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ABSTRACT

Lateral brain research can be used to develop an understanding and appreciation of the vocational and occupational significance of black expressive behavior manifested in some blacks. Historically, employers have placed primary emphasis on cognitive abilities--functions of the left side of the brain. Research has shown, however, that the right side of the brain has the ability to acquire concepts and skills necessary for job task effectiveness. Job requirements and management styles are often prohibitive to the maintenance of good mental health in view of their stress-inducing characteristics and are unduly restrictive to black expressive behavior in the marketplace. This expressive behavior is composed of five aspects: depth of feeling, naturalistic attitudes, stylistic renderings, poetic and prosaic language and speech, and expressive movement. Instead of trying to extinguish the expressions of core black people, educators and employers should assist them to become functionally bicultural. To decrease black unemployment, educators and job trainers need to utilize the communicative modalities of the right side of the brain in concert with those of the left to make their methods of instruction consistent with the learning style of many blacks. (YLB)

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APPLICATION OF LATERAL BRAIN RESEARCH TO THE EMPLOYABILITY QUOTIENT OF CORE BLACK YOUTH: IMPLICATIONS FOR OCCUPATIONAL FUTURING

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FOREWORD

Unemployment in this country has reached alarmingly high levels in recent years, disproportionately high among blacks. As social initiatives continue to fall short of finding solutions to this problem, new perspectives on the situation are needed.

Such is the focus of this monograph, which examines the implications of lateral brain research for employment and training policies, especially as they relate to black workers. It analyzes occupational behaviors according to hemispheric brain functions and explores the potential partnership of "black expressiveness" and high technology in expanding the roles of black workers in business and industry.

The National Center is pleased to present this concept paper by Dr. Ivory L. Toldson, who wrote it while serving as a Fellow in the Advanced Study Center of the National Center for Research in Vocational Education. Dr. Toldson is Chairman of the Department of Counselor Education at Southern University in Baton Rouge, Louisiana.

Special appreciation is extended to Dr. Rayford Harris, Associate Professor of Education, Virginia State University, and to Dr. John Jordan, Regional Vocational Administrator, Illinois State Board of Education, for their critical reviews of the paper and their valuable insights. The contributions of the following individuals are also gratefully acknowledged: Arthur Lee.

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CHAPTER 1

INTRODUCTION--PERSPECTIVES ON THE PROBLEM

Problem

"Stay in school so you won't have to work the kind of jobs we had to." This statement echoes the urging of many parents, chiding their young. That education converts to progress and upward mobility is a long-standing belief in the American society. It is a belief not without support. Most in America--the privileged, the black middle class, and whites in general--are benefactors of the "the more school/better job" correlation. Even poor blacks whose education extends though the college years can give some support to the notion, even though their state of betterment does not generally equal that of the white high school graduate and is shamefully below that of whites with equal education (U.S. Department of Commerce, Bureau of Census 1979).

The black whose schooling terminates at or short of twelfth grade, however, sees only little, if any, validity in the school-occupational status relationship. During even prosperous economical times, these "core" or "ordinary" blacks largely account for the problem of unemployment in America, discipline problems in the schools, crime on the streets, and later on, overcrowding in prisons. "Unemployable" is their adjustment category. The problem is widespread enough to give rise to a social crisis of national proportion and has prompted a variety of legislative responses. None have been adequate. Ranks of unemployed youth steadily swell in the face of

compassionate legislative action, baffling social engineers and civic leaders.

Acceptance of education and experience as being requisited for meaningful work is widespread indeed. Their pervasiveness in the business and industrial mind of our nation is all but total. Explaining the unjustifiably high unemployment rate among black youth, government agencies and labor economists have long cited limited education and experience as predominant factors. That these, in a tremendous number of instance are unnecessary for work efficiency in our modern, technologically advanced society, is a thought many would label as retrogressive. Research presented in this monograph suggests that such thinking may be extraordinarily progressive.

What many social thinkers have failed to realize is that the very technology we contend has made our world complex has in fact made it more easily comprehensible. Hence, work functions once requiring education can now be carried out with physical actions unaccompanied by high levels of verbal concept mastery. Cashiers for instance, once had to possess mental agility with numerical concepts. But technology has given us computer cash registers that enter prices of merchandise automatically when price codes on the products are across a beam of light. They reveal total sales and change owed the customer, and some machines automatically dispense change. Moreover, these cash registers are able to indicate various errors, allowing the operator to adjust the procedures to correct them. In this instance technology has reduced the amount of education necessary to function adequately

in the position by replacing mental operations with mechanical ones.

Often, however, the employer raises the educational requirement rather than lowering it, ignoring the fact that intelligence invested in the machine reduces what is required of the workers. Such is the result of our nation's unquestioning belief in education and experience as occupational requirements. It unfairly discriminates against the uneducated, denying opportunity on the bases of education and experience, factors that are rendered moot, in many instances, by technological innovations. Even in a great number of work situations where education is necessary, our techonological sophistication could very easily be brought to bear so as to compensate effectively for inadequacies of the individual.

Society has come a long way in forcing the business and industrial sector to make certain adjustments in architectural and other barriers as compensatory responses to handicapped individuals. Recent public laws have provided the momentum. Core or ordinary blacks, many of whom are educationally disadvantaged, however, in too large numbers go overlooked, wanting for accommodation in the money system afforded by productive work. Our technology gives us the capacity to make compensatory adjustments in work opeations that could enable the educationally limited, who in a majority of cases are intellectually normal, to work efficiently and share more equitably in America's abundance.

Because school achievement enjoys a favorable correlation

with intelligance, we are vulnerable to the tendency to equate school achievement with ability to perform on a job. Indicated in this tendency is a preference in our society for documentative cues (e.g., years of schooling, expressive ability, grades in school) that signals intelligent behavior, or at least our idea of it. These cues, more often than not, are signalled by cognitive responses tutored by education. Since a great many work operations require finesse in affective responses, and more particularly in psychomotor responses, the cognition preference discriminated against these two other important domains of human behavior. Feeling, spatial awareness, and movement are principal factors in work behavior but receive little, if any, consideration in employment decisions. This discrimination against affective and psychomotor behavior disfavors black society. These categories of behavior are highly regarded in the black community encouraging blacks to refine their skills in these areas--areas essential in the performance of a wide range of occupations.

Recent research on the split-brain theory directly applies to this argument. The theory argues that the intellect, or human awareness as we know it, is a factor of several groups of functions under the control of the brain, which are divisible into two rather distinct classes. This distinction, yielding two modes of intelligence or two different ways of knowing, has long been recognized in psychology by many designations: "rational vs. intuitive," "analytical vs. creative," and "destructive vs. imaginative" are but few of them. The theory asserts that the

right hemisphere carries out intuitive, holistic, visual, spatial, and simultaneous operation (such as creative imagining). It is also in charge of our appreciation for form and aesthetic sensitivity. For example, art, visual perception, media, movement, and metaphor are principally under the control of the right hemisphere. The left hemisphere carries out linear, sequential, and verbal operations. For example, language, a linear function, is principally governed by the left hemisphere. Reading and computation are also the result of left hemispheric functions.

Most schooling, oriented toward the hemispheric preference of the Western world and middle-class culture, tends to emphasize the left hemisphere and neglect the right. It is high time that labor and industrial thinkers examine the split-brain theory with a view toward properly defining behaviors under the control of the right brain as they relate to occupational adequacy.

There seems to be a hemispheric preference for specific functions in most human beings. These functions, more often than not, are bilateralized to some extent, but are primarily lodged in the left or right hemisphere. For example, most language (left hemisphere) has simultaneous parts (right hemisphere) as seen in poetry. Similarly, there are sequential elements (left hemisphere) in visual-spatial perception (right hemisphere). The difference between the hemispheres, then, is in the manner in which each receives information and processes it. Once information enters the brain, it appears that both hemispheres cooperate to process it, manipulating it in keeping with the mental organization of

their respective brain parts. This differential processing allegedly varies with such factors as education, age, culture, and sex differences and has far-reaching implications for the improved occupational education or training and work adjustments of core black people.

Generally, persons of black ethicity appear to have available a very functional right hemisphere, in which emotion or feeling and movement are primary functions. Though these functions are bilateralized and to some extent are properties of the left, they predominate in the right hemisphere of the brain and, at least in part, explain black attraction for emotionally charged, aesthetic, and motor stimuli to interface with the predominant functions of the left hemisphere. Out of this is derived a culturally peculiar expressive style. This monograph imposes the psychological theory of black expressiveness upon the neuropsychological theory of the split-brain.

Ordinary blacks react to the environment in more creative ways. These are blacks who are unacculturated and who exhibit noticeable remnants of the African past (Pasteur and Toldson 1982). They seem to perceive the environment and respond to it, more often than westerners, with musical notes (spirituals, jazz, blues, gospel, reggae, samba, poetry, and so forth), rhythmic movement (gesture, bodily drama, dance, athletics), and line (pictures, drawings, paintings, crafts, and sculpture), all articulations of the right side of the brain. Westerners, in the search for consonance with the universe, are more dependent on printed or

spoken words (without metaphor) and numbers, both articulations of the left side of the brain (Pasteur and Toldson 1982).

Brain research does not suggest that black people are unique in this regard. It suggests, however, that the major cultural groups of the world have developed characteristic mode of intellectual, affective, and psychomotor expressions that are clearly recognizable and clearly different from each other, having as a contingency the differential involvement of the left and right hemispheres of the brain in processing and expressing information received. There is but one conclusion: people learn differently. They process information in different ways and in multiple ways that may interact with one another. These ways of processing information should be a consideration in properly classifying human operations involved in various kinds of work--and in turn, determining the relevancy of education (traditionally, responsive to the left side of the brain) to those kinds of work. Mastery of work and numbers most often is a determining index in employment decisions. Except in the strictly artistic occupations, no attempt is made to determine facility with notes, movement, lines, let alone use them as indices in employment decisions. This gross oversight is due either to lack of understanding or lack of appreciation for those human abilities under the control of the brain's right side. An underestimation of the fitness of ordinary blacks for certain levels and categories of employment is one of the damaging outcomes.

Purpose

The purpose of this research is to introduce laypersons, scholars, and policymakers to the profound implications of lateral

brain research for the increasingly serious problem of unemployment. Because unemployment is so grave among blacks, especially youth aged sixteen to twenty-five, the presentation strives for particular application where they are concerned. The implications, however, are much broader. It is hoped that social engineers and industrial thinkers will be compelled to reexamine the conventional bases for employment decisions and that vocational educators will similarly rethink and reform training methodologies to align with functions of the right side of the brain. It is likewise hoped that laypersons, and more particuarly core blacks, will enjoy self-esteem through recognition of the intellectual capactities and the occupational implications of those capacities that evolve from their greater reliance on impulse signals from the right side of the brain. One of the major goals of this monograph is to categorize human behaviors properly, according to the control of the left and right hemispheres of the brain, and to relate those behaviors to occupational adequacy in a specific range of occupations while making generalizations to a broader range.

The nation faces a grave social crisis--excessively high levels of unemployment among youth who are uneducated and a disproportionately large percentage of blacks among the unemployed. A major intention of this endeavor is to determine whether education and experience as requisites for employment are valid in a technologically advanced society. It is hypothesized that they are vastly overrated as indicators of work adjustment in a great number

of occupations. The research attempts to show that (1) in a significant number of instances work operations require human skills that are not greatly affected by formal education and (2) in instances where they are affected, a techonologically superior society can adequately compensate for educational and experimental limitations. The final hope is to convince the nation that it is morally, and possibly constitutionally, wrong to deny persons employment in certain areas solely because of insufficient education or work experience.

Specific Objectives

The following are the specific objectives of the work present in this monograph:

- Present an overview of lateral brain research, with general implications for occupational behavior, analyze that research in terms of perceived degrees of cognitive, affective, and psychomotor skills necessary for effective job task-oriented behavior.
- Develop a picturesque profile of core or ordinary blacks, with relevant historical, psychological, sociological, and economical commentary, so as to create an effective link between lateral brain research and black expressive behavior.
- Examine the technological character of our society with a view toward highlighting the degree to which technology has made it easier for the populace to understand or mentally grasp work operations and the implications of

this for the installation of compensatory measures for the educationally disadvantaged.

- Attempt to influence business and industry and vocational educators, where appropriate, to consider measures of the right brain's mental operations and to make technological and training adjustments where necessary in order to provide core or ordinary blacks with increased opportunities for gainful employment.

Terminology Defined

The terms uneducated, educationally handicapped, educationally disadvantaged, and educationally limited are used interchangeably in this exposition. They characterize blacks who are without skills in reading, language arts, and numerical concepts because (1) owing to problems of economic deprivation and problems of learning associated with culturally specific stimulation of the human brain, they have not benefitted from their years of schooling or (2) their schooling has been aborted.

Scientific investigations using the terms split-brain, cerebal dominance, cerebal localization, lateralization, hemisphericity, left hemisphere/right hemisphere, and brain asymmetry all together constitute what is known as lateral brain research. These terms are not necessarily synonymous, but they are used somewhat interchangeably. They all have to do with assigning mental functions and consequential behavior to specific regions of the human brain particuarly along the most obvious division of the brain--it separation into left and right halves.

The term employability quotient suggests a qualitatively or quantitatively derived index or ration that is used in employment decisions regarding hiring, maintaining, promoting, and firing. A special emphasis is placed in hiring on job entry-level competencies where functions of the left hemisphere of the brain carry the greatest weight--without wisdom, of course, as this research intends to demonstrate.

The terms core blacks and ordinary blacks are used synonymously and sometimes together in this work. They describe blacks who have retained noticeable behavioral characteristics of the African heritage. Most do not recognize that aspects of their behavior are African based. Generally blacks exhibiting these behaviors are unacculturated and exist on the edge or outside of the mainstream of Western or Euramerican culture. Too many are educationally disadvantaged and economically deprived.

The term black expressivenss or black expressive behavior is defined as

> the readiness or predisposition to express oneself in a manner characterized by vital emotionalism, spontaneity, and rhythm. Often these traits act in combination with one or more other essential characterisitics: naturalistic attitudes, style, creativity with the spoken word, and relaxed physical movement (all to be discussed later). These interact to produce human behavior that when expressed or perceived registers images, sounds, aromas, and feelings of beauty to the senses. It is the intensity, duration, frequency, and utilization features of the behavior, resembling those of traditional African people, which make it unique. (Pasteur and Toldson 1982, pp. 4-5)

Significance to Vocational Education and Labor Economics

The research presented here is clearly aligned with the goals

of vocational education and labor economics. Reducing unemployment rates among young, disadvantaged black people through meaningful work is a point of interface between vocational education and labor economics. As the nation grapples with employment problems, increasingly it looks to vocational education for answers. This research endeavor combines an assortment of specialties. It brings to bear the disciplines of history, psychology, sociology, and labor economics, with the intention of benefitting society as a whole. Too well known is the negative relationship between unemployment and increases in crime, psychological disturbances, family breakdowns, welfare rolls, and other social maladies. It is also well known that the failure to acquire a job in our society is too often, and probably unnecessarily, the result of poor academic skills and lack of relevant work experiences. Society can possibly be much more if it can find a way of influencing its institutions to broaden their affirmative action policies to declare that, as equal employment opportunity agencies, they do not discriminate on the basis of education and experiences.

Summary

This monograph seeks to utilize lateral brain research to develop understanding and therefore appreciation of the vocational and occupational significance of black expressive behavior abundantly manifested in core or ordinary blacks. The research embarks upon a pioneering course that may very well lead to reduced unemployment and underemployment in those sectors of society with the greatest need.

Several fairly popular books and many articles have been published on the neuropsychological theory of brain asymmetry. Differences of gender, culture, and race have been the focus. None of any significance have used the theory to address the problem of unemployment or the subject of work behavior. Because the research pioneers in this regard, it will necessarily draw from the literature of futurism to complement facts of psychology, sociology, and labor economics.

The research in no way seeks to minimize the importance of formal education. In the professional and most technical crafts its place is well established. It does argue, however, that in many technical and most nontechnical occupations, education or basic skills or public language and numerical concepts may be overrated as factors of job entry and eligibility for job training. This point of view is advanced in view of the abilities of the right side of the brain in acquiring concepts and skills necessary for job task effectiveness. Moreover, this monograph seeks to persuade educators and job trainers to utilize the communicative modalities of the right side of the brain (notes, lines, and movement) in concert with those of the left (words and numbers) so as to make their methods of instruction consistent with the learning style of ordinary blacks.

CHAPTER 2

LATERAL BRAIN RESEARCH AND EMPLOYABILITY CONSIDERATIONS

It is quite likely that individuals have and use many more abilities on their jobs than employment measures are even yet capable of assessing. What is more, they are likely to be denied employment for which they have ability. Employers frequently look for abilities that related only incidentally, or not at all, to job operations (O'Toole and et. al., n.d.). The truth is, one-half of their mental capacity may be discriminated against, An essential part of the mind rarely receives consideration in employment decisions. Only half--the left half is considered.

The left half of the human brain has its own path to knowing and behaving and the right half has its own, though their natural aim is to achieve harmony and to complement each other, actually doubling, at minimum, what we ordinarily think of as human capacity. That means a person's employability quotient (EQ) is probably far higher than it is assessed to be if that person is culturally predisposed to utilize the right side of the brain in his or her work-a-day consciousness. A person whose predisposition is for left-side dominance gains great favor with employers. Potentially, however, any person--whether disposed to left-side or right-side dominance--is able to see.

Employers, disciplined in the West's logistical style, look primarily for co gnitive measures, or those regulated by the left side of the brain, to determine employability. Measures of

"public" vocabulary and numerical facility reign as key factors in employment decisions. These abilities are acquired through analytical, sequential, propositional, and logical capacities of the mind. They are on the left side.

Except where there are obvious physical handicaps, most employers are less concerned, if at all, with the body's performance characteristics; or measures of creativity that occur through intuitive, imaginative, and spatical capactities of the mind--the right side.

There is something wonderful about the mind, however. If one side of the brain is weak, or perceptively oblique, the other side takes up the slack. What this suggests is that individuals who, because of social, educational, or economical disadvantages, fail to do well on employment tests, know far more about words and numbers than one is led to believe. The capacity for words and numbers in such instances is bilateralized and expressed through notes, movement, and lines, discernable more through performance, or task operations, than through predictive indices, such as paper and pencil tests.

This chapter will present an overview of lateral brain research with deductively derived commentary regarding employability. It will examine selected job tasks, particularly nonprofessional jobs that are underrepresented among blacks, with a view toward developing a classification scheme that recognizes the regulatory role of the two hemispheres. In this manner the full range of human abilities required for job efficiency will be brought into perspective.

An Historical Perspective

Brain asymmetries were discovered during the ninteenth century when medical observers noted differing effects of injury to the left and right halves of the brain. Interest has sharply increased over the past forty years following the split-brain operations performed as a last resort treatment to control seizure disorders owing to epilepsy. These opeations led to a profusion of research aimed at categorizing human functions and derived a variety of implications in many of the unsettled issues in the behavioral sciences. Learning disability, psychiatric illness, the entity of intelligence, and variations in cognitive and general behavioral styles among cultures were the major implications addressed. All of these implications significantly overlay job task behavior and capacity with some special applications to people of non-Western-oriented cultures.

It was in 1836 when an unknown country physician named Marc Dax presented a paper at a medical society meeting in Montpellier, France, noting that many patients suffered loss of speech, technically known as aphasia, following damage to the left half of the brain. The doctor concluded that the brain halves were organized for different functions--the left for speech (Springer and Deutch 1981). His paper aroused no interest and was soon forgotten. The physician died soon thereafter, unaware that he was the leading forerunner in one of the most exciting

avenues of scientific investigation during the latter half of the twentieth century, perhaps during modern times.

In contrast to what most individuals believe, the brain is not a single structure. It is divided into halves, seemingly replicas of each other. These halves are joined by a bundle of nerve fibers, which are responsible for the cross-flow of communication between them. The major nerve fiber tract, as shown in figure 1, is known as the corpus callosum.

Each side of the brain or hemisphere controls one side of the body's basic movements and sensations, in a crossed fashion. That is, the left hemisphere controls the right side of the body and its sensations, and the right hemisphere, the left side of the body and its sensations. This seemingly equally shared control does not suggest equivalency in the abilities of the body's two sides. Individuals are generally right-handed or left-handed. One or the other leg tends to be dominant. Ambidexterity is characteristic of only a few people. Spring and Deutch (1981) suggest that in some instances, handedness can be used to determine much about higher mental operations. In right-handed people, almost always the controlling hemisphere is the same one that control speech, they assert.

Asymmetries of the brain extend far beyond the abilities of the two hands. The constantly accumulating evidence leads to the conclusion that most complex mental funcations and behaviors are not symmetrical; rather, they are divided between the left and right halves of the brain.

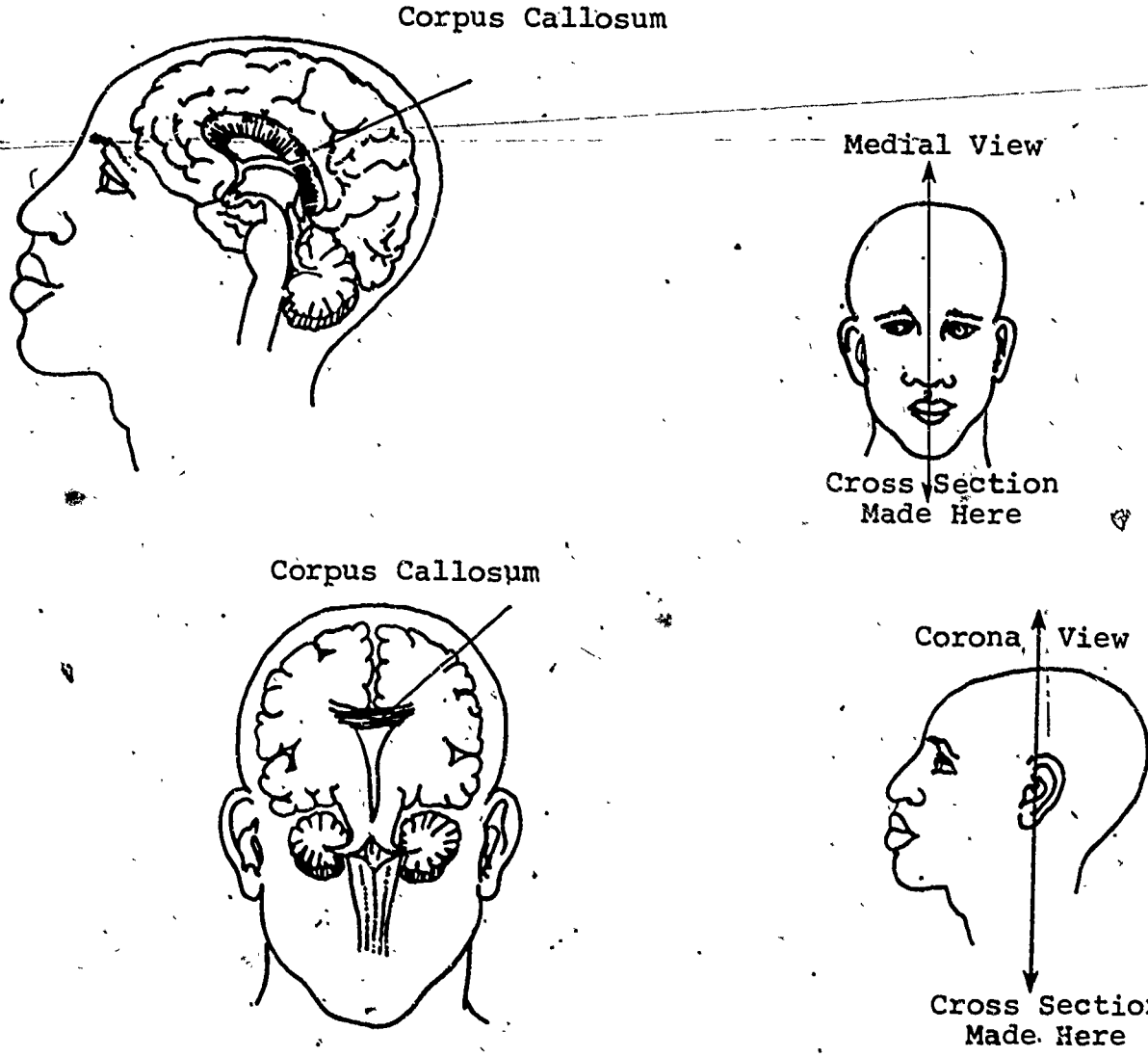

Figure 1. Two views of the brain halves and the corpus callosum, the principal nerve-fiber tract joining them (adapted from Linsay and Norman, Human Information Processing 1977, p. 442).

"Not long ago, few doubted the brain to be double in function as well as physically bilateral, but now . . . it is certain . . . . that damage to one lateral half can make a man entirely speechless, the former view is disrupted," noted the British neurologist John Hughlings Jackson (Taylor 1958, p. 87).

Jackson's thinking appeared to have led the way to the concept of cerebal dominance. He proposed the idea of the "leading" hemisphere. "Two brains cannot be mere duplicates," he wrote, "if damage to one alone can make a man speechless. For these processes, of which there are none higher, there must surely be one side which is leading" (Taylor 1958, p. 87). He concluded that in most people the left side was the leading side and the right side was the automatic one. In referring to the right brain as automatic, Jackson extracted the essence of processes that have later been referred to as simultaneous, holistic, and spontaneous and other such notions that seem to give the right brain immunity to deliberation.

Even the ability to perform deliberate movement is the prerogative of the left. Inability in this area is known as apraxis. A person, for example, might have no difficulty combing his or her hair in the context of a normal grooming routine but would be unable to reproduce the same movements when instructed to pretend to comb in an unrelated context. This disorder introduces the work of Hugo Lipmann, who concluded that the left hemisphere controls deliberate movement as well as language (Gibson 1962).

These early findings persuaded scholars on hemisphericity to advance the idea of cerebral dominance, given momentum by Jackson's concept of the "leading" hemisphere. The left hemisphere was seen as the director of verbal and mathematical tasks and as the dominant one, and the right hemisphere, or "minor" one, was without articulatable function under the control of the left.

Interestingly, John Hughlings Jackson, whose concept of leading hemisphere gave rise to the concept of cerebal dominance, was the same person who questioned the dominance awarded the left hemisphere. He wrote in 1865, "if then it should be proven by wider experience that the faculty of expression resides in one hemisphere, there is no absurdit y in raising the question as to whether perception--its compounding opposite--may be seated in the other" (Taylor 1958, p. 98).

Jackson's speculations, a decade later, led him to conclude, based on his continuing research, that the right hemisphere was the seat of visual ideation or visual thought, enabling individuals to recognize objects, persons, and places. He, like one of the earliest pioneers in brain research, Marc Dax, was paid little attention.

However, by the late 1930s it was fairly well established that the two hemispheres performed specialized roles, and the right half of the brain was rapidly gaining parity with the left among the leading scientists.

A Contemporary View

Technological advancement greatly enhanced neuropsychology with sophisticated sensitive investigative tools. Many igenious techniques for lateralizing brain stimuli-- that is, limiting sensory information to just one hemisphere--are now availble. While contemporary scientists usually interpret their findings to suggest greater brain elasticity and adaptability, and do so under the cautious veil of speculation, they continue to confirm the views of researchers who historically preceded them

The first split-brain operations were performed in the early 1940s. Commissuratomy is the term given the surgical procedure involved in cutting some 200 million nerve fibers in attempts to relieve patients of seizure disorders owing to epilepsy. Roger Sperry, a researcher at the California Insistute of Technology, pioneered much of the scientific work done on split-brain patients. Sperry (1968) has suggested that each hemisphere is capable of perceiving, remembering, emoting, and learning independently of the other, giving support to the notion of a dual consciousress capacity in one mind. He formed this conclusion after studying split-brain patients and witnessing the indpendence of each brain half in perceiving and expressing reality.

The dual consciousness capacity that Sperry hypothesized was often thought to be a reflection of culture and philosophy, as in oriental and European consciousness styles. An even greater contrast can be seen when comparing African and European styles. Robert Ornstein (1977), a psychologist, argues that such

cultural differences have a physiological basis in differences between the left and right hemispheres of the brain.

Before split-brain operations, surgery to remove abnormal brain tissue as a treatment for epilepsy when the condition was unresponsive to drug therapy had been performed. In the early 1930s Wildern Penfield and his associates at the Montreal Neurological Insitute pioneered such operations. They introduced the technique of direct electrical stimulation of the brain to discover perceptual, movement, and language centers. They were particuarly concerned that such removal of brain tissue not produce aphasia in the patient. Since the brain tissue does not have pain nerve receptiors, they could electircally stimulate different regions in the brain in a fully conscious patient and cause him or her to see, hear, smell, feel, move parts of the body, talk and emit other responses. The significant contribution of Penfield and his group was the use of direct electrical stimulation as a tool for location perceptual, and speech and language centers, the latter generally shown to reside in the left hemisphere, and the former in the right hemisphere (Penfield and Roberts 1959).

John Wada, inventor of the Wada test, has provided an excellent tool for studying functions of the hemispheres. This test operates on a chemical method of anesthetizing one hemisphere at a time so as to study the responsive capacity of the individual while one half of the brain is put to sleep. It, too, confirms that in the vast majority of instances speech and language are controlled by the left hemisphere. Some few individuals were

shown to have right hemisphere conrol for speech, and others were shown to have bilateral speech control (Wada and Rasmussen 1960).

Using the same test Gordon and Bogen (1974) have shown that musical behaviors are represented similarly in the hemispheres, with the right side dominant. Brain damage research, as early as 1745, pointed to the right hemisphere's superiority in musical expression. O. Dalin was cited in an article by Benton and Joynt (1960), which reported the case of a patient rendered mute (aphasic) by an injury to the left side of the brain. To the astonishment of all, with complete loss of ordinary speech the man could sing certain songs as distinctly as a healthy person. Other cases were reported in the early 1900s, present a rather convincing argument for the role of the right hemisphere in the control of musical stimuli--processing, production, and expression.

Tachistoscopic tests, dichotic listening tests, attentional bias, lateral eye movement (LEMS), and electroencephalography are most of the modern day techniques for investigating brain asymmetry in nonclinical cases, that is, in normal people.

Tachistoscopic tests have been used for many years. They take advantage of the natural split in visual pathways. By flashing visual cues, briefly, to the right or left of a point on which the person is fixating, the cues can be targets to just one hemisphere at a time. Data from these tests have added to the evidence of hemisphere differences in the perception and expression of reality (Geffen et. al. 1971; McKeever and Huling 1970; Ulmita et. al. 1974).

Dichotic listening tests have also been used. When two different verbal messages are presented at the same time, one message to the right ear and the other to the left ear, a reliable right ear advantage has been found. The stimulus presented to the right ear is recalled more accurately, and a faster reaction is displayed. This advantage is presumed to be the result of the right ear's better connection to the left hemisphere of the brain. However, when musical messages are transmitted similarly, the left ear registers an advantage (Kimura 1964, 1967). When music and speech are presented together, there is no noticeable ear advantage (Morais and Landercy 1977). Of note here is that sonar signals (Chaney and Webster 1966) and environmental sound (Curry 1967) are better perceived by the left ear, suggesting that the right brain is better at processing such information.

Attentional bias, that is, the tendancy of the left and right hemispheres to be primed into activation or operation according to the nature of the stimuli to be processed by the brain, was proposed by Kinsbourne (1973). This view would claim , for instance, that when music is presented there is an attentional shift to the right side of the brain and when speech is presented there is an attentional shift to the left side.

Lateral eye movements (LEMS) is a technique proposed by clinical psychologist M.E. Day (1964) for studying brain asymmetry. Day believes that the tendency to look right or left with both eyes while reflecting is indicative of asymmetric brain activity as well as of other personality characterisitics. Psychologist Paul Bakan

(1969), attracted to Day's beliefs, has sought to test out the theory and has provided evidence to support its claims. In fact, Bakan thinks that individuals can possibly be classified as right-lookers or left-lookers, indicating hemispheric preference.

Research result have shown that verbal intellectual questions overall generate more right LEMS, suggesting left hemisphere activity, while verbal/spatial and verbal/emotional questions generate more left LEMS, suggesting right hemispheric activity. These findings place the right hemisphere in a more significant role in the processing of emotional stimuli and in the production of emotional expression (Schwartz et. al. 1975). Brain damage research is supportive of this claim. Heilman and associates (1975) reported that patients with right hemisphere damage have greater difficulty grasping emotional messages conveyed by speech intonations and show poor verbal recall of emotionally charged material. Others have shown that emotions expressed in the face are more manifested on the left side of the face, signalling right hemisphere dominance. (Sackheim et. al. 1978).

Analysis of recordings of brain wave patterns, called electrocephalograms (EEG), which literally means "electrical brain writing," has served as an excellent research tool for studies brain asymmetry. Whether overt or covert, investigators have found that greater electrical activity of the brain occurs in the left hemisphere during verbal tasks; and in the right hemisphere during visual/spatial tasks (Galin and Ornstein 1972; Morgan et al. 1971; Robbins and McAdams 1974; Wood et al. 1971).

The continually emerging view of the hemispheres leads one

to conclude that they are not mutually exclusive in their operations But for the sake of establishing a contrast or illuminating their dominance in certain functions, we proceed subsequently as if they are.

The left hemisphere is verbal. It approaches tasks in a logical manner, examining comparing, and contrasting. Information is taken into it bit by bit and processed in a straight-line, logical fashion. It carries on verbal and mathematical reasoning. It is the site of speech. Breaking things down into parts of specificity is its fashion. It separates, discriminates, details, and focuses, leading toward control or mastery over stimuli it processes. The left hemisphere, thus, makes decisions and renders solutions that are based on a single chain of sequential links. It is responsive to material reality. We could outline its functions thus:

- Reading, spelling, writing, and speaking public (mainstrem or middle-class) language efficiently to name, describe, and define things, concepts, or ideas
- Reasoning through logical, analytical methods (thinking) in terms of liked ideas, one thought directly following another to carry out work tasks
- Efficiency in understanding numerals
- Proceeding in orderly progressive steps to accomplish a task (first things first, second things second, and so forth)
- Figuring things out step by step and part by part (separating to understand)
- Keeping track of time and showing concern for something (i.e., +,=,@,#, and so forth)
- Moving body parts in response to verbal suggestion or covert deliberated ideas

The right hemisphere perceives images in holistic gestalts. Thinking abstractly, is prorcesses information in a spatial and intuitive way. It uses nonverbal modes of communication involving images of the visual, tactile, kinesthetic, and auditory processes. Though it comprehends and uses words, they are more pictorial representations, or "word-pictures." It is responsive to spiritual reality. Further, the right hemisphere seems to be the seat of our creative and artistic capacities and our appreciation of form and music. Characterized by spontaneous, spiritual, and ecstatic experiences discharge in the direction of total freedom in both the feeling and movement domains. This side of the brain does not think through the mental manipulation of facts. Its decisions are instantaneous. We could say that it thinks without thinking. It fuses everything together. It responds to stimuli, simultaneously and creatively, seeking harmony with it. The right hemisphere has been shown to be more competent than left in spatial perception (Weinstein 1978; De Renzi 1978), facial recognition (Hecaen 1962; and Hecaen and Angelergues 1962), exploration and localization in extrapersonal space (de Renzi et. al. 1971), and visuoconstructive abilities (Faglioni et. al. 1971). We could outline its function thus:

- Moving the body and it limbs in fluid, easy, balanced movement(a certain rhythm and agility in the contraction and expansion of muscles for work motion that is not heavily influenced by thought)
- Remembering how things look and feel
- Proceeding in many different directions at once to accomplish a task (seeing whole things all at once; perceiving the overall patterns and structures)

- Having spatial awareness (judging, without effort and with a fair degree of accuracy, distance, and locations, and sensing the shapes and forms of objects in space or in the work environment)
- Manipula-awareness (grasping, reaching for, pointing toward, or touching things quickly and accurately without thinking, upon command)
- Visualizing or imagining how things work
- Figuring things out by putting their parts together to see a whole
- Deriving understanding, often based on incomplete pictures, hunches, feelings, or visual images
- Processing and producing emotional expression in verbal and nonverbal modes of communication, which are often artistically and aesthetically satisfying to the senses

While the hemispheres' characterisitics as presented here are generally true, there are some intersting variatons owing to handedness, gender, social class, and culture. Moreover, they suggest some interesting psychological, educational, vocational, and occupational considerations that are quite worthy of exploration. Later in this monograph we will more fully address these considerations. As least a scanty look at a few developmental issues pertaining to brain asymmetry will be helpful in appreciating the later discussions.

A Develpomental Perspective

Lateral brain researchers generally agree that 95 percent of right-handed people have speech controlled by the left hemisphere of the brain. The remaining 5 percent show a reversal and some show bilateral speech controls. However, only 70 percent of left-handed people show left hemisphere control

of speech, with about 15 percent showing right hemisphere control and the other 15 percent bilateral control (Raemussen and Milner 1977), Moreover, a higher percentage of left-handed aspasia patients recover than right-handed ones, higher than the 15 percent bilateral control would suggest. This would lead one to speculate that significantly more left-handed people than right handed have speech capabilities in both hemispheres.

Brain damage research shows that loss of speech following damage to the left hemisphere is three times more frequent in men than in women (McGlone 1978). Others too have concluded that both language and spatial abilities are represented more bilaterally in females than in males (Lake and Bryden 1976; Brigss and Nobes 1976; Witelson 1976; Tucker 1976).

Some studies show that uneducated people have a greater recovery rate from aphasia resulting from damage to the left side than do the educated. Researchers say that education habituates, or programs, the left side so as to lateralize speech functions more completely (Tzavaras et. al. 1981; Cameron et.al. 1 971). This introduces the variable of socioeconomic class, overlaid with cultural persuasions. The fact that the quantity and cultural orientation of the West's language rules may affect the development of lateralization for speech has been demonstrated (Geffner and Hochberg 1971; Borowy and Goebel 1976; Dorman and Geffner 1974). Presented here is argument for the role of nuture, particularly the early environment, in the development of brain asymmetry. Evidence seems to suggest that lateralization develops over time but is complete by puberty (Lenneberg 1967).

The case of Genie relates to this argument (Krashen 1973). Genie was discovered at thirteen and a half years of age, having endured extreme social and experiential deprivation for eleven and a half years. She existed in almost complete isolation and was punished for making any noise whatsoever. Functionally mute at the time she was discovered, Genie showed remarkable language development after a few years of language training. On dichotic listening tests, Genie departed from the expected right ear advantage for language, displaying an extreme left ear advantage. The results showed that both language and nonlanguage stimuli processing and expressive production occurred in Genie's right hemisphere. The right hemisphere had assumed control from the left, it was believed, because its function continued to be exercised by visuo-spatial processes in spite of her isolation from linguistic stimulation which arrested the left hemisphere.

The fact that one hemisphere can, to a very functional extent, take over the functions of the other hemisphere is confirmed by clinical data as well. Hemispherectomy, the surgical removal of a functional half of a brain, has been performed to prevent the spread of cancerous tumors. Depending on the half removed, adult patients show functional losses in keeping with the usual functions of the hemispheres removed and then show only a slight improvement over time. However, in children, recovery of the lost functions is remarkable. In fact, hemispherectomies performed early enough in infancy leave no overt signs of lateralized defects in higher mental functions during adulthood

(Smith 1966; Smith and Burkland 1966; Dennis and Whitaker 1976; Trevarthen 1974).

While scientists generally agree that the capacity for brain asymmetry is present at birth, it appears that the young brain is extraordinarily adapatable and can reorganize itself in the face of danger to a specific region and/or different environmental and cultural experiences. The role of culture and experience is of particular significance to individuals whose growth and devlelopment patterns are non-Westernized or biculturalized. This seems to make the case for right hemisphere dominance and/or bilateralization of language and visuo-spatial functions among a great many people of African heritage.

While most behavioral scientists argue that the functioning of the ordinary human mind is immune to cultural differences, they concede that there are qualitatively and quantitively distinct intersocial, interclass, and interindividual ways of thinking and expression (Parades and Hepburn 1976). It appears safe to suggest that every human brain is enhanced with the capability of more than one kind of logical process and that cultures differ in their utilization of processes to deal with varying situations and life events. That these differences take on nominative patterns that are recognizable distinct is hardly debateable. Yet, a multi-cultural society such as this one has failed to adjust for this "culture-congnition" paradox in its institut ional life, having proceeded to standardize the Euramerican disadvantageous to people of African descent and is a

significant factor in their low employability status.

At least one study has attempted to account for cultural differences on the basis of brain asymmetry. Bogen and his colleagues (1972) compared the performance of 1,220 persons. The subjects included Native Americans, blacks, and white. The researchers employed the Street Gestalt Complete Test, believed to be involved primarily in assessing the right hemisphere, and the Similarities Subtest of the Wechsler Adult Intelligence Scale, thought to activate the left hemisphere. The results suggested the Native American and blacks relied more heavily on the right hemisphere in their approaches to reality than did whites who relied more heavily on the left hemisphere. A fairly abled published critique, however, explained these differences otherwise, leaving the findings of Bogen and colleagues open to questions (Zook and Dwyer 1976).

It appears that studies looking for cultural/racial differences will require the use of multiple tests that are sufficiently sensitive and creditable to withstand argument. Since different groups consistently use expressive strategies that are culturally peculiar in a wide variety of tasks, it is almost certain that laterality differences will be found. That these expressive strategies manifest in the conceptualiation and carrying out of occupational tasks is the theorem of this study.

An Occupational Perspective

It can be generally stated that one hemisphere of the brain

is dominant in the physical and mental actions of a worker in carrying out any job task, recognizing, of course, that both contribute in the conduct of a set of tasks peculiar to an occupation. However, one would expect variance in hemisphere involvement in response to factors of occupational nature, sex of worker, educational level of worker, cultural orientation of work, and combinations of these and other factors. For instance, one might ask, do artists and lawyers use one hemisphere more than the other in their work? Answers to questions such as this one, in the absence of extensive research, require a certain amount of speculation beyond the date at hand and would no doubt be controversial.

Ornsetin and Galin (1978) have provided one of the few research findings in this are. They recorded and analyzed the EEG transmissions of lawyers and ceramists while they performed certain tasks. The tasks were intended to engage equally the right and left hemispheres. However, based on the occupational orientations, the researchers expected that lawyers would show greater left hemisphere brain electrical activity in all tasks than ceramists. This is precisely what they found.

In an occupationally related study Baken (1969) looked for a relationship between majors pursued in college and hemisphere orientation of students. Employing lateral eye movements (LEMS) as the test of hemisphericity, Baken found that literature and humanities majors were likely to be left-lookers and that science and engineering majors were likely to be right-lookers.

If one accepts that the directions of LEMs reflect differential involvement of the right and left hemispheres of the brain, then one may believe that these findings point to differences in occupational hemisphericity.

As an Advanced Study Fellow, at the National Center for Research in Vocational Education, The Ohio State University, the writer investigated hemisphericity as related to job task behavior. Using an opinionnaire, trained hemisphericity experts were employed as judges to examine the performance requirements of selected job tasks and to categorize the tasks as being functions of the left or right side of the brain. The judges were graduate students of counseling and psychology throughout the nation, who were enrolled in courses of psychology professors who were articulate in hemisphericity research.

The opinionnaire was comprised of three sections. The first section provided a brief orientation to brain asymmetry with an outline of the functions of each hemisphere, supported in some instance by parenthetical operational descriptions or the functions in the context of work behavior. The instructions comprised the second section, and a list of 200 job tasks from the manufacturing trades comprised the third.

The job tasks were adapted from the work of Hindes and others(1974) at the Instructional Materials Laboratory, The Ohio State University. The trades included machine shop, drafting, welding, industrial mechanics, and electric motor repair. Table 1 shows sample job tasks of these trades.

Instructions on the opinionnaire required the judges, after examination, to indicate which half of the brain was dominant in the job task behavior. Although advised that most tasks involved functions of both hemispheres, judges were put in a forced choice situation and asked to indicate the side that seemed dominant. The instructions stressed that the focus of examination be placed upon the physical and/or mental actions required in each job task response (i.e., cutting, measuring, boring, installing, reading, interpretating, setting up, and so forth) rather than on the tools, equipment, machines, or other items that were being used or acted upon during the task.

Observe task 1 on table 1. Note that the principal job task behaivor is measuring. Though some physical action is necessary, it appears to be deliberate action and a function of logical activity requiring a certain mastery in numerical understanding. Our prediction was task 1 would be identified as involving the left side of the brain.

Observe task 5 in table 1. The principal job task behaivor is sharpening. Physical action is required, though the action is not necessarily guided by numerical exactness, but rather by intuitive judgement, spatial appearance, and a sense of form and balance. A certain sense of feeling is imposed upon the action. Our prediction was task 5 would be identified as invloving the right hemisphere of the brain.

By examining job task behaviors in this manner, our prediction was that each task could be reliably identified as being predominantly a function of the left or right hemisphere of

Table 1

Random sample of job tasks from the manufacturing trades used in opinionnaire.

1. Measure with rules, tapes, and guages
2. Interpret blueprint langauge
3. Hand finish workpiece
4. Cut thread with hand die
5. Sharpen twist drill with grinder
6. Mount work in shaper vise
7. Set and operate milling machine controls
8. Light torch and adjust flame
9. Replace parts in machine
10. Place and fasten drawing paper
11. Draw vertical or horizontal lines
12. Scribe circles
13. Locate the center of a circle through three given points
14. Examine metals to identify
15. Cut and weld angle iron and plates
16. Clean aluminum after welding
17. Position and raise equipment with jacks
18. Measure amperage, voltage, and resistance
19. Service battteries and charges
20. Cut and thread pipe
21. Solder wires and terminals
22. Bake and varnish the armature
23. Connect manual starter
24. Select a motor for a certain job
25. Cut and bend heavy metal.

the brain. The data impressively affirms our prediction. The implications here are numerous and will receive more lengthy coverage in the last chapter of this monograph.

A review of the representative sample of job tasks of the manufacturing trades should demonstrate that job tasks requiring functions of the left and right hemispheres are at least evenly distributed, perhaps even favoring the right hemisphere for these occupations. This suggests a greater readiness of blacks for entry into such employment than the usual measures of employment readiness indicate. Even where skills nurtured by the left side (reading, calculating, and so forth) are not sufficiently developed, it can be presumed that the right side has made certain compensations that reduce the probability of inefficiency owing to the absence of sufficient levels of these skills. Moreover, technological innovations can be introduced to nullify such limitations completely, making occupational mastery an achievement within the reach of all who have sufficient motivation to acquire it. Exploration of this notion will be taken up later, as earlier suggested.

Summary

Lateral brain research has gained a sturdy foothold in knowledge proliferation during modern times. Its advance seems certain to compel behavioral scientists and social engineers to consider its implication in futuring a society that demands full employment. With increased emphasis on the values of the functions of the right side of the brain, the behavior of people

of African ancestry is in turn gaining deserved distinction. The overlay of these behaviors in the marketplace cannot be fully understood or appreciated without a consideration of their expression in the society as a whole, along with their connection to emerging thought deriving from lateral brain research.

CHAPTER 3

BRAIN ASYMMETRICAL CONSIDERATIONS IN BLACK EXPRESSIVE BEHAVIOR--AN EMPLOYABILITY FOCUS

Our social system, like all social systems, requires that each memeber of the society take certain roles. Unless the roles are adequately fulfilled, the system will not produce the results for which it is organized. This rule applies to systems as simple as one developed by an engaged couple to those as complex as a nation interacting with other nations. Societies provide institutions--families and schools--that serve the function of training people to take on the age, sex, and occupational roles they will be obliged to fulfill throughout their lives in the social system. Generally, if a person carries out his or her suitably, that person can be regarded as having a "normal" personality. Normal personalities, however, are not necessarily healthy personalities.

More important the "normalcy" is the ability of the individual to integrate all aspects of his or her personality. Broadly speaking, the major aspects of personality include (1) cognitive or intellectual aspects, (2) affective or emotional aspects, and (3) psychomotor or action aspects (movement). It appears that individuals are deemed to have a healthy personality when they respond to their environment as a "total organism" or "whole being," when, in fact, all aspects of personality are fused, when they relate to their surroundings with spontaneity and integrity (Jourard 1974). Implicit in these expressions is

the need for the coordinated activation of the brain's two hemispheres in dealing with day-to-day life if one is to enjoy optimal mental health. Job requirements and management styles are often prohibitive to the maintenance of good mental health in view of their stress-inducing characterisitics and are unduly restrictive to black expressive behavior in the marketplace, particularly outside the bounds of employment in the popular arts.

This chapter will, in many instances, generalize from and beyond the dat It will draw heavily from previous works of the writer and colleague Alfred Pasteur, particularly Roots of Soul: The Psychology of Black Expressiveness (1982). More specifically, it will examine brain asymmetry as it relates to the maintenance of good mental health. Such an examination seems necessary in the face of stress-related job requirements, especially as they manifest themselves in the job task behavior of core blacks who are organized, more frequently, than Westerners, to express themselves in a manner agreeable to the functions of the right side of the brain. This expressive organization is made up of five aspects: depth of feeling, naturalistic attitudes, stylistic renderings, poetic and prosaic language and speech, and expressive movement. Some attention will be given to the necessity for discriminative expressions of these behaviors, particularly where they emerge to frustrate linearly organized work environments. Inherent in such attention is the need to assist core blacks to become functionally bicultural in a society that is tilted in its organization toward the rules of the left hemisphere of the

brain--which, by the way, as shall be demonstrated, leaves the society impaired in its mental health status.

Mental Health

Creativity and aesthetic expression are believed to occur through other than conscious, analytical, logical intentions. They seem to derive from unconscious intentions, which are thought to germinate in the right hemisphere of the brain (Rose 1980).

The black/African mind is one that appears not to be burdened by a massive unconscious area. Modern psychology, spurred by the thinking of Sigmund Freud, generally compartmentalizes human awareness into three areas : conscious, preconscious, and unconscious. The unconscious contains censored thought hidden from awareness. These exiled thoughts are imprisoned by repressive defenses: denial, repression, rationalization, intellectualization, and other. The black/African mind appears not to be so affected because of the propensity to use song, dance, oratory, painting, sculpture, and so on, to expel urgent impluses that orinarily become the content of the unconscious in the Western-oriented mind. The diminution of these defenses seems to give free rein to the rhythm impulse, which acts as an inner source of excitation. Inner excitation seeks expression by compelling the mind to creatively manage the simultaneous emission of urgent impulses.

Repressive defenses prevent stimulating emissions from fully entering awareness. The mind is relieved of teasing excitation but at the cost of being less creative. A repressed

mind has fewer vital stimuli to manage and it therefore is artistically restricted (Pasteur and Toldson 1982).

It can be argued, then, that the readiness of the black mind to comprehend and express reality in aesthetic forms, giving credence to its artistic nature, is the result of fluid contact with the area of consciousness that is responsible for our experiences of imaginative-imagistic sensations and impulse signals, the right side of the brain. Easy contact with this side of the brain is denied Westerners who, forever seeking to be in control (of themselves and others), reduce their awareness of sensuous impluses by introducing into the mind repressive defenses.

What emerges here is the ability of unassimilated blacks to balance efficiently the opposites of nature. These opposites are replicated in man's biological makeup as represented in the polar characterisitcs of the left and right hemispheres of the brain. The ability to bring balance and synchrony to that which is oppositional in human nature and in the nature of the universe is truly a measure of optimal mental health.

What is involved in this mental health feat, the ability to balance opposing forces within the self? Two world views, two different consciousness systems, must be examined for insight. A world view or consciousness system, is the manner is which an individual, because of his or her cultural and ethnic traditions, comes to see, experience, and express what is real to him or her. The manner contains recognizable distinc tions that are clearly perceptible to individuals from other groups who bear their own

recognizable distinctions. The world view to which we subscribe is involved in the decisions and judgements we make, the values we adopt, and the cultural practices and the asthetic forms by which we are motivated to express ourselves, all of which are under the control of the human brain. The claim here is that the African world view, in comparison with the Western world view, allows the individual a greater opportunity to acquire and maintain optimal mental health, owing to differences in how each makes use of the brain's two hemispheres. Remember that the Western mind, under the dominance of the left hemisphere is characterized by the practices of examining, separating, and pulling things apart, so as to understand them logically and make decisions and judgements regarding them. When the mind is predominantly organized to pull things apart or break them down into their various components, all the way down to their fundamental elements, it comes under tremendous mental strain. Physical and mental fatigue are usually the first indicators of this strain, signaling that an overuse of the intellect of the left hemisphere of the brain is causing the person to experience a sort of imbalance within the self, an unhealthy tilt due to increased mental pressure.

We can illustrate this somewhat in terms of a law of physics. If we conceptualize the left-side dominance of the Western mind as a force with an intellectual direction, then we must accept that this force creates an opposite and equal force, representing oppoistion in the mind. The healthy way to reconcile the opposition, or opposing force, which emanates

from the right side of the brain is to yield--submit to it and carry out its demands as well. Otherwise, when the right-brain force is resisted, the opposition is experienced as a pulling apart of the mind's unity. It is felt as tension and strain in the muscular and brain systems, in the forms of soreness, tightness, or stiffness of the muscles, dizziness, headaches, backaches, stomach aches, and general nervousness, all of which hinder free, rhythmic expression of the body and reduce its efficiency in sexual responsvieness. The opposition in the mind affects the total personality of the individual, and this can be very dangerous to one's mental health.

The greater the opposition is in one's personality, the greater the demand is on repressive defenses of the mind, which attempt to ward off the discomfort the mind experiences. In instances where opposition is very strong, the tension and strain break the defenses down, and severe psychological disturbances result. When the defenses do not control the pain, Westerners more often than not turn to the "across-the-counter drug traffic" in search of relief in the form of chemical stimulants.

What we are finally beginning to see is that the compartmentalization of human faculties by a single culture (Western), then, specialization in the one though most important, has constrained human potential and put the forces of the mind at odds with one another. Schizophrenic? Possibly. Certainly it is an absurdity that has fostered disunity of the mind. Equipped with its own capacity for synchrony and harmony, the mind requires only a fuller use of the right brain system. It

is here that the black/African mind appears to have an edge.

The natural response to opposition in the mind is a quest for relaxation, which synchronizes the body's rhythms with those of the natural order and calls for a discharge rather than repression of tension, strain, and anxiety. These can naturally and pleasantly be discarged through creative forms, such as music, dance, drama, poetry, painting, sculpture, and oratory, which are under the regulation of the right and left brain hemispheres, deriving creative inception, however, from the right. These confluent expressions are far more evident in the behavior of black/African people than they are in other races. The black/African mind renders this possible through the "oneness" imperative meshed in its world view. That is, instead of a one-sided dominance, the tendency of the black/African mind is to bring things together--to see, experience, and express the parts of things identified by the left hemisphere as whole, complete entities, which is the duty of the right hemisphere of the brain. The right hemisphere is not repressed in the black/African mind and is therefore allowed to interact freely with the left, infusing it with creative imperatives. This is how the wonderful blend known as harmony comes to reside in the personality. The healthy consequence is that when the body builds up tension or strain due to an exhaustive use of the left hemisphere of the brain, the tension and strain seeks dismissal, or at least reduction, through the expressive urges of the right hemisphere of the brain. Human nature is a replica of the natural world. We know that the order of the universe is influenced by forces that can

be characterized as positive and negatives, charges and discharges, and at the human level, tension and relaxation. The black/African mind is far more obedient to the laws of nature, evident in the emotional quality of its expressive practices, which act as a balancing measure to thought activity of the mind.

The impact of black expressiveness upon the white world has been an altering one. It has moved the West, unknowingly, toward a recovery of the mind's unity--a recovery of thought, of feeling and sensibility, of rhythm and motion, together. The West had come nearer to "oneness," a parade of steps closer to the Africa within itself. Yet the most "African-like" within the society are objects of the society's rejection and discrimination, as evidenced by the denial of their participation in sufficient number in society's reward system. The paradox is startling in that it is to this nearly outcast group that society must turn for its own popular arts and entertainment.

What is the history of the stand-up comedian in this country? The first comics on stage in this country performed in blackface. Those who are familiar with the content of popular radio and television recognize that it is saturated with the African motif . For example were those media to refrain from the use of music whose origins are black based, to what would most Westerners listen? If black athletes vanished, would baseball, basketball, football, boxing, and track sports in the Western world maintain their vitality and style? Yet the lucrative financial resources that derive from these marketplace endeavors

are not returned to core black people through meaningful employment opportunities. Is there some question of ability? Hardly. The ability lies in the rich expressions of the right-brain's processing or emotional and aesthetic stimuli. In Roots of Soul this ability is referred to as "depth of feeling," one of the five aspects of black expressive behavior.

Depth of Feeling

Depth of feeling refers to the utility of emotions in black expressiveness, most particualy in musical form. Spirituals and gospels, blues, and jazz all are expressive media that abundantly utilize feelings in their derivation and expression. Feelings cover the whole range of behavior of blacks, in their expressive forms, and in their folkways, customs, and personal relationships. It is in the relationships of blacks with others that their feelings are most discernable, second only to expression evident in different forms of music, and it is these expressions that are most troubling in authority-oriented work environments. Emotions or feelings are expressed in the core black community rather frankly and without reserve. Moreover, the affinity of core blacks for stimuli that arouse emotions is quite apparent with work tasks. Historically blacks used song, humor, signifying, and spontaneous and momentary dance movements to help them endure, or "put up with" burdensome work tasks (Lovell 1972). However, as tech nological advances ushered in work environments that reflected more the functions of the left hemisphere of the brain, the accommodation of song, robust humor, rhythmic movement, and

other such expressions increasingly diminish and those expressions are now deemed affrontive and subversive to authority-oriented linear work environments. Such behavior is frequently seen as frolicking, or "messing around" on the job, often without regard for production rate.

Moreover, it is the tendency of core blacks to express verbally rather than to repress, deny, or intellectualize their feelings in authority relationships is often to their disadvantage, with respect to employment entry and maintenance. It is here that job trainers or occupational educators have a necessary role in helping core blacks regulate the expression of their feelings in the work environment--not by the assimilation of unhealthy repressive tactics, but rather through discriminate expression. The verbal expression of anger and of feelings that grow out of tense job relationships, such as hurt and frustration, and of bodily irritations, such a fatigue, aches, and other discomforts, is often adversely involved in employment decisions. Such feelings also generally are aroused by the work environment and management styles that exemplify the functions of the left hemisphere of the brain. Even middle-class blacks, particularly those who are bicultural (that is, those who exhibit black expressive behavior only when relaxing or entertaining themselves), whether working in a corporate or government environment find the left hemisphere brain orientation suffocating and provocative to adverse arousal (Dickens and Dickens 1982). The greater insult follows when the adverse arousal is expressed. It is criticized for being emotional-laden and therefore devoid

of logical and analytical properties that together are commonly known as objectivity. Consider a news story carried in the April 26, 1982, issue of Jet magazine. It reports that a fifty-five-page document produced by the U.S. Justice Department in reponse to a charge contained in a lengthy conference report from a Leadership Conference on Civil Rights, the Reagan administration rebutted the charge thus:

> . . . the conference put together "an emotionally charged, highly inflammatory polemic, intemperately accusing federal law enforcement officials of corruption, and being motivated by prejudice . . . (it) ventures far beyond responsible disagreement" and no attempt is made at thoughtful debate on critical issues. (p. 5)

In other words, the charge against the administration was countered on the basis that it lacked the sufficient ingredients to be tasteful to the left hemisphere of the brain. It can therefore be dismissed.

Such is the West's regard for the emotional nature of the right hemisphere. Yet connected with this capacity of the right brain are the most positive elements of being human--loving, caring, empathizing, and so forth. Compassionate regard is likely to be of the right hemisphere and is frequently recognized in people of African heritage as warmth and genuine friendliness. It is a nurturing capacity that is highly regarded in most of the social services and health occupations.

Often, as has been suggested, these very human feelings are expressed in some, dance, humor, drama, oratory, and so forth. With predominance in the right hemisphere of the brain

(perhaps even bilateralized in the black culture,, these expressions are quite satisfying and register impressions of beauty to the senses and are thereby foundational to American popular culture.

It is no wonder, then, that underlying the min strel, jazz, vaudeville, Tin Pan Alley, pop, Al Jolson, Frank Sinatra, Bing Crosby, Elvis Presley, John Travolta, is black expressiveness. Agnes De Mille (1963), the famous choreographer, has said, "Since 1850, there has been little change in Europe.... all further innovations have come from the United States, Cuba, or South America, and all broke with previous tradition" (p. 29). Jean and Marshall Stearns (1980) add: "The chief source of these innovations is Africa" (p. 14). Although these writers are referring to dance, their commentary is equally relevant to the remaining popular arts. Accordingly, black sacred music, spirituals, secular music, the planation songs, ragtime, blues, jazz, work songs, folklore, plantation tales, and dances have all gone into and more or less permeate Western life.

That the mental health of a society can be assessed by the status of the society's popular art forms is indisputable. It goes without saying that the end goal of all healthy personalities is happiness: a lessening of tension and anxiety that allow the individual or the society to relax and enjoy the wonders of nature, of which we are all creatures. Yet, to experience this unusually human state of affairs a society must provide an appropriately conductive atmosphere to allow the affect or feeling component of personality, or right hemisphere of the brain, to have free

or at least to have equal significance in the lives of society's population as the left hemisphere. This collective state or entity, of the right brain may be referred to as soul, spirit, religion, art, or similar affective appellations whatever it is called, in order that the society enjoys relative peace, harmony, and balance among the populace and with nature, the feeling component, and therefore the right side of the brain, must be in good estate. Moreover, it seems fair to assert that black expressive behavior, once separated from the contaminants of oppression, is mentally healthy behavior.

Naturalistic Attitudes

Naturalisitic attitudes, the second aspect of black expressive behavior, flow from a free acceptance of nature and self, which permits the acceptance of others. These attitudes are evident in the acceptance of the common human drives (including those that sustain life and express sensuality) and in such simple manners as relaxed posture, uninhibited walk, unpretentious voice tone in conversation, and the ability to be comfortable with the natural scents of the human body. Bodily scents that we in the Western world cover with sweet, artificial odors, such as perfumes and deodorants, are accepted as natural consequences of being human by ordinary blacks. Acceptance of uncleanliness is not to be construed here. Rather, it is more acceptance of the body's natural fragrance that returns shortly after bathing.. These are defended by elements of the healthy personality (Jourard 1974).

One of these attitudes is the acceptance of self, others,

nature, and natural processes. However, if one is to thrive in the work force, the tendency for naturalisitic expressions must be discriminately controlled. This means that core black youth in job training centers must be helped to understand the role of the West's hygienic and grooming practices as they relate to access to and survival in the marketplaces of society.

The relaxing properties inherent in a naturalisitic disposition are often expressed as an aversion to formality and standardization. Formality and standardization subvert the creative and spontaneous characterisitics associated with the right hemisphere of the brain, and they often precipitate strain and tension within the organism. They are, however, keystones of Euramerican society and are highly valued in the work environment. They are perhaps expressed best in the Euramerica fervor for record keeping, that is, the provisions for written accounts of human transactions and the procedural standards proliferated in operating manuals. Standardizing the sequences of work processes and achieving of predictable order with the charaterisitcs of precisions and exactness are the quests, which are agreeable to functions associated with the left side of the brain.

As a vehicle for passing an idea from one person to another writing is artificial and unnatural. It is natural to pass it from mouth to ear, and is reflected in the oral record keeping traditions of black/African societites. However, in the marketplace the written record is valued. The vocational training implications here seem obvious, especially in office occupations.

Another standardizing rule of the Western world that is somewhat upsetting to the naturalistic expression of many core black people is the mathematical conceptualization of time. Starting, breaking, and ending times for work are quite standardized and are therefore unnatural impositions upon the inner readiness of the workers. Time, as related to when a person does something, is more naturally governed by inner states of arousal or an affective readiness to engage in an act. It is a nontemporal sense of continuity in which minutes are marked not by exact interval pulsations, but rather by the pulse of the natural world, varying around and within a universal rhythm. One can readily discover the left brain/right brain paradigm imposing upon the phenomena of time.

What it comes down to is that many core blacks are often late for work in environments organized around a static formula for time. Even for the most punctual in society, being on time is not always achieved, perhaps rarely without experiencing inner pain associated with denial of the organism's desire to self-regulate, free of abrupt interruptions to its given rhythm pattern.

Here again in a culture where naturalisitic strivings are valued, vocational and occupational training that recognizes and appreciates these strivings must endeavor to program for their discriminate expression in the marketplaces of another culture where they are not in abundance.

Core black youth express contempt for perceived artificiality and falseness in interpersonal conduct. When sincerity and genuineness appear lacking in human transactions, such transactions

are likely to be given to the category of jive. Moreover, elements of suspicion and distrust begin fermenting, adversely affecting response pattern of youth to work or training. The intuitive capacity of the right brain is activated, imposing a cautionary disposition with regard to the authority and the work situation, which is certain to stimulate conflict with rule-bound authority.

What vocational and occupational trainers must first acknowledge is that much of the protocol for behavior in the marketplace is indeed unnatural, "phony." The smiling airline attendant, for example, is not happy all of the time. The smile is predominantly commerical and not a genuine reflection of an inner state of being. It is, however, a "role" requirement of the workplace. Attempting to pass such behavior off to core black youth as interpersonal authenticity begs for the transactional category of jive. Additionally, a loss of influence is likely to be incurred by youth through cautionary resistance to the training of work situation. Detecting and rejecting that which is faked in interpersonal conduct and in the natural world is indeed a coping mechanism against the harshness of oppression and the dangers of the natural world. They must be reckoned with in training endeavors for core black youth.

Stylistic Renderings

"Style" is the way in which one puts one's personality on display. Although it is perhaps most readily discernable through dress or costume, there is an infinite variety of ways of expressing

individuality. The way or ways a person chooses to express his or her differentness is that persons' style. It is possible to make the same step that everyone else might make, on the same foot, to the same beat, and yet do it differently. The desire to do it differently is widespread in the black community. Therefore, style is an expressive feature that sets the community apart from Western culture.

Attire is style. "Our own style," Amy Cross (1974) contends, "is our costumes consciously or unconsciously arranged to present us in some desired light" (p. 123). Costume or dress is indeed an artistic expressive form, and in the black community it is made saucy by hair and cosmetic decoration. The attire of the black community can be expected to be colorful and visually stimulating, arousing surprise and interest. What we see is art on limbs, unleashing upon the world enticing delights.

Loud colors and silky textures have long marked the cloth of preference in the black community, and now they have gained wide acceptance among whites who, in addition to consuming these styles for the enjoyment of greater self-esteem, also market them for their own commercial gain. Almost immediately we see the need for dovetailing an entrepreneurial sense with the creativity of the black community.

Referring to the issue of dress, we find again the need for discriminate expression. Costuming according to the demands of the situation is the imperative connected to job entry and maintenance in the work places of American society. Vocational

and occupational trainers are unlikely to succeed in this goal without first understanding the stylistic tendencies and preferences of black youth, who merely exemplify the African practice of embellishing the body decoratively, as a reflection of personality.

Hair decoration crowns one's attire and reaches a high point among people of African ancestry, even though it is contaminated by the practice of straightening out the kink in imitation of whites' hair, especially among females. The object of decoration, however, is unmistakable. It is cause for concern among work authority when the hairstyle reflects African and/or Afro-Caribbean traditions, especially when worn by black males. Braids, or cornrows and the dreadlock popularized by the Rastafarians of the West Indian Islands, particularly Jamaica, are viewed without appreciation in the work places of America. Moreover, facial hair, depending upon length and occupation, is greeted similarly.Certain hairstyles for black males reflect religious or philisophical convictions and can be a most sensitive issue in the face of conformity requirements of the work place.

One would think that a democracy that claims to accord respect for religious freedom and individual choices would show greater tolerance for variations in style that adorn the appearance of the individual.

The performing arts, including athletics, respond to the style of core black people quite differently. Accompanying

the unusual skill and talent of core black people, is the black style of movement, gesture, and dress, which enchants audiences who view the style. Whether at the folk level or professional level, it is the performer's style, perhaps more than talent or artistic medium, that nourishes his or her popularity. The manner of expression is the differentiating element. Given the same work, the same medium, and equal talent, the performer who will enjoy artistic and/or commerical success is the one with most alluring style.

Blacks bring an obvious style even to the classical arts, which are far less open to freedom in expressions than are the popular arts. Leontyne Price, in a television interview on the popular New York City-based show "Like It Is," hosted by Gil Noble, made some significant revelations. Without modesty, she accepted the host's characterization of her as the "best of the 'best' opera singers," and reasoned that she was the best because of her blackness. Miss Price told of many teachers who insisted that she had to ferret out the black tonal qualities in her voice if she was to realize success in the operatic arts. Miss Price did not heed the teachers in this regard, and she credits the blackness in her voice for her superiority. It spun from, and better than, most opera singers, whose voices appear nearly standardized.

The notable point here is that one only attains moments of perfection or achieves one's best when being authentically and uniquely oneself, which is to say, through one's style, in rhythm with one's nature and therefore with the nature of the

universe. An astonishing black acheivement, this is, and an established requisite for the attainment of self-fulfillment or optimal mental health.

Who, for America and the world, sets popular fashion trends, invents popular dance forms, monopolizes the vogue in popular music, and brings stylistic terminology to Webster's dictionary, and indisputably makes "magic" a reality in popular sports? Blacks do--collectively, the possessors of the "billion dollar style."

Should blacks be accorded legal protective rights to their individuals styles? Should whites, who depend on blacks for suitable and pleasing styles, be required to share the royalties on wealth they earn by replicating and marketing the styles of their benefactors in popular culture? Yes. Artist-lawyer Brenda J. Saunders (1976) is unequivocally of this opinion. In her work "Style Is . . . the Fruit of Labor," she is brilliant and judicially wise in her arguments, pointing out that the aesthetic labor of blacks, as well as their physical labor, has gone wanting for reparation.

Miss Saunders writes that "style is not only an expression, but a separate, distinct, independent, creative element which should be avidly afforded protection by State and Federal laws." She correctly insists that artists, like black masses, "labor to create an expression which gives self-satisfaction and public approbation." Their stylisitc "qualities have been labored through massive periods of trial and error, through the venerable concept of 'practice makes perfect,' through self-induced dedication.

Style comes as a direct result of these endeavors; it is its own creative energy" (p. 1). It is of the brain's right hemisphere.

From the inception of patent laws up until the present, in creative endeavors "federal protection has been restricted to 'writing'" To create a style of movement, talking, singing, or other expressive form is therefore to have a style not protected by law. This allows a kind of gainful copying that violates the concepts of fairness and decency that ought to be accorded the creator of a unique style.

Naturally, under the governance of such specious laws, copying steeply escalates with each creative era. In the book The Drifters: The Rise and Fall of the Black Vocal Group Miller (1971) noted:

> By the mid-50s the practice of covering the record of a black group by stealing the arrangement and placing it in the hands of various established homely white performers was yielding fabulous rewards. A study of the Top Ten nationwide best-selling records on March 12, 1955 shows no less than six eviscerated R (hythm) and B (lues) tunes performed by white artists. (p. 29)

Not only is the arrangement appropriated but "the technique of movement, vocal inflection, gestures, mannerisms, improvisation and communication with audience," even dress or, in total, the styles of black performers who personify the stylisitic fervor the black masses are appropriated.

The same is true of the work on nonperforming artists. The work of Pablo Picasso is credited for opening the minds of Westerners to the movement and instability of the Western-perceived material world. Picasso's work convinces us that the world is only

deceptively solid or fixed in form. Early in 1980, through the Museum of Modern Art's retrospective, his work enjoyed worldwide attention. Little did the world know that the honor was paid to the genius of the African mind, because much of Picasso's famous work imitates the African style (Penrose 1959). The African style recognizes spiritual or vital forces acting upon what appears to the senses to be fixed forms. The apparent distortion of reality that African art presents depict the conjoint realities of spirit and material, or right and left hemispheres of the brain. The world, however, marked by the West's dominance, can only laud Europe's imitation of Africa's style.

In a very real way it is the black mind that is being pirated. Isn't style the very essence of one's self, one's personality, of one's intelligence? It presents the conscious choice of an individual as to the expressive manner of the mind's ideas. Where art is concerned, style must be viewed as creative-intellectual property, worthy of protection. And as Saunders (1976) aptly argues, "If one performer blatantly copies the style of another established performer, the former should be obliged to reimburse the latter a fixed amount based on the appropriation, for . . . the potential defendant must see something of value, worthy of imitation, when he embarks on a road of reproduction of that element" (p. 21).

The black style is involved in the generation of income within the entertainment occupational category, which is more open to the right brain's tendencies (though far too little accrues to

the community of core black people), whereas in the conservative sector of the marketplace style frustrates the desired predictable course of things. Both of these perspectives ought to be the concern of vocational and occupational education.

Poetic and Prosaic Language and Speech

It can scarcely be denied that there is a language usage peculiar to core blacks in the Western world, whether the language be Spanish, French, Portuguese, or English. Hence here in America, where black slaves were forced upon arrival to abandon their native African language and adopt English as the primary mode of communcation, we may speak of black English or black speech. The language spoken in the orinary black community is rarely understood and appreciated outside the community. Black language cements abstractions; it collapses or condenses varying ramifications into a minute whole, as in a nickname (a popular phenomenon in the black community).

Additionally, black language is full of poetic usages, and there is a tendency to make endings ryhme. There are deliberate violations of structures syntax, but these violations cut right through to the point. They express insight or knowledge stemming from an abutting of feeling and fact. Irony, humor, and signifying are all charactieristics of black language.

There can be little argument that black language usage is indeed a highly cultivated art form. The question for the educator and the mental health specialist however, might well be: How come? The responses offered by most enlightened linguists on the

subject appear to suggest two major explanations:

1. Black language usage is the manifestation of black spirit, representative of the African view of the universe.

2. Black language usage, at least in the West, represents an effort to survive and move on against the constitutions of a rare isolation within oppression.

Black language usage has been forced by the overbearing presence of race, slavery, and aggression into a language of awareness. Black folk language springs from different levels of pain, different age groups of creativity, and latered historical circumstances. Always, though, there is an awareness of the situation, a kind of cultural self-consciousness. A part of this self-consciousness is the sharp clarity of a people whose identity has been honed by continued world oppression. So there is little innocence in black language, not much decorativeness, and no cuteness at all. This means, of course, that not everyone feels comfortable with black expression. In fact, black speech frightens many who are guided by the American ethos, which, as suggested by Hyman (1957), "denys death, resists the tragic experience, represses sexuality, over-uses pieties, frantically emphasizes the rationalistic, the inconsequential, and the optimistic," (p. 135).

The spontaneous use of humor can be seen in the minister, the hustler, the black mothering figure, the black scholar, and the wild young blood, all of whom have contributed to the broad, varied language portrait. The frequent and spontaneous use of humor on the job by blacks often gives the impression that

they are "messing around," or not taking their work seriously. Recall, however, that core blacks normally mix enjoyment with most things that they do.

Black vernacular is both poetic and prosaic. It therefore looms as an artistically expressive medium in the formalized traditions of prose and poetry. Whether written or oral, black vernacular has long been of interest to those captivated by beauty that arises from the artistic sequencing of words. Be it in the form of sermon, rap, playing of the dozens, folktale, or song (shouts, spirituals, gospels, field hollers, rhythm and blues, blues, reggae, jazz), it emotionally stirs and seizes immeidately upon transmission. Black vernacular explodes with emotional power. Its power is generated in the awareness system of the right side of the brain.

Haunting images, symbols, ancestral spirits, and other primitive impulses and sensations all find aesthetic incorporation in black vernacular. Word language, we know, is the prerogative of the left side of the brain, and imaginistic language of the right side. What black vernacular does is to bring the langauge systems of both hemispheres together in a grand juncture of "oneness." It therefore takes on creative properties and is quite unlike white vernacular.

The vernacular of whites is clearly marked by its addiction to rules and standards appealing to functions of the left side of the brain. It is timely to suggest that herein are probable reasons for many of the problems blacks have learning so-called

standard English. Westerners do not heavily draw upon the excitatory tendencies and the imaginistic and imaginative richness of the right brain's consciousness system. The left-brain dominance of the West's language practices presents blacks with learning situations that deny their affinity for the inclusion of stimuli from the right side of the brain.

Some scholars now recognize the superiority of language usage that results from the involvement of both hemispheres over that involving only the left hemisphere. Empirical studies on the use of imagery production of the right-brain system in learning has been described by Paivio (1971). Imagistic techniques increase the recall ability of students. Paivio contends that imagery is the most significant factor in the determination of free recall. Free recall is quite characterisitic of black/African oral historiographers and of those who are able to recall with exactness and ease song lyrics, texts of sermon, lengthy jokes and tales, biblical passages, raps, dozens, legends and other media of oratory that are imaginistically inspired.

Several other researchers earlier tested Paivio's findings (Keislar and McNeil 1962; Wittrock 1963; 1977). One group attempted to determine "if kinetic molecular theory could be taught to kindergartners and primary school children using pictures, concrete examples, and simple verbal text to introduce and explain the concept of molecules in motion , stories of matter and changes in states of matter ... ." Artists prepared for them "several hundred original colored drawings (which) were used

to represent molecules, gasses, liquids, solids, evaporation, and condensation" (p. 190). After a period of instruction, a large majority of the children had "learned and remembered the concepts one year later." These were concepts once thought too complicated for kindergartners. Children in the study were below Piaget's symbolic or concrete levels of intellectual development.

More recently, Wittrock (1977) taught definitions of vocabulary words to elementary school children. They compared three different procedures:

- Read and write the words and their definitions (verbal)
- Read the definitions and trace the picture of it (recognize and image)
- Read the definitions and draw your own picture to represent the definition (generate an image)

The researchers predicted and found that the best recall was produced by generating an image; second best was produced by tracing an image; and lowest recall was produced by learning only the words.

This indicates that where language is elaborated imaginatively it evokes the operation of the right brain in concert with the left, processing the information in two interactive ways. The result is a heightened recognition of reality.

The research method emloyed here involved public language encoded with visual properties through the excitation of imaginal processes, which is characterisitic of black language styles. Even more recent research shows that such visual aids, whether imagined or real, enhance memory (Cremonini et. al. 1982).

Even more interesting is that the enhance image stability produced by repeated stimulus presentation leads the subject to rely more and more on the visual code and to relinquish the verbal aids provided by words. The right brain's processing appears to be more satisfying and relaxing to the learner.

Not all blacks express themselves in the modes earlier described. There are assimilated blacks, who use public language exclusively and would not allow themselves or their children to use such utterances as described. But, on the other hand, there is a huge segment of core blacks who have taken their African heritage, often without understanding the process, and sensualized their sufferings, joys, and hopes into expressions of rare beauty. It is a beauty devoid of self-consciousness and therefore natural. These aesthetic behaviors are, however, often lost or used sparingly once the black person is acculturated or assimilated into the general culture.

Black people in the West have been uprooted from their past, a past steeped in the oral tradition--a tradition that was oral not for the lack of initiative in inventing a written script, but because of an understanding of the meaning and significance of the "word" passing from mouth to ear. Imagery-inspired conversation is frequently heard in places where blacks work when their numbers allow social interaction with each other. All blacks can be bilingual. They can learn and use public language without forsaking black speech. Educators have at their disposal a rich tool for achieving that goal, one

defended by lateral brain research, the imagistically inspired black language itself.

Expressive Movement

Two of the more enjoyable means of physical expression among blacks everywhere are dance and athletics, more often in groups. The directions toward African rhythms and dance styles have long been felt in the West, but the explosion came during the 1950s when white teenagers in large numbers began to dance to music that blacks had danced to for centuries. Rock and roll was popularized by record companies and disc jockies nationwide. In 1955, "Rock Around the Clock" by Bill Haley and the Comets sold 3 million copies. The black sound and dance were big business. And with the coming of Elvis Presley, who utilized the motions and rhythms made popular long before by such blacks performers as Bo Didley and Earl Tucker, a Harlem dancer of the 1920s, America for the first time accepted almost completely black vernacular music and dance movements. In less than ten years Elvis Presley sold 100 million records.

Popular dances emerged during this period that strongly resembled old dances that blacks had long abandoned. Something strongly reminiscent of the Charleston emerged as the Mashed Potato and the Charley-Bop; bits of the old Eagle Rock returned in the Fly; and as unintentional parody of the Lindy became known as the Chicken. Elvis Presley's initial popularity was among white youth who began to dance in the black vernacular. However, in 1960 Chubby Checker, a black singer, made the Twist a popular

dance among white adults. The Twist was followed by the Monkey, the Bug, the Pony, the Frog, the Watusi, the Jerk, the Boogaloo, and others.

During the 1970s and early 1980s, discotheques were popular. However, the disco as a concept was not new with that period. The Stearnses (1968) write: "When dancing at discotheques became popular--for years it was known in the South (among blacks) as jukin and you inserted your own nickel in the juke box--yet, because of the advancement of sound technology, discotheques offer an atmosphere more conducive to dancing" (pp. 28-29).

The brief history outlined above simply indicated that the African style of dance movement--with its freedom of the body; respect for nature, particularly other animals; freedom in individual expression and improvisation; natural concentration of movement to the pelvic region; and propulsive rhythm, which gives a swinging quality--has found its way to the West and added a humanistic dimension that allows one, at least for a short time, to form a full, deep involvement in life.

This can be seen on such popular television productions as "Soul Train," a dance show. There are moments, if one observes carefully with an understanding eye, when it is difficult to distinguish where the music ends and the da..cing begins, while the dancers are executing exacting steps that complement those of their partners. You know, as an observer, that thought is in process, yet you wonder how, when the body appears to flow with the music, oblivious of technique.

Who would deny that the list of black athletes who have dominated, and continue to dominate, such sports as boxing, track, basketball, and football is long and distinguished? It is a phenomenon long discussed and analyzed, with little agreement, yet it remains a fact. For this writer, it is further evidence of the ability of descendents of Africa to fuse all the personality components including movement into a whole. One of the results is the perfect athlete who enjoys playing the game as he or she relates, naturally, to the environment.

The intrusion of the right brain's tendencies here would appear obvious. Even more obvious is the vocational and occupational significance for core black youth who go overlooked in employment schemes that have appropriated the rewards of black creativity.

Chapter Summary

Black expressive style has been argued to be fundamental to popular culture in the Western world, which can be used as an index for estimating the mental health of society. That alone should convince one of its worthiness for preservation. Yet those concerned with filling the roles to be played in the mainstay of the work force often strive to extinguish the expressions of core black people that draw upon the excitatory tendencies of the right side of the brain. The pursuit of biculturalism and bilingualism would seem to be more desirable courses to follow. These recognize the multi-cutural and multi-ethnic bases of American life while yet seeking to add the necessary tools for

entry and survival in the marketplaces of society. Both hemispheres of the brain must be optimally developed. Readiness theories of psychology have long argued, however, that learning occurs more efficiently when we add onto what exists, rather than excavate what is, and pour in anew.

CHAPTER 4

BEYOND THE IMPLICATIONS--TOWARD OCCUPATIONAL FUTURING

The nation can ill afford the continuing human cost of jobless black youth. Increased unemployment means not only more people out of work; it means mainly more black people out of work. This proportionate unemployment can no longer comfortably be explained in terms of limited education and experience. The remedies in part reside in a new kind of education and job training, one that recognizes that increased learning efficiency is tied to increased utilization of propensities asssociated with the right side of the brain.

That society cannot continue to reserve the dullest, most menial, and lowest paying jobs to young blacks without credentials is an imperative that the new technologies cannot continue to be oblivious to and still flourish. They must assert their role as viable adjuncts to the human brain, compensating for cognitive deficits incurred because of limited education.

The work environment must move toward increased biculturalism as well, not only for the sake of core blacks, but for the work force in general. In so doing it will move closer to an accommodating disposition with respect to the expressive capacities of core black, while making for a healthier and more wholesome work environment for all.

In that core black youth, because of cultural predilections, appear to exercise the brain's right side more frequently than

do maintstream people, as reflected in a demonstrated expressive capacity, an increased role must be sought for their participation as employed artists and in the artistic brokering of the nation's cultural life. Providing the basis for the nation's popular arts, why not?

This chapter will give these perspectives a basis in the future of occupational planning that considers the plight of core blacks in their quest for full employment. It will also offer advisory commentary for achieving such noble ends, founded in the context of lateral brain research.

Education and Training

Educational requirements for jobs have steadily increased, though there is little correlation between educational achievement and job performance. College graduates are not faring as well, or high school dropouts as poorly, as expected in general on their jobs (O'Toole, et al. n.d.). Furthermore, escalating job requirements ignore the intelligence of machines that more often than not serve to lower job task complexity.

O'Toole and his task force found the following interrelationships between work and education:

1. The market value of education has driven out its other values. One consequence of this has been to require, needlessly, ever higher credentials for the same work.

2. Jobs have failed to change in step with the increased educational attainments and concomitant aspirations of the new work force.

3. Vocational education in the high schools has failed to give students useful skills or place them in satisfying jobs.

4. We have largely neglected the educational needs of older workers.

5. The schools themselves are a work place, influenced by and influencing other work places. As such, the schools would benefit from a redesign of their work.

6. The high schools have not yet discovered a proper role for themselves to play in "career education" (p. 134)

Increasingly higher levels of education have long been believed to be crucial to an individual's chances for social and economic elevation. At a certain occupational rung this is quite true, especially the scientific and technical professions. However, for other job strata credentialing is overemphasized. Job requirements have been continually raised while job tasks or the nature of the work has gone unchanged. Why, one might ask. Consider the following:

> There are probably a number of reasons, . . . ranging from using credentials as a means of excluding the "undesirable," to hiring people "like one's self" to increase personal comfort. One important reason has been the belief that the more highly educated worker is likely to be more productive than the person with less education. However, for a large number of jobs, education and job performance appear to be inversely related. The less educated tend to remain with an employer longer and be more productive than those workers with ten or more years of education. The more highly educated workers become bored with unchallenging work and express their dissatisfaction in lower productivity and higher turnover rates. (Berg 1970)

Levitan (1972) and his associates indicate that the expansion of professional, technical, and clerical jobs absorbed only 15 per cent of the new educated workers; the remaining

85 percent accepted jobs previously performed by individuals with fewer credentials, and without any demonstrated increase in productivity or job efficiency. When you combine the educational prejudice (that is, predominant use of left hemisphere indicators in employment decisions) with color prejudice, core black youth become victims of double discrimination, when neither of these prejudices take into consideration the capacity for job performance.

When job training is examined we find that it is efficiently done in an informal manner, that is, one, the job training, a sort of unauthorized apprenticeship. Many formal apprenticeship programs have educational requirements and historically have discriminated against blacks on the basis of color, denying proper access to employment through this respected route of job training. Lester Thurow (1980), however, aptly argues that much of our human capital is acquired on the job rather than from formal education. He believes that the labor market primarily allocates training slots and provides skills to trainees when there is no available supply of trained workers. At entry levels, rarely do employers hire in skilled workers. Thurow continues:

> Because skills are acquired on the job, in an informal process of one worker training another, every industrial operation needs workers willing to be trainers. But in a truly competitive world, no one wants to be an informal trainer. Every worker realizes that every additional worker trained will result in lower wages and a greater probability of being fired in any economic downturn. It is rational in a competitive world for each individual to seek a monopoly on local knowledge (how to run machine X) and then refuse to share his or her knowledge with anyone else. This preserves wage and job opportunities. To promote training and make workers willing to be trainers of other workers, employers essentially offer two guarantees. First, they promise not to lower wages

> if surplus workers become available. Second, they promise to hire and fire based on seniority. This means that each trainer's trainees will be fired before he is. (p. 57)

It should be noted, however, that employers, collaborators in the credential mania that characterizes our society, ration these training slots supposedly on employee qualifications--but on quali fications that reflect left hemisphere expressiveness through word and number facilities.

In a paper prepared under contract with the National Institute of Education, Stephen M. Hills (1981) of the Center for Human Resources Research at The Ohio State University provides a longitudinal analysis of how craftsworkers learn their skills. According to Hills, training for skilled craftsworkers is acquired in a number of ways, both formal and informal. He classifies as formal training vocational education programs provided by high schools, technical institutes, and junior colleges. Also included are government training programs and company training efforts that are not on-the-job apprenticeships. All other methods are customarily defined as informal. Hills found that informal methods occur more predominantly in construction, are more heavily relied upon by blacks, and yield a lesser wage advantage than formal methods. Characterizing the informal methods was difficult. Hills explained:

> We found some evidence that skills were acquired in farming or previous technical jobs, but on the whole few clues were produced to specify more exactly the informal training which occurred. For men without formal training, Thurow may be quite right. Skills are acquired on the job. If so, the formal and informal processes of obtaining jobs should be equally as important as the process of skill acquisition. (p. 44)

Quite likely, these informal methods of skill acquisition are more agreeable to the involvement of the right hemisphere of the brain and apparently work well enough for all people.

Lateral brain research has provided a new notion of knowledge and how it is acquired. Our views of intelligence have been shown to be incomplete (Kaufman 1979; Reynolds et. al. 1981). Education and training have largely been one-sided.

We now know that knowledge can be expressed not only in words and numbers but also in notes, lines, and movement, and in interesting combinations of all these, which concurrently stimulate both sides of the brain. Education, however, for the most part persists in a methodological style that is addicted to written and spoken forms of understanding the world that are disconnected from practical applications, as in on-the-job training. Joseph Bogen (1977) raises this question: "Has our society tended to overemphasize the value of an analytical attitude, or even of logical reasoning?" (p. 143). His answer is yes. Moreover, Bogen regards Western society as the victim of "right hemsiphere illiteracy." Sperry (1868), searching for the "bottom line," asserted, "what it comes down to is that modern society discriminates against the right hemisphere" (p. 145). It follows, then, that modern society discriminates against core black people not only on the basis of color prejudices, but on the basis of perceptual and expressive style. Contemporary educational thinking for the good of all must look again to black culture for innovations in methodology that speak both to brain

systems, or the whole person.

The history of academic subjects, such as mathematics and physics, shows that their conceptualization seemed to involve principally the right hemisphere of the brain, using visual, movement, spatial, sound, force, and other such phenomena to generate knowledge belonging to these fields. However, contemporary society chooses to express these through the organization of the left hemisphere, abstracted from the practical provisions of the right hemisphere. It appears that when these subjects are taught to core black youth (and brain research suggests all youth), teachers should strive for expression in combinations, such as verbal (words and numbers)/visual, verbal/musical, verbal/movement, visual/musical/movement, and others. Moreover, they should be integrated in a work-related curriculum where wages inure to the learner/worker. Notes, movement, and lines, reflective of black images, imposed upon words and numbers must serve as the conduit through which school knowledge follows. Therefore, music (spiritual, gospel, jazz, rhythm and blues, reggae, blues, and even classical), dance, mime, drama, athletics, poetry, stories and tales, drawings, sculpture, painting, carvings, and so on should be used to express concepts in such subjects as mathematics and physics in relation to occupational training. Such a view then makes all education, vocational education.

Prophecy on education in the future, O'Neil (1981) commented on the ability of high quality educational programs such as "Sesame Street" to teach preschool children to read. He acknowledged that not long after reaching school age many will become bored with

conventional learning environments owing to their orientation toward a presentation style that is agreeable to the left hemisphere but boring for the young who thrive on stimulation. His idea of lectures is that they be brief, staged as carefully as a dramatic movie. How this reminds one of the expressive fabric of the culture of black people!

The Extended Mind

It has been called "extraterrestrial intelligence," the "enhanced brain," "giant brain," and simply "automation." These forecast the advent of machines that behave as if endowed with sensory organs and a mind that promises to think creatively. Whether such machines will deliver and challenge for engineers who have succeeded in at least investing machines with the functions of the left hemisphere of the brain and, to a limited extent, the right side.

Hailed as the new industrial revolution, microelectronic technology is des ined to change the work place. Computers are now being developed in this country with the capacity of diagnosirg their own malfunctions. The faulty components will be bypassed or replaced. The insertion of redundant components will take the complexity out of repair operations.

The ability to read, mostly a left hemisphere task, is perhaps the most elemental skill required of applicants for training slots. From examination forms to job instruction, the ability to read written word is demanded of the trainee. Toffler (1980) in Third Wave speaks to the inability to read advisedly,

considering the capacity of technology to compensate for such an inability in workers:

> Yet illiteracy is not the same as stupidity. We know that illiterate people the world over are capable of mastering highly sophisticated skills in activities as diverse as agriculture, construction, hunting, and music. Many illiterates have prodigious memories and can speak several languages fleuntly--something most university-educated Americans cannot do. In Second Wave societies, however, illiterates were economically doomed.
>
> Literacy, of course, is more than a job skill. It is the doorway to a fantastic universe of imagintion and pleasure. Yet in an intelligent environment, when machines, appliances, and even walls are programmed to speak, literacy could turn out to be less paycheck linked than it has been for the past three hundred years. Airline operators, and repairmen may be able to function quite adequately on the job by listening rather than reading, as a voice from the machine tells them, step by step, what to do next or how to replace a broken part.
>
> Computers are not superhuman. They break down. They make errors--sometimes dangerous ones. There is nothing magical about them, and they are assuredly not "spirits" or "souls" in our environment. Yet with all these qualifications, they remain among the most amazing and unsettling of human acheivements, for they enhance our mind-power as Second Wave technology enhanced out muscle-power, and we do not know where our minds will ultimately lead us. (p. 189)

Carl Sagan (1977) envisions a variety of cognitive and intellectual prosthetic devises added to the brain, rather like eyeglasses for the mind. Computers, to the dismay of enthusiasts, are very poor, however, at recognizing patterns and appear incapable of creativity. These are functions of the right side of the brain. For example, a human operator can retrieve a part from among many other similar parts regardless of its rotation in space. Certain human tasks are being automated, however. Industrial robots are performing welding and other

repetitive assembly line tasks. Note, however, that they perform deliberate motor responses that are more connected to left hemisphere function of the brain than to the right.

O'Neil (1981) takes the reader on an imaginary tour through an aircraft factory in the year 2081. Seated in an automated shuttle car, one is transported easily and quickly from one area of the factory to another. The tour guide explains that production requires six levels of intelligence and versatility. Level one is fully automated with stationary operating machines. Level two is equipped with machines that have the counterparts of human limbs, and sensory organs. They empty carts and pick up, and place things. Level three machines, all equipped with laser beams, actually construct level one machines. Level four machines, human size with television eyes and moveable arms, repair other machines and each other. Level five involves humans in research and design "who use interactive computers to evaluate new families of design, and draw on results not only from their own research but from computerized scans of the latest aeronautical publications worldwide" (p. 57). Level six is staffed with artistic personnel, all human, no machines--who exercise talents of aesthtic judgement, imagination, sensitivity, wisdom, and creativity. O'Neil sees the functioning of the right side of the brain, with the support of the left, and consituting the highest level of intelligents, the element of man that neither machines nor animals can duplicate. Following O'Neil's vision, we could say that human essence, that is, the "soul" and "spirit," is the primitive and yet the most civilized aspect of being--the

right side of the brain.

Computer graphics has reached a stage of development that overlays the spatial functions of the right hemisphere of the brain. Three-dimensional images can be elaborated, and made smaller or larger, and put into motion. This could emerge as a quite useful tool for converting knowledge expressed in words and numbers to notes, lines(figure, pictures, etc.), and movement. Add sound, and job instructions could be conveyed without the printed word. Moreover, with digital indicators numerical quantities no longer have to be calculated. Surely there will be digital rules, scales, gauges, containers, all signaling the correct quantity visually on small screens.

With such enormous technical capacity there is little reason that industrial designers could not be persuaded by government to continue its provisions for industrial ware and machines that will make it possible for core blacks, who suffer educational disadvantages, to work productively and meaningfully in the marketplace.

One would hope, however, that education becomes a benefactor of lateral brain research and provides core black youth with many of the skills that they currently leave school without attaining--not so much because of the market value of these skills, as this has been strongly questioned, but because of their socializing value for effective participation in a democracy. Already, though, even before the new machine era matures, it does appear that education and experience alone are invalid as indicators of job trainability for many occupations.

The potential power of this new era is nearly miraculous and can bring about a new work environment for all.

The New Work Environment

Numerous measures are in design and experimental stages that promise to democratize the work place of America. Many, perhaps without recognition, introduce innovations that consider the whole person and by doing so provide increased outlet for the expression of the right brain's properties in the work place, historically strongly forbidden.

The move toward leisure and lifelong learning, both offsprings of the new technology revolution, appears to account for much of the momentum in this direction. Of course, where leisure is involved on and away from the job are of consideration. When relaxing, the reward of leisure, and working in leisure-oriented environments, Western culture has historically turned to black/African culture for most of its models of vitalizing human existence. Many of the proposed changes are cast in theories of brain asymmetry and find closer agreement with the five aspects of black expressiveness discussed in chapter three.

Moreoever, the 1960s brought a wave of turbulence manifested in movements known by many names--civil rights, feminism, youth, anti-war, environmental, and others. Collectively they crested minor inroads on which the philosophy of humanism crept into American coporations (O'Toole, et. al. 1981).

Futurists believe that workers will have many exciting jobs

in their work life, interrupted with planned educational absences for retooling. People working on flextime, flexweek, flexcareer, and mostly at home (where one chooses the aesthetic stimuli and expressions in the environment), interacting with offices around the globe through computer terminal links, is the utopian model. Inherent in this model is accommodation for variations in individual rhythm patterns, which are often frustrated in an overly synchronized society.

O'Toole (1981) and his associates have summarized many of the promised changes in the work place thus:

> Permanent, Part-time Jobs. At the Conctrol Data Corporation, jobs are available at "mothers' hours," 9:00 to 3:00, or "students' hours," 3:00 to 6:00. The jobs offer medical and other benefits usually only with jobs at "regular hours."
>
> Task System. At Harman International, workers negotiate a level of daily production and are free to go home when that level is reached--at 5:00, 4:00, 3:00, or whenever.
>
> Well Pay/Safety Pay. At the Parsons Pine Company, workers with good attendance and safety records get generous bonuses.
>
> Peer-Set Salaries and Raises. At Romac Industries, all workers vote on how much their peers should be paid and on whether or not their contributions merit a raise.
>
> Sabbaticals. At the Xerox Corporation, a Los Angeles law firm, and an Oregon plywood company, workers have access to systems of paid leave to engage in public service and, in some instances, continuing education.
>
> Work Sharing. In Santa Barbara, seven men and women split five full-time medical technician jobs among them. In several California cities, public employees volunteer to work less-than-full-time at less-than-full-pay in order to create jobs for others.
>
> Quality Control Circles. At over five hundred United States corporations--including General Motors--blue-collar workers have accepted full responsibility for the quality of goods they produce. AT GM, workers now even negotiate quality standards with suppliers.

Industrial Democracy. At several dozen firms supervisors have been eliminated and work teams have become entirely self-managing. Donnelly Mirrors is governed democratically by joint work/manager committees. At Chrysler, a union representative sits on the board of directors.

Worker Ownership. Over three thousand United States firms now have employee stock ownership plans. In perhaps fifty of these, workers own enough shares to be fully self-managing.

College Degrees. Dozens of United States companies now provide the opportunity to earn degrees from local colleges for classwork at plant or office locations. RAND and Arthur D. Little are even accreditted to offer on-the-job Ph.D.'s.

Phased Retirement. A few American companies are said to be experimenting with the European option of letting older workers "glide out." This is, employees between sixty and sixty-five work four-day weeks, those sixty-five to sixty-seven work three days, and those sixty-seven to seventy work two days.

Flexible Scheduling. Most people know that under flextime a worker might come to work between 6:30 and 10:00 A.M. and go home between 3:30 and 7:00 P.M., as long as he or she puts in an eight-hour day. But more radical flexibility may be in the offing. Within broad guidelines, firefighters and flight attendants with sufficient seniority are allowed to arrange their monthly or yearly work schedules in any patterns they desire--clustering work for purposes of travel or education, or spreading it out for purposes of child care.

Automation. Machines are changing the work environment in the auto industry, where robots do the welding once done by people, and in offices where electronic mail, word processors, and "intelligent" terminals have altered the tasks of clerks, secretaries, and managers. ARCO has interconnected its hundreds of far-flung operations with two way video communications in order to reduce costly travel. (pp. 410-411)

These changes are paralleled by growing interest in foreign organizational management styles. Quite frankly, American business people and industrialists are, without the usual reserve, extolling Japanese management practices (Lim 1982; Noll and Oberwise 1982; Pascale and Athos 1981). Although the enthusiasts

are balanced by a noticeable number of skeptics who are reluctant to consider a model believed infused with the eccentric or exotic aspects of Japanese culture, the enthusiasts clearly have the momentum.

What is the alleged advantage? Lim (1982) asserts that "Japanese management changes everything, because the Japanese manage with the whole brain, where we usually manage only with the left" (p. 63). Their focus on group identity over individualism, selflessness over selfishness, and the accommodation of mysticism in their logical scheme overlays this culture with the "oneness of being" dictum of traditional black/African culture, although their calculated control of actions subduing behavior is apart from the vital, spontaneous expressiveness of black/African people.

Nonetheless, it is of interest to our thesis that brain asymmetry emerges as a theoretical framework for the explanation of the suspected Japanese advantage. Adapting the Japanese style for Western use, Lim makes a case for "nonlinear management." Figure 2 highlights the factors associated with limiting Western capacity and expanding Eastern capacity for production. The split-brain theory can easily be superimposed upon this figure--the Western style striving for dispassionate objectivity (left hemisphere predominance), the Eastern style striving to use everything that might be relevant (left/right hemisphere variations as a factor of relevancy).

It appears certain that prevailing trends involving computerization and democratization of the work place will allow a range of human expression on and off the job. The derived leisure is certain to create a greater need for employment involving

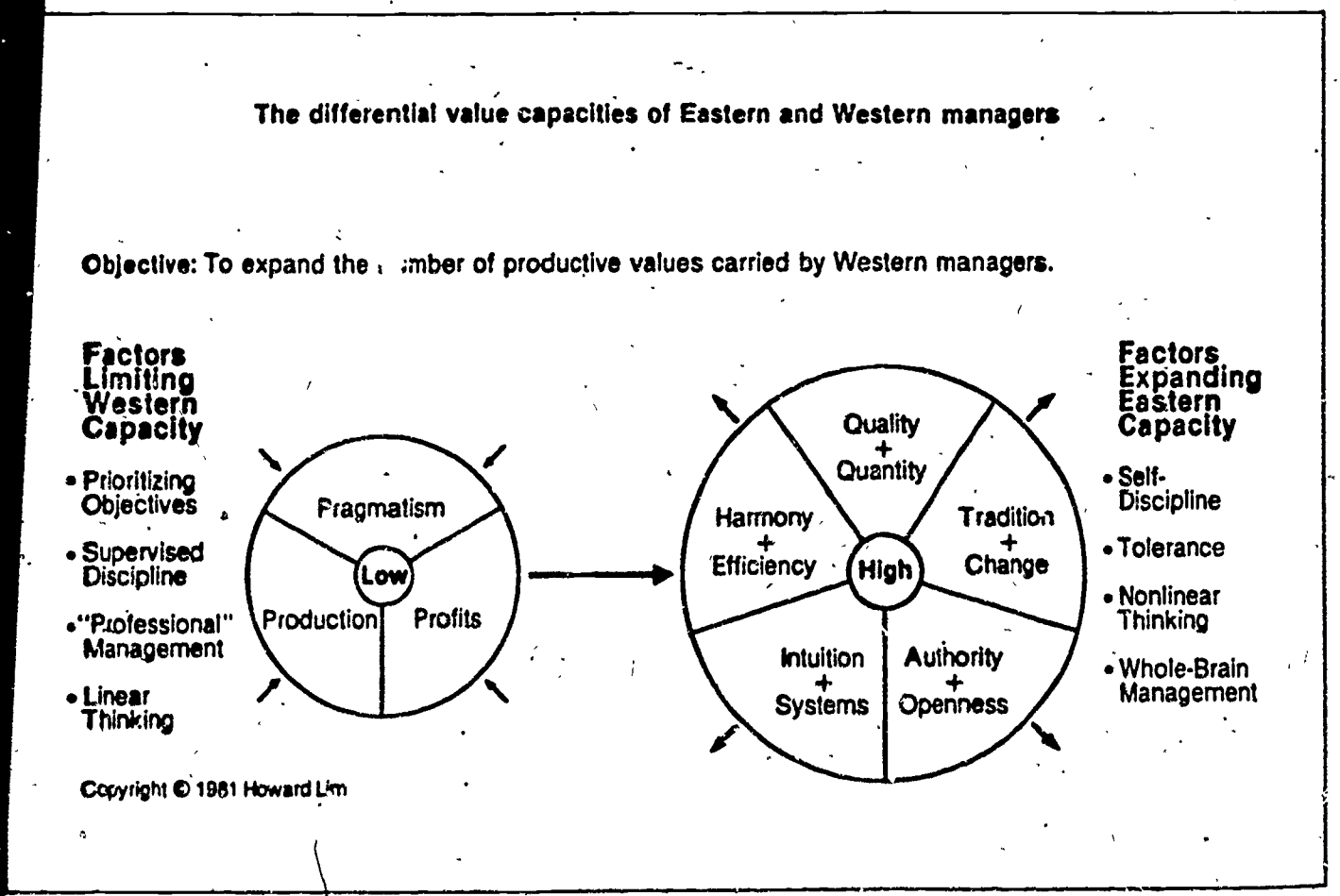

Figure 2. Nonlinear management (taken from Howard Lim, "A Japanese Agenda for Management Development," Training and Development Journal, March 1982, p. 66).

the proliferation of aesthetic and artistic stimuli.

Black Expressiveness--An Agenda for Increasing Black Employability in the Arts

Core black people have been catalytic to the development of American popular culture and continue subsidizing it with their artistic creativity and ingenuity stemming from their aesthetic agility with the right side of the brain. In spite of this acknowledged contribution, black people do not own, operate, or sustain artistic institutions of any critical importance in these United States. This is especially applicable to the institution of theater which makes use of a variety of artistic or expressive media and is a recognized training ground for popular entertainment capital. Created is an obvious void in employment that derives from the economic basis of black art and culture. White-run productions are content at hiring only a dismally few blacks in artistic roles for the few integrated casts, filling the remaining roles with white artists who are able to adopt or adapt black style for mostly white audiences. Howard Cruse (1967) quoting Edgar M. Grey from the cultural pages of the Amsterdam News of November 10, 1926, showed that this is not a recent issue. Grey rhetorically questioned:

> What advancement has been gained to the colored motion picture industry?
>
> What benefits have come to the community?
>
> What encouragement has come to the individuals of the group who might aspire to the profession of screen actor?

What pecuniary benefits have reached the group as a social unit? None whatever. (p. 78)

Cruse's monumental work The Crises of the Negro Intellectual provides an excellent analysis of white control of cultural creations in the black community. A quick look at the Harlem background might be helpful in understanding the black community's weak economic relationship to its own creative properties.

Long regarded as the capital of black America, early black Harlem personified the artistic capability residing in core black communities everywhere. There the real cultural issue was, Cruse maintained, the Apollo theater--institutional role, ownership, influence and history. As Harlem went, so did other black communities everywhere--with less notoricty, of course! Harlem was predominantly a white community at the turn of the century. Having changed from Dutch to Irish to Jewish to African American, it is known for its last change, which spawned a cultural movement with creative scholars.

Blacks began moving to Harlem because it had been overbuilt with apartments. Unsuccessful at stemming the influx of blacks into the area, whites abandoned it at a plague-fleeing speed. The emerging black middle class under the influence of Booker T. Washington and the Tuskegee machine gained a stake in the real estate of Harlem. The proteges of Washington, through a real estate company, aggressively asserted themselves economically but exercised undue restraint, if not abject neglect, on the issue of civil rights. Without a cultural identity and philosphy this huddling black middle class failed also to appreciate the more vital expressiveness of the core

black community, and therefore remained oblivious to its economic potential.

This misguided perspective led Washington and his constituents on a collision course with W.E.B. Dubois , who assumed a more aggressive posture on civil rights and embraced black expressiveness for its cultural significance, though without an economic perspective.

Marcus Garvey, having revived Black Nationalism as an economic and political philosophy, used core black expressions to extend his personal appeal to core black people and to build race pride. However, a mix of extreme political views seemed to detract from an economic pursuit of the cultural wealth in cor black communities.

The lack of cultural sponsorship in the black community by the black intelligensia was unfortunate. Perhaps there were carry-overs from the African heritage, where artistic production belonged to the community as a whole rather than to the producers and was not a commodity to be negotiated in the marketplace. It was to be used in the quest to express one's existence in satisfying and stimulating ways. Of course, the black intelligensia, being sufficiently Westernized, more than likely was without a cogent cultural philosophy or identity to overlay the varying political splinters, leaving cultural expression seated on marginality.

Paralleling the Harlem cultural movement was the white creative intellectual movement in Greenwich Village under the orchestration of white liberal financiers-the most noted Mabel Dodge (Dodge 1936), This cultural movement, beset with problack

and pro-Indian themes, produced the personalities who ultimately paternalized black creative talent. Cruse (1967) wrote:

> The price was that in exchange for the patronage among the downtown white creative intellectual movement, the Negro's "spiritual and aesthetic" materials were taken over by many white artists, who used them allegedly to advance the Negro artistically but actually more for their own self-glorification. As a result, a most intense (and unfair) competition was engendered between white and Negro writers; the whites, from the vantage point of superior social and economic advantages, naturally won out.
>
> A tradition of white cultural paternalism swiftly became entrenched in the Harlem movement. (p. 35)

This regretable economic relationship of the black community to its creative property remains unchanged, escalates the problem of unemployment in the community, and limits if not eliminates opportunities for artistic brokering by blacks. This woefully undermines economic development and control in the communities of black people. The richness of the right brain is up for grabs and the vested economic grip of the white community on black talent (artistic and athletic) is unlikely to loosen voluntarily. It appears not to have been by accident that theaters in Harlem sold out to black churches rather than black artistic business people.

A serious role for vocational educators (and for all educators) emerges here if unemployment is to diminish proportionately in the core black community. Shouldn't blacks benefit from their disposition to express reality artistically and creatively through the imperative of the right hemisphere of the brain?

It would seem that secondary and postsecondary schools that serve core black youths would form arts and athletic corps in connection with the academic and technical subjects to make for an

"aesthetic" approach to teaching and learning. Church, school, and other community facilities could appropriately convert to theaters, where students learn management skills and cultivate their artistic, office, and technical crafts through planned performances. Such performances could provide incomes and employ students as they learn and work. Emphasis could be distributed evenly between the development of artistic and athletic talents, and roles associated with the performing business: agents, lawyers, sound and instrumentation engineers, makeup artists, photographers, critical journalists, teachers, coaches, fund raisers, marketing and advertising agents, accountants, and on and on. Even if such efforts were government-subsidized, it would be a far wiser expenditure than subsidizing city sanitation and park departments to give youth summer jobs that are without intrinsic satisfaction and that produce no recognizably marketable skills. Think of the savings in costs associated with large congregations of unemployed youth roaming through the community unravelling it. A redesign of learning such as is proposed here would seem appropriately to utilize the whole brain and cast learning in a pleasing and satisfying context, while reducing unemployment among the school-age youth.

Summary

An intelligent society can surely see the benefits of a fully employed black America. Lateral brain research has given momentum to developments in education and technology that are changing the manner in which people learn, work, and play. Whether in the context of learning, working, or playing, creative and

and artistic expressions can serve as expedient aids while wholly constituting each and all of these living modes concurrently. Clearly, occupational futuring involves fuller engagement of the right side of the brain and should award certain advantages to core black youth who are so predisposed, significantly raising their employability quotients.

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