Enigmas of Native African Intelligence

By NATHANIEL WEYL

In this paper I propose to deal with facets of the problem of observed difference between White and native African intelligence which are currently engaging the attention of South African anthropologists. I shall lean heavily on the writings of Dr Simon Biesheuvel[1] because I regard his work as outstanding for originality and judicious evaluation of the data. This judgment is possible despite the fact that Biesheuvel takes an agnostic position on the major issue of whether Negro-Caucasian differences in I.Q. are partially genetic in origin.

EVOLUTION AND BRAIN

Dobzhansky, Ashley-Montagu and others[2] have denied the probability of significant differences in the innate mental endowment of different races on *a priori* grounds. As Fuller and Thompson summarized the argument in their generally excellent 1960 text:[3]

> . . . there are important reasons to discount the likelihood of such [genetically caused, psychic, inter-racial] differences being very important. The most diverse human cultures have common features related to the perpetuation of species. It is difficult to conceive of a society in which intelligence, cooperation, and physical vigor would not have positive selective values. Hence it is likely that natural selection tends to oppose the establishment of major heritable behavior differences between races.

This view of the matter seems plausible and has been uncritically accepted by many students of human evolution. Biesheuvel is not

[1] A past president of the South African Association for the Advancement of Science, and the current president of the South African Psychological Association, Simon Biesheuvel obtained his Ph.D. at Edinburgh in 1933. He designed the aptitude tests for South African Bantu mine labor, served for many years as director of the National Institute for Personnel Research, and is at present Personnel Director of the South African Breweries Group of Companies.

[2] T. Dobzhansky and M. F. Ashley-Montagu, "Natural Selection and the Mental Capacities of Mankind," *Science*, Vol. CV, 1947, pp. 587-590; T. Dobzhansky, "The Genetic Nature of Differences among Men" in *Evolutionary Thought in America* (edited by S. Persons), Yale University Press, New Haven, 1950, pp. 86-155; and W. Witkin, "Social Behavior and the Evolution of Man's Mental Faculties," *American Naturalist*, Vol. LXXXVIII, 1954, pp. 129-142.

[3] John L. Fuller and W. Robert Thompson, *Behavior Genetics*, John Wiley and Sons, New York and London, 1960, p. 324.

among them. After pointing out that this view "does not square with the facts of traditional life in Africa," he observes:[4]

> Not only is it difficult to maintain a high activity level in a tropical climate, but attempts to do so would probably have adverse consequences for health. Such activity would also constitute a deviation from traditional behaviour patterns which would single the individual out as socially aberrant, with all that this would imply in conformist societies. Individualistic behaviour, unless institutionalized in the role of the witch doctor, would increase exposure to accusations of sorcery. Above average intelligence, the curiosity and questing attitude to which it may give rise, could meet with a similar fate. It is therefore not at all unreasonable to assign a much lower selective value to intellectual and temperamental superiority in traditional than in western civilized cultures.

In a 1960 book I dealt with the Dobzhansky theory that natural selection must necessarily favor the intelligent elements among all human races, but without specifically citing it. After briefly discussing some of the basic physiological processes involved in the maintenance of human thermal equilibrium in the tropics I concluded that in these latitudes "the survival advantages of superior brain power would be either less or non-existent," adding:[5]

> In the Tropics, much of man's activity is conducted in intense heat. Hence, his blood circulation is often channeled along the emergency route to serve the sweat glands at the extremities rather than to meet the blood needs of the brain for effective thinking.
>
> Torrid climates, in other words, may prevent individuals with superior minds from using them efficiently, not only most of the time, but in such critical survival situations as hunting and war. The reasonable inference is that natural selection for intelligence would operate in the Tropics with vastly impaired efficiency.
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> The hypothesis suggested is that in the Tropics climate destroys the normal social and survival advantages of superior brain-power. Hence the races exposed longest to torrid climates would be those in which least natural selection for intelligence had occurred. If this is so, such races should show, on the average, less cortical development than other ethnic groups. While they might produce some individuals of outstanding mental

[4]Simon Biesheuvel, "Psychological Race Differences." I am quoting from the typed carbon which Dr Biesheuvel gave me in Johannesburg in October 1966. Since I do not know where the article was published I am unable to give a fuller reference.

[5]Nathaniel Weyl, *The Negro in American Civilization*, Public Affairs Press, Washington, D.C., 1960, pp. 164-165.

ability and even of genius, they would probably furnish fewer of them proportionately than the non-tropical races.

A very similar view was expressed by Biesheuvel in a 1966 article.[6] He observed that, in native Black populations which have lived for centuries under tropical climatic conditions,

> a more fundamental constitutional change may have come about because of the higher survival value of less active individuals. . . . People with a high activity level have a greater capacity for sustained effort, and more readily engage in spontaneous activity largely for its own sake than the temperamentally inactive. In hot climates, the former expose themselves more frequently to a variety of risks, both constitutional and cultural, which may adversely affect their relative fertility.

As adverse physiological factors, Biesheuvel lists higher body temperature, greater frequency of heat-stress and possibly greater susceptibility to the incurring of tropical disease. The adverse cultural factor is that an energetic, questing temperament might subject its possessor to suspicion of witchcraft.

After alluding to Markham's finding that early civilizations all originated in regions of moderate humidity, arable land and an average temperature of 70 degrees Fahrenheit,[7] Biesheuvel points out[8] that those peoples who did not emigrate when climates turned more torrid

> failed to maintain or acquire civilizations of the more advanced type. . . . The implication is that their temperamental adaptation, whilst making it possible for them to survive in climates which had turned hostile, also caused them to lose the drive and initiative which are the principal spur to man's conquest of his physical environment.

The implications of this approach are vast. If the heat adjustment requirements of the tropics place a premium on sloth and mental inertia in terms of species survival, natural selection must inevitably be negative for intelligence. It would follow that the prevalence and degree of human stupidity should be directly correlated with the length and intensity of racial exposure to hot, wet climates in which physiological heat-loss is most difficult.[9]

[6] Simon Biesheuvel, "Behavioural Adaptation to Hot Climates," *South African Journal of Science*, Vol. LXII, No. 1, January 1966, p. 6.

[7] S. F. Markham, *Climate and the Energy of Nations*, Oxford University Press, London, 1947.

[8] *Op. cit.*, p. 6.

[9] Excluding cases in which the human element thus exposed has been able to resort to air conditioning or the much more ancient device of remaining indoors and having the necessary field work done by alien helots.

Negroid, Capoid and Australoid races are probably *sui generis* in their length of exposure to these unfavorable climatic conditions. In the case of racial groups which originated in cold-to-temperate climates, but remained in environments that became unfavorably hot and moist or else migrated to such climates, we should expect bursts of creative energy during the first centuries of exposure to the debilitating habitats but a gradual decline in civilizational and cultural level thereafter. This is what has in fact occurred in those populations which Spengler contemptuously terms *fellaheen*.[10] These are, as I use the term, culture-civilizations which have burned themselves out—or rather have been scorched and washed out by tropical suns and rains. They are stagnant, preponderantly rural societies bound to obsolete traditional modes of action and thought. Their peoples lack energy or the capacity for innovation and make virtually no contribution to the creative activities of mankind.

Probably all of Islam falls under this rubric,[11] and in fact the word *fellah* designated the Egyptian peasant. India and Ceylon, which once built great civilizations, belong in this category as do the remaining areas of Southeast Asia, a good example being the present-day population of Cambodia which is such a feeble caricature of the Khmer builders of Angkor-Vat.

A clear distinction must be drawn between those Caucasoid and Mongoloid peoples who became devitalized and were drained of their creativity by prolonged exposure to unfavorable climatic conditions, on the one hand, and the Negroes, Bushmen, Hottentots and Australian Black Fellows, on the other hand, most of whose racial life was spent in such habitats. The first group lapsed from civilization; the second was never, at any time, capable of rising to that level.

We find frequently that energetic, creative stocks evolve in cold climates; later become masters of warmer climatic zones richly endowed with the material resources of high civilization; build such civilizations; and then, because of decimation of their élite elements, adverse climatic change or some other fact, sink into a *fellaheen* condition.

In general the *fellaheen* societies are found in torrid climates, although there are some exceptions. In the Islamic zone the once vigorous and creative Iranians and Kurds today vegetate

[10] Oswald Spengler, *The Decline of the West*, Alfred A. Knopf, New York, 1928, Vol. II, pp. 105, 178, 185-186, 314 and 362.

[11] However, as I have suggested in *The Geography of Intellect* (Henry Regnery Company, Chicago, 1963, pp. 144-146) and *The Creative Elite in America* (Public Affairs Press, Washington, D.C., 1966, pp. 68-71), a major cause of the shattering of Islamic civilization east of the Maghreb was the dysgenic catastrophe inflicted by the Mongol hordes from Genghiz Khan to Timur the Lame, who transformed the cities, in which most of the intellectual élite lived, into towers and pyramids of skulls, thus causing an irreversible impoverishment of the gene pool of the Muslim peoples.

in a *fellaheen* condition. In the Americas, in precisely those areas which formerly witnessed the rise of great Amerindian civilizations, a heavy concentration of native population lives as a peasantry in a timeless, routine-bound society and occupies a ten-thousand-mile, seldom interrupted zone of sierra and *altiplano* which stretches along the Pacific coast from Alaska to Patagonia. In both these instances special historic forces have intervened to cause societary degradation. In the case of Iran, Mongol devastation, destruction of the cities and extermination of the intelligentsia and upper classes were particularly severe. In the American case the peoples who inhabit the land that was once the cradle of the great Amerindian civilizations probably have little genetically in common with their alleged ancestors. Thor Heyerdahl has advanced a strong case in favor of the view that the Mayan, Incan, Toltec and Aztec civilization impetuses came from White sojourners, quite possibly Guanches from the Canary Islands or some related Atlantoid strain.[12] We know that Japanese sailed from their island archipelago to Peru in prehistoric times, settled there and left their imprint on pre-Incan pottery.

Even if it should be found that the builders of the Amerindian civilizations were, like their subjects, the descendants of migrants across the Behring Straits, it would not follow that the rulers and the ruled shared many genes. We know that these civilizations had strict rules against miscegenation between the different castes and classes. Since the Spanish *conquistadores* either exterminated the former Amerindian ruling castes or assimilated them by intermarriage, or else sterilized them by recruiting them into the Christian clergy, the present populations of the American plateau must descend from the peasantry and the lower strata. To this extent the problem is not one of loss of creativity by an upper class, but of its elimination and replacement by a peasant mass.

Returning to the more limited topic of the racial inheritance of the African native and its bearing on his mental limitations, two additional observations should be made at this point. J. P. Mackey advanced the hypothesis that the evolution of the Negro in his African habitat has been channeled by the variety of intestinal and other parasites which prey upon him. Natural survival, in other words, has been determined not by brain but by capacity to tolerate infection. Mackey states that the hormonal make-up of the East African is genetic "and has been brought about, at least to some extent, by a process of selective survival in hyper-endemic parasitic areas of those best able to tolerate their parasitic infections."[13]

Another complex of interactions between race and physical habitat may well have contributed to the mental impoverishment

[12] Thor Heyerdahl, *American Indians in the Pacific: The Theory Behind the Kon-Tiki Expedition*, Rand McNally and Company, Chicago, 1953.

[13] Writing in the *East African Medical Journal*, Vol. XXX, 1953, p. 13.

which one views today, and which virtually all previous observers have commented upon, in native Africa. As has already been pointed out, one of the central adaptations required for survival and effective functioning at high temperatures is an efficient mechanism for heat loss. Body temperatures must be kept within the normal range despite accentuated solar radiation and moisture blankets inhibiting thermal adjustment. Failure to do this carries with it the threats of fever, sunstroke, loss of consciousness and even death.

All animals, man included, adjust to the need for heat loss by developing specific somatypes. The Negro and other tropical races adapt by developing slender bodies and long fingers, thereby increasing the ratio of sweating surface to body mass. This follows Allen's Rule, namely: "Protruding parts, such as tails, ears, bills, extremities, and so forth are relatively shorter in the cooler parts of the range of the species than in the warmer parts."[14]

The lithe, long-limbed, slender physique of the Negro and Cushite is naturally associated with a narrower pelvis. This is probably a main reason for the fact that the Negro brain is, on the average, about 10 per cent smaller than that of the Caucasian or Mongolian. Foetuses with larger brains would suffer lethal or debilitating birth traumas, and hence their possessors would fail to grow to maturity or reproduce and the entire population would in time consist of the small-brained survivors. In this context it is interesting that the surviving small-brained to microcephalic peoples of the world are denizens of the tropics, whereas the culturally primitive inhabitants of the polar areas, such as the Kalmucks and Eskimos, tend to have brains equal in size to those of the modern peoples of Europe.

KINESTHETIC MATURATION OF AFRICAN NEONATES

In a 1957 article in the authoritative British medical journal *The Lancet*, Drs Marcelle Geber and R. F. A. Dean showed that native African infants in Uganda had kinesthetic maturation rates "equal to that of European children twice or three times that age."[15] The tests administered were those taken from standard French treatises on infant development by Koupernik and Thomas *et al.*[16]

[14] *Per contra*, the Mongolian adapts to a cold habitat, where the central problem is maintaining body heat, by developing a sturdy, barrel-chested physique, with short legs, arms and nose, a generous layer of subcutaneous fat and a minimum ratio of skin surface to body mass.

[15] Marcelle Geber and R. F. A. Dean (director and visiting worker of the Medical Research Council for research in infantile malnutrition at the Mulago Hospital, Kampala, Uganda), "Development Rates of African Children in Uganda," *The Lancet*, Vol. CCLXXII, No. 6981, 15th June 1957, pp. 1216-1219.

[16] C. Koupernik, *Développement psycho-moteur du premier âge*, Paris, 1954; and A. Thomas, Y. Chesni and A. Saint-Anne Dargassies, *Examen neurologique du nourrisson*, Paris, 1955.

Unlike the Gesell Developmental Quotients, they were not strictly measures of infant mental development but rather, as I characterized them elsewhere, "quantitative observations of the time of transition from uterine and neonatal kinesthetic reactions to more advanced forms of muscular control."[17] These tests measured such developmental milestones in infancy as following moving objects with the eyes, raising the head, propping torso on arms, keeping the trunk straight while in a sitting position, and so on. Ninety of the 107 Uganda neonates studied showed head control and ability to straighten the back when seated at the age of four days. These muscular controls are generally acquired by European children between the eighth and the twelfth week. Furthermore, the Moro reflex, which White children retain until the sixth or eighth *week*, vanished among all the African infant subjects by the fourth *day* of life!

"There seems to be no doubt that these African children had been born at a more advanced stage of development, judging by the method used, than the normal European children," the authors wrote. "The results of the examination were so consistent, and the degree of advance was so great, that there was little room for uncertainty."

Drs Geber and Dean pointed out that it was most improbable that special conditions at Kampala caused these unexpected observed differences. The town is on the equator but at an altitude of 3500 feet above sea level. The African infants studied were the products of normal, unassisted births, and they and their mothers were without known diseases. Moreover, although the subjects came from different tribes, no inter-tribal differences in performance were found. When White children at the European hospital were given the same tests their performance was similar to that of White infants in Europe. Indian neonates in Kampala had about the same kinesthetic maturation rates as European infants.

When it was publicized by the *New York Times*, the Geber and Dean article brought to the attention of informed Western opinion data which demonstrated a basic functional difference between the African Negro brain, on the one hand, and the European or Indian brain, on the other. This difference became manifest during the first few days of life and hence could not be imputed to most of the sociological causes which sociologists and social anthropologists habitually adduce to buttress their faith in racial equality. The seemingly superior performance of the native African infants occurred despite a markedly inferior uterine environment, one characterized by protein deficiency and other forms of malnutrition, sometimes of a gross nature. Unfortunately, neither the implications nor the importance of this study were grasped by most anthropologists and ethnologists.

[17] Nathaniel Weyl, *The Negro in American Civilization, op. cit.*, p. 43.

Actually, Dr Geber had begun her work on African infants and toddlers in 1954 and had published her first paper two years later.[18] For the next decade she continued to devote her energies to longitudinal studies of the psychomotor and mental development of the native African child.[19] Meanwhile, other workers were making similar studies in Senegal, the Cameroons and among the Ouolofs.[20]

Most of these studies are not available to me and, in such cases, I have been obliged to rely on psychological or medical abstracts for their contents.[21] With this important qualification, it may be concluded that the investigations tend to agree in several broad conclusions. The native African neonate displays a pace of psychomotor development which is markedly faster than his European counterpart. The precocity of the African child lasts until the 18th to 20th month, according to Geber, and until the 18th to 24th month, according to Falade. After this there is retardation and, from the third year on, the African child falls significantly behind the White child. Since substantially the same pattern was found in West Africa as in Uganda, the difference in psychomotor development cannot be attributed to local conditions at Kampala. It is significant, however, that Geber found that 60 children of 27 educated native Uganda families showed less precocity up to two years and less retardation thereafter.[22] In another

[18] Marcelle Geber, "Développement psychomoteur de l'enfant Africain," *Courrier*, Vol. VI, 1956, pp. 17-27.

[19] Marcelle Geber, "Gesell Tests on African Children," *Pediatrics*, Vol. XX, 1957, pp. 1055-1066; Marcelle Geber and R. F. Dean, "Psychomotor Development in African Children: The Effects of Social Class and the Need for Improved Tests," *Bulletin of the World Health Organization*, Vol. XVIII, 1958, pp. 471-476; Marcelle Geber, "The Psychomotor Development of African Children in the First Year, and the Influence of Maternal Behavior," *Journal of Social Psychology*, Vol. XLVII, 1957, pp. 185-195; Marcelle Geber, "L'enfant Africain occidentalisé et du niveau social supérieur en Uganda," *Courrier*, Vol. VIII, 1958, pp. 517-523; and Marcelle Geber, "Longitudinal Study and Psycho-motor Development among Baganda Children," *Proceedings of the 14th International Congress of Applied Psychology: Volume III: Child and Education*, Munksgaard, Copenhagen, 1962.

[20] Solange Falade, *Le développement psychomoteur du jeun Africain originaire du Sénegal au cours de sa première année*, Foulon, Paris, 1955; J. Senecal and Solange Falade, "Développement psychomoteur de l'enfant Africain au cours de la première année," *Bulletin Médical de l'AOF*, Vol. I, 1956, pp. 300-309; D. Vouilloux, "Etude de la psychomotricité d'enfants Africains au Cameroun," *Journal de la Société des Africanistes*, Vol. XXIX, 1959, pp. 11-18; and Bardet *et al.*, "Application du test de Brunet-Lézine à une groupe d'enfants ouolofs de 6 à 24 mois," *Bulletin de la Société Médicale d'Afrique Noire*, Vol. V, 1960, pp. 334-356.

[21] Another excellent bibliographical source is L. E. Andor, *Aptitudes and Abilities of the Black Man in Sub-Saharan Africa 1784-1963*, National Institute for Personnel Research, Johannesburg, 1966.

[22] Marcelle Geber and R. F. Dean, *Bulletin of the World Health Organization*, *op. cit.*

study she concluded that native children from Westernized African families revealed faster mental development, as measured by such devices as Gesell tests, but slower motor development.[23]

The explanation which both Geber and Falade proffer for this extraordinary difference in developmental pattern between the two races is the African tribal custom of abruptly weaning toddlers at the age of two or so and separating them from their mothers whom they had previously accompanied constantly, a practice which is characterized as traumatic.

This conclusion is a remarkable one. It is an explanation which fails to explain the most salient observed fact. As I shall show, it falls apart for other reasons. Perhaps its greatest advantage as a hypothesis is that it is consistent with the premise that Negro infants at birth are at least equal to White neonates (and perhaps even their superiors!), a hypothesis no doubt pleasing to the United Nations, which, through the World Health Organization, financed the Geber and Dean study.

Weaning trauma might conceivably explain the slow down in learning ability observed among Negro infants after the second or third year, and their increasingly rapid decline below the levels of White children of the same age group thereafter. However, it could never explain the enormous superiority observed in Negro infants at birth in speed of motor development. Since the African foetus has a much less favorable uterine environment than the European one, the superior ability of African neonates must have seemed doubly astonishing to most observers. This observed extraordinary kinesthetic ability of African neonates was, after all, the central point. It was the one major discovery of Geber and Dean—that of a highly significant functional difference between the races *which exists at birth.*

Writing about this matter seven years ago I suggested that the fundamental reason for the swifter pace of African neonatal kinesthetic maturation is that length of infancy is directly related to ultimate mental development, that is to say, more primitive minds need and enjoy shorter infancy periods than more complex ones. This is a basic biological rule which is evidenced by almost all interspecific comparisons. To quote Dr J. C. Carothers, a distinguished authority on the subject:[24]

> The difficulty of early learning is mainly one of cerebral complexity, and it is the rule in all mammalian life for full mental stature to develop early in direct relation with cerebral simplicity. The rat, for instance, is fully competent to deal with his relevant environment within three months of birth.

[23] Marcelle Geber, *Courrier*, Vol. VIII, 1958, pp. 517-523.

[24] J. C. Carothers, *The African Mind in Health and Disease: A Study in Ethnopsychiatry*, World Health Organization, Geneva, 1953, p. 100.

whereas the chimpanzee takes several years. Whenever the central nervous system is enlarged out of proportion to its sensory supply and has many alternative pathways and opportunities for choice, much time is taken in growing up. In Hebb's phraseology, where the association-sensory ratio is high, the learning must be slow, though the final ability to handle complex relations will be great. The long time taken in growing up in the higher animals may be in part a question of maturation, but is mainly due to the need for learning to be piecemeal and unintegrated at first. This does not last, however; and sooner or later, the animal makes the larger synthesis and becomes competent to cope at any moment with its total situation.

Comparative studies of infant great apes and infant human beings have shed light on the relationship between the pace of neonatal development and ultimate mental power. A classic investigation was undertaken by two young American scientists who resorted to the dangerous practice of rearing their infant son. Donald, with Gua, a female chimpanzee. For the first three years of life, Gua retained her lead in developmental pace and learning, but thereafter fell rapidly behind.[25]

More recently, two Ohio State investigators made detailed photographic records of the development of Colo, a female gorilla born in the Columbus Zoo in 1956. Examinations were made at two-weekly intervals until the age of 40 weeks and less often thereafter. Colo's muscular and kinesthetic maturation rate in her first months of life was "approximately twice as fast as that found in humans" and also faster than that of the chimpanzees studied by Riesen, Kinder, Yerkes, Kellog, Hayes and others. Colo lifted her head from the supine position from the outset, "a behavioral pattern not attained by the human infant until 28 weeks of age, and she never lost this ability." As in the case of the tribal African infants observed by Geber, command of head and neck musculature was especially precocious. Noting the differences between speed of motor learning in the three genera, the authors concluded:[26]

> One hypothesis which might be brought forward is that the more prolonged the infancy, when one genus is compared with another, the higher the eventual attainment in terms of human intellectual functioning. The hierarchy would appear to be homo sapiens, chimpanzee and gorilla.

If an inverse correlation of this sort between pace of neonatal

[25] W. N. and L. A. Kellog, *The Ape and the Child*, McGraw Hill, New York, 1933.

[26] Hilda Knobloch and Benjamin Pasamanick, "Gross Motor Behavior in an Infant Gorilla," paper delivered on 2nd September 1958 to the Annual Meeting of the American Psychological Association in Washington, D.C., cited in Nathaniel Weyl, *The Negro in American Civilization*, *op. cit.*, p. 334, footnote 13.

psychomotor development and ultimate mental potential exists between various animal genera, it seems reasonable to suppose that a similar relationship prevails between different species and different races. It would follow that the fundamental reason for the much more rapid motor development of African Negro than of European White neonates is the more complex brain structure and greater mental potential of the latter. Thus, a functional analysis would serve to reinforce the work of F. W. Vint and others on comparative Negro-White brain histology.[27]

This suggested explanation of Geber's findings leaves unexplained the numerous observations to the effect that the children of the more educated and Westernized African Negroes conformed much more closely to the White pattern than did the tribal neonates. Here, I would suggest that qualification for higher education and Westernization are selective for intelligence and perhaps for race mixture within the African Negro milieu. That the brighter children qualify for more advanced schooling and adapt to Western ways is too obvious to require elucidation. The United States experience is that Negroes of mixed blood have significantly higher I.Q.s on the average than those of purer race, and the student bodies of such élite Negro universities as Howard are preponderantly mulatto.

The African scene is fundamentally similar. While the White presence south of the Sahara was quantitatively less, and miscegenation could not have influenced the native gene pool over the past two centuries as profoundly as it has influenced the Negro gene pool in the United States, significant Caucasoid infusions have been occurring in trans-Saharan Africa over thousands of years. Berber and Arab, and Portuguese and Boer, have all made contributions to race mixture within the Negro stocks. In Africa south of the Zambesi, with its temperate to tropical climate, leadership within the Bantu world tends to fall to those with lighter skins and of more mixed racial origin, and these groups provide a disproportionate number of the more intelligent and more resourceful individuals. In tropical Africa, where climate prevents the survival of genes for light pigmentation, we nevertheless discover that Caucasoid traits are revealed in nostrils, shape of skull, lips and general physiognomy, and that these traits appear more frequently among the élite than among the masses.

Comparing American with African Negroes, a salient difference is that, in the latter case, the racially mixed individuals may be infused with Cushitic, Hottentot or Bushmanoid genes rather than with those of Nordic slave owners. The effect in both cases,

[27] F. W. Vint, "The Brain of the Kenya Native," *Journal of Anatomy*, Vol. LXVIII, Part II, January 1934, pp. 216-224. This work has been critized for methodological shortcomings, but unfortunately no more recent and better study of the anatomical and cellular differences between the brains of the two races exists.

however, seems to be that of upgrading the stock mentally. In South Africa the Bantu tribal chiefs are almost always lighter and less Negroid in appearance than their subjects—so much so that anthropologists there claim they can identify the sons of chiefs among a mixed group of school children by color and physiognomy alone.

The weaning trauma hypothesis could not explain the fact that the native African infant's precocity is most marked in muscular and motor coordination and least impressive in the visual field. Carothers once observed that the native African "lives largely in the world of sound, in contrast to the European, who lives largely in the world of sight."[28] He also said:[29]

> An understanding of the world we live in, and the development of an objective attitude and of mature responsibility depend on a well-developed sense of spatial, temporal and causal relationship and these in turn on a habit of visual as opposed to auditory synthesis. . . .

Corroborating the findings of previous investigators, Biesheuvel found that the native African is deficient in the ability to perceive or manipulate three-dimensional spatial relationships. A series of pictures was drawn showing an African hunter about to throw a raised spear at a buck. An elephant in the background would seem to be in the trajectory of the spear to those incapable of perceiving pictures as three-dimensional. Successive pictures introduced additional clues to dimensionality such as changing object size, perspective and superimposition. The test was given to illiterate African mine laborers, Negro children in secondary schools, Bantu clerks and African teachers. It was also shown to partially illiterate White laborers and to White school children.

Biesheuvel found that three-dimensional perception increased with education and maturity, but that the African remained inferior at all levels. He attributed this to the absence of three-dimensional representations in tribal life. The poor performance of even graduate African teachers seemed to him to indicate that, unless this ability to perceive three-dimensionally is acquired in childhood, it can never be successfully mastered.[30] This perceptual and conceptual failure may explain the fact that, while the more gifted Bantu may function quite well in such verbal professions as the law, they hardly ever qualify in professional fields requiring synthetic

[28] *Op. cit.*, p. 103.

[29] J. C. Carothers, "Frontal Lobe Function and the African," *Journal of Mental Science*, Vol. XCVII, 1951, pp. 12-48.

[30] Simon Biesheuvel, "Symposium on Current Problems in the Behavioral Sciences in South Africa: The Growth of Abilities and Character," *South African Journal of Science*, Vol. LIX, 1963, p. 378; see also W. Hudson, "Pictorial Depth Perception in Sub-cultural Groups in Africa," *Journal of Social Psychology*, Vol. LII, 1960, pp. 183-208.

or analytic reasoning in three-dimensional continua. Thus, in South Africa in 1964 no Negro qualified as an architect or a civil, electrical or mechanical engineer.[31]

An alternative explanation would be that the capacity to perceive pictures in three dimensions is correlated with the degree of development of the visual centers of the brain. These, as Carothers and others have suggested, are deficiently developed in the native African. Since the highest mental functions are inextricably intermeshed with the capacity for visual and spatial synthesis, this Negro inability to synthesize in a three-dimensional frame is further corroborative evidence of a shortfall in innate intelligence. The fact that three-dimensional perception varies with educational level in both the Negro and the White race is consistent with this view since the more highly educated are, on the average, the more intelligent. Capacity to perceive and reason three-dimensionally self-evidently precedes discovery of the laws of perspective. The ancient Egyptians were able to build vast engineering works despite the fact that their drawings show no concept of perspective, and the Chinese erected the Great Wall and temples and palaces despite the naïve representation of three-dimensional space in their art.

Let us now return to the subject of the weaning trauma, which is supposed to explain the tortoise-like mental development of the African infant after the second year. Social scientists who support this theory assert that, until about the eighteenth month, the African native infant lives with its mother in a blissful condition of total security in which all its wants are met as soon as they arise. This state of affairs is brusquely shattered; the infant is removed from the breast, forced to fend for himself or sent to his grandparents. The sudden deprivation of mother love that occurs at this time—together with other emotional dearth situations during childhood and the initiation ceremonies—leaves, it is alleged, an incurable psychic wound. The native child grows up to be a weak, over-dependent, immature and anxious adult who lacks self-respect, shirks his obligations and tends to retreat into a dream world whenever reality assumes an unpleasant guise.

Like most psychiatric explanations, this one is *ex post facto*. That is to say, a character sketch of the African adult is drawn from observation, and then psychic wounds are discovered or invented and presented as the causes of the noted psychic defects. This form of reasoning would be more convincing if the psychiatrists took all societies in which abrupt weaning of this general type occurs and then demonstrated that a weak, driveless, anxious adult, lacking in any conviction of his own value as a person, invariably results. They do not attempt this because any such analysis would

[31] South African Institute of Race Relations, *A Survey of Race Relations in South Africa*, Johannesburg, 1965, p. 235.

show that the supposed effects do not follow uniformly from their putative causes.

Another point is made by Biesheuvel with considerable cogency. There are, he points out,[32]

> considerable deviations in child-rearing practices from tribe to tribe. Traumatic weaning only occurs in some tribes; in others, the children are virtually permitted to wean themselves. Toilet training also varies. The initiation rites differ in degree of severity and in the manner in which the child is prepared for them. Some practice circumcision and some do not.

Biesheuvel also observes that the inferences drawn by the psychiatrists concerning the effects of abrupt separation from the mother are based on the relationships which prevail in Western family life and not those prevalent in tribal Africa. The assumption that the grandparents are inadequate mother-surrogates can be challenged. Moreover, observation of groups of African native toddlers at play in their tribal villages does not suggest that they are suffering from deep psychic wounds. The impression they create is that of being happy and carefree.

Finally, Albino and Thompson made a careful, scientifically controlled study of the effects of weaning among Zulus and found that, far from being a shattering blow to the children's psyche, it served as a stimulus to self-respect, ego-development and maturation.[33]

INTELLIGENCE AND PROTEIN DEFICIENCY DISEASES

A good deal of work has been done on the relationship between the many parasitic, germ-borne and nutritional ailments from which native Africans suffer and the amentia and mental disturbance which so frequently characterizes them. A classic study by Tooth related trypanosomiasis to schizophrenia and suggested a common mechanism, involving endocrine changes.[34] Bilharzia is, of course, rife throughout much of trans-Saharan Africa. Usborne found, oddly enough, that the scholastic performance of native children was in no way affected by the severity or duration of their illness,[35]

[32] Simon Biesheuvel, *Race, Culture and Personality* (The 1959 Hoernlé Memorial Lecture), South African Institute of Race Relations, Johannesburg, 1959, p. 13.

[33] R. C. Albino and V. J. Thompson, "Effects of Sudden Weaning on Zulu Children," *British Journal of Medical Psychology*, Vol. XXIX, 1956, cited by Biesheuvel, *Race, Culture and Personality*, *op. cit.*, p. 14.

[34] G. Tooth, *Studies in Mental Illness in the Gold Coast*, Colonial Research Publications, No. 6, Part I, H.M.S.O., London, 1950.

[35] V. Usborne, "Some Notes on Urinary Bilharzias in Sukuma School Children Especially as Regards Scholastic Performance," *East African Medical Journal*, Vol. XXXI, 1954, pp. 451-458.

and Loveridge concluded that, while bilharzia impairs the school work of White children, the infected Black pupils "have a better record than those free from the disease."[36] Among dietary diseases, pellagra can cause severe mental deterioration, and deficiencies in proteins, fats and vitamins may cause cirrhosis of the liver, leading to hepatic encephalopathy which is associated with almost total mental confusion.

Kwashiorkor, or acute protein deficiency, is cited most frequently as the culprit by those social scientists who believe that the mental shortcomings of the native African are due primarily to medical causes. There is no doubt that children suffering from kwashiorkor reveal dullness and apathy.[37] Nelson's electroencephalographic analysis of kwashiorkor children in Kampala and Johannesburg hospitals revealed retardation of EEG rhythms and focal disturbances. A third of the afflicted children showed brain damage, which was possibly permanent.[38] A significant study of South African children who had recovered from kwashiorkor showed that the disease had affected the children's behavior and had retarded their mental development.[39]

Biesheuvel emphasizes kwashiorkor as one of the major causal factors behind the slackened pace of native mental development after the second year of life. On the basis of Nelson's EEG studies we know that kwashiorkor slows down development of the central nervous system and causes probably permanent injury to the temporal lobe which is "the area of highest neural integration from a behavioral point of view." Reasoning from studies of rats we may conclude that a protein-deficient diet on the part of the mother might cause permanent outrage to the brain and nervous system of the foetus or lactating child.[40] In the rat experiments, after three generations of protein deficiency, remedial feeding was not able to restore the animals to normal intelligence as measured by

[36] F. G. Loveridge, *et al.*, "Schistosomiasis: The Effect of the Disease on Educational Attainment," *South African Medical Journal*, Vol. XXII, pp. 260-263.

[37] M. Clark, "Kwashiorkor," *East African Medical Journal*, Vol. XXVIII, 1951, pp. 229-236.

[38] G. K. Nelson, "The Significance of Malnutrition for Racial Differences in Mental Development: An Encephalographic Study," M.A. thesis, Witwatersrand University, Johannesburg, 1958; G. K. Nelson and R. F. A. Dean, "The Electroencephalogram in African Children: Effects of Kwashiorkor and a Note on the Newborn," *Bulletin of the World Health Organization*, Vol. XXI, 1959, pp. 779-782; and G. K. Nelson, "The Electroencephalogram in Kwashiorkor," *Electroencephalography and Clinical Neurophysiology*, Vol. XI, 1959, pp. 73-84. See also abstracts in Andor, *op. cit.*

[39] R. Gilbey, "A Psychological Study of the Effects of Kwashiorkor on Children in the Valley of a Thousand Hills," in *A Socio-medical Project Focussed upon Improving Health*, The Valley Trust, Botha's Hill, Natal, 1961, pp. 16-19.

[40] J. J. Cowley and R. D. Griesel, "Pre- and Post-natal Effects of a Low-protein Diet on the Behavior of the White Rat," *Psychologia Africana*, Vol. IX, 1962.

maze problems. Biesheuvel, after summarizing this data, made the following highly significant observation:[41]

> Either a genetic change had occurred, or more likely, a selective factor had operated whereby a larger proportion of animals with the more sensitive nervous system, and therefore the more intelligent, succumbed to the nutritional deprivation.

In other words, the rat experiments and some unpublished data suggest the interesting possibility that, under conditions of general protein deficiency, the less intelligent animals or human beings survive, thus causing a progressive impoverishment of the gene pool of the population in respect to brain.

If this is indeed the case, kwashiorkor may well be a massive causal agent for human stupidity. It would then operate much as the body-heat equilibrium mechanism already described does in the tropics—that is, as an agency of natural selection which is negative for human intelligence. Whether this rôle attributed to kwashiorkor is real or imaginary could, I believe, be ascertained by a rigorous, comprehensive survey of child intelligence in those African and Asian regions where protein deficiency is rife as compared with those in which it is infrequent or totally absent. Since kwashiorkor is prevalent throughout a large part of Asia it seems urgent that its effects on intelligence, the permanence of the damage it inflicts and its rôle in natural selection become matters of knowledge rather than areas of speculation.

In the Republic of South Africa, kwashiorkor is being eradicated through improved nutrition and public health. The rate per 100,000 people in 1964 was 112 for native Africans, 44 for Coloured, 3.5 for Asians and zero for Whites. Doubtless the true incidence was greater because of defective reporting in tribal areas. If the virtual elimination of kwashiorkor among Bantu in places such as Johannesburg has not produced any observed increase in native intelligence, the reason may well be that the most important effect of the disease has been to have weeded out the more intelligent elements in the population in previous generations, thus causing a virtually irreversible genetic impoverishment with respect to brain.

This paper has by no means covered all the areas which are being explored by South African social scientists in their quest for keys to the enigma of native mind. Among the topics omitted because of lack of space are: the influence of witchcraft as an institution winnowing out the more intelligent and energetic individuals in tribal society; the impact of almost total non-stimulation during the pre-school years on mental growth; tribal *mores* as negative factors; and an inquiry into the possibility of devising culture-free or culture-fair tests which could provide objective

[41] Simon Biesheuvel, "Psychological Race Differences," *op. cit.*

comparisons of the innate qualities of the native versus the European mind. These areas of exploration seem more fruitful than the sociological litanies about environmental deprivation and the traumas of segregation that pass for thought in West European and American social science. The analysis of the natural selection rôle of kwashiorkor in particular may provide deeper understanding of the processes which have operated to cause such enormous differences in the intellectual abilities of the different races and peoples of mankind.

The Black Brainwash in America

By ETHELRED NEVIN

The perversion of history and the social sciences to magnify the rôle of putatively under-privileged groups—and in particular that of the Negro—is not a new phenomenon in the United States. The beginnings of this tendency can be traced back to 1903 when W. E. Burghardt Du Bois[1] published *The Souls of Black Folk*. By World War II the movement to re-examine history in order to attribute major creative contributions to the Negro had gained considerable momentum. The motivation behind this search was often avowedly political and ideological. Thus we find the late Melville J. Herskovits openly conceding that his purpose was to imbue the Negro "with the confidence in his own position in this country and in the world which he must have. . . ."[2] Whether one approves or disapproves of this objective, it is self-evidently not conducive to dispassionate history or true scholarship.

The crusade to glorify the Negro's American and African past has very recently moved into a new phase in the United States. Formerly it was merely the preoccupation of influential ideologists, and as such depended for acceptance upon persuasion—which was at least voluntary in form even though the pedagogic methods actually employed were frequently heavy-handed. Today the Negrophile interpretation of history and social science is becoming an avowed objective of governmental policy, one enforced by a variety of state statutes. Indoctrination of American public school pupils with a misinterpretation of their history, which inflates the Negro's positive rôle and glosses over or suppresses the abundant evidence of his shortcomings, is today imposed in several states.

Thus in 1966 the Michigan Legislature enacted a law which compelled the state's schools to "use only history texts that include accurate recording of any and all ethnic groups who have made contributions to world, American, or the State of Michigan societies."[3] One may smile at the semi-literate English and legally inept draftsmanship of the Ann Arbor legislators. Yet the purpose of the bill is abundantly clear. While its verbiage protects "all ethnic groups," one can be sure that it will not be interpreted to restore fair treatment to such frequently maligned elements in the

[1] A mulatto of partially Dutch and French extraction, Du Bois devoted his long life to Negro causes and the re-appraisal of the Negro's African past. A Marxist who died a member of the Communist Party, Du Bois was nevertheless intellectually superior to the horde of Negrophiles who follow in his footsteps now that this view of history has become fashionable and has been approved by the Establishment.

[2] *The Myth of the Negro Past*, Harper and Brothers, New York, 1941, p. 32.

[3] *Time*, 19th August 1966.