state hegemonies as manifested in Early Dynastic Mesopotamia or in highland Mesoamerica in the sixteenth century. In these areas, the governments of conquered city states frequently were left to function more or less freely, so long as they paid tribute to their hegemon. The same principle was applied differently but no less strikingly in the Achaemenid Persian Empire whose provinces or satrapies, though artificial creations, rapidly evolved into sub-kingdoms within the empire (Olmstead 1948: 59). At their empire's greatest extent, the Romans promoted local government. They continued to regard the city state, the archetypal government of early Rome and of its neighbours, as the fundamental unit of political organization. Because of this, they undertook at great effort and cost to transform tribal areas that they conquered (such as southern England) into a mosaic of what appeared to them (if not to the conquered peoples) to be city states. Hyperlinearization (meddling) has been suggested as one of the pathologies to which ancient civilizations are susceptible (Flannery 1972). Yet the

evidence suggests that in general rulers were keenly aware of the limitations of their systems of communication and record-keeping and deliberately avoided overtaxing the capacities of their bureaucratic systems by needlessly eliminating low order controls.

Much of the most striking linearization did not result from a conscious desire to control the everyday functioning of lower-order structures. Instead it was the result of uncontrollable social forces. The Inca Empire and Pharaonic Egypt are in many respects archetypal early civilizations in terms of their structure. In spite of the celebrated decimal-regimentation of the Peruvians and the mania for record-keeping of the Egyptians (which dealt mainly with state business), the vast majority of the population in both of these states were farmers dwelling in hamlets or small villages. Surpluses had to be produced as taxes for the central government and a variety of labour services provided, which occasionally took a fraction of the men away from their villages. Relations with the government probably were mediated through clan or village heads, who served among other things as the lowest-level officials in the administrative hierarchy.

By contrast, the number of people whose lives were transformed radically by the elite traditions of these civilizations was relatively small. They included rulers, priests, and their bureaucratic assistants as well as some full-time soldiers, attendants, and craftsmen. These people were the sole inhabitants of the relatively small administrative centres of Egypt and highland Peru. In spite of the cultural sophistication of these societies, urbanization was notably restrained; only the royal capital and a few regional centres having populations of more than a few thousand people. While the elite cultures of these societies radically had transformed the lives of rulers and their entourages, most people continued to live in villages, where everyday life was governed by local institutions that had altered little from pre-state times (Frankfort 1956: 90-120; Lanning 1967: 157-172).

By contrast, southern Mesopotamian civilization developed as a mosaic of small city states. By the Early Dynastic Period most of the sedentary population of that region appears to have been living in the urban centres that were the nuclei of these states. Warfare in late prehistoric times had induced the inhabitants of

the villages and towns located within a 5 to 15 kilometre radius to abandon these communities and cluster in what became walled urban centres. These provided greater security for an individual's person and household goods and could cope more effectively with prolonged military or natural crises. Yet, while urbanization increased the prosperity and offensive and defensive strength of a small elite, it imposed greater demands for taxes and military and corvée service upon most individuals (Adams 1972).

Most of the inhabitants of the Mesopotamian cities, unlike those of Inca or Egyptian administrative centres, engaged in subsistence production. The urbanization of these agricultural producers transformed them socially, politically, and culturally to a far greater degree than the lives of their peasant counterparts in Egypt or Peru had been transformed. As urban dwellers, they observed the upper classes first hand and hence had the knowledge and inclination to share in the material benefits of urban life. Power was shared by the representatives of a number of different institutions within each city state; unlike the monolithic organization of the Egyptian and Inca ones. Priests, councils, and military leaders often competed for power openly. Although in the long run it was the military leaders who won out, this rivalry probably worked to the permanent advantage of the ordinary people. The archaeological evidence suggests that the average Mesopotamian had far greater access to the results of technological innovation than did the average Peruvian or Egyptian (Frankfort 1956: 49-89). Because the Mesopotamian city tended to be small, its members could observe each other and it embraced representatives of all occupations and all classes. This made it a pressure cooker that transformed the totality of Mesopotamian life. By contrast, the Egyptian and Peruvian peasant lived most of his life in nearly total isolation from such forces. It was the very alienness of the upper classes to his everyday experience that made credible royal claims of divine status such as no ruler of a city state was able to establish. A self-interested policy may have dictated the decline of such independent urban or proto-urban centres as were encompassed by the Egyptian and the Inca realms (Lanning 1967: 163).

The physical problems that impeded communication in the early civilizations heightened mistrust between officials at different

levels in the administrative hierarchy and in large states complicated relations between the central government and officials in outlying regions. Repeatedly and in widely-separated situations we find rulers utilizing a limited range of devices to cope with these problems. The deportation of elites from newly-conquered territories to the centres of empires provided hostages to ensure the good behaviour of those who were left in place. Sometimes, powerful rulers deported whole populations whose loyalty was suspect. The settling of trusted subjects in regions thus vacated, or as in the case of the Roman Empire the establishment of colonies of army veterans in newly-conquered territories was also common. This provided a force that could be counted on to watch for trouble and to resist uprisings until the officials of the regional or, if necessary, the central government could employ their own forces to quell such insurrections. Tension might persist for generations between the newcomers and the resentful original inhabitants of a region, making these policies of more than short-term usefulness to the central government. A more subtle but widely applicable stratagem was a version of divide and rule that involved encouraging local particularisms among subject peoples in order to discourage them from uniting to oppose the central government. Innis (1951: 135) saw an early manifestation of such a policy in the Persians' encouragement of ethnic religious cults within their empire.

To defend the borders of their empires, especially when these were resource-poor areas, weak and strong rulers alike resorted to bribery, clientage, and subtle diplomacy in an effort to pit local groups against one another. An astutely-managed policy repaid the cost of supplying and withholding arms and other resources from various groups in turn. Those who were dominant at any one time, often against their own will constituted a defensive ring protecting the metropolitan state against incursion by pastoral or nomadic tribesmen. Although the manipulation of such a mechanism required political finesse, it usually did not demand constant supervision by the central government but was managed by local officials in the provinces.

In the absence of means for continuous surveillance, central governments resorted to various devices to control provincial

officials. One such method was to create checks and balances by dividing the administrative responsibilities of a province among a number of independent officials. Each province of the Persian Empire was governed by a satrap, a military commander, and an intendant whose authority was independent of one another and who were each directly responsible to the king. The satrap's secretary was also empowered to report directly to the king (Olmstead 1948: 59). A similar division of power between a military governor and an intendant characterized the administration of New France and of each of the provinces of France prior to the revolution. Another device, utilized at certain periods by the ancient Egyptians, was to rotate senior officials from district to district to prevent them from acquiring a local basis of political support. A successful career was one that moved upwards through a hierarchy of offices that took an official from one district to another and finally culminated in a major appointment at court (Frankfort 1956: 101). Both of these strategies had their disadvantages. Divided authority often produced rivalry, mistrust, and obvious hostility, which adversely affected the quality and effectiveness of the administration; rotation meant that senior officials were unable to acquire the detailed knowledge of a particular region that was necessary for its optimal administration. Rotation also may have encouraged the rapacity of officials in their dealings with the people of any one region (Bernier 1916: 227). In both situations the central government was willing to sacrifice major advantages in order to safeguard its own authority. Another form of control was the use of inspectors or spies who kept watch on provincial officials of the central government. The "King's Eyes" and "King's Ears" carefully examined each province of the Persian Empire annually and reported directly to the king what they had learned (Olmstead 1948: 59). In this way the Persian kings sought to forestall revolts or secessions by ambitious provincial officials. Yet ensuring the loyalty of these spies entailed its own problems.

Some of the most serious problems posed by difficulties of communication in the early empires occurred at the highest decision-making levels of government. These problems were first analysed in detail by the medieval Arab historian Ibn Khaldun (1967). His analysis does not apply so much to the rulers of small

states or lower-level officials in larger states, since these inevitably remained in touch with the people they governed. In larger states, however, there was a tendency for kings to become encapsulated within the highly artificial elite life-style that was centred on the royal court. As a result, they no longer made decisions that were based on personal knowledge of the real world. Instead their decisions were based on information that was mediated through a variety of court officials. In some societies, the seclusion of the monarch, which was related to the concept of divine kingship, encouraged such practises. In others fear of usurpation or the desire of court officials to dominate rulers led to heirs to the throne being kept isolated and inexperienced. In the later Ottoman Empire, the former system by which princes were trained in the field gave way to one in which possible royal heirs were isolated in the harem and their education limited to what the permanent inhabitants of that institution could provide. Sometimes such a situation was initiated when a monarch, tiring of administrative duties, retired from public affairs to enjoy the pleasures of his wealth and power. A variety of officials could carry on government in his name but they could not replace him as a focus of loyalty. The informal nature of such government was conducive to political intrigues that undermined the stability of the government. At the same time, the unchecked indulgence of the sovereign diverted the resources of the empire into unproductive and ultimately counter-productive channels. The effect that isolated court life can have upon even forceful rulers is seen in the case of the aged Ch'ing empress Tz'u-hsi. It has been suggested that her opposition even to modest reforms was moderated in part because her flight to Sian, following the European occupation of Peking in 1900, had revealed to her for the first time the wretched state into which China had fallen (Warner 1972: 248). The increasing separation of the ruler from reality encourages politically ambitious leaders, often on the periphery of the state, to found independent states or to make their own bid for imperial mastery.

The rate at which such a cycle is run seems to be slower in both small states and large empires than among states of middle range. In small ones the ruler does not so easily become isolated from reality and in the large ones it takes longer for the effects of his isolation to corrupt the political fabric. It is probably

dangerous, however, to generalize this crudely about the length of dynastic cycles, since the latter appears to be affected by many different institutional factors. For example, the failure of the Romans to work out a pattern of legitimate succession resulted in the frequent seizure of their highest office by military officers who had acquired a wide range of administrative experience. This seems to have more than compensated the system for the disadvantages that resulted from an unstable succession.

TRANSFORMATIONS

What may we conclude from this brief survey of the relationship between inequality and communication? At the highest level of abstraction, I would agree with Forge (1972: 375) when he hypothesizes that human beings can handle only a finite number of intense interpersonal relationships and that as the number of relationships increases classification must be employed to keep them within manageable limits. I would also conclude that information, in the form both of traditional knowledge about how to do things (culture) and of fresh data entering the cultural system (news), can be shared equally by all the males or females of a society only within the simplest band structures. As group size increases, specialization occurs with respect to both types of information. The information-processing necessary to coordinate large groups generates an hierarchical administrative structure that acquires more levels and greater internal complexity at each level as political units increase in size and become economically more complex. Within such a hierarchy, power correlates directly with an individual's ability to collect, process, and control the distribution of information that is judged to be vital to manage society. This does not mean that lower-level officials cannot withhold such information from their superiors or feed them with false information. When this happens, however, it is usually an indication of the weakness of higher-level officials or of the control hierarchy generally.

When a system has reached the point where the referral of routine decisions for general approval must be eliminated in order for the affairs of the group to be managed successfully, the basis

is laid for the breakdown of equitable redistribution and hence for the acquisition and retention of resources by those who are politically powerful. From this point on rulers utilize administrative hierarchies to attempt to achieve goals that they themselves perceive as necessary or desirable. They avoid wasting the resources of their kingdoms through assigning them to support unnecessary and ultimately counter-productive administrative operations. This is done by not exercising higher-level controls over aspects of the system that are or can be made self-regulating. Even so, most early civilizations, far from being efficiently-managed despotisms, stretched their regulatory mechanisms to the utmost. The authority of even effective rulers was a skilful blend of shadow and substance. The limitations that were imposed on the administration of early civilizations by their cumbersome systems of communication and record-keeping are an accurate reflection of the fragility of the socio-political order as a whole.

In discussing bands and villages, I suggested that there might be critical thresholds of population size, which if exceeded necessitated the elaboration of specific kinds of decision-making arrangements. If confirmed such thresholds could be of considerable assistance to archaeologists in interpreting settlement data. Within societies at any one level, however, and particularly when dealing with complex societies, the nature of systems for procuring and processing information becomes extremely complex. Simplistic models cannot deal adequately with real situations, which require detailed analyses similar to those which social anthropologists provide for their data. This is a type of analysis for which game theory may be more appropriate than systems theory, at least as the latter is currently being applied. Robert M. Adams (1974: 248) has argued that archaeologists ought to pay more attention to the historic role of conscious decision-making. This includes recognizing "that goal-motivated behaviour has been a decisive factor in many social transformations". The concept of goal-motivated behaviour also questions the assumption, long-challenged but now all too prevalent among archaeologists, that all processes of change occur in the form of graceful, uninterrupted, and irreversable trajectories. As Adams (ibid.) again points out, changes in the early civilizations often took place in "dizzyingly abrupt shifts". This happened as rulers sought with varying degrees of success to maximize their

position by dominating weaker neighbours or crushing internal rivals. Such "historical" events are among the most difficult phenomena for archaeologists to discern and explain.

APPLICATIONS

Especially where some written records survive, the analysis of political transformations of this sort, although arduous, is not wholly beyond the archaeologist's hope. A better understanding of such situations may partly be facilitated by the development of analytical procedures that will permit a better understanding of communication systems. Archaeologists have made rapid progress in adapting the rigorous techniques that geographers have developed for locational analysis to the needs of settlement archaeology. Communication is clearly a relevant aspect of the hierarchies revealed thereby (Renfrew 1975). The mathematical approaches that Torsten Hägerstrand (1967) has developed to model the diffusion of innovations and the application of stochastic models to study social processes (Bartholomew 1967) suggest that other more rigorous quantitative approaches can yet be applied to the investigation of the process of communication in the early civilizations. This, in turn, may provide archaeologists with a more sound basis on which to investigate the development of administrative hierarchies, social inequality, and class-based societies.

REFERENCES

ADAMS, R.M.

1972 Patterns of Urbanization in Early Southern Mesopotamia. In P. J. Ucko, R. Tringham and G. W. Dimbleby (eds.), *Man, Settlement and Urbanism,* pp. 735-759. London: Duckworth.

1974 Anthropological Perspectives on Ancient Trade. *Current Anthropology* 15: 239-258.

1975 The Emerging Place of Trade in Civilizational Studies. In J. A. Sabloff and C. C. Lamberg-Karlovsky (eds.), *Ancient Civilization and Trade,* pp. 451-464. Albuquerque: University of New Mexico Press.

BAILEY, A.G.

1969 *The Conflict of European and Eastern Algonkian Cultures, 1504-1700.* Toronto: University of Toronto Press.

BAKER, P.T. and SANDERS, W.T.
1972 Demographic Studies in Anthropology. In B. J. Siegal (ed.), *Annual Review of Anthropology* I: 151-78. Palo Alto: Annual Reviews, Inc.

BARTHOLOMEW, D.J.
1967 *Stochastic Models for Social Processes.* London: Wiley.

BERNIER, FRANÇOIS
1916 *Travels in the Moghul Empire, A.D. 1656-1668.* London: Humphrey Milford.

CHILDE, V.G.
1958 *The Prehistory of European Society.* Harmondsworth: Penguin Books.

CLARKE, D.L.
1968 *Analytical Archaeology.* Methuen.

COE, M.D.
1972 Olmec Jaguars and Olmec Kings. In E. P. Benson (ed.), *The Cult of the Feline,* pp. 1-18. Washington: Dumbarton Oaks.

DALTON, GEORGE
1975 Karl Polanyi's Analysis of Long-Distance Trade and His Wider Paradigm. In J. A. Sabloff and C. C. Lamberg-Karlovsky (eds.), *Ancient Civilization and Trade,* pp. 63-132, Albuquerque: University of New Mexico Press.

DURKHEIM, E.
1933 *Division of Labor in Society* (G. Simpson, trans.). New York: (orig. 1893) Macmillan.

EISENSTADT, S.N.
1963 *The Political Systems of Empires.* New York: Free Press.

FLANNERY, K.V.
1972 The Cultural Evolution of Civilizations. *Annual Review of Ecology and Systematics* 3: 399-426.

FORGE, Anthony
1972 Normative Factors in the Settlement Size of Neolithic Cultivators. In P. J. Ucko, R. Tringham and G. W. Dimbleby (eds.), *Man, Settlement and Urbanism,* pp. 363-376, London: Duckworth.

FOSTER, G.M.
1960 Interpersonal Relations in Peasant Society. *Human Organization* 19: 174-178.

FRANKFORT, Henri
1956 *The Birth of Civilization in the Near East.* New York: Doubleday.

HÄGERSTRAND, Torsten
1967 *Innovation Diffusion as a Spatial Process.* Chicago: University of Chicago Press.

HEIDENREICH, C.E.
1971 *Huronia: A History and Geography of the Huron Indians, 1600-1650.* Toronto: McClelland and Stewart.

HO, Ping-ti
1959 *Studies on the Population of China, 1368-1953.* Cambridge: Harvard University Press.

IBN KHALDUN, Abd-ar-Rahman
1967 *The Muqaddimah: An Introduction to History.* Translated by F. Rosenthal, abridged by N. J. Dawood. Princeton: Princeton University Press.

INNIS, Harold
1951 *The Bias of Communication.* Toronto: University of Toronto Press.

JOHNSON, G.A.
1973 *Local Exchange and Early State Development in Southwestern Iran.* Anthropological Papers No. 51. Ann Arbor: Museum of Anthropology, University of Michigan.

KROEBER, A.L.
1955 Nature of the Land-holding Group. *Ethnohistory* 2: 303-314.

LANNING, Edward
1967 *Peru Before the Incas.* Englewood Cliffs: Prentice-Hall.

MACFARLANE, Alan
1970 *Witchcraft in Tudor and Stuart England.* London: Routledge and Kegan Paul.

MURDOCK, George P.
1957 World Ethnographic Sample. *American Anthropologist* 59: 664-687.

NAROLL, Raoul
1956 A Preliminary Index of Social Development. *American Anthropologist* 58: 687-715.

OLMSTEAD, A.T.
1948 *History of the Persian Empire.* Chicago: University of Chicago Press.

OPPENHEIM, A.L.
1964 *Ancient Mesopotamia.* Chicago: University of Chicago Press.

RATHJE, W.L.
1975 The Last Tango in Mayapan: A Tentative Trajectory of Production-Distribution Systems. In J. A. Sabloff and C.C. Lemberg-Karlovsky (eds.), *Ancient Civilization and Trade,* pp. 409-448, Albuquerque, University of New Mexico Press.

RENFREW, Colin
1975 Trade as Action at a Distance: Questions of Integration and Communication. In J. A. Sabloff and C.C. Lamberg-Karlovsky (eds.),*Ancient Civilization and Trade,* pp. 3-59, Albuquerque, University of New Mexico Press.

SAHLINS, M.D.
1968 *Tribesmen.* Englewood Cliffs: Prentice-Hall.

SEGRAVES, B.A.
1974 Ecological Generalization and Structural Transformation of Sociocultural Systems. *American Anthropologist* 76: 530-552.

SERVICE, E.R.
1966 *The Hunters.* Englewood Cliffs: Prentice-Hall.
1971 *Primitive Social Organization: An Evolutionary Perspective.* Second Edition. New York: Random House.
1975 *Origins of the State and of Civilization.* New York: W. W. Norton.

SHIMKIN, D.B.
1973 Models for the Downfall: Some Ecological and Culture-Historical Consideration. In T. P. Culbert (ed.), *The Classic Maya Collapse,* pp. 269-299. Albuquerque: University of New Mexico Press.

SPATH, C.D.
1973 "The Problem of the Calpulli in Classic Nahuatlaca Social Structure". *Journal of the Steward Anthropological Society* 5(1): 25-44.

TRIGGER, B.G.
1963 "Order and Freedom in Huron Society". *Anthropologica* 5: 151-169.
1976 *The Children of Aataentsic: A History of the Huron People to 1660.* Montreal: McGill-Queen's Press.
in press Egypt and the Comparative Study of Early Civilizations. In D. O'Connor (ed.), *Ancient Egypt: Problems of History, Sources and Methods.*

WARNER, Marina
1972 *The Dragon Empress.* London: Weidenfeld and Nicolson.

Jesters: Reflections on Anthropology and on Human Nature

TONI FLORES FRATTO
Hobart and William Smith Colleges

RÉSUMÉ

Le problème philosophique central de notre temps est probablement celui des relations entre la culture, la connaissance et la liberté. Les études anthropologiques récentes en ethnoscience et sur les aspects cognitifs dans le domaine "culture et personnalité" ont apporté une contribution marquée à notre compréhension de la relation entre culture et connaissance. Cet article tente de montrer que ces études contribuent aussi à notre compréhension des limites, des sources, et des possibilités de la liberté humaine.

Perhaps the key problem of our time is that of the relations between culture, knowledge, and, freedom. It might be that we are further in our study of this problem that we realize, that we who view the question from the standpoint of anthropology have more theoretical and empirical handholds than we are aware of, and that what is needed at the moment is an assessment, a review of what we know about knowing and of what we can infer from what we know.

Leszek Kolakowski (1968: 15-36) suggests that "knowers" can be divided into two classes — priests and jesters. For priests, there is eschatology, finality, facts, absolute knowledge. For jesters, there is only impertinence. Jesters question, and question their own questioning. They refuse to reduce anything, particularly anything human, to the status of category. For jesters, knowledge is always the rejection of whatever absolute may be current; it is the process of making and seeing always anew.

It seems to me that humanists, in the traditional Renaissance sense, are the archtypical jesters (if there could be archtypical jesters). In this sense and in this light, it may be that anthropology, whether it yet realizes it or not, is *the* jesting discipline and *the* humanist discipline. When we come to *know,* to recognize the implications of, what we know, we may learn that our knowledge of culture will lead us to an understanding of knowledge as a freeing process of seeing always anew.

One must begin with renewed recognition of what humanism is. It is not, of course, simply a lack of empiricism, a glorified system of hunches; nor is it a vague sense of advocacy, a generalized stance of being *for* mankind. If we go back to the historical origins of humanism in the Renaissance, there emerge several key characteristics. To begin with, the revival of an interest in the pagan Greeks provided the Renaissance not merely with models for rationality and sensuality, but also with an ironic view of theology, an essentially a-theistic mood which throws the burden of defining ends and meanings almost entirely on humankind. Thus, from the very beginning, there was an emphasis on human responsibility, that is, on the responsibility of humanity to decide its own fate and on the responsibility of the individual to shape his own life. It is not simply humanity that is to be emphasized. It is human responsibility.

Concomitant with this emphasis is that on the rejection of absolute authority. No longer was authority to be the touchstone for truth. That an idea was held by some personage in the religious, civil, or historical hierarchy or that it was lodged within some perfect and accepted body of wisdom was no longer a guarantee of its being embraced. If people were to be responsible for their beliefs, they were going to trust no one but themselves to shape them.

Finally, there was in the Renaissance a great flowering of interest in *selves.* A person, a life, was seen as a work of art; the "Renaissance Man" was one who labored joyfully, at cultivating all his potentialities. Thus, Castiglione's Courtier (1528) should be gentle, learned, skilled in warfare, wise at statecraft, graceful in the dance, pious and charitable, and nimble of wit; he should be all this because he must not allow any potential skill or grace to

go undeveloped, but he should be it all in his own measure, at his own behest, and in his own design. Thus, like Erasmus' (1509-11) wise Fool, he asks *himself*, "what is the good life and what actions must I take to create it"?

"What is the good life for a human being and what must I do to create it?" was, as Ernest Becker (1971) points out, still the central question into the Enlightenment, and it was the central question of social thought until the split between social philosophy and social science. For social philosophy it is still the central question.

> "You are free, therefore choose —
> that is to say, invent."
>
> Jean-Paul Sartre

We no longer live in the Renaissance and if, as I contend, anthropology may be a humanism, it will be a modern humanism. We must, then, turn to modern manifestations of humanism, and we could begin with no better thinker than that most modern of social philosophers and jesters, Jean-Paul Sartre.

If there is *one* thing, and it may be the only thing, as Walter Kaufmann (1956) points out, that is held in common by the existentialist philosophers, it is the shared refusal to accept any authority but themselves, their perfervid individualism. Freedom, for Sartre (1963: 307), is the one absolute good, the one absolute value, and it is to be obtained, not through anarchy, but through the self-imposition of self-made laws. In his classic essay "Existentialism is a Humanism" (in Kaufmann, 1956), Sartre presents his ontological (and necessarily epistemological) argument. A person exists and becomes conscious of his existence, *questions* his existence, becomes the object of his own thought and action, and thus creates himself. Existence precedes essence. No teleologies are possible, no authority is possible, outside those created and imposed by the self as it makes itself.

What, for Sartre, is then the good life? In *Search for a Method* (1963) Sartre's attempt to reconcile existentialism with Marxism, he begins with the recognition that the good life could be no final, fixed state of Utopia. The good life is not a state but a process. It is a process whereby individuals, confronted with their own

subjective freedom, recognize that the "other" is likewise a subjective freedom. The cultural order, therefore, is not reducible to the natural order, but is formed by individuals commonly engaged in going beyond the present cultural order, choosing the future cultural order. Societies, or classes, exist only in the person of persons, each making themselves. The good society, therefore, would be the one which *maximized* freedom, the very hallmark of humanity. The good society would be the one which makes the logical possibilities for humanity the *actual* possibilities for individuals.

In *Search for a Method,* Sartre directly attacks the question of the proper role and approach of anthropology and concludes that, indeed, existentialism *is* anthropology "insofar as anthropology seeks to give itself a foundation" (168). Unfortunately, anthropology, and the social sciences in general, tend not to concern themselves with their philosophical foundation nor to concern themselves with the philosophical inplications of their work. We look for facts, about groups, we try to be objective, to bind the facts together — and we lose human reality. The anthropologist, Sartre says, must ask "what is the being of a human being?" "Anthropology will deserve its name only if it replaces the study of human objects by the study of the various processes of "becoming an object" (174). The anthropologist needs, in effect, to become jester-ish, to consciously include himself in the study, to come to understand the culture as composed of other selves, and to understand the others through the understanding of self in relation to the other. The very "foundation of anthropology is man himself" (Sartre: 179), not as the object of knowledge, but as the being producing knowledge.

"Be beginning"

Edward Sapir, quoting
Gerard Manley Hopkins

Social science and humanism. Society and individuals. Cathexis and reason. Authority and rebellion. Generalization, facts, determining forces, cohesion, groups — and specificities, values, liberating forces, individuation, persons. The social sciences in general have developed since the Enlightenment, and more particularly since their coming of age in the early decades of

this century, along one axis, while humanistic scholarship has developed along the other. Nevertheless, the distinction is not an uncomplicated one. Scholars in "the humanities" or in social philosophy may not be humanistic, and scholars in departments of social science *may* be. A prime example of this, and a most instructive one for the case I should like to make here is that of Edward Sapir.

Sapir was a humanist. He wasn't a humanist *because* he was a poet and a pianist, or because he wrote perceptive essays on music and literature and published them in *The Dial, The Nation, The Musical Quarterly* (Mandelbaum, 1964: vii). He wasn't a humanist *in spite* of his critical stance on the need for linguistics to be a science, rigorous, descriptive, value free. He was a humanist because he could clearly descry the relative nature of languages, the wholeness and adequacy of each, and *still* in "The Function of an International Auxiliary Language" (in Mandelbaum: 45-64) call for a language to transcend languages, as an aid in the striving to transcend *all* narrowness. In linguistics and ethnography a relativist, he could still criticize relativism as a conservative force, hindering change. A Boasian, a contemporary of Kroeber, a social scientist interested in social patterns and social realities, he could, in "Psychiatric and Cultural Pitfalls in the Business of Getting a Living" (in Mandelbaum: 172-193) sharply criticize social scientists for losing sight of individuals, and, in "The Emergence of the Concept of Personality" (in Mandelbaum: 194-207), more pointedly accuse them of desiring to lose their own selves in foreign patterns of behavior. Poignantly aware of the human necessity for culture, he could yet write (1922):

> Yet we cannot be sure of legends
> Coming from our wise
> Grandfathers and grandmothers,
> Many of them are lies.
> Our aching hearts can tell us that
> Many of them are lies.

Deeply aware of the binding nature of culture, he could yet point out that its real locus is in the individual and its continued existence depends upon the creative participation of the individual in his cultural heritage. Indeed, in his classic article, "Culture, Genuine and Spurious" (in Mandelbaum: 78-118) he could dare

to offer a definition of cultural health and to assert that the "genuine," healthy, desirable culture is that which promotes the growth of the selves it nurtures, that whose bonds provide the maximum of freedom.

Curiously, it was the work in linguistics of Sapir the humanist which provided the foundation for the development of the school which considers itself of all of current anthropology the most scientific. The thrust of this approach, called variously "cognitive anthropology" or "enthnosemantics" or "ethnoscience" has been to develop the "scientific," relativistic, rule-determining aspect of Sapir's work. It is my belief, however, and the major contention of this paper, that the *implications* of cognitive anthropology and of the related field of structural anthropology, are profoundly humanistic. It seems to me that much that we now understand about human beings as knowers implies at all levels that it is the very nature of humanity to be both creative and, therefore ultimately, free.

On the surface, at least, the extreme of cultural determinism has been reached in the recent work in cognitive anthropology. It is an admitted over-simplification but perhaps fair to state that the central assertion of such cognitive anthropologists as Goodenough, Burling, Sturtevant, Frake, and Spradley is (see Spradley 1972 and Tyler 1969) that each culture provides for itself a series of mental structures which it uses to organize, make sense of, give meaning to the phenomenal world. That is, a culture provides for its members a series of categories, an accustomed place within the taxonomy for its individual traits, and a set of rules governing the assignment of traits, both familiar and unfamiliar. For a human, to live a human life is to live in culture, and to live in culture is precisely to *think* the world, not merely to live it. That is, the world as *sensed* is merely a flux, an inchoate flow, with no natural differentiation. For the human being, the receiving of this flux changes from sensation to perception only as the individual human begins to employ the filter which his culture provides him. This filter, or, better, this grid, consists of categories. Inclusion in one or the other category insures that a sensation will receive attention and will be assigned a meaning drawn from its association with other items in the category. Ex-

clusion from all categories means the ignoring of the item. Thus, for the cognitive anthropologists, to live in a culture is to perceive through its categories and to apply its rules to the phenomenal flux, in short, to live in and through its mental structures. Here is the ultimate in cultural determinism, the implication that thinking is nothing less and little more than the application of culturally specified and culture-specific rules to phenomena which acquire meaning only when so pressed into culturally constituted categories.

The entailment of this view is expressed in the work of what might be called the universalist cognitive structuralists, a category deeply rooted in Kantian epistemology but wide enough to include, for instance, both Noam Chomsky and Claude Levi-Strauss. For them, it is not simply that each culture provides a structure of thinking for its members, but that human culture, Culture itself, proceeds universally along the same lines, providing for all humans, precisely because it *is* all humans, an identical set of "deep structures", an identical biologically rooted process of thinking. Here, opposed to cultural relativism, is a cultural determinism, or perhaps better, Culture determinism, which asserts a psychic unity for mankind and seeks to contradict Sartre's (1963: 152) assertion about "the irreducibility of the cultural to the natural order."

It is, however, through the relation between these two types of apparently opposed determinisms that we must seek the key to human variability, inventiveness, and freedom, for here is the paradox most evident. If the structure of thinking is universal, how does it happen that people do indeed think such varying thoughts and live such varying lives? If there is, in effect, one myth, why are there multiple Demeters, Quetzelcoatls, Coyotes, and Star Husbands? The answer, of course, lies implicit in Chomsky's own work. The structures are inherently empty. They are merely cells, as in a beehive, from which each culture chooses and which it fills with its own clover, buckwheat, or tupelo honey, eggs for drones or queens, or discarded corpses of defeated enemies. In the filling and arranging of the cells, human cultures, unlike bee societies, allow themselves almost endless play. In Childe's felicitious phrase, man makes himself; that is, cultures play with the givens of the structure and the givens of the environment to construct themselves, trait by trait, each in a continuous, historical process.

But much of this has been said before. Cultures have histories, we know; each does indeed shape its historical givens into configurations unique to itself. Our problem remains that of the individual self, its origins and its determination. A. I. Hallowell (1955) has cogently argued that not only the experiencing of the society but also the experiencing of the self and, indeed, the very definition of self-ness are both culturally determined and culture-specific. If he is correct, is not the existentialist position on self-making theoretically impossible from the very beginning?

It would seem to this writer that it is not. To begin with, it would be well for us to remember Melford Spiro's (1951), and before him Sapir's, cogent argument against adhering to a false dichotomy between culture and personality. Culture does not, in fact, exist apart from its existence in persons. A culture is not a thing, exerting some kind of magnetic influence on individuals in a society. It exists *as* the individuals, in a separate version for each, in a unique synthesis for each person of all the influences pressing on him. Anthony F. C. Wallace (1970) has provided for us in the term "mazeway" a concept which includes this view. The individual, he suggests, adopts the culturally provided definitions of the world, of selves, and of the proper place in the world for selves and screens through these given definitions his sensations of the phenomenal world, both natural and social. The individual constructs for himself a cognitive structure, a mental map or grid, which provides for him, we would say, categories for organizing and grasping the sensations of the world and rules for the assignment of items to their proper categories. This mazeway, map, or grid, with its accompanying rules, includes the definition of a self, the criteria for characterizing one particular self in terms of status, role, and value, standards for measuring the performance of that self, and formulae to aid in the interpretation of that self's experiences. A mazeway, then, is an individual mental structure, composed out of cultural givens and live experiences and comprising the individual self.

If this is so, however, how is it that the individual members of a society do not simply duplicate each other? Are not the cultural givens given for the whole culture? Wallace answers that question in the negative when he focuses on cultures. A culture

is not, he suggests, a replication of uniformity, a die stamping out identical designs; it is, rather, an organization of diversity, a general schema holding diverse elements in a semblance of coherence. This answer, it seems, will stand as well for the making of selves. A self is not a replication of a series of uniform others. It is an organization of cultural givens and culturally-filtered diversities into a unique and personal configuration. As Wallace continues, this configuration takes the form of mediating schemata, which filter stimuli and which are themselves, rather than the response *per se,* positively or negatively reinforced. These mediating schemata are at the core of, are indeed, the mazeway itself. In that it is in constant contact with the "outside" world of stimuli and reinforcements, it cannot be a static thing. The self is a bit like a cybernetic machine, constantly adjusting, altering itself. The self (like a culture) is, unless shattered under extreme circumstances, usually in a state of moving equilibrium. Mazeway building, and hence self-building, is an on-going process, and selves move through their own self-generated histories. The human process *is* the action of individuals building, each for himself, a version of the ways-of-being they perceive in each of the other individuals living around them. The fact that they invariably mis-perceive others' mazeway realities is not only not lamentable, it is of positive value in that each person is forced to create for himself a version of what he imagines others to be like. In creating this version, which must exist in only enough congruence with other versions so that he can continue to coexist with them in shared misunderstandings, he is forced to create his own culture *and* his own self, precisely because culture and self are one.

Free will and cultural determinism are, therefore, just like culture and personality, a false dichotomy. Culture bearing and culture building are quite the same thing; being a self and making a self are likewise quite the same thing. "Man makes himself." Men make themselves. It is precisely in the understanding of what culture is — a process — that we find the justification for saying that because the self is culturally determined it is freely made.

Thus, the anthropological studies on cognition and on cognitive structures suggest to us as they do to Chomsky (1971: xi), that we would do well to look for the conditions of human knowledge

and the conditions for human freedom in the same place — human culture. It would seem, at the last, that culture, knowledge, and freedom stand to each other in a tripartite equation. If this is so, if I have accurately taken stock of what anthropology can contribute to our knowledge of humans as knowers, then anthropology can and ought to be, by the very force of what it knows, both an existentialism and a humanism. If anthropology understands the implications of its own created theories, it becomes not a state of knowledge but a process of coming-to-know humanity and, as such, the most jesting of disciplines.

Portions of this paper were given at the Conference on Cognitive and Structural Anthropology, SUNY, Geneseo, April, 1974; other portions were delivered at the 1974 Annual Meetings of the American Anthropological Association in Mexico City.

REFERENCES

BECKER, Ernest
1971 *The Lost Science of Man.* New York: George Braziller

CASTIGLIONE, Baldassare
1528 *The Book of the Courtier.* Everyman Library, New York: E.P. Dutton (1928 edition).

CHOMSKY, Noam
1971 *Problems of Knowledge and Freedom: The Russell Lectures,* New York: Pantheon Books.

ERASMUS, Desiderius
1509-11 *The Praise of Folly,* Leonard Deand, ed. New York: Hendricks House (1946 ed.).

HALLOWELL, A.J.
1955 *Culture and Experience.* Philadelphia: University of Pennsylvania Press.

KAUFMANN, Walter
1956 *Existentialism, From Dostoïevsky to Sartre.* New York: World Publ. Co., Meridian Books.

KOLAKOWSKI, Leszek
1968 *Toward a Marxist Humanism.* New York: Grove Press.

MANDELBAUM, David G., ed.
1964 *Edward Sapir: Culture, Language, and Personality: Selected Essays.* Berkeley: University of California Press.

SAPIR, Edward
1922 *The Nation,* Vol. 115, No. 2977.
1931 *Poetry: A Magazine of Verse,* Sept. 1921.

SARTRE, Jean-Paul
1963 *Search for a Method,* trans. Hazel E. Barnes. New York: Vintage Books.

SPIRO, Melford
1951 " 'Culture and Personality' The Natural History of a False Dichotomy." *Psychiatry,* Volume 14.

SPRADLEY, James P.
1972 *Culture and Cognition:* Rules, Maps, and Plans. Scranton, Pennsylvania: Chandler Publishing Company.

TYLER, Stephen
1969 *Cognitive Anthropology.* New York: Holt, Rinehart & Winston, Inc.

WALLACE, Anthony F.C.
1970 *Culture and Personality.* New York: Random House.

Questions de méthode en psychiatrie anthropologique[1]

Jean BERNABÉ
Université d'Ottawa

SUMMARY

In a first part, this article discusses the problem of the means of knowledge which are involved in the anthropological quest for "the different other". A distinction is made between the subject's "discourse" and his behavior. At a more abstract level, there appears to be a non-symbolised semantic order which presents itself as a set of formal rules characteristic of "discourse" and of behavior. These rules are verbalised in terms of a frame of reference. This latter is a temporal one.

The analysis of a psychiatric case comprizes the second part and leads the reader to clear pictures of cultural "discourse" and behavior. The operations of which are non-cultural in comparison with their social context. Those operations are first "temporal", but evoke for "spatial" and "interactional" analogies as well. They connect in a conceptual manner phenomena which are difficult to combine in the logic of a natural language, e.g. affectional conflicts, geographical, political and social reforms, alcoolism and gluttony. This understanding at a more abstract level retraces, however, fundamental cultural experiences.

Lorsqu'un individu se manifeste, se détachent progressivement les détails de son comportement, ses représentations, ses projets,

[1] Ce texte fut présenté dans une version moins développée au "Séminaire Interdisciplinaire d'Analyse du Discours" rattaché au Laboratoire d'Anthropologie Sociale et Culturelle de l'Université Catholique de Louvain (12 janvier 1976). Les travaux de ce séminaire sont destinés à être publiés dans "Les Cahiers de l'Institut de Linguistique", U.C.L. Nous tenons à remercier les participants au séminaire, et particulièrement le Professeur Albert DOUTRELOUX, pour leur discussion pénétrante et suggestive de notre contribution. Ce texte fut aussi présenté sous la forme d'une conférence à l'Hôpital Universitaire Brugmann, Institut de Psychiatrie (Bruxelles, 5 février 1976).

ses préoccupations... Dans un langage abstrait, nous disons qu'il produit des unités de signification. Elles se constituent à nos yeux par la découverte progressive de leurs relations réciproques. Elles n'existent que par et dans le rapport avec ce qui est distingué comme étant différent. Leur pouvoir d'établir une communication implique une valeur interindividuelle, tout au moins supposée par les acteurs. Cependant il arrive qu'au-delà d'une connaissance perceptive des symboles de communication, le sens voulu par l'auteur reste trop contradictoire, insaisissable, surprenant... Lorsque ce sentiment se généralise et se fait systématique, les communications insatisfaisantes ne sont plus "repêchables" par des ententes immédiates. Alors se pose la question des moyens de connaissance qui seront appliqués à cet objet et qui influenceront inévitablement sa constitution[2]. Par rapport à cette question nous ne distinguons pas de différence entre le travail de l'anthropologue et celui du psychiatre. Tous deux sont chargés de reformuler dans leur langage propre une "logique" qui est différente de celle appartenant à leur système de comportement, et en particulier, de communication. Cette "logique" peut se présenter indifféremment sous la forme d'informations ethnographiques ou de phénomènes qualifiés de "névrotiques" ou "psychotiques"[3].

Avant de présenter une méthode qui tente de répondre à cette tâche en exploitant les moyens d'expression de l'objet, nous aimerions définir la démarche de l'anthropologue par rapport à celle qui est qualifiée de "sociologique". Nous faisons appel à quelques présupposés philosophiques qui les différencient.

Prenons la question des déterminismes sociaux. On a cru que des enquêtes épidémiologiques pourraient offrir une base empirique suffisamment solide pour contribuer d'une façon significative à l'explication de désordres mentaux qui ne sont pas attribuables

[2] Pour une mise en situation de ce problème, voir: BERNABÉ, J. & PINXTEN, R. 1974: 279-280.

[3] "La pratique constitutive de l'anthropologie est posée dès lors qu'une discipline ou une science quelconque pose la question de l'Autre et s'emploie à y répondre à partir de la pratique quotidienne — qu'on la nomme civilisation, culture ou autrement"; et sur la "pratique quotidienne": "Il n'y a pas ici effort de l'intelligence pour se dépasser elle-même à partir d'elle-même. L'effort, plus audacieux et modeste à la fois, est de s'ouvrir en cherchant et recevant l'interpellation de l'Autre lui-même dans sa manifestation la plus prosaïque" (DOUTRELOUX, A. 1975: 52).

à des causes physiologiques ou biologiques. L'opération consiste à rechercher des facteurs qui influencent une distribution donnée de faits pathologiques dans l'espace et dans le temps d'une population (Lin, Tsung-yi & Stanley, C.C. 1962: 10). D'après cette méthode, la reconnaissance du caractère déterminant de certaines variables sociales dépend des différences constatées dans les fréquences des désordres. Fixer ces dernières n'est cependant pas chose facile[4]. Mais la démarche qui consiste à "reconnaître" dans des cultures différentes (souvent des cultures traditionnelles) des phénomènes canalisables dans des concepts psychiatriques qui nous appartiennent, peut présenter un intérêt anthropologique majeur. D'abord, par la similitude des symptômes, malgré un relativisme culturel prédominant. En second lieu, par la façon dont ces symptômes sont reconnus par le groupe et sont investis d'un sens contextuel spécifique. La question qui vient à l'esprit est celle de la dynamique de l'unité de manifestation, et cela au sein de systèmes conceptuels et émotionnels différents.

Le sociologue se dirige essentiellement dans le sens de la recherche d'éléments qui participent à une causalité complexe et qui peuvent être qualifiés de stimuli sociaux pour des comportements donnés. Comme la philosophie behavioriste, il s'agit d'une pensée en deux temps. Et ajoutons: en deux espaces. Car le déterminisme social implique la distinction entre individu et groupe. Cette double dissociation est exactement ce que l'anthropologue évite, non pas par esprit de contradiction, mais parce qu'il part d'un type différent d'interrogation. C'est l'homme à travers ses fonctions organisatrices qui forme l'objet du discours anthropologique, non pas "l'individu" qui agit ou qui réagit par rapport à ce que la "société" lui propose. L'homme étant producteur et reproducteur de symboles qu'il organise, la pratique des sciences du comportement devient en premier lieu la recherche d'une certaine "raison", où le passé et le futur sont ce qu'ils semblent être dans le présent, et où l'individu s'affirme en produisant des structures de

[4] Une critique souvent formulée à l'égard des enquêtes quantitatives cherchant à établir des corrélations, revient à mettre la consistance du variable psychiatrique en doute. En effet, un consensus quant aux définitions nosographiques n'existe certainement pas, ni des systèmes de classification, ni des stratégies des enquêtes. Si on veut faire des comparaisons interculturelles, on ne dispose souvent que de données incomparables de par les caractéristiques des méthodes utilisées.

comportement, que celles-ci servent une intention de communiquer ou non.

Mais à travers nos sources de connaissance que sont le discours oral et gestuel se dessinent des structures implicites, durables et de nature interindividuelle, qui constituent un "comment" imperceptible au premier abord, mais que nous cherchons à conceptualiser. Nous verrons que dans cette optique, l'individu se trouve comme à la surface sensible d'une pensée, qu'il vivra probablement, mais qu'il n'est apparemment pas tenté de capter par la parole.

L'ANTHROPOLOGIE COGNITIVE COMME BASE D'UNE PSYCHIATRIE ANTHROPOLOGIQUE

Nous distinguons analytiquement trois types de langages: ils se présentent comme deux formes d'engagement et d'un ordre sémantique non-symbolisé. Ce dernier "langage" sera défini sur la base des deux premiers. En quelques mots, il s'agit d'analyser une vision du monde explicite et implicite, c'est-à-dire les modèles d'action, de communication et d'interaction auxquels participe un individu.

A. *Le Discours*

Il consiste en la conceptualisation verbalisée par l'individu d'une façon d'être dans le monde. Ce discours produit des segmentations et des sélections de concepts qui peuvent être l'objet de méthodes telles que les utilisent les ethno-sémanticiens et les psycholinguistes. Toute sémantique, même lorsqu'elle est qualifiable de strictement individuelle, implique des unités qui se définissent par leurs différences réciproques et par leurs inclusions spécifiques. Le discours se présente comme une conscience qui se dit et qui par ce fait, s'affirme comme une individualité fonctionnelle.

B. *La Pratique*

Tout comme le discours, l'action est un moyen de créer et de communiquer des symboles et des grammaires. Lorsqu'ils concernent les mêmes domaines d'attitude et d'interraction, l'on peut prédire dans la plupart des cas que ces deux formes d'engagement

marqueront des différences. Cette confrontation doit permettre d'établir des relations significatives avec des phénomènes qui sont restés non-exprimés; c'est-à-dire, des significations implicites qui sont repérables à partir de la différence observée.

Le langage verbal devient une "pratique" d'autant plus significative lorsqu'il présente des transformations personnelles de systèmes symboliques donnés: par exemple, la "désarticulation" des temps verbaux dans le langage de certains psychotiques[5].

C. *Les Sens Non-Symbolisés*

Ce troisième niveau de signification consiste en des sens implicites aux discours et à la pratique. Ils ne complètent pas les relations observées par des développements empiriques; ils indiquent au contraire une pensée vécue, mais qui n'est traduisible que dans les termes d'un langage scientifique. Il ne s'agit pas ici de dégager un "inconscient" qui posséderait un statut indépendant et abstrait et qui serait "reconnu" sous une forme personnalisée. Si les faits indiquent des sens non-symbolisés, c'est parce que nous leur aurons appliqué un cadre de référence de type logique.

Lorsque nous parlons de sens non-symbolisés, nous avons à l'idée des sens avec lesquels les intéressés opèrent, mais qu'ils n'expriment pas sous des formes individualisables. Pour illustrer ce phénomène, il suffit d'un exemple déjà utilisé dans notre article sur le temps: alors que pour l'Africain, la conception d'un futur éloigné (sauf mythique) n'existe pas, pour l'Occidental, l'absence d'une perspective future accompagne et produit souvent un déséquilibre mental grave[6]. D'autre part, il apparaît dans l'anthropologie de la connaissance que le concept "temps" est culturellement très variable. Pourquoi le temps, malgré cette relativité, indique-t-il une charge existentielle déterminante? Pour répondre à cette question il nous faut disposer des moyens pour dégager la philosophie du temps propre à une vision du monde particulière.

[5] Notre tâche est de repérer la logique interne de cette "désarticulation", ainsi que de la dissociation par rapport à un langage "culturel". Plutôt que de les considérer comme un chaos, ou une chaotisation, c'est la recherche d'une "raison vécue" qui nous anime.

[6] Une image plus nuancée du temps africain se retrouve chez MBITI, J.S. 1969: The Concept of Time. Pour la temporalité psychiatrique, voir par ex. BINSWANGER, L. 1958 (1944-1945); HANNIBAL, O. 1955 etc.

Le discours et la pratique n'épuisent certainement pas toutes les ressources ni toutes les exigences mentales. Cependant, au niveau de la pensée implicite, nous ne disposons d'aucun langage qui appartienne à notre objet. Il nous faut donc nécessairement utiliser un langage scientifique, et celui-ci est par définition indépendant de l'individu analysé. Le statut empirique d'un tel langage peut certainement être l'objet de discussions. Bien que son utilisation soit de toute évidence un artifice, il constitue pourtant le seul moyen de déterminer d'une certaine façon pourquoi l'Africain se sent bien avec une philosophie qui met l'homme occidental mal à l'aise.

Plusieurs langages scientifiques peuvent être développés au bénéfice de la richesse analytique des recherches en psychiatrie et en anthropologie: par rapport au temps, à l'espace, au monde des objets, à l'individualité physique et spirituelle, aux relations avec les autres[7]. Nous avons choisi le "temps", parce que nous cherchons surtout à comprendre l'immédiateté d'une dynamique. La recherche de structures concerne trop souvent, on l'a dit, des formes qui deviennent des objets différents dans la mesure où ces formes sont changeantes. Le temps est structuré, il est parfois symbolisé, mais surtout, il constitue une pensée non-symbolisée, c'est-à-dire, un "présent en perspective" qui n'est définissable qu'à l'aide d'un cadre de référence.

Celui-ci consiste en un certain nombre d'opérations dont des combinaisons différentes indiquent des philosophies du temps différentes. Il n'impose donc pas de combinaisons spécifiques qui formeraient un cadre formel. Seuls deux relations primitives constituent des données universelles: a/ la distinction entre ce qui est considéré comme existant et non-existant; b/ la relation avant-après.

La philosophie du temps propre à une vision du monde se distingue à travers les faits observés, par la reconnaissance des caractéristiques temporelles de la combinaison dans laquelle ils sont

[7] Ces éléments furent combinés d'une façon particulièrement impressionnante par L. BINSWANGER dans son analyse du cas "Ellen West" (*op. cit.*). Cependant, pour produire une compréhension de ce cas, nous avons l'impression que l'auteur fait usage de concepts appartenant à des philosophies existentielles qu'il accepte comme étant *a priori* significatifs. Voir aussi: HALLOWELL, A.I. 1955; SCHUTZ, A. 1962: 230-231 (cognitive style).

impliqués. Cela signifie que ce cadre de référence peut être appliqué à tout ordre de faits, sans que la richesse ou l'originalité de l'objet en soit pour autant réduite[8]. Étant donné que le temps non-symbolisé ne devient significatif à nos yeux qu'à travers une certaine combinaison d'unités de signification, son "signifiant" ne peut être que le "discours" et/ou la "pratique", et seulement sous la forme de caractéristiques qui seront verbalisées dans les termes d'un cadre logique de référence.

En résumé, l'interrogation anthropologique devient une façon de laisser se révéler une vision du monde par celui qui la conçoit et qui la vit. Seul, lorsque des sens restent inaccessibles à la symbolisation, bien qu'étant opérationnels, nous devons faire appel à un langage logique qui est en soi impersonnel, mais qui se concrétise et s'articule dans les termes d'une pensée particulière.

LE CAS DE JEAN-PIERRE[9]

Voici un homme de 35 ans, célibataire. Malgré sa situation de fonctionnaire modeste, il est cultivé dans la tradition des grandes familles nobles. La maison comptait 6 enfants, dont un est mort dans un asile psychiatrique.

Le pouvoir domestique repose dans les mains de la mère; le père étant à ce point de vue, effacé. Il fit une brillante carrière administrative et continue au sein de la famille d'être reconnu comme un exemple moral de grande valeur. Les ascendants féminins directs de la mère, surtout la grand-mère, montrèrent de rares qualités intellectuelles et artistiques, et pas mal de bizarreries vaguement qualifiées de "folie". Ce qui caractérise la mère et la grand-mère de Jean-Pierre, c'est une exceptionnelle persistance accompagnée d'une insistance dans leurs vues. Ne pas s'imposer par les arguments dans les relations personnelles implique la perte du "pouvoir vivre". La mère n'a jamais exercé de profession, ni vraiment rempli le rôle de ménagère. Elle possède par contre une intelligence et une habileté rhétorique remarquables ainsi qu'une activité débordante dans ce domaine qui s'applique à toute relation sociale.

[8] Ce cadre de référence constitue l'objet de notre article: "Temps et Conception du Monde".

[9] Le nom est fictif.

Pendant la guerre, et en l'absence de sa mère, Jean-Pierre avait une nurse. Lorsque celle-ci a dû se séparer de l'enfant alors qu'il avait trois ans, il a vécu onze jours sans dormir, assis dans son lit et regardant devant lui. Après avoir retrouvé sa nurse, il a refusé pendant un temps de la reconnaître. Plus tard, étant donné ses talents pour la musique et le dessin, la mère l'a beaucoup encouragé dans ce sens. Le père nous dit: "elle voyait en lui l'incarnation de tout ce qu'elle avait désiré être. L'enfant était adulé à cause de ses talents. Il y avait entre le fils et la mère une intimité particulière". La mère qualifie son fils à cette époque d'anormalement "équilibré" et "d'insouciant". Il semblait si sécurisé par elle, qu'en sa présence il lisait un livre d'aventure dans l'antichambre d'une salle d'examen de musique, en attendant que son tour vienne.

À la fin de ses études secondaires il semblait ne plus pouvoir accepter la tutelle de sa mère. Ce refus s'exprimait surtout, malgré et à cause de l'insistance de celle-ci, par l'abandon de la musique. Il affirmait continuellement "je veux me réaliser". La mère fut profondément blessée par la décision de son fils. Alors, elle a choisi pour lui la carrière d'architecte. Il a refusé, tout comme il a rejeté la foi chrétienne, ce pilier moral de la famille. C'est alors un moment que la mère décrit par: "il a perdu confiance en moi". Cette expression est stéréotypée et elle rappelle chaque fois l'importance majeure accordée à cet événement dans l'histoire de la famille vue par la mère. C'est alors que le fils commence des études de philosophie, interrompues après un an par un échec et par l'exigence de la mère qu'il quitte la maison pour l'étranger. Après quatre ans et plusieurs prétendus échecs amoureux et universitaires, il rentre en Belgique dans la maison familiale. Les conflits entre le fils et la mère se développent alors continuellement, comme s'ils étaient menés par une nécessité intrinsèque à leur relation. La mère l'installe donc dans une chambre en ville. À ce moment, il connaît une jeune fille à qui il demande de l'épouser après une deuxième rencontre. Devant ses hésitations, il se fait agressif, et elle choisit un autre compagnon avec lequel elle se marie rapidement. Tout comme lors d'une déception précédente, il harcèle la fille de centaines de lettres, lui exprimant son mépris, lui demandant de rompre avec son mari, tout en la rejetant comme indigne.

L'essentiel de ses commentaires concernant ses affaires amoureuses se résume par cette phrase: "le refus d'affection est quelque chose de terrible".

Une nouvelle "affaire" permet de distinguer trois champs de communication qui reflètent la stratégie du message indirect qu'utilise Jean-Pierre dans le conflit d'identité qui oppose la mère et le fils:

a) Il se fait de plus en plus insistant auprès d'une jeune fille qui ne désire pas le voir; tout cela en usant abondamment de lettres et du téléphone. Il communique intensément avec la mère de la fille, dans le même but.

b) Après les insistances, les lettres deviennent insultantes. C'est alors qu'après avoir envoyé une lettre, il communique avec son père pour lui dire ce qu'il a fait. Ayant ses antécédents à l'appui, il s'affirme comme irrésistiblement poussé, mais en ayant l'air de s'excuser de son déséquilibre.

c) Il communique ainsi avec sa mère sous la forme de la prolongation d'une lutte pour la vie, qui pour l'une signifie sa "vérité" ("il a fait le mauvais choix") et pour l'autre son "indépendance". La mère réplique en lui écrivant et en communiquant avec leurs amis communs. Son interprétation se reflète dans cette phrase: "c'est le diable qui se manifeste à travers lui, car n'ayant pas cru au mal, Dieu a voulu me prouver son existence". Le fils prétend qu'il ne trouve pas d'équilibre à cause de sa mère qui l'accapare, et qu'il ne peut donc pas établir une relation sentimentale. Ses lettres à ses "fiancées" s'intègrent de cette façon particulière dans l'interminable correspondance qui constitue la modalité générale d'après laquelle le conflit entre la mère et le fils se verbalise.

Face à ses amis, Jean-Pierre produit un discours conformiste. Mais il donne l'impression de reproduire des connaissances, surtout géographiques et historiques, à vide, sautant d'un sujet à l'autre, hésitant continuellement, se débattant avec les mots, comme s'il fonctionnait à deux niveaux dissociés qui interfèrent. Lorsqu'il communique son comportement à ses amis, il en parle rarement d'une façon directe, mais en termes d'hypothèses. Si on lui demande s'il parle de lui, il refuse de reconnaître encore le sujet de la discussion. Il fait l'apologie du développement harmonieux

d'une personnalité, cite Kant comme l'exemple d'un homme qui a brillé dans la philosophie, mais dont l'activité unilatérale lui semble trop limitative. Cette considération contraste avec le reproche qui lui est fait de reproduire toujours le même comportement "malade". Enfin, le fait qu'il refuse toute forme d'intervention psychiatrique et qu'il produise des comportements punitifs envers une amie qui l'a subtilement décrit à ses propres yeux en utilisant un discours philosophique, indique une dissociation voulue entre ce qu'il considère être sa vie publique, qui se situe uniquement sur un plan conventionnel, et ce qui submerge cette "culture" comme un flot répété, c'est-à-dire, le vécu, appelé sa "vie intime". La première s'adresse à ses collègues, à ses amis et aussi à ses parents, mais avec une intensité dégressive qui définit un degré d'intimité. La communication du vécu se fait d'après une échelle inverse. Le collègue ne connaît jamais ses tensions, et les "fiancées", après peu de temps, ne connaissent qu'elles.

Le rythme vital du personnage se caractérise essentiellement par un mouvement pendulaire entre deux pôles. Dans ses relations sentimentales ils se concrétisent comme suit:

a) L'identification de son espace vital à celui d'une femme qui l'aimerait. Cette relation n'est cependant ni préparée ni développée; elle est brusquement introduite par lui-même. La précipitation avec laquelle il tente de créer une relation affective en indique le caractère absolu et discontinu, puisqu'elle ne s'établit pas par un échange progressif de communications. À la suite d'une frustration de son désir, il reproduit face à ses "fiancées" le comportement qu'il a dans les conflits avec sa mère: le détachement agressif par correspondance. Il communique son retrait face à celle qui "lui refuse l'affection" par un déferlement de lettres d'indignation qui dure des mois et qui ne peut être arrêté que par des interventions extérieures. La correspondance se prolonge alors à l'adresse de sa mère.

b) C'est déjà l'affirmation du deuxième pôle: l'individualisation et l'indépendance affirmée par rapport à l'autre. L'absence générale d'un rapport de dépendance entre les êtres constitue même le sujet d'un essai de philosophie sociale, où Jean-Pierre généralise à toute organisation de groupe la nécessité de l'indépendance et de la reconnaissance de la personnalité individuelle. Dans cette tentative politique, le vécu se culturalise en se faisant discours.

Voici les principales relations avec les autres qui sont caractérisées par l'affirmation répétée et exclusive du besoin d'intimité ou de détachement:

FUSION	DÉTACHEMENT
a° relation avec la nurse	a°° refus de reconnaître la nurse
b° relation avec la mère	b°° il veut "se réaliser"
c° recherche d'une relation sentimentale	c°° mépris envers la fille et condamnation de son retrait

Mais limitons-nous à l'histoire présente. En dehors de ces deux pôles et du mouvement pendulaire qui les organise, il n'y a pas de tension vitale. Lors des accalmies ou des absences de tension relationnelle, Jean-Pierre se désintègre dans une série de moments discontinus qui ne valent que pour eux-mêmes. Dans ces moments de calme, sa seule activité en dehors de son travail routinier consiste à visiter des restaurants et des "cafés" et d'ingurgiter des liquides, notamment de l'alcool et de la nourriture. Il s'agit d'un besoin irrésistible. À part les mouvements qui consistent à se différencier et à fusionner, il brise toute forme de continuité dans une existence qui ne trouve sa détermination que dans une répétition. Incapable de vivre des situations dont l'une est conçue comme un moyen pour atteindre l'autre, il se décompose en une multitude de présents isolés et immédiats, et où la reconnaissance physique du monde et de soi permet d'atteindre une plénitude qu'il lui faut cependant continuellement réalimenter. Être, devient être maintenant. Le passé n'est pas en fonction d'un présent, tout comme le futur ne l'est pas. L'identité de la satisfaction se caractérise par une permanence saccadée d'une action qui consiste à "remplir".

Les actes d'ingurgitation se réalisent rarement dans la solitude, mais presque toujours dans un lieu public. Le fait de se plonger dans une communauté qui ne sollicite aucune communication, ainsi que la consommation de nourriture et de liquide, permettent de s'immobiliser et de confirmer la neutralité de l'espace humain.

En résumé, les structures temporelles que l'on peut dégager du comportement dominant de Jean-Pierre répondent aux deux types de connexions les plus simples[10] repris dans notre cadre de référence (voir notre article, 1974:343):

a) la connexion par identité sous la forme d'un enchaînement d'un couple d'attitudes contrastées. Ceci pour les relations féminines;

b) la connexion par identité de situations ayant une valeur émotionnelle comparable. Cette dernière forme d'enchaînement implique la répétition. Car l'ingurgitation se fait en un temps relativement court et se poursuit immédiatement dans un autre établissement. La discontinuité temporelle est accentuée par la discontinuité spatiale qui annule toute esquisse d'attachement à un lieu.

La répétition d'éléments identiques et absolus se retrouve d'ailleurs sur le plan d'une conceptualisation explicite. Ainsi, en dehors des moments de tension, Jean-Pierre restructure le monde habité sur les cartes d'un atlas en y dessinant des hexagones de dimensions plus ou moins égales et qui se touchent. Ceux-ci possèdent tous une capitale au centre. Une interprétation familiale[11] paraît très significative. Jean-Pierre affirme que chaque hexagone se compose de 6 triangles équilatéraux. Étant donné que la famille se compose de six enfants, et que le centre du pouvoir est incarné par la mère, il est possible de considérer cette réorganisation spatiale du monde comme une prolifération et une généralisation de la situation familiale. Le père se trouverait chaque fois à la base d'un triangle en compagnie d'un enfant, et tous deux face à la mère. Puisque les côtés des triangles sont identiques, ils exprimeraient une uniformisation des relations familiales au bénéfice du pôle central qui devient ainsi largement dominant.

Il s'agit là d'une cosmogonie. Et le modèle géométrique d'après lequel elle se forme est confirmé par l'essai de philosophie sociale

[10] La simplicité et la primitivité des structures temporelles observées dans ce cas semblent confirmer l'hypothèse de R. PINXTEN selon laquelle "The schizophrenic tries to reconstruct the complex, highly differentiated, multimeaningful adult world by means of an apparatus that was originally appropriate for the much simpler, less populated world of the child" (PINXTEN, R. 1974: 3).

[11] Nous remercions le Professeur M. BELUFFI de Milan de nous avoir suggéré cette interprétation.

qui propose l'instauration de rapports réversibles et égalitaires sur les plans économiques, sociaux, juridiques, familiaux etc. Jean-Pierre y accentue l'égalité des droits ainsi qu'une fluidité absolue dans les mouvements à l'intérieur des structures sociales, les simplifiant et les dévitalisant ainsi à l'image de son hexagone. Quant au "centre", il ne pourrait être que l'auteur de l'essai. Il créerait le monde sous une forme neutre, lui permettant d'exister en se généralisant. Ce monde serait comme une "brasserie".

S'il est vrai que ces éléments géométriques constituent des symboles de ce que nous avons appelé une pensée non-symbolisée, cela n'implique pas une infirmation de ce statut, car la discontinuité est un concept ajouté à partir d'un cadre de référence général. Celui-ci peut être "temporel", "spatial" ou autre. Il est évident que nous "reconnaissons" plus facilement ce qui est concrétisé matériellement. Plus "claires" que les structures temporelles toujours très éthériques, sont les structures spatiales, et surtout les attitudes corporelles. Lors des moments de tension émotionnelle dans le cadre d'une relation féminine, les paupières sont très écartées, alors que le corps tout entier ainsi que la démarche et le visage expriment une forte tension donnant un comportement continu. Dans les périodes de calme, nous remarquons une rigidité dans la démarche qui est saccadée et une absence passive dans l'expression du visage, qui s'anime et se tend lorsqu'il boit du liquide. Alors, les yeux s'ouvrent très grand, la tête est rejetée vers l'arrière et elle reproduit le rythme spontané de l'enfant allaité.

Face à face se trouvent un système d'éléments "culturels"[12] qui se reproduit comme une "roue libre" et un "vécu" qui semble exclusivement individuel, dans ce sens que l'on ne peut pas y participer. Les signes qui jaillissent de ce niveau de la personnalité ne sont pas reconnaissables par les autres. Il est donc qualifié de "malade" par excès d'individualité. Dans le cas Jean-Pierre, individu et société se différencient et se constituent comme des entités qui s'excluent mutuellement par la non-communication de leurs

[12] Dans une acception générale, nous entendons par "élément culturel", chaque forme (symbole linguistique, comportement, objet ...) dont un sens est partagé ou partageable sur le plan interindividuel. La qualité culturelle peut donc dépendre de l'attention que l'on porte à une forme. Ainsi, la folie se culturalise en tant que comportement non-conventionnel à travers le langage psychiatrique.

logiques. Le langage verbal est repris par l'individu, tout comme l'intégration dans le fonctionnement du monde matériel et social, mais ces symboles conventionnels signifient soit une imitation inconsistante, soit un monde incommunicable. C'est dans la découverte de cette logique isolée que se situe la signification des sens non-symbolisés. C'est ainsi que les structures temporelles offrent le moyen de relier conceptuellement les conflits affectifs, l'étylisme, la gourmandise et la réorganisation sociale.

Enfin, il nous faut considérer ce non-conformisme comme une fonction de l'ambivalence à l'intérieur des relations interindividuelles. Étant donné l'exigence d'individualité d'une part, et l'absence d'échange d'autre part, celles-ci signifient l'affirmation de soi sous la forme d'un dédoublement dans un "autre" identique. C'est en fait une analogie de la mort pour l'interlocuteur qui s'y trouve annulé. Quant au sujet, il lui faut continuellement conquérir son existence à travers l'autre soi-même. Nous voici également devant le modèle rhétorique et relationnel de la mère, et ce que G. Bateson appelle une situation de "double contrainte" (Bateson, G., e.a. 1956).

La double contrainte se définit dans ce cas par:

a/ une injonction négative: "si tu n'es pas toi-même, tu n'es pas respectable";

b/ une injonction contradictoire de nature plus générale: "ma façon d'être est la seule valable";

c/ une pression continue d'ordre rhétorique (la mère) ou épistolaire (la mère et le fils) qui empêche d'échapper à l'actualité de cette contradiction.

L'hostilité sous la forme des exigences de conformisme du domaine culturel et sa présence fonctionnelle, accentuent la dissociation du vécu et intensifient l'angoisse qui l'accompagne. Répondre à cette angoisse, signifie formaliser les informations culturelles en les simplifiant. Les modalités de cette réduction ne sont pas des créations intellectuelles faites à partir de données de cette "culture", mais des généralisations symboliques de la situation familiale. Le monde et sa dynamique interactionnelle sont donc redéfinis, et cette "mise en forme" semble apaisante. En effet, Jean-Pierre ne

défend sa révolution que dans la mesure où on la contredit. Quant à sa réalisation, elle se fera "peut-être dans 200 ans".

L'expression la plus marquante de cet univers dissocié est la régression de l'espace et du temps vécus par rapport aux informations disponibles. À part ce que nous avons dit à ce sujet, il y a un fort contraste entre deux faits dont le premier est une connaissance et un intérêt exceptionnels pour la géographie et l'histoire objectives. Celles-ci se caractérisent par leur continuité, leur complexité et leur universalité. D'autre part, nous constatons chez Jean-Pierre une intense fragmentation temporelle et spatiale et une désorientation dans des villes qui sont étrangères à son univers quotidien. Une crise grave se produisit lorsqu'il se rendit accompagné dans une ville italienne en croyant qu'il pourrait y être interné. Hagard et mécanique, il se déplaçait dans un vide qui l'enfermait. À ce moment la confusion spatio-temporelle et le besoin de boire du liquide envahissaient chaque instant.

RÉFÉRENCES

BATESON, G., JACKSON, D.D. HALEY, J., WEAKLAND, J.
1956 "Toward a Theory of Schizophrenia". *Behavioral Science,* 1956: 251-264.

BERNABÉ, Jean
1974 "Temps et Conception du Monde. Recherche de Principes Déductifs pour leur Approche en Anthropologie Cognitive", *Diversification within Cognitive Anthropology,* Bernabé, J. & Pinxten, R. (eds.), Communication & Cognition, Vol. 7, 3-4: 335-350.

BERNABÉ, Jean et PINXTEN, Rik (eds.)
1974 *Diversification within Cognitive Anthropology,* Communication & Cognition, Vol. 7, 3-4: 279-465. Seconde édition: *Ibidem,* C & C Monographs, nr 7, Lisse: Swets & Zeitlinger.

BINSWANGER, Ludwig
1958 "The Case Ellen West", *Existence. A New Dimension in Psychiatry and Psychology,* édité par May, R., Angel, E., Ellenberger, H.F., New York: Basic Books, Inc.: 237-364. Titre original: "Der Fall Ellen West", *Schweizer Archiv für Neurologie und Psychiatrie,* 1944, Vol. 53: 255-277; Vol. 54: 69-117, 330-360; 1945, Vol. 55: 16-40.

DOUTRELOUX, Albert
1975 "Un Sens pour une Anthropologie", *Recherches Sociologiques*, nr. 1, mars 1975: 50-61.

HALLOWELL, A. Irving
1955 *Culture and Experience*, Philadelphia: University of Pennsylvania Press.

HANNIBAL, Otto
1955 "Das Zeiterleben in der Schizophrenie", *Studium Generale*, Heft 10, Nov. 1955: 607-611.

LIN, Tsung-yi et STANLEY, C.C.
1962 *The Scope of Epidemiology in Psychiatry*, WHO Public Health Paper, nr 16, Genève.

MBITI, J.S.
1969 *African Religions and Philosophy*, London: Heinemann.

PINXTEN, Rik
1974 *The Primary Constitution of the Semiotic World in the Individual and its Destruction in Schizophrenics*, Paper presented at the I.A.S.S., Milano (texte dactylographié).

SCHUTZ, Alfred
1962 *Collected Papers*, I, The Problem of Social Reality, La Haye: Martinus Nijhoff.

Sponge Markets of Kalymnos[1]

H. Russell BERNARD
West Virginia University, Morgantown

RÉSUMÉ

Cet article décrit le processus de mise en marché des éponges sur l'île grecque de Kalymnos. En suivant les différents partenaires des transactions dans leurs négociations, nous voyons les relations entre les facteurs sociaux et économiques qui influencent le marché. Il est particulièrement intéressant de noter le système institutionnalisé de collusions entre acheteurs et vendeurs pour exploiter les producteurs premiers d'éponges. Les producteurs sont vus comme participant à cette collusion par leur acceptation du système. On analyse les profits et les pertes tant sociales qu'économiques.

This paper describes the operation of the sponge market on Kalymnos, an island in the Dodecanese area of Greece. The time is 1964-65, towards the end of an era during which sponge fishing completely dominated the economic, political and social affairs of Kalymnos. Beginning in 1960, synthetic sponge began cutting seriously into Kalymnos' markets. By 1970 the sponge industry on Kalymnos was near collapse and only government subsidy saved it. As fas as I could tell, however, the markets of 1965 were conducted in the manner which had become traditional on the island since the early part of this century.

[1] Parts of this paper were delivered at the American Anthropological Association Meetings, Seattle, 1968. Edward M. Bruner and David Plath gave valuable criticism and professional support for the research. Financial support was received from the Social Science Research Council and NDEA Title IV Fellowships. This work has also profited from conversations with Ernestine Friedl.

Kalymnos is mostly rock. About 18% of its 49 square miles is arable and only a small part of that is under cultivation. There are very few wells or irrigation facilities and fresh water is at a premium. In 1968 about eleven percent of the foreign exchange in the Kalymnian economy was from agriculture, and most of this was from the citrus crop in a single fertile valley. Like many of the rather barren Greek islands, the economic focus of Kalymnos is on the sea and beyond. Overseas migration for work (including the merchant marine) and sponge fishing have long traditions on Kalymnos. At least 5300 overseas migrants are known to have left Kalymnos in this generation and their remittances are a very important source of hard currency. Forty percent of the foreign exchange in 1968 came from remittances by men in the merchant marine and from migrants to foreign lands. Another 30 percent came from foreign sales of sponges.

Remittances averaged $30 for each Greek resident in 1968. On Kalymnos they averaged $138. The balance of trade in Greece for 1968 was $75 in the red for each resident. On Kalymnos the trade balance was in the black by $120 for every person on the island. The healthy economy of Kalymnos has been helped by government subsidy and construction since the Dodecanese were remanded back to Greece in 1948.[2] Kalymnos has thus not experienced the massive migrations which depopulated so many rural areas of Greece in the 1960's. The 1960 census showed 15,000 inhabitants, and the 1970 census recorded 13,000. The most important single factor for this economic and population stability has been the sponge industry.

Sponge fishing operates on a yearly cycle. In January the captains of the boat recruit their men from the island's labor pool. About 500 men went to sea on three dozen vessels in 1965. The boats are painted and caulked during February and March. The fleet leaves around Easter time, sailing across the Mediterranean to the waters off the North African coast where sponges have harvested for six to seven months. Around the end of October

[2] A full treatment of these factors has been presented in H. R. Bernard, "Kalymnos: island of the sponge fishermen" in *Technology and Social Change*, ed. by H. R. Bernard and Pertti Pelto, MacMillan Co., 1972.

the sea becomes choppy and the water turns too cold for comfortable diving. The fleet returns in early November; sponge catches are cleared directly through the port of Kalymnos as imported produce for merchandising; then the captains begin their bargaining with the local sponge merchants.

The buyers were traditionally an aristocratic class on Kalymnos. Although sponge captains often became wealthy, the landed merchants and professionals held the captains in contempt as seafarers. ("They're never at home; what kind of life is that for a family?") During the annual card-playing and gambling period (December 6 — January 6) on Kalymnos, the big-money games are played by the landed merchants and sponge buyers. Many captains could afford to play for the stakes in those games, but they are almost never invited.

At the bottom of the social ladder (from the viewpoint of the landed classes) are the divers — a group of perhaps 600 during the heyday of sponge fishing in 1912, and about 150 in 1965. Being a diver is dangerous; one can not walk around Kalymnos even today without seeing men in wheel chairs or on crutches — victims of the bends. Some merchants on Kalymnos still hold the divers in the lowest form of contempt:

> They are a cancer on the island. They drink and carry on with women and they are a disgrace. Thank God the divers are gone during the summer when tourists might come. Otherwise, what would they see? Drunken bums, that's what!

Many non-seafaring Kalymnians talk glibly about the promiscuous sexuality of divers' wives. (There is no evidence that divers' wives are less faithful than upper class women.)

In spite of their contempt for the divers, the middle and upper classes of Kalymnos honor them every year with a fête, wishing them a safe journey and a safe return. Without the divers risking their lives there would be no influx of European currency, no jobs for hundreds of support personnel on land and at sea, and no mercantile class on the island. For their part, the divers are indeed a hard drinking, raucuous group, at least during the first decade of their career. By the time a diver reaches 27 or 30 years of age, there is a tendency to become more sedentary, more family oriented,

and less reckless. During their youth, however, divers are grudgingly accorded a licence for anti-social behavior by the landed classes.

Moreover, the financial rewards of diving are high. Most divers earn about $2000 in six months — two and half times what a similarly educated laborer earns in a year. They receive most of the earnings in advance. This money is called *platika.* At sea, the divers work three times a day for a total of 1.5 or 2 hours at most. During the remainder of the day they read, chat, rest, and sip coffee prepared for them by deck hands. To earn these rewards divers take life-and-death risks. Their casualty rates are high, and obvious for all on Kalymnos to see. In 1965, six men died and nine were crippled from bends and embolisms.

The customary logic for platika is that divers do not know if they will return from any given expedition. Therefore they need to have their money in advance so they can enjoy it before sailing. Indeed, the last few weeks before the fleet leaves is marked by the spending of money in *tavernas* at a greater rate than at any other time of year. There are some legendary exploits: in 1936 one man lit a cigarette with a thousand lira note; in 1950 a diver tapped an entire keg of wine and danced as it ran out onto the floor; and so on. The result of this spending behavior was, until the government stepped in, to leave a number of women on Kalymnos without support while their husbands were at sea. The divers were in debt to the captains, and the divers' wives were in debt to local merchants for subsistence goods. Thus, as men of honor, the divers paid off their wives' debts as soon as they got their advance money from the captains. With the remainder, the youngest divers displayed the ostentatious spending behavior described above.

In order to pay their divers' platika, the captains used to go into debt to the buyers. When the National Agricultural Bank decided to underwrite sponge fishing around 1950, they decreed that divers would get only part of their money in advance, according to a schedule of competence. Divers rated as "first class," for example, were to get 26,000 drachmas, half of which would be placed in a bank account under the wife's name if the diver was married. The divers, however, continued to demand all their money in advance, usually 54-60,000 drachmas for a first class diver. The difference between the 26,000 drachmas and 60,000 drachmas

platika had to be borrowed from private sources. Private interest rates run 20% per year. Thus, the buyers retained their position as bankrollers of the high-risk sponging expeditions.

By law, divers receive from 35% to 43% of the sale value of their own sponge production. For example, if a diver catches 150 *okas* of sponge (one oka equals 1260 grams) selling at 900 drachmas an oka, he might receive, say, 40% of 135,000 drachmas, or 54,000 drachmas as his share. The captain keeps 60%, out of which he pays his overhead and makes his profits.

The maximum platika received in 1965, 90,000 drachmas, was more than any man could have humanly produced on a 43% contract. The captain who paid out the large sum of platika was willing to accept a theoretical loss in order to get some gain. For example, a novice diver might receive only 20,000 drachmas in platika; but he would have to harvest at least 67 okas of sponge (selling at 900 drachmas/oka on a minimum 35% contract) to make up that sum. There is a good chance that a novice will not make this quota. Even if he does, the captain's gross profit is 65% of 60,300 drachmas, or 21,105 drachmas. The diver receiving 90,000 drachmas on a 43% contract would have to harvest 233 okas to make up his debt. If he brought up only 160 okas (a realistic figure for a truly first class diver) the captain's gross profit (after subtracting the 90,000) would be 34,000 drachmas. Such exaggerated cases of platika are rare, but they demonstrate the riskiness of sponge fishing and the reason for the 20% interest rate. In this case the diver died midway through the season and the captain had to write off the platika as a loss.

Each diver demands as much platika as he can get. The size of the platika is a measure of a man's status among his peers. The formula used to compute platika is:

> [(the current market price of sponges per oka, plus at least 5% inflation on next year's price) (multiplied by the number of okas he expects to produce based on his previous record, plus an increase during each of the first six or eight years before he reaches a maximum production plateau)] [multiplied by the maximum percentage contract he can negotiate with the captain] = some round figure.

The diver adds a few thousand drachmas onto this sum as a bargaining cushion. The captains contend that the divers are extortionists but they pay them in advance nonetheless.

Since divers are all on individually negotiated contracts, each man's catch is stored separately on the mother ship during the course of the expedition. Every three weeks, the catches are dried, thrown together and sorted by grade for baling by the captain. Each diver receives a slip of paper indicating his production record during the previous period. The sorting and baling is done by the captain on the mother ship. The actual sponge harvesting is done from smaller diving vessels. When the divers return to the mother ship at night, the baling is finished and they must take the captain's word for how much they have produced.

When the captain sees that a man is falling behind in production he simply places some sponge on the man's tally from another diver who is running ahead. At the end of the trip the captain has usually evened out all the platika debts. He owes nothing and is owed nothing. When all losses are covered and still more sponge is produced, the divers get bonuses after the sale of the catch according to their original percentage contracts.

Consider a diver who negotiates a 40% contract and 54,000 drachmas in platika, based on the assumption that he will catch 150 okas of sponge selling at 900 drachmas/oka. He catches 165 okas — but 10 okas are taken from his account to make up the platika debt of a man with a similar contract who produces only 140 okas during the trip. Then, ideally, the captain would still owe the first man 40% of 900 drachmas, multiplied by the 5 okas left over. This is called a post-payment. In order to lower the costs of post-payments, the captain may enter into a collusion arrangement with the buyer against the divers. The result of the collusion is to cement the hierarchical relationship of buyers and captains, and reconfirm the low status of the divers. This collusion, however, is the end of a complex marketing machinery.

The process of sponge exchange has four stages: (1) preparations; (2) establishment of negotiation pairs; (3) initial bargaining between pairs; and (4) final bargaining and consummation of the deal.

During the summer months, while the boats are at sea, the merchants line up their customers in Europe and in the United States. Each buyer commands at least one language, other than

Greek, in which he conducts business. Merchants travel through Europe, showing samples, making new contacts, and reaffirming old ones. They conduct voluminous correspondence, assuring their customers of continued service and seeking future orders. They study their markets, their orders, and those of other merchants, and thus conclude the actual and expected demands upon their stocks. They note what kinds and which qualities of sponge they must buy to fill their orders. Then they amass as much information as they can on the various kinds of catches to be brought in by the captains.

The main source of this information comes from letters sent home by divers and crew members. These letters are passed around amongst relatives, and ultimately to buyers as a favor from fictive kin. Postmarks pinpoint the area being fished. The length of time during which letters continue to arrive from one area indicates the lucrativeness of the sponge beds. The divers always indicate the depths they are working in. The location and depth of sponge affects its market value. Buyers gather this information and guard it jealously from one another.

Another important source of information is divers who return to Kalymnos with the bends. They are the center of attention for weeks, as much for their information potential as for their pitiable physical condition.

When the fleet comes in, the buyers gather more information from the crews about the size and quality of the various catches. The buyer must be sure that a particular lot suits his market needs before taking steps to open negotiations.

Captains have the best access to information on production, while buyers have access to information on markets. Captains organize informally in an effort to fix prices. Sponge is sorted by captains into species and each species is graded according to its location of growth, quality (from 1-6), and the kind of diving operation which harvested it. Thus *kapadika* sponges from Benghazi cost more if produced by a *skafandro* (hard-hat) than if they are produced by a *fernez* (wet-suit) boat. Fernez production is less expensive but many captains (and divers) favor the more traditional (and presumed safer) scafandro. During the period in which buyers

decide how they will proceed, the captains agree on the lower price limits they will accept for each kind of sponge.

A time dilemma arises: the longer a buyer concerns himself with market information, the better his chances of avoiding costly mistakes. At the same time, the longer he waits, the better chance his competitors will have to get the best lots of sponge.

The captain's dilemma is similar. In 1964 the captains resolved not to sell kapadika sponge below 900 drachmas per oka.

One young captain had almost two metric tons of sponge sitting in his warehouse (including unsold sponge from the year before) and he was anxious to sell. A buyer offered him 870 drachmas. The captain was deeply in debt to the bank; his men wanted their bonuses on what was obviously a good catch; he needed capital for new equipment. As time went on he began to feel the pressures grow. Assessing the interest he was paying on the money he owed, and the loss of capital tied up in sponge, he offered the buyer a simple split in their differences, or 885 drachmas. The buyer accepted. Part of the agreement was that the deal would not be announced publicly until the captain decided to do so.

A day or two later another contract was signed between two other parties. This one was immediately made public. It announced the breaking of the market ice, and was for 900 drachmas, or 15 drachmas more per kilogram than the younger captain had agreed to. With almost 1,300 kilograms involved, the first captain lost $650.00.

When the buyer decides which captain to approach, the formal machinery of exchange is set into motion through the offices of a *mesitis,* or professional broker. The broker is used even where the buyer and the captain are involved in a debt relationship. By lending money, a merchant may try to obligate a captain to sell exclusively to him. Loan money is circulated during March and April from the bank and the buyers to the captains, and from the captains to the divers, crew members, and chandlers. There is talk of good catches, high prices, and informal exchange agreements between lenders and borrowers.

In November when the boats return to the island the ideal rule is that the buyer seeks out the seller. If informal commitments

have been made, then the captain is morally obliged to allow the buyer with whom he spoke in April to take the initiative in opening price negotiations in November. But that buyer must approach the captain with an offer to negotiate within "a reasonable amount of time" or the captain's obligation ceases. A captain is only bound not to negotiate with more than one buyer at a time, and he must not play buyers against each other.

Once negotiations have been formally opened between two parties, they must proceed to either of two conclusions: (1) a sale, or (2) a formal announcement by both parties that no agreement can be reached and that negotiations are off. In this event, the captain again becomes a free agent.

To insure that this convention is honored, the captain gives the key to his warehouse to the buyer with whom he is negotiating. Then, no other buyer can enter the warehouse, view the sponge, and approach the captain with offers.

If a sale is reached and only a part of the catch is sold, then the captain may open negotiations with other buyers for the remaining portions of the lot. For this reason, most captains insist on negotiating a sale for the entire catch. Afterwards, if the buyer has no use for some species of grades within the lot, he can sell them to another buyer who does.

Buyers usually respect the conventions of the system and do not interfere with one another unless they are desperate. Cases arise however, in which a captain begins bargaining with one buyer and is approached by another who offers a better price, sight unseen. The only alternative a captain has to ignoring the second buyer's approach is to become completely unreasonable in his demands upon the first buyer. In this way the captain can force termination of the negotiations, receive back the key to his warehouse, and begin negotiations with the second buyer. There is considerable danger in this, however. A reputation for lack of good faith can go a long way in destroying bargaining strength in future negotiations.

The business broker is well known in Greece, especially for his work in marriage contracts. His purpose is to prevent the flaring up of hostilities between negotiating parties, and to absorb any loss of face which may accrue to either or both parties as the result

of a poor deal. He carries out this function for his own economic benefits as well as for that of the parties he represents.

In the Kalymnian exchange system, the mesitis is first approached by the buyer. The buyer tells the mesitis that he is interested in a certain captain's sponge. The mesitis is instructed to let the captain know of the buyer's interest and to give the captain an opening offer. Initially, the mesitis is hired by the buyer but during negotiations he acts for both sides. For example, there may be a simultaneous ultimatum. Both parties claim they have made their final and best offer. Neither can sway the other from the position. At this time negotiations must be broken off (any solution worked out by the antagonists would represent a loss of face for one side) or submitted to arbitration by the mesitis. The mesitis is paid by both captain and buyer at the rate of one half of one percent each on the total value of the sale.

When the middleman gets the agreement of the captain to open negotiations, he asks the latter's price. The captain names the price set informally among his confreres. The mesitis responds that the price is too high and he names an alternative price acceptable to the buyer. Then the bargaining begins. The captain makes great claims for his catch. He explains why he is asking more than the buyer suggests he might pay. He explains how the sponge was fished from dangerously deep waters; how it is strong and resilient, of good color and shape. He claims to have the best mother ship crew in the fleet. He even names the men for the buyer's consideration of their qualifications in rough-trimming sponge at sea. He extolls the condition of the sponge as being practically ready for market. All the buyer will have to do, the captain suggests, is to pack the sponges into bales and ship them out at a handsome profit. The captain explains how during the trip he sorted the sponge carefully, even cruelly; he took borderline pieces and in every case downgraded them. He goes on and on about the way the sponge has been naturally and slowly dried in the sun, picked clean of debris and washed thoroughly. And he complains bitterly about the rising costs of production, the increasing laxness of divers, and the money he is losing.

The buyer counters each argument with "we will see about that." He argues that competition from synthetics has cost him

half his customers; that low-cost Turkish sponge is cutting down on his profit margin; that freight costs and import duties have skyrocketed.

They argue, they explain, they cajole, they flatter, they act indignant and obsequious. Often these negotiations are carried out with a mesitis carrying messages back and forth across the island. Finally, the buyer agree to a price on the condition that the sponges are as good as the captain claimed they are. They never are.

A date is set for the captain, the buyer and the mesitis to enter the captain's warehouse. The Bank, the Divers' Union, the Harbor Master's Office, and the city tax council are informed. Each of these parties may place a lock on the door when the captain puts his sponge in the warehouse. The Divers' Union reserves its right to representation at every sponge sale ostensibly to prevent the buyers and captains from cheating the divers out of their post-payment. The Bank requires its representative to attend all sales in order to ensure that it gets paid. The Harbor Master is required by law to be represented because the sponge sale is part of an official "nautical transaction." The city tax officials are there for obvious reasons.

The captain also allows interested members of his crew to enter the warehouse at this time. They help with the manual labor of hauling down the sponge bales and opening them for inspection by the buyer.

The buyer brings a *technitis* who makes his living by knowing every variety of sponge in the Mediterranean. He can tell the depth and area of growth from the appearance of the sponge. He advises the buyer on their value. The buyer also brings some laborers to transport the sponge from the captain's warehouse to his own. Finally, curious outsiders and passers-by congregate outside the warehouse where the proceedings are taking place, but they disperse as the hours of bargaining wear on.

Viewing of sponge normally takes a full day, but may take much longer if the lot is especially large or if there are complications. In 1965 one sale amounted to almost $70,000.00. Price negotiations ran on for two months and viewing of the sponge took four days. A number of divers received bonuses of over 10,000

drachmas each ($333.00) and the captain netted around 250,000 drachmas ($8,333.00).

The buyer looks for a number of factors when making a purchase. First, he is concerned with moisture content since he must buy the product and sell it by dry weight. Natural sponge attract moisture in the air and by the time a bale is sold it may have absorbed 5 or 6 percent of its own weight in water. When bales are opened during negotiations the sponge becomes especially vulnerable in this regard. Many captains store their sponge in warehouses along the waterfront. During severe winters waves jump the retaining wall and spill over into these warehouses, soaking the sponge.

In most cases the buyer asks that about 5 percent of the weight of the sale be subtracted as a concession to moisture content before payment is made. Other concessions may follow. The rough processing of the catch at sea includes the removal of rock and coral pieces. If this has not been done sufficiently the buyer may ask for a concession on debris. He asks for a percentage of the weight and asks for a percentage above that to compensate for the man-hours he will pay to remove the debris.

Color is watched carefully. If the sponge are of an appealing, natural color, no bleaching will have to be done. If they are uniformly "red-root" (a red base from oxidized iron in the host rock), however, this will have to be bleached out. The buyer will ask for more concessions to compensate for the fibre weight lost in bleaching.

The buyer is interested in the kind of sorting which the captain performed at sea. If a large number of second grade pieces are found in number one grade bales, the buyer will ask for a concession on weight. He may ask for as much as 10 percent of the weight on one quality to be dropped in grade. This concession, known as *tumba,* allows the buyer to pay top price for number-one grade sponges only. The tumba concessions are made for all qualities, some weight of the number ones going to the number twos, some of the number twos going to the number threes, and so on.

When all the concessions have been made, they are entered in writing on the contract. The hemp sacks are weighed full, then

again empty, and the difference subtracted. A glass of ouzo is taken by both parties and the sale is ended.

In an actual case, five hours were spent in inspecting and bargaining on 1,002 kilograms of sponge. It broke down as follows:

TABLE 1

	No. Kilos	*Quality*	*% Of Total*	*Price per Kilo*	*Total Price*
	70	1	.0697		
	78	2	.0779		
	178	3	.1773	691.835	420,275 dx
	286	4	.2944		
Subtotal	612		.6093		
minus 7 kilograms for weight of sacks: 605 kilograms of sponge in the first four qualities or .6093 percent of the total catch.					
	277	5	.2764	209.881	58,195 dx
	140.5	6	.1402	85.000	11,942 dx
Subtotal					490,412
Undetermined number of small sponge					22,734
TOTAL					513,146 dx

Only about 7 percent of the total number of sponges were of first quality and only about 60 percent were in the first four qualities combined. Excluding the *formetta* category (small, good quality sponge sold separately), the value of the first four qualities was 85 percent of the total sale. The average sponge catch has about 10 percent first quality pieces and about 70 percent in the first four categories. In this case, the lot was below average in quality.

In spite of all these concessions, there are often residual differences in price asked and bid. There are, in general, three ways in which such ultimate differences are resolved: arbitration, auctioning, and co-operative bargaining. One kind of co-operative bargaining is collusion; this is the traditional method used in the Kalymnian sponge market.

A captain agrees provisionally to accept the final offer of the buyer, say 900 drachmas per oka. The captain insists, however,

that he really wanted 910 drachmas and that he is capitulating. In return for this, the buyer lets the record state that only 870 drachmas were paid per oka. The captain need not account to his crew for the 30 drachmas when the final tallies are drawn up. Consider the following example, summarized in Table 2:

Say there are 1,500 okas of sponge selling officially at 870 drachmas each. This makes a total of 1,305,000 drachmas. The captain gets another 45,000 drachmas as a "side payment," (1,500 okas × 30 drachmas). If the captain's debt is 1,000,000 drachmas, he has an apparent profit of 305,000 drachmas. Of this, about 35 percent goes back to the divers in bonuses, leaving a net profit of 198,250 drachmas. He has also received 45,000 drachmas which he does not split with his divers. His real net profit is 243,000 drachmas.

Had the captain held out for 910 drachmas per oka, things would have been very different. The official gross would have been 1,365,000 drachmas. After subtracting one million drachmas to pay debts, 365,000 drachmas would have been split 35-65 with the divers, leaving a net profit of 237,250 drachmas.

TABLE 2

Okas	*Price of record*	*Total*	*Captain's debt*	*Gross Profit*	*Divers' bonus*	*Side Payment*	*Captain's net*
1,500	870	1,305,000	1,000,000	305,000	106,750	45,000	243,000
Okas	*Real Price*	*Total*	*Captain's debt*	*Gross Profit*	*Divers' bonus*		*Captain's net*
1,500	900	1,365,000	1,000,000	365,000	127,750		237,250

When I interviewed them, buyers were far less reticent to admit these circumstances than were the captains. This is understandable. By agreeing to collusion they were able to extract greater concessions from the captains during future face-to-face negotiations. Captains felt they should cooperate with a buyer's demands for concessions once the latter had agreed to collude with them against the divers. "If anyone wants to change the system," one buyer noted, "let the divers do it. Those are the poor cursed ones who are hurt the most." But the divers do nothing. Their acceptance of the system is crucial to its continuance.

From a structural standpoint, it is obvious that everyone must accept the system if it is to continue. The divers must accept their low social status and the right of higher classes to cheat them of their earnings. On the other hand, the elite of Kalymnos, including sponge merchants and other commercial and landed gentry, must accept the fact that the "rowdy element" of sponge fishermen is crucial to their own economic prosperity. If the divers demand a certain license for anti-social behavior, then they must be "tolerated."

Such systems are neat and balanced only so long as everyone accepts his own role as well as that of others. When the roles are no longer accepted, the system breaks down. This would happen if, for example, the divers demanded complete open pricing and fair handling of all post-payments. They would on longer be able to demand contracts exceeding 43% of their own production. They would not be able to borrow freely from several captains against their platika before signing on with one. After signing on, they would no longer be entitled to economic support from the captains on a personalistic level. (At Easter, for example, when it is traditional to purchase new clothing, a captain may send a diver to a tailor with a signed chit worth "one new suit.")

During the decade after 1960, synthetic sponge cut sharply into Kalymnian markets. Seeing little future in sponging, young men left Kalymnos for the merchant marine, and for Australia and Germany. The exodus, however, was faster than the decrease in demand for natural sponges, and the need for scarce labor sent platika rates soaring. Finally, in 1970, the market collapsed.

In order to preserve the favorable foreign currency flow to Kalymnos, the Greek government subsidized the sponge industry by making direct grants to the captains for the difference between their price demands and the buyers' offers. This direct intervention prevented the sponge industry from disappearing altogether, but it was only a temporary measure. Changes in the Kalymnian economic system had to be made in order to make the natural sponge competitive. Those changes were, indeed, occuring.

In 1957 nearly 92% of all Kalymnian sponge was harvested by men wearing underwater life-support gear of one kind or another. Only 8% was harvested by the ancient, primitive nude diving

method. Sponge harvested by the technologically sophisticated means averaged $20 per dry kilogram. Sponge harvested nude averaged $12 per dry kilogram.

In 1969 the price of sponge harvested by technologically sophisticated means was $23 per dry kilogram. Sponge harvested by the nude diving technique averaged $17 per dry kilogram. However, by 1969 nude diving accounted for nearly 30% of all Kalymnian sponge. The nude diving operations have very low investment in technology; they are safe (since bends are impossible in nude diving); and they are family businesses. Everyone gets a share of the profits, and the extortionary platika is abandoned in favor of a simple system based on family ties and mutual trust.

I believe this is an important case. In general, when an economic system is failing, the application of more sophisticated technology will revive it. In this example the reverse is true. Several Kalymnians invested in scuba gear, recompression tanks, and other complex tools in an effort to increase production. The cost of this investment placed their sponge in an even less competitive position to synthetics, and they were quickly driven out of business. Those Kalymnians who primitivized their technology (i.e. returned to nude diving), are able to maintain a viable local industry.

La conception du temps chez les Wayana

Jean LAPOINTE
Université d'Ottawa

SUMMARY

This article explores the different dimensions of the conception of time among a group of horticulturalists, and attempts to account for their experience of time. Among the Wayana, a Carib tribe of the Amazon, we find very little of the cumulative aspect of temporal experiences which are dominant in historical societies.

Une différence essentielle entre les peuples dits "primitifs" et ceux dits "civilisés" est le fait que les uns sont hors de l'histoire et les autres sont entrés dans l'histoire, ou, si l'on veut, font l'histoire (ou la subissent?). L'histoire, ici, implique une idée de progrès linéaire dans une direction donnée, une sorte de déroulement irréversible des événements vers une issue qui peut être prévue ou indiquée à posteriori.. Les analyses de Marx sur la lutte des classes et la société capitaliste montrent bien les caractéristiques de l'histoire que nous vivons. L'expérience que nous vivons nous démontre que nous avons une conception du temps qui correspond à l'histoire dans laquelle nous sommes engagés.

Que le fait d'appartenir ou non à l'histoire, en ce sens, détermine d'importantes différences dans les conditions d'existence sociale n'est pas à démontrer. Ce que nous voulons faire ici c'est montrer, par l'exemple d'une société primitive, comment des conceptions différentes des nôtres du temps, du passé et de l'avenir rendent compte d'expériences différentes.

À ce niveau, on a proposé des théories comme celle de la conception cyclique du temps, où celle d'un temps ritualisé indé-

pendant des événements concrets. Mais ces théories, à notre connaissance, n'ont jamais été appliquées à l'explication d'une conception du temps qui rendrait compte des différentes expériences des membres d'une société donnée. Nous nous proposons donc d'illustrer dans la mentalité d'une société primitive une conception ahistorique du temps. On laissera le soin au lecteur d'élaborer les comparaisons avec nos conceptions historiques.

LA POPULATION WAYANA

Les Wayana, une tribu du groupe Carib, vivent dans trois grandes sections géographiquement séparées les unes des autres: sur la rivière Parú de Leste au nord du Brésil, sur le Litani en Guyane française et sur le Paloemon au Surinam. Nous avons vécu 10 mois en 1967-68 avec le groupe brésilien. Celui-ci compte environ 175 habitants répartis sur 160 milles de rivage de la rivière Parú, dans des petits villages de quelques familles nucléaires seulement. Les villages les plus bas sur la rivière sont encore à 200 milles de la première agglomération brésilienne: Alméirim (à l'embouchure du Parú sur l'Amazone). Les Wayana vivent surtout de chasse et de pêche; l'horticulture contribue aussi à une part de leur diète.

Les Wayana vivent donc dans une contrée très éloignée de la civilisation et dont l'accès est rendu très difficile par le nombre imposant de chutes qui parsèment le cours du bas-Parú.

Ils constituent une tribu que l'on peut considérer comme vivant encore dans les conditions aboriginales même si un certain nombre d'instruments de notre civilisation les ont déjà atteints; les haches, les couteaux, les machètes, le tissu, les hameçons, les perles de verrerie, quelques fusils, miroirs et chaudrons d'aluminium. Ils ont eu quelques contacts passagers avec des aventuriers chercheurs d'or, quelques travailleurs à l'extraction du caoutchouc; et beaucoup d'hommes parmi les Indiens ont déjà visité Almeirim, mais ils n'ont aucun contact avec une agence du gouvernement, ni avec une mission quelconque. Cinq hommes parlent assez bien le Portugais pour se faire comprendre.

En général, on peut dire que les Wayana ne vivent que dans le présent. Les idées de continuité et de projection dans l'avenir

occupent très peu de place dans leur pensée. Pourtant cette idée de déroulement du temps intervient dans certaines circonstances: nous allons les passer en revue. Différents types d'expériences chez les Wayana s'inscrivent dans différentes dimensions du temps. On peut classer ces expériences dans les catégories suivantes:

1) L'orientation de leur vie collective et sa continuité avec le passé.

2) La planification de leur vie individuelle.

3) Les séquences d'activités qui s'enchaînent.

4) La démarcation du temps qui s'écoule.

5) La sphère mythologique, rituelle et ses rapports avec un au-delà du temps qui s'apparenterait à l'éternité.

ORIENTATION DE LA VIE COLLECTIVE

Au niveau de l'orientation de la vie collective, les Wayana projettent leur vie future sur le modèle du présent. Ils ne semblent avoir aucune aspiration à un changement de leur mode de vie. Ils ne rêvent d'aucun modèle que leur vie collective pourrait réaliser dans le futur. D'ailleurs leur type d'organisation basé sur les normes traditionnelles, ne leur fournit aucun mécanisme pour mener une action concertée au niveau du groupe pour amener un changement de leur style de vie. En effet, les normes sociales ne sont interprétées ou renforcées par aucun organisme qui aurait autorité sur le groupe: elles s'imposent à chacun sous le seul contrôle du père de famille ou du frère.

Ces normes, bien entendu, ont un impact sur le futur du groupe. Ce phénomène est bien illustré par le contrôle des naissances: les femmes Wayana doivent avoir trois enfants, quatre tout au plus qui dépassent l'âge d'environ deux ans; on ne compte pas les enfants qui meurent en très bas âge. Les naissances sont espacées de trois ou quatre ans environ, par des moyens très efficaces qui vont jusqu'à l'avortement et l'infanticide d'un jumeau. Cette règle est très respectée et on peut voir qu'elle a pour effet de maintenir la population à un niveau constant ce qui en retour garde la balance écologique constante. Cette pratique cependant, n'est pas perçue par les Wayana comme un moyen pour conserver

une adaptation constante au milieu; elle ne se présente que comme une norme traditionnelle qu'on respecte sans le mettre en question. Chez les Wayana, on se conforme au mode de vie traditionnel parce qu'ils sont traditionnels, ce qui a pour effet de maintenir constantes les adaptations.

Si on remonte dans le passé, les Wayana le conçoivent sur deux modèles différents. Quand il s'agit du passé récent, celui dont les membres vivants se souviennent, il est en continuité directe avec le présent. Il arrive parfois qu'on fasse appel à ce passé plus ou moins idéalisé pour dénoncer certains relâchements dans l'application des normes. On entend des remarques comme: "Malheureusement, aujourd'hui, on marie les filles beaucoup plus jeunes qu'autrefois, c'est trop jeune", ou "les gens d'aujourd'hui n'ont plus la patience de faire des décorations de plumes aussi élaborées que celles que faisaient nos grands-pères"... Mais on conçoit une autre sorte de passé, celui des origines des pratiques et des institutions actuelles: il s'agit d'ordinaire d'une explication étiologique de ces coutumes et de ces institutions dont l'apparition se situe dans un temps mythique sans continuité avec le présent où les animaux étaient doués de langage et où les ancêtres des Wayana n'avaient pas nécessairement une forme humaine.

PLANIFICATION INDIVIDUELLE

Dans le cadre d'une vie collective pensée comme toute ordonnée par la tradition qu'en est-il des décisions individuelles sur l'emploi du temps? À ce niveau encore, on peut distinguer différentes situations. S'il s'agit de l'orientation d'une vie, comme quand on demande à un adolescent ce qu'il fera plus tard, la question n'a relativement pas de sens. Chez les Wayana, il n'y a que deux rôles dans lesquels on peut entrer, un pour les hommes, l'autre pour les femmes. L'homme apprendra à chasser, à pêcher, à fabriquer des arcs et des flèches, à construire une cabane, à faire un canot, à défricher le jardin, à tresser des paniers de bambou, à façonner des décorations de plume, à extraire le caoutchouc des arbres, à trouver la glaise propre à faire la poterie... La femme apprendra à planter et récolter les légumes du jardin (surtout du manioc), à filer le coton, à faire des hamacs et des pots de glaise, à fabriquer des décorations en perles de verre et à appliquer la

peinture corporelle, elle s'occupera aussi des bébés. Les deux vont se marier, utiliseront les techniques qu'ils maîtrisent pour assurer leur subsistance mutuelle et celle de leurs enfants à qui ils transmettront leurs valeurs et leurs connaissances.

Les rôles dans lesquels on entre sont donc fixes et faits de répétitions constantes. La seule dimension qui marque le passage du temps dans cette vie est le fait d'avancer en âge. Avancer en âge pour un Wayana c'est devenir plus responsable et mieux en mesure d'accomplir les tâches qui lui incombent. Mais on n'a aucune manière de mesurer l'âge de façon mathématique; on sait seulement que quelqu'un est plus ou moins vieux qu'un autre.

On ne compte pas les années. D'ailleurs le système numérique Wayana ne compte que quatre chiffres dont le dernier KORE veut aussi dire "beaucoup". Il reste que du point de vue de l'âge, on fait une distinction essentielle entre les enfants et les adultes. Les enfants apprennent le rôle qu'ils joueront à l'âge adulte. Les adultes sont en mesure d'accomplir les fonctions qu'on attend d'eux. Cette brisure est marquée symboliquement par les cérémonies d'initiation qui sont les célébrations les plus importantes de la vie Wayana. Le passage de l'enfance à l'âge adulte ne se fait pas à un âge déterminé d'avance pour tout le monde, mais il se fait en général beaucoup plus tôt pour les femmes (vers 14 ans) que pour les hommes (vers 25 ans). L'âge de l'entrée dans le monde adulte est d'ordinaire l'âge du premier mariage. La mort ne semble faire l'objet d'aucune anticipation ou anxiété. Elle est acceptée avec fatalité comme la pluie ou les départs. Elle est considérée comme un terme et non le commencement d'une vie nouvelle.

LES SÉQUENCES D'ACTIVITÉS QUI S'ENCHAÎNENT

Jusqu'à maintenant, à part le vieillissement, les Wayana ne semblent avoir aucune d'expérience d'un temps cumulatif. À cause de leur mode de vie qui tire sa subsistance au jour le jour d'une nature abondante, ils n'ont aucune expérience d'accumulation ou d'épuisement des réserves. Mais il reste que certaines activités impliquent des étapes successives. Il faut semer avant de récolter, on construit des maisons suivant un plan déterminé, les voyages se font pas étapes...

À ce niveau, les Wayana organisent logiquement l'emploi de leur temps et ils ont l'expérience d'un temps cumulatif. Mais ils n'ont aucun désir de se fixer une limite de temps ou d'aller plus vite que leurs voisins dans l'accomplissement de ces travaux. La maison progresse lentement et on sait quelle sera l'étape suivante de sa réalisation, mais il n'y a aucun intérêt à prévoir quand elle sera terminée ou à se hâter de la terminer. Les Wayana entreprennent aussi de longs voyages qui doivent s'accomplir par étapes, mais au cours de ces voyages en canot sur la rivière, personne ne se préoccupe du moment de l'arrivée à destination: ces voyages ressemblent à des promenades où personne ne pense à arriver où que ce soit, à tel moment précis.

LA DÉMARCATION DU TEMPS

Les Wayana ne sont pas intéressés à mesurer le temps avec beaucoup de précision, et n'ont pas un calendrier mais ils ont quand même des points de repère qui encadrent leurs différentes activités. Ils ont une idée très précise du déroulement des saisons et savent évaluer par la position des étoiles la proximité de la saison sèche ou de la saison des pluies. Le rythme de ces saisons détermine un bon nombre d'activités chez les Wayana et il est important de se situer par rapport à leur déroulement. Par exemple, on doit couper le bois dans les jardins à la fin de la saison des pluies et le brûler à la toute fin de la saison sèche, si on veut avoir la chance de le brûler au moment où il est le plus sec possible. Beaucoup de phases du cycle végétal ou animal (souvent rattachés à leur subsistance) sont aussi prévus par la position des étoiles: la ponte des oiseaux ou des tortues, l'apparition de certains fruits, l'abondance de certaines espèces de poissons... Ces phases sont aussi parfois utilisées pour marquer le temps. On prévoit les étapes du cycle menstruel par la position de la lune. Et bien entendu, la position du soleil indique l'écoulement du temps dans la journée.

On utilise aussi des phénomènes comme la croissance des cheveux pour indiquer le temps: à l'initiation on coupe les cheveux des sujets et leur longueur des cheveux détermine ensuite l'arrêt de certains tabous qui ont commencé au moment de la cérémonie.

LES SPHÈRES RITUELLE ET MYTHOLOGIQUE

Il n'y a pas un calendrier des célébrations rituelles Wayana. Aucune fête ne marque le déroulement du temps saisonnier. Les principaux rituels marquent l'entrée dans la vie adulte et la mort. La naissance n'est marquée d'aucune cérémonie spéciale, et le mariage s'acompagne de rites qui n'impliquent que les époux et le père de la mariée.

Les cérémonies d'initiation marquent l'entrée dans la vie adulte. Elles indiquent la brisure entre l'enfance et la maturité. Cette brisure est marquée par des épreuves corporelles sévères qu'on fait subir à l'initié. On lui inflige des piqures de fourmis vénéneuses sur toute la surface du corps. Cette cérémonie a lieu tous les deux ou trois ans et réunit tous les Wayana, autant que possible. Les adolescents qui se sentent en mesure de passer l'épreuve s'y présentent. Personne n'est forcé de se présenter à une cérémonie précise, mais presque tout le monde s'y soumet avant l'âge d'environ vingt-cinq ans et tous s'y soumettent éventuellement.

Dans leur conception, cette cérémonie rend les hommes habiles chasseurs et les femmes appliquées au travail. La cérémonie ne produit pas ces effets immédiatement dans le temps mais manifeste seulement dans le temps ce qui se passe à la longue. L'effet est produit en dehors du temps. Le domaine rituel échappe au temps comme tel.

De même dans les rites funéraires. On pleure la mort en groupe de façon cérémonielle et on lui demande pourquoi il a quitté ses proches, mais il n'y a aucune implication qu'il est là ou qu'il peut entendre ce qu'on lui dit.

D'autres fêtes se font au hasard des réunions et de l'humeur des gens. Elles célèbrent l'apparition du chant, de la danse et des décorations chez les Wayana: événements qui ont eu lieu dans des temps immémoriaux et que la cérémonie recrée en quelque sorte.

Ces célébrations font revivre comme en dehors du temps des événements qui sont eux-mêmes temporels. Le temps rituel rejoint ici le temps mythique qui n'est qu'un cadre d'explication de certaines relations sans préoccupation de coordonnées temporelles.

Que les fêtes n'aient aucun liens précis avec un temps donné est encore illustré par le fait que les invités à une fête arrivent et partent quand bon leur semble sans se préoccuper d'être présents pour une partie déterminée de la célébration.

CONCLUSION

On voit donc qu'on retrouve chez les Wayana trois grands types de conception du temps: le temps mythique ou rituel qui échappe aux séquences historiques pour n'être que le cadre indifférent de relations logiques, le temps cyclique qui ramène les mêmes modes d'adaptations aux mêmes circonstances, et le temps cumulatif qui enchaîne des séquences d'événements dans un sens donné. Ce qui distingue la conception du temps des sociétés traditionnelles de celle des sociétés historiques, c'est l'expérience restreinte que les premières ont du temps cumulatif. Il ne s'agit pas d'une absence de ce type de conception, mais c'est une conception qui ne s'applique que dans de très courtes séquences. Cette conception ne s'est donc jamais développée en modèle dominant dans la perception du temps. Chez les Wayana, les différents modèles de perception du temps subsistent côte à côte sans qu'il y ait un effort d'intégration ou de domination d'une conception sur l'autre.

RÉFÉRENCES

ELIADE, Mircea
1949 *Le Mythe de l'éternel retour: archétypes et répétitions.* Paris, Gallimard.

HUBERT, Henri
1905 Étude sommaire de la représentation du temps dans la religion et dans la magie. In *Annuaire de l'école pratique des Hautes Études,* Section des sciences religieuses, Paris.

EVANS-PRITCHARD, E. E.
1939 Nuer Time- Reckoning. *Africa* XII, 2: 189-216.

ANTHROPOLOGICA

ISSN 0003-5459

Volume XVIII

1976

OTTAWA
Centre canadien de recherches en anthropologie
Canadian Research Centre for Anthropology
Université Saint Paul University

ANTHROPOLOGICA

N. S. VOL. XVIII 1976

Table des matières — Contents

INFORMATION FOR AUTHORS

All manuscripts should be typed on one side of sheet only, on standard 8½ x 11 typing paper, with adequate margins, double-spaced throughout, including quotations, notes, and bibliographic references. The original typescript and two copies should be submitted and should be accompanied by an abstract of not more than 100 words, if possible in French. Authors should keep a copy of their manuscript. All original manuscripts will be destroyed after publication unless the author makes special arrangements.

References to the literature are not cited in footnotes but carried within the text in parentheses with author's last name, the year of publication, and page, e.g. (Gutkind 1966: 249), or if author is mentioned in text, merely by date and page, e.g. (1966: 249). Multiple references are separated by semi-colons, but enclosed in a single pair of parentheses, e.g. (Gutkind 1966: 249; Leslie 1963: 20). Plural references to an author for a given year are distinguished by letters, e.g. (Gluckman 1960a: 55). All references, with full publication information, should be listed alphabetically by author and chronologically for each author on a separate sheet titled "References", e.g.

Soustelle, Jacques
1955 *La vie quotidienne au temps des Aztèques.* Paris: Hachette.

Salisbury, Richard F.
1966 "Structuring Ignorance: The Genesis of a Myth in New Guinea", *Anthropologica N.S.* 8: 315-328.

In the case of a work by two authors or more, the form of citation is as follows, e.g.

Beals, Alan R., George Spindler and Louise Spindler
1973 *Culture in Process.* 2nd ed. N.Y.: Holt, Rinehart and Winston.

Note that titles of whole publications such as books and periodicals are underlined, whereas titles of component parts are quoted.

Footnotes used for comments are to be numbered consecutively throughout the paper and typed on a separate sheet. Authors are advised to include footnote material in the text wherever possible.

Tables and Illustrations should be typed or drawn on separate sheets and given headings: marginal notations should indicate their location. Figures should be drawn in black India ink on art paper or set with draftsman's material. Photographs are not accepted.

Reviewers should provide complete information relevant to books reviewed: Full title, author's name, collection, place and date of publication, publisher, pagination, illustrations, and price.

Authors receive galley proofs of articles which are to be read carefully and returned as soon as possible.

RENSEIGNEMENTS AUX AUTEURS

Les manuscrits doivent être dactylographiés à double interligne sur du papier de format 8½ x 11 avec des marges convenables et sur un seul côté de la feuille. Les citations, les notes et les références bibliographiques doivent aussi être dactylographiées à double interligne. Les manuscrits doivent être soumis en trois exemplaires dont l'original et deux copies, et ils doivent être accompagnés d'un précis n'excédant pas 100 mots, en anglais si possible. Il est recommandé aux auteurs de conserver une copie de leur manuscrit. Les manuscrits sont détruits après publication, à moins d'une entente spéciale entre l'auteur et la direction de la revue.

Les renvois bibliographiques ne sont pas cités en notes mais doivent être inclus dans le texte entre parenthèses, avec indication du nom de l'auteur, de l'année de publication et de la page. Par exemple, (Gutkind 1966: 249). Si le nom de l'auteur apparaît dans le texte, il suffit d'indiquer l'année et la page. Par exemple, (1966: 249). Plusieurs renvois doivent être inclus dans une seule parenthèse mais doivent être séparés par des points-virgules. Par exemple, (Gutkind 1966: 249; Leslie 1960: 20). On distingue les renvois multiples à un même auteur pour une même année en utilisant des lettres. Par exemple, (Gluckman 1960a: 55). Tous les renvois bibliographiques doivent être énumérés par ordre alphabétique d'auteur et par ordre chronologique pour chaque auteur sur une feuille séparée portant le titre "Références". Par exemple,

Dans le cas d'un ouvrage de deux ou plusieurs auteurs s'en tenir au style de citation illustré dans l'exemple qui suit:

A noter que les titres de publications entières, telles que livres et périodiques, sont soulignés d'un trait, tandis que les titres de parties apparaissent entre guillemets.

Les notes qui sont des commentaires doivent être numérotées consécutivement et être dactylographiées sur une feuille séparée. Il est demandé aux auteurs d'insérer leurs commentaires dans le texte et non en note dans la mesure du possible.

Tableaux et graphiques avec légendes doivent être présentés sur des feuilles séparées. Indiquer en marge l'endroit où ils doivent être placés. Les graphiques doivent être dessinés avec de l'encre de Chine noire sur papier d'art ou être construits à l'aide de matériel de dessinateur. Les photos ne sont pas acceptées.

Les comptes rendus d'ouvrages doivent donner toutes les informations pertinentes à la publication recensée: titre au complet, nom de l'auteur, collection, date et lieu de publication, éditeur, pagination, tableaux et illustrations, prix.

Les épreuves d'articles sont envoyées aux auteurs. Ceux-ci doivent les lire attentivement et les retourner dans les délais prévus.

IMPRIMÉ AU CANADA
PRINTED IN CANADA