

THE AMERICAN JOURNAL OF SOCIOLOGY

VOLUME XII

JANUARY, 1907

NUMBER 4

THE MIND OF WOMAN AND THE LOWER RACES

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I

The mind is a very wonderful thing, but it is questionable whether it is more wonderful than some of the instinctive modes of behavior of lower forms of life. If mind is viewed as an adjustment to external conditions for the purpose of securing control, the human mind is no more wonderful in its way than the homing and migratory instincts of birds; the tropic quality of the male butterfly which leads it to the female, though she is imprisoned in a cigar-box in a dark room; or the peculiar sensitivity of the bat which enables it, though blinded, to thread its way through a maze of obstructions hung about a room.

The fact of sensitivity, in short, or the quality of response to stimulation, is more wonderful than its particular formulation in the human brain. Mind simply represents a special development of the quality of sensitivity common to organic nature, and analogous to the sensitivity of the photographic plate. The brain receives impressions, records them, remembers them, compares new experiences with old, and modifies behavior, in the presence of a new or recurrent stimulation, in view of the pleasure-pain connotation of similar situations in the past.

In very low forms of life, as is well known, there is no development of brain or special organs of sense; but the organism is

pushed and pulled about by light, heat, gravity, and acid and other chemical forces, and is unable to decline to act on any stimulus reaching it. It reacts in certain characteristic, habitual, and adequate ways, because it responds uniformly to the same stimulation; but it has no choice, and is controlled by the environment. The object of brain development is to reverse these conditions and control the actions of the organism, and of the outside world as well, from within. With the development of the special organs of sense, memory, and consequent ability to compare present experiences with past, with inhibition or the ability to decline to act on a stimulus, and, finally, with abstraction or the power of separating general from particular aspects, we have a condition where the organism sits still, as it were, and picks and chooses its reactions to the outer world; and, by working in certain lines to the exclusion of others, it gains in its turn control of the environment, and begins to reshape it.

All the higher animals possess in some degree the powers of memory, judgment, and choice; but in man nature followed the plan of developing enormously the memory, on which depend abstraction, or the power of general ideas, and the reason. In order to secure this result, the brain, or surface for recording experience, was developed out of all proportion with the body. In the average European the brain weighs about 1,360 grams, or 3 per cent. of the body weight, while the average brain weight of some of the great anthropoid apes is only about 360 grams, or, in the orangoutan, one-half of one per cent. of the body weight. In point of fact, nature seems to have reached the limit of her materials in creating the human species. The development of hands freed from locomotion and a brain out of proportion to bodily weight are *tours de force*, and, so to speak, an afterthought, which put the heaviest strain possible on the materials employed, and even diverted some organs from their original design. A number of ailments, like hernia, appendicitis, and uterine displacement, are due to the fact that the erect posture assumed when the hands were diverted from locomotion to prehensile uses put a strain not originally contemplated on certain tissues and organs. Similarly, the proportion of idiocy and

insanity in the human species shows that nature had reached the limit of elasticity in her materials and began to take great risks. The brain is a delicate and elaborate organ on the structural side, and in these cases it is not put together properly, or it gets hopelessly out of order. This strain on the materials is evident in all races and in both sexes, and indicates that the same general structural ground-pattern has been followed in all members of the species.

Viewed from the standpoint of brain weight, all races are, broadly speaking, in the same class. For while the relatively small series of brains from the black race examined by anthropologists shows a slight inferiority in weight—about 45 grams in negroes—when compared with white brains, the yellow race shows more than a corresponding superiority to the white; in the Chinese, about 70 grams. There is also apparently no superiority in brain weight in modern over ancient times. The cranial capacity of Europeans between the eleventh and eighteenth centuries, as shown by the cemeteries of Paris, is not appreciably different from that of Frenchmen of today, and the Egyptian mummies show larger cranial capacity than the modern Egyptians. Furthermore, the limits of variation between individuals in the same race are wider than the average difference between races. In a series of 500 white brains, the lowest and highest brains will differ, in fact, as much as 650 grams in weight.

There is also no ground for the assumption that the brain of woman is inferior to that of man; for, while the average brain of woman is smaller, the average body weight is also smaller, and it is open to question whether the average brain weight of woman is smaller in proportion to body weight.¹ The importance of brain weight in relation to intelligence, moreover, has usually been much exaggerated by anthropologists; for intelligence depends in the rapidity and range of the acts of associative memory, and this in turn on the complexity of the neural processes. Brains are, in fact, like timepieces in this respect, that the small ones work "excellent well" if they are good material and well put together. Although brains occasionally run above 2,000 grams

¹ See, however, Topinard, *Éléments d'anthropologie générale*, pp. 557 ff.

in weight (that of the Russian novelist Turgenieff weighed 2,012), the brains of many eminent men are not distinguished for their great size. That of the French statesman Gambetta weighed only 1,160 grams. It must be borne in mind also that there are many individuals among the lower races and among women having brain weights much in excess of that of the average male white.

Of all the possible ways of treating the brain for the purpose of testing its intelligence, that of weighing is the least satisfactory, and has been most indefatigably practiced. A better method, that of counting the nerve cells, has been lately introduced, but to treat a single brain in this way is a work of years, and no series of results exists. In the meantime Miss Thompson, in co-operation with Professor Angell, has completed a study of the mental traits of men and women on what is perhaps the best available principle—that of a series of laboratory tests which eliminate or take into consideration differences due to the characteristic habits of the two sexes. Her findings are probably the most important contribution in this field, and her general conclusion on differences of sex will, I think, hold also for differences of race:

The point to be emphasized as the outcome of this study is that, according to our present light, the psychological differences of sex seem to be largely due, not to differences of average capacity, nor to difference in type of mental activity, but to differences in the social influences brought to bear on the developing individual from early infancy to adult years. The question of the future development of the intellectual life of women is one of social necessities and ideals rather than of the inborn psychological characteristics of sex.²

There is certainly great difference in the mental ability of individuals, and there are probably also less marked differences in the average ability of different races; but difference in natural ability, is in the main, a characteristic of the individual, not of race or of sex. It is probable that brain efficiency (speaking from the biological standpoint) has been, on the average, approximately the same in all races and in both sexes since

² Helen B. Thompson, *Psychological Norms in Men and Women*, p. 182.

nature first made up a good working model, and that differences in intellectual expression are mainly social rather than biological, dependent on the fact that different stages of culture present different experiences to the mind, and adventitious circumstances direct the attention to different fields of interest.

II

In approaching the question of the parity or disparity of the mental ability of the white and the lower races, we bring to it a fixed and instinctive prejudice. No race views another race with that generosity with which it views itself. It may even be said that the existence of a social group depends on its taking an exaggerated view of its own importance; and in a state of nature, at least, the same is true of the individual. If self-preservation is the first law of nature, there must be on the mental side an acute consciousness of self, and a habit of regarding the self as of more importance than the world at large. The value of this standpoint lies in the fact that, while a wholesome fear of the enemy is important, a wholesome contempt is even more so. Praising one's self and dispraising an antagonist creates a confidence and a mental superiority in the way of confidence. The vituperative recriminations of modern prize-fighters, the boastings of the Homeric heroes, and the *bâgan* of the old Germans, like the back-talk of the small boy, were calculated to screw the courage up; and the Indians of America usually gave a dance before going on the war-path, in which by pantomime and boasting they magnified themselves and their past, and so stimulated their self-esteem that they felt invincible. In race-prejudice we see the same tendency to exalt the self and the group at the expense of outsiders. The alien group is belittled by attaching contempt to its peculiarities and habits—its color, speech, dress, and all the signs of its personality. This is not a laudable attitude, but it has been valuable to the group, because a bitter and contemptuous feeling is an aid to good fighting.

No race or nation has yet freed itself from this tendency to exalt and idealize itself. It is very difficult for a member of western civilization to understand that the orientals regard us

with a contempt in comparison with which our contempt for them is feeble. Our bloodiness, our newness, our lack of reverence, our land-greed, our break-neck speed and lack of appreciation of leisure make Vandals of us. On the other hand, we are very stupid about recognizing the intelligence of orientals. We have been accustomed to think that there is a great gulf between ourselves and other races; and this persists in an undefinable way after scores of Japanese have taken high rank in our schools, and after Hindus have repeatedly been among the wranglers in mathematics at Cambridge. It is only when one of the far eastern nations has come bodily to the front that we begin to ask ourselves whether there is not an error in our reckoning.

The instinct to belittle outsiders is perhaps at the bottom of our delusion that the white race has one order of mind and the black and yellow races have another. But, while a prejudice—a matter of instinct and emotion—may well be at the beginning of an error of this kind, it could not sustain itself in the face of our logical habits unless reinforced by an error of judgment. And this error is found in the fact that in a naïve way we assume that our steps in progress from time to time are due to our mental superiority as a race over the other races, and to the mental superiority of one generation of ourselves over the preceding.

In this we are confusing advance in culture with brain improvement. If we should assume a certain grade of intelligence, fixed and invariable in all individuals, races, and times—an unwarranted assumption, of course—progress would still be possible, provided we assumed a characteristically human grade of intelligence to begin with. With associative memory, abstraction, and speech men are able to compare the present with the past, to deliberate and discuss, to invent, to abandon old processes for new, to focus attention on special problems, to encourage specialization, and to transmit to the younger generation a more intelligent standpoint and a more advanced starting-point. Culture is the accumulation of the results of activity, and culture could go in improving for a certain time even if there were a retrogression in intelligence. If all the chemists in class A should

stop work tomorrow, the chemists in class B would still make discoveries. These would influence manufacture, and progress would result. If a worker in any specialty acquaints himself with the results of his predecessors and contemporaries and *works*, he will add some results to the sum of knowledge in his line. And if a race preserves by record or tradition the memory of what past generations have done, and adds a little, progress is secured whether the brain improves or stands still. In the same way, the fact that one race has advanced farther in culture than another does not necessarily imply a different order of brain, but may be due to the fact that in the one case social arrangements have not taken the shape affording the most favorable conditions for the operation of the mind.

If, then, we make due allowance for our instinctive tendency as a white group to disparage outsiders, and, on the other hand, for our tendency to confuse progress in culture and general intelligence with biological modification of the brain, we shall have to reduce very much our usual estimate of the difference in mental capacity between ourselves and the lower races, if we do not eliminate it altogether; and we shall perhaps have to abandon altogether the view that there has been an increase in the mental capacity of the white race since prehistoric times.

The first question arising in this connection is whether any of the characteristic faculties of the human mind—perception, memory, inhibition, abstraction—are absent or noticeably weak in the lower races. If this is found to be true, we have reason to attribute the superiority of the white race to biological causes; otherwise we shall have to seek an explanation of white superiority in causes lying outside the brain.

In examining this question we need not dwell on the acuteness of the sense-perceptions, because these are not distinctively human. As a matter of fact, they are usually better developed in animals and in the lower races than in the civilized, because the lower mental life is more perceptive than ratiocinative. The memory of the lower races is also apparently quite as good as that of the higher. The memory of the Australian native or the Eskimo is quite as good as that of our "oldest inhabitant;" and

probably no one would claim that the modern scientist has a better memory than the bard of the Homeric period.

There is, however, a prevalent view, for the popularization of which Herbert Spencer is largely responsible, that primitive man has feeble powers of inhibition. Like the equally erroneous view that early man is a free and unfettered creature, it arises from our habit of assuming that, because his inhibitions and unfreedom do not correspond with our own restraints, they do not exist. Sir John Lubbock pointed out long ago that the savage is hedged about by conventions so minute and so mandatory that he is actually the least free person in the world. But, in spite of this, Spencer and others have insisted that he is incapable of self-restraint, is carried away like a child by the impulse of the moment, and is incapable of rejecting an immediate gratification for a greater future one. Cases like the one mentioned by Darwin of the Fuegian who struck and killed his little son when the latter dropped a basket of fish into the water are cited without regard to the fact that cases of sudden domestic violence and quick repentance are common in any city today; and the failure of the Australian blacks to throw back the small fry when seining is referred to without pausing to consider that our practice of exterminating game and denuding our forests shows an amazing lack of individual self-restraint.

The truth is that the restraints exercised in a group depend largely on the traditions, views, and teachings of the group, and if we have this in mind, the savage cannot be called deficient on the side of inhibition. It is doubtful if modern society affords anything more striking in the way of inhibition than is found in connection with taboo, fetish, totemism, and ceremonial among the lower races. In the great majority of the American Indian and Australian tribes a man is strictly forbidden to kill or eat the animals whose name his clan bears as a totem. The central Australian may not, in addition, eat the flesh of any animal killed or even touched by persons standing in certain relations of kinship to him. At certain times also he is forbidden to eat the flesh of a number of animals, and at all times he must share all food secured with the tribal elders and some others.

A native of Queensland will put his mark on an unripe zamia fruit, and may be sure it will be untouched and that when it is ripe he has only to go and get it. The Eskimos, though starving, will not molest the sacred seal basking before their huts. Similarly in social intercourse the inhibitions are numerous. To some of his sisters, blood and tribal, the Australian may not speak at all; to others only at certain distances, according to the degree of kinship. The west African fetish acts as a police, and property protected by it is safer than under civilized laws. Food and palm wine are placed beside the path with a piece of fetish suspended near by, and no one will touch them without leaving the proper payment. The garden of a native may be a mile from the house, unfenced, and sometimes unvisited for weeks by the owner; but it is immune from depredations if protected by fetish. Our proverb says, "A hungry belly has no ears," and it must be admitted that the inhibition of food impulses implies no small power of restraint.

Altogether too much has been made of inhibition, anyway, as a sign of mentality, for it is not even characteristic of the human species. The well-trained dog inhibits in the presence of the most enticing stimulations of the kitchen. And it is also true that one race, at least—the American Indian—makes inhibition the most conspicuous feature in its system of education. From the time the ice is broken to give him a cold plunge and begin the toughening process on the day of his birth, until he dies without a groan under torture, the Indian is schooled in the restraint of his impulses. He does not, indeed, practice our identical restraints, because his traditions and the run of his attention are different; but he has a capacity for controlling impulses equal to our own.

Another serious charge against the intelligence of the lower races is lack of the power of abstraction. They certainly do not deal largely in abstraction, and their languages are poor in abstract terms. But there is a great difference between the habit of thinking in abstract terms and the ability to do so.

The degree to which abstraction is employed in the activities of a group depends on the complexity of the activities and on the

complexity of consciousness in the group. When science, philosophy, and logic, and systems of reckoning time, space, and number, are taught in the schools; when the attention is not so much engaged in perceptual as in deliberate acts; and when thought is a profession, then abstract modes of thought are forced on the mind. This does not argue absence of the power of abstraction in the lower races, or even a low grade of ability, but lack of practice. To one skilled in any line an unpracticed person seems very stupid; and this is apparently the reason why travelers report that the black and yellow races have feeble powers of abstraction. It is generally admitted, however, that the use of speech involves the power of abstraction, so that all races have the power in some degree. When we come further to examine the degree in which they possess it, we find that they compare favorably with ourselves in any test which involves a fair comparison.

The proverb is a form of abstraction practiced by all races, and is perhaps the best test of the natural bent of the mind in this direction, because, like ballad poetry and slang, proverbial sayings do not originate with the educated class, but are of popular origin. At the same time, proverbs compare favorably with the *mots* of literature, and many proverbs have, in fact, drifted into literature and become connected with the names of great writers. Indeed, the saying that there is nothing new under the sun applies with such force and fidelity to literature that, if we should strip Hesiod and Homer and Chaucer of such phrases as "The half is greater than the whole," "It is a wise son that knows his own father" (which Shakespeare quotes the other end about), and "To make a virtue of necessity," and if we should further eliminate from literature the motives and sentiments also in ballad poetry and in popular thought, little would remain but form.

If we assume, then, that the popular mind—let us say the peasant mind—in the white race is as capable of abstraction as the mind of the higher classes, but not so specialized in this direction—and no one can doubt this in view of the academic record of country-bred boys—the following comparison of our

proverbs with those of the Africans of the Guinea coast (the latter reported by the late Sir A. B. Ellis³) is significant:

African. Stone in the water-hole does not feel the cold.

English. Habit is second nature.

A. One tree does not make a forest.

E. One swallow does not make a summer.

A. "I nearly killed the bird." No one can eat nearly in a stew.

E. First catch your hare.

A. Full-belly child says to hungry-belly child, "Keep good cheer."

E. We can all endure the misfortunes of others.

A. Distant firewood is good firewood.

E. Distance lends enchantment to the view.

A. Ashes fly back in the face of him who throws them.

E. Curses come home to roost.

A. If the boy says he wants to tie the water with a string, ask him whether he means the water in the pot or the water in the lagoon.

E. Answer a fool according to his folly.

A. Cowries are men.

E. Money makes the man.

A. Coconut is not good for bird to eat.

E. Sour grapes.

A. He runs away from the sword and hides himself in the scabbard.

E. Out of the frying-pan into the fire.

A. A fool of Ika and an idiot of Iluka meet together to make friends.

E. Birds of a feather flock together.

A. The ground-pig [bandicoot] said: "I do not feel so angry with the man who killed me as with the man who dashed me on the ground afterward."

E. Adding insult to injury.

A. Quick loving a woman means quick not loving a woman.

E. Married in haste we repent at leisure.

A. Three elders cannot all fail to pronounce the word *ekulu* [an antelope]; one may say *ekulu*, another *ekulu*, but the third will say *ekulu*.

E. In a multitude of counselors there is safety.

A. If the stomach is not strong, do not eat cockroaches.

E. Milk for babes.

A. No one should draw water from the spring in order to supply the river.

E. Robbing Peter to pay Paul.

³ *The Yoruba-speaking Peoples of the Slave Coast of West Africa*, pp. 218 ff.

A. The elephant makes a dust and the buffalo makes a dust, but the dust of the buffalo is lost in the dust of the elephant.

E. *Duo cum faciunt idem non est idem.*

A. Ear, hear the other before you decide.

E. *Audi alteram partem.*

On the side of number we have another test of the power of abstraction; and while the lower races show lack of practice in this. they show no lack of power. It is true that tribes have been found with no names for numbers beyond two, three, or five; but these are isolated groups, like the Veddahs and Bushmen, who have no trade or commerce, and lead a miserable existence, with little or nothing to count. The directions of attention and the simplicity or complexity of mental processes depend on the character of the external situation which the mind has to manipulate. If the activities are simple, the mind is simple, and if the activities were nil, the mind would be nil. The mind is nothing but a means of manipulating the outside world. Number, time, and space conceptions and systems become more complex and accurate, not as the human mind grows in capacity, but as activities become more varied and call for more extended and accurate systems of notation and measurement. Trade and commerce, machinery and manufacture, and all the processes of civilization involve specialization in the apprehension of series as such. Under these conditions the number technique becomes elaborate and requires time and instruction for its mastery. The advance which mathematics has made within a brief historical time is strikingly illustrated by the words with which the celebrated mathematician, Sir Henry Savile, who died in 1616, closed his career as a professor at Oxford:

By the grace of God, gentlemen hearers, I have performed my promise. I have redeemed my pledge. I have explained, according to my ability, the definitions, postulates, axioms, and the first eight propositions of the *Elements* of Euclid. Here, sinking under the weight of years, I lay down my art and my instruments.⁴

From the standpoint of modern mathematics, Sir Henry Savile and the Bushman are both woefully backward; and in

⁴ Whewell, *History of the Inductive Sciences*, Vol. I, p. 205.

both cases the backwardness is not a matter of mental incapacity, but of the state of the science.

In respect, then, to brain structure and the more important mental faculties we find that no race is radically unlike the others. Still, it might happen that the mental activities and products of two groups were so different as to place them in different classes. But precisely the contrary is true. There is in force a principle called the law of parallelism in development, according to which any group takes much the same steps in development as any other. The group may be belated, indeed, and not reach certain stages, but the ground-patterns of life are the same in the lower races and in the higher. Mechanical inventions, textile industries, rude painting, poetry, sculpture, and song, marriage, and family life, organization under leaders, belief in spirits, a mythology, and some form of church and state exist universally. At one time students of mankind, when they found a myth in Hawaii corresponding to the Greek story of Orpheus and Eurydice, or an Aztec poem of tender longing in absence, or a story of the deluge, were wont to conjecture how these could have been carried over from Greek or Elizabethan or Hebraic sources, or whether they did not afford evidence of a time when all branches of the human race dwelt together with a common fund of sentiment and tradition. But this standpoint has been abandoned, and it is recognized that the human mind and the outside world are essentially alike the world over; that the mind everywhere acts on the same principles; and that, ignoring the local, incidental, and eccentric, we find similar laws of growth among all peoples.

The number of things which can stimulate the human mind is somewhat definite and limited. Among them, for example, is death. This happens everywhere, and the death of a dear one may cause the living to imagine ways of being reunited. The story of Orpheus and Eurydice may thus arise spontaneously and perpetually, wherever death and affection exist. Or, there may be a separation from home and friends, and the mind runs back in distress and longing over the happy past, and the state of consciousness aroused is as definite a fact among savages as among

the civilized. A beautiful passage in Homer represents Helen looking out on the Greeks from the wall of Troy and saying:

And now behold I all the other glancing-eyed Achaians, whom well I could discern and tell their names; but two captains of the host can I not see, even Kastor tamer of horses and Polydukes the skilful boxer, mine own brethren whom the same mother bare. Either they came not in the company from lovely Lakedaimon; or they came hither indeed in their sea-faring ships, but now will not enter into the battle of warriors, for fear of the many scornings and revilings that are mine.⁵

When this passage is thus stripped of its technical excellence by a prose translation, we may compare it with the following New Zealand lament composed by a young woman who was captured on the island of Tuhua and carried to a mountain from which she could see her home:

My regret is not to be expressed. Tears, like a spring, gush from my eyes. I wonder whatever is Tu Kainku [her lover] doing, he who deserted me. Now I climb upon the ridge of Mount Parahaki, whence is clear the view of the island of Tuhua. I see with regret the lofty Tanmo where dwells [the chief] Tangiteruru. If I were there, the shark's tooth would hang from my ear. How fine, how beautiful should I look! But enough of this; I must return to my rags and to my nothing at all.⁶

The situation of the two women in this case is not identical, and it would be possible to claim that the Greek and Maori passages differ in tone and coloring; but it remains true that a captive woman of any race will feel much the same as a captive woman of any other race when her thoughts turn toward home, and that the poetry growing out of such a situation will be everywhere of the same general pattern.

Similarly, to take an illustration from morals, we find that widely different in complexion and detail as are the moral codes of lower and higher groups, say the Hebrews and the African Kaffirs, yet the general patterns of morality are strikingly coincident. It is reported of the Kaffirs that "they possess laws which meet every crime which may be committed." Theft is punished by restitution and fine; injuring cattle, by death or fine; false witness, by a heavy fine; adultery, by fine or death; rape,

⁵ Homer, *Iliad*, iii, 233; translation by Lang, Leaf, and Myers.

⁶ Thomson, *New Zealand*, Vol. I, p. 164.

by fine or death; poisoning or witchcraft, by death and confiscation of property; murder, by death or fine; treason or desertion from the tribe, by death and confiscation.⁷ The Kaffirs and Hebrews are not at the same level of culture, and we miss the more abstract and monotheistic admonitions of the higher religion—"thou shalt not covet; thou shalt worship no other gods before me"—but the intelligence shown by the social mind in adjusting the individual to society may fairly be called the same grade of intelligence in the two cases.

When the environmental life of two groups is more alike and the general cultural conditions more correspondent, the parallelism of thought and practice becomes more striking. The recently discovered Assyrian Code of Hammurabi (about 2500 B. C.) contains striking correspondences with the Mosaic code; and while Semitic scholars probably have good and sufficient reasons for holding that the Mosaic code was strongly influenced by the Assyrian, we may yet be very confident that the two codes would have been of the same general character if no influence whatever had passed from one to the other.

The institutions and practices of a people are a product of the mind; and if the early and spontaneous products of mind are everywhere of the same general pattern as the later manifestations, only less developed, refined, and specialized, it may well be that failure to progress equally is not due to essential unlikeness of mind, but to conditions lying outside the mind.

Another test of mental ability which deserves special notice is mechanical ingenuity. Our white pre-eminence owes much to this faculty, and the lower races are reckoned defective in it. But the lower races do invent, and it is doubtful whether one invention is ever much more difficult than another. On the psychological side, an invention means that the mind sees a round-about way of reaching an end when it cannot be reached directly. It brings into play the associative memory, and involves the recognition of analogies. There is a certain likeness between the flying back of a bough in one's face and the rebound of a bow, between a serpent's tooth and a poisoned arrow, between floating

⁷ Shooter, *The Kaffirs of Natal and the Zulu Country*, p. 102.

timber and a raft or boat; and water, steam, and electricity are like a horse in one respect—they will all make wheels go around, and do work.

Now, the savage had this faculty of seeing analogies and doing things in indirect ways. With the club, knife and sword he struck more effectively than with the fist; with hooks, traps, nets, and pitfalls he understood how to seize game more surely than with the hands; in the bow and arrow, spear, blow-gun, and spring-trap he devised motion swifter than that of his own body; he protected himself with armor imitated from the hides and scales of animals, and turned their venom back on themselves. That the savage should have originated the inventive process and carried it on systematically is, indeed, more wonderful than that his civilized successors should continue the process; for every beginning is difficult.

When occupations become specialized and one set of men has continually to do with one and only one set of machinery and forces, the constant play of attention over the limited field naturally results in improvements and the introduction of new principles. Modern inventions are magnificent and seem quite to overshadow the simpler devices of primitive times; but when we consider the precedents, copies, resources, and accumulated knowledge with which the modern investigator works, and, on the other hand, the resourcelessness of primitive man in materials, ideas, and in the inventive habit itself, I confess that the bow and arrow seems to me the most wonderful invention in the world.

Viewing the question from a different angle, we find another argument for the homogeneous character of the human mind in the fact that the patterns of interest of the civilized show no variation from those of the savage. Not only the appetites and vanities remain essentially the same, but, on the side of intellectual interest, the type of mental reaction fixed in the savage by the food-quest has come down unaltered to the man of science as well as to the man of the street. In circumventing enemies and capturing game, both the attention and the organic processes worked together in primitive man under great stress and strain.

Whenever, indeed, a strain is thrown on the attention, the heart and organs of respiration are put under pressure also in their effort to assist the attention in manipulating the problem; and these organic fluctuations are felt as pleasure and pain. The strains thrown on the attention of primitive man were connected with his struggle for life; and not only in the actual encounter with men and animals did emotion run high, but the memory and anticipation of conflict reinstated the emotional conditions in those periods when he was meditating future conflicts and preparing his bows and arrows, traps and poisons. The problem of invention, the reflective and scientific side of his life, was suffused with interest, because the manufacture of the weapon was, psychologically speaking, a part of the fight.

This type of interest, originating in the hunt, remains dominant in the mind down to the present time. Once constructed to take an interest in the hunting problem, it takes an interest in any problem whatever. Not only do hunting and fighting and all competitive games—which are of precisely the same psychological pattern as the hunt and fight—remain of perennial interest, but all the useful occupations are interesting in just the degree that this pattern is preserved. The man of science works at problems and uses his ingenuity in making an engine in the laboratory in the same way that primitive man used his mind in making a trap. So long as the problem is present, the interest is sustained; and the interest ceases when the problematical is removed. Consequently, all modern occupations of the hunting pattern—scientific investigation, law, medicine, the organization of business, trade speculation, and the arts and crafts—are interesting as a game; while those occupations into which the division of labor enters to the degree that the workman is not attempting to control a problem, and in which the same acts are repeated an indefinite number of times, lose interest and become extremely irksome.

This means that the brain acts pleurably on the principle it was made up to act on in the most primitive times, and the rest is a burden. There has been no brain change, but the social changes have been momentous; and the brain of each new gen-

eration is brought into contact with new traditions, inhibitions, copies, obligations, problems, so that the run of attention and content of consciousness are different. Social suggestion works marvels in the manipulation of the mind; but the change is not in the brain as an organ; it is rather in the character of the stimulations thrust on it by society.

The child begins as a savage, and after we have brought to bear all the influence of home, school, and church to socialize him, we speak as though his nature had changed organically, and institute a parallelism between the child and the race, assuming that the child's brain passes in a recapitulatory way through phases of development corresponding to epochs in the history of the race. I have no doubt myself that this theory of recapitulation is largely a misapprehension. A stream of social influence is turned loose on the child; and if the attention to him is incessant and wise, and the copies he has are good and stimulating, he is molded nearer to the heart's desire. Sometimes he escapes, and becomes a criminal, tramp, sport, or artist; and even if made into an impeccable and model citizen, he periodically breaks away from the network of social habit and goes a-fishing.

The fundamental explanation of the difference in the mental life of two groups is not that the capacity of the brain to do work is different, but that the attention is not in the two cases stimulated and engaged along the same lines. Wherever society furnishes copies and stimulations of a certain kind, a body of knowledge and a technique, practically all its members are able to work on the plan and scale in vogue there, and members of an alien race who become acquainted in a real sense with the system can work under it. But when society does not furnish the stimulations, or when it has preconceptions which tend to inhibit the run of attention in given lines, then the individual shows no intelligence in these lines. This may be illustrated in the fields of scientific and artistic interest. Among the Hebrews a religious inhibition—"thou shalt not make unto thee any graven image"—was sufficient to prevent anything like the sculpture of the Greeks; and the doctrine of the resurrection of the body in the early Christian church, and the teaching that man was made in

the image of God, formed an almost insuperable obstacle to the study of human anatomy.

The Mohammedan attitude toward scientific interest is represented by the following extracts from a letter from an oriental official to a western inquirer, printed by Sir Austen Henry Layard:

My illustrious Friend and Joy of my Liver:

The thing which you ask of me is both difficult and useless. Although I have passed all my days in this place, I have neither counted the houses nor inquired into the number of the inhabitants; and as to what one person loads on his mules and the other stows away in the bottom of his ship, that is no business of mine. But above all, as to the previous history of this city, God only knows the amount of dirt and confusion that the infidels may have eaten before the coming of the sword of Islam. It were unprofitable for us to inquire into it. . . . Listen, O my son! There is no wisdom equal to the belief in God! He created the world, and shall we liken ourselves unto him in seeking to penetrate into the mysteries of his creation? Shall we say, Behold this star spinneth round that star, and this other star with a tail goeth and cometh in so many years? Let it go. He from whose hand it came will guide and direct it. . . . Thou art learned in the things I care not for, and as for that which thou hast seen, I spit upon it. Will much knowledge create thee a double belly, or wilt thou seek paradise with thine eyes?

The meek in spirit,

IMAUM ALI ZADI⁸

The works of Sir Henry Maine, who gained by his long residence in India a profound insight into oriental character, frequently point out that the eastern pride in conservatism is quite as real as the western pride in progress:

Vast populations, some of them with a civilization considerable but peculiar, detest that which in the language of the West would be called reform. The entire Mohammedan world detests it. The multitudes of colored men who swarm in the great continent of Africa detest it, and it is detested by that large part of mankind which we are accustomed to leave on one side as barbarous or savage. The millions upon millions of men who fill the Chinese Empire loathe it and (what is more) despise it. . . . There are few things more remarkable, and in their way more instructive, than the stubborn incredulity and disdain which a man belonging to the cultivated part of Chinese society opposes to the vaunts of western civilization which he

⁸ *Fresh Discoveries at Nineveh and Researches at Babylon: Supplement.*

frequently hears. . . . There is in India a minority, educated at the feet of English politicians and in books saturated with English political ideas, which has learned to repeat their language; but it is doubtful whether even these, if they had a voice in the matter, would allow a finger to be laid on the very subjects with which European legislation is beginning to concern itself—social and religious usage. There is not, however, the shadow of a doubt that the enormous mass of the Indian population hates and dreads change.⁹

To the fact that the enthusiasm for change is comparatively rare must be added the fact that it is extremely modern. It is known but to a small part of mankind, and to that part but for a short period during a history of incalculable length.¹⁰

The oriental attitude does not argue a lack of brain power, but a prepossession hostile to scientific inquiry. The society represented does not interest its members in what, from the western standpoint, is knowledge.

The Chinese afford a fine example of a people of great natural ability letting their intelligence run to waste from lack of a scientific standpoint. As indicated above, they are not defective in brain weight, and their application to study is long continued and very severe; but their attention is directed to matters which cannot possibly make them wise from the occidental standpoint. They learn no mathematics and no science, but spend years in copying the poetry of the T'ang Dynasty, in order to learn the Chinese characters, and in the end cannot write the language correctly because many modern characters are not represented in this ancient poetry. Their attention to Chinese history is great, as befits their reverence for the past; but they do not organize their knowledge, they have no adequate textbooks or apparatus for study, and they make no clear distinction between fact and fiction. In general, they learn only rules and no principles, and rely on memory without the aid of reason, with the result that the man who stops studying often forgets everything, and the professional student is amazingly ignorant in the line of his own work:

Multitudes of Chinese scholars know next to nothing about matters directly in the line of their studies, and in regard to which we should consider ignorance positively disgraceful. A venerable teacher remarked to the

⁹ Maine, *Popular Government*, p. 132.

¹⁰ *Ibid.*, p. 134.

writer with a charming naïveté that he had never understood the allusions in the Trimetrical Classic (which stands at the very threshold of Chinese study) until at the age of sixty he had an opportunity to read a Universal History prepared by a missionary, in which for the first time Chinese history was made accessible to him.¹¹

Add to this that the whole of their higher learning, corresponding to our university system, consists in writing essays and always more essays on the Chinese classics, and "it is impossible," as Mr. Smith points out, "not to marvel at the measure of success which has attended the use of such materials in China."¹² But when this people is in possession of the technique of the western world—a logic, general ideas, and experimentation—we cannot reasonably doubt that they will be able to work the western system as their cousins, the Japanese, are doing, and perhaps they, too, may better the instruction.

White effectiveness is probably due to the superior technique acting in connection with a superior body of knowledge and sentiment. Of two groups having equal mental endowment, one may outstrip the other by the mere dominance of incident. It is a notorious fact that the course of human history has been largely without prevision or direction. Things have drifted and forces have arisen. Under these conditions an unusual incident—the emergence of a great mind or a forcible personality, or the operation of influences as subtle as those which determine fashions in dress—may establish social habits and copies which will give a distinct character to the modes of attention and mental life of the group. The most significant fact for Aryan development is the emergence among the Greeks of a number of eminent men who developed logic, the experimental method, and philosophic interest, and fixed in their group the habit of looking behind the incident for the general law. Mediaeval attention was diverted from these lines by a religious movement, and the race lost for a time the key to progress and got clean away from the Greek copies; but it found them again and took a fresh start with the revival of Greek learning. It is quite possible to make a fetish

¹¹ Smith, *Village Life in China*, p. 99.

¹² *Ibid.*, p. 95.

of classical learning; but Sir Henry Maine's remark, that nothing moves in the modern world that is not Greek in its origin, is quite just.

The real variable is the individual, not the race. In the beginning—perhaps as the result of a mutation or series of mutations—a type of brain developed which has remained relatively fixed in all times and among all races. This brain will never have any faculty in addition to what it now possesses, because as a type of structure it is as fixed as the species itself, and is indeed a mark of species. It is not apparent either that we are greatly in need of another faculty, or that we could make use of it even if by a chance mutation it should emerge, since with the power of abstraction we are able to do any class of work we know anything about. Moreover, the brain is less likely to make a leap now than in earlier time, both because the conditions of nature are more fixed or more nearly controlled by man, and hence the urgency of adjustment to sharp variations in external conditions is removed, and because the struggle for existence has been mitigated so that the unfit survive along with the fit. Indeed, the rapid increase in idiocy and insanity shown by statistics indicates that the brain is deteriorating slightly, *on the average*, as compared with earlier times.¹³

Nature is not producing a better average brain than in the time of Aristotle and the Greeks. If we have more than the wisdom of our ancestors, our advantage lies in our specialization, our superior body of knowledge, and our superior technique for its transmission. At the same time, the individual brain is unstable, fluctuating in normal persons between 1,100 and 1,500 grams in weight, while the extremes of variation are represented, on the one side, by the imbecile with 300 grams, and the man of genius with 2,000, on the other. It is therefore perfectly true that by artificial selection—Mr. Galton's "eugenism"—a larger average brain could be created, and also a higher average of natural intelligence, whether this be absolutely dependent on

¹³ On the increase of insanity and feeble-mindedness, see R. R. Rentoul, "Proposed Sterilization of Certain Mental Degenerates," *American Journal of Sociology*, Vol. XII, pp. 319 ff.

brain weight or not. But it is hardly to be expected that a stable brain above the capacity of those of the first rank now and in the past will result, since the mutations of nature are more radical than the breeding process of man, and she probably ran the whole gamut. "Great men lived before Agamemnon," and individual variations will continue to occur, but not on a different pattern; and what has been true in the past will happen again in the future, that the group which by hook or by crook comes into possession of the best technique and the best copies will make the best show of intelligence and march at the head of civilization.

III

The foregoing examination of the relation of the mental faculty of the lower races to the higher places us in a position to examine to better advantage the other question of the relation of the intelligence of woman to that of man.

The differences in mental expression between the lower and the higher races can be expressed for the most part in terms of attention and practice. The differences in run of attention and practice are in this case due to the development of different habits by groups occupying different habitats, and consequently having no copies in common. Woman, on the other hand, exists in the white man's world of practical and scientific activity, but is excluded from full participation in it. Certain organic conditions and historical incidents have, in fact, inclosed her in habits which she neither can nor will fracture, and have also set up in the mind of man an attitude toward her which renders her almost as alien to man's interests and practices as if she were spatially separated from them.

One of the most important facts which stand out in a comparison of the physical traits of men and women is that man is a more specialized instrument for motion, quicker on his feet, with a longer reach, and fitted for bursts of energy; while woman has a greater fund of stored energy and is consequently more fitted for endurance. The development of intelligence and motion have gone along side by side in all animal forms. Through motion chances and experiences are multiplied, the whole equilibrium

characterizing the stationary form is upset, and the organs of sense and the intelligence are developed to take note of and manipulate the outside world. Amid the recurrent dangers incident to a world peopled with moving and predacious forms, two attitudes may be assumed—that of fighting, and that of fleeing or hiding. As between the two, concealment and evasion became more characteristic of the female, especially among mammals, where the young are particularly helpless and need protection for a long period. She remained, therefore, more stationary, and at the same time acquired more cunning, than the male.

In mankind especially the fact that woman had to rely on cunning and the protection of man rather than on swift motion, while man had a freer range of motion and adopted a fighting technique, was the starting-point of a differentiation in the habits and interests, which had a profound effect on the consciousness of each. Man's most immediate, most fascinating, and most remunerative occupation was the pursuit of animal life. The pursuit of this stimulated him to the invention of devices for killing and capture; and this aptitude for invention was later extended to the invention of tools and of mechanical devices in general, and finally developed into a settled habit of scientific interest. The scientific imagination which characterizes man in contrast with woman is not a distinctive male trait, but represents a constructive habit of attention associated with freer movement and the pursuit of evasive animal forms. The problem of control was more difficult, and the means of securing it became more indirect, mediated, reflective, and inventive; that is, more intelligent.

Woman's activities, on the other hand, were largely limited to plant life, to her children, and to manufacture, and the stimulation to mental life and invention in connection with these was not so powerful as in the case of man. Her inventions were largely processes of manufacture connected with her handling of the by-products of the chase. So simple a matter, therefore, as relatively unrestricted motion on the part of man and relatively restricted motion on the part of woman determined the occupations of each, and these occupations in turn created the character-

istic mental life of each. In man this was constructive, answering to his varied experience and the need of controlling a moving environment; and in woman it was conservative, answering to her more stationary and monotonous condition.

In early times man's superior physical force, the wider range of his experience, his mechanical inventions in connection with hunting and fighting, and his combination under leadership with his comrades to carry out their common enterprises, resulted in a contempt for the weakness of women and an almost complete separation in interest between himself and the women of the group. The men frequently formed clubs, and lived apart from the women; and even where this did not happen, the men and women had no mental life in common. To this contempt for women also was added a superstitious fear of them, growing out of the primitive belief that weakness or any other bad quality is infectious, and may be transferred by physical contact or association.¹⁴

From Mr. Crawley's excellent paper on "Sexual Taboo" I transcribe the following illustrations of this attitude:

In New Caledonia you rarely see men and women talking or sitting together. The women seem perfectly content with the company of their own sex. The men who loiter about with spears in most lazy fashion are seldom seen in the society of the opposite sex. . . . The Ojebwey, Peter Jones, thus writes of his own people: "I have scarcely ever seen anything like social intercourse between husband and wife, and it is remarkable that the women say little in the presence of the men." The Zulus regard their women with a haughty contempt. If a man were going to the bush to cut firewood with his wives, he and they would take different paths, and neither go nor return in company. If he were going to visit a neighbor and wished his wife to go also, she would follow at a distance. In Senegambia the women live by themselves, rarely with their husbands, and their sex is virtually a clique. In Egypt a man never converses with his wife, and in the tomb they are separated by a wall, though males and females are not usually buried in the same vault.¹⁵

¹⁴ It is true that in many parts of the world, among the lower races, woman was treated by the men with a chivalrous respect, due to the prevalence of the maternal system and ideas of sympathetic magic; but she nevertheless did not participate in their activities and interests.

¹⁵ A. E. Crawley, "Sexual Taboo," *Journal of the Anthropological Institute*, Vol. XXIV, p. 233.

Amongst the Dacotas custom and superstition ordain that the wife must carefully keep away from all that belongs to her husband's sphere of action. The Bechuanas never allow women to touch their cattle; accordingly the men have to plow themselves. . . . In Guiana no woman may go near the hut where *ourali* is made. In the Marquesas Islands the use of canoes is prohibited to the female sex by *tabu*: the breaking of the rule is punished with death. Conversely, amongst the same people *tapa*-making belongs exclusively to the women: when they are making it for their own head-dresses it is *tabu* for the men to touch it. In Nicaragua all the marketing was done by the women. A man might not enter the market nor even see the proceedings at the risk of a beating. . . . In Samoa where the manufacture of cloth is allotted solely to the women, it is a degradation for a man to engage in any detail of the process. . . . An Eskimo thinks it an indignity to row in an *umiak*, the large boat used by women. The different offices of husband and wife are also clearly distinguished; for example, when he has brought his booty to land it would be a stigma on his character if he so much as drew a seal ashore, and generally it is regarded as scandalous for a man to interfere with what is the work of women. In British Guiana cooking is the province of the women, as elsewhere; on one occasion when the men were compelled perforce to bake some bread they were only persuaded to do so with the utmost difficulty, and were ever after pointed at as old women.¹⁶

Amongst the Barea, man and wife seldom share the same bed; the reason they give is that the breath of the wife weakens the husband. . . . The Khyongthas have a legend of a man who reduced a king and his men to a condition of feebleness by persuading them to dress up as women and perform female duties. When they had thus been rendered effeminate they were attacked and defeated without a blow. . . . Contempt for female timidity has caused a curious custom amongst the Gallas: they amputate the mammae of the boys soon after birth, believing that no warrior can possibly be brave who possesses them, and that they should belong to women only. . . . Amongst the Lhoosais when a man is unable to do his work, whether through laziness, cowardice or bodily incapacity, he is dressed in women's clothes and has to associate and work with the women. Amongst the Pomo Indians of California, when a man becomes too infirm for a warrior, he is made a menial and assists the squaws. . . . When the Delawares were denationalized by the Iroquois and prohibited from going to war they were according to the Indian notion "made women," and were henceforth to confine themselves to the pursuits appropriate to women.¹⁷

Woman was still further degraded by the development of property and its control by man, together with the habit of treat-

¹⁶ *Op. cit.*, p. 227.

¹⁷ *Ibid.*, p. 123-25.

ing her as a piece of property, whose value was enhanced if its purity were assured and demonstrable. As a result of this situation, man's chief concern in women became an interest in securing the finest specimens for his own use, in guarding them with jealous care from contact with other men, and in making them, together with the ornaments they wore, signs of his wealth and social standing. The instances below are extreme ones, taken from lower social stages than our own, but they differ only in degree from the chaperonage of modern Europe :

I heard from a teacher about some strange custom connected with some of the young girls here [New Ireland], so I asked the chief to take me to the house where they were. The house was about twenty-five feet in length and stood in a reed and bamboo enclosure, across the entrance of which a bundle of dry grass was suspended to show that it was strictly *tabu*. Inside the house there were three conical structures about seven or eight feet in height, and about ten or twelve feet in circumference at the bottom, and for about four feet from the ground, at which point they tapered off to a point at the top. These cages were made of the broad leaves of the pandanus tree, sewn quite close together so that no light, and little or no air could enter. On one side of each is an opening which is closed by a double door of plaited cocoanut tree and pandanus tree leaves. About three feet from the ground there is a stage of bamboos which forms the floor. In each of these cages, we were told there was a young woman confined, each of whom had to remain for at least four or five years, without ever being allowed to go outside the house. I could scarcely credit the story when I heard it; the whole thing seemed too horrible to be true. I spoke to the chief and told him that I wished to see the inside of the cages, and also to see the girls that I might make them a present of a few beads. . . . [A girl having been allowed to come out] I then went to inspect the inside of the cage out of which she had come, but could scarcely put my head inside of it, the atmosphere was so hot and stifling. It was clean and contained nothing but a few short lengths of bamboo for holding water. There was only room for the girl to sit or lie down in a crouched position on the bamboo platform, and when the doors are shut it must be nearly or quite dark inside. They are never allowed to come out except once a day to bathe in a dish or wooden bowl placed close to the cage. They say that they perspire profusely. They are placed in these stifling cages when quite young, and must remain there until they are young women, when they are taken out and have each a great marriage feast prepared for them. One of them was about fourteen or fifteen years old, and the chief told me that she had been there for five years, but would soon be taken out now. The other two were about eight or ten years old,

and they have to stay there for several years longer. I asked if they never died, but they said, "No."¹⁸

They [the Azande] are extremely jealous of their women-folk, whom they do not permit to live in the same village with themselves. The women's village is generally in the bush, about 200 yards or so distant from that of the chief. Women are never seen in an Azande village, the pathway to their own being kept secret from all outsiders. This system while being something like that observed by the Arabs, has the important distinction that the women are not shut up. They are free to come and go and do what they like, except visit the men's village. In common with the entire native population of Central Africa, the custom among the Zande is that the men do no work that is not connected with the chase or the manufacture of implements. All agriculture is carried on by the women.¹⁹

From the time of engagement until marriage a young lady is required to maintain the strictest seclusion. Whenever friends call upon her parents she is expected to retire to the inner apartments, and in all her actions and words guard her conduct with careful solicitude. She must use a close sedan whenever she visits her relations, and in her intercourse with her brothers and the domestics in the household maintain great reserve. Instead of having any opportunity to form those friendships and acquaintances with her own sex which among ourselves become a source of much pleasure at the time and advantage in after life, the Chinese maiden is confined to the circle of her relations and her immediate neighbors. She has few of the pleasing remembrances and associations that are usually connected with school-day life, nor has she often the ability or opportunity to correspond by letter with girls of her own age. Seclusion at this time of life, and the custom of crippling the feet, combine to confine women in the house almost as much as the strictest laws against their appearing abroad; for in girlhood, as they know only a few persons except relatives, and can make very few acquaintances after marriage, their circle of friends contracts rather than enlarges as life goes on. This privacy impels girls to learn as much of the world as they can, and among the rich their curiosity is gratified through maid-servants, match-makers, peddlers, visitors, and others.²⁰

The world of white civilization is intellectually rich because it has amassed a rich fund of general ideas, and has organized these into specialized bodies of knowledge, and has also developed a special technique for the presentation of this knowledge and

¹⁸ Danks, "Marriage Customs of the New Britain Group," *Journal of the Anthropological Institute*, Vol. XVII, p. 284.

¹⁹ Burrows, "On the Native Races of the Upper Welle District of the Belgian Congo," *Journal of the Anthropological Institute*, N. S. Vol. I, p. 41.

²⁰ Williams, *The Middle Kingdom*, Vol. I, p. 786.

standpoint to the young members of society, and for localizing their attention in special fields of interest. When for any reason a class of society is excluded from this process, as women have been historically, it must necessarily remain ignorant. But, while no one would make any question that women confined as these in New Ireland and China, as shown above, must have an intelligence as restricted as their mode of life, we are apt to lose sight altogether of the fact that chivalry and chaperonage and modern convention are the persistence of the old race habit of contempt for women, and of their intellectual sequestration. Men and women still form two distinct classes and are not in free communication with each other. Not only are women unable and unwilling to be communicated with directly, unconventionally and truly on many subjects, but men are unwilling to talk to them. I do not have in mind situations involving questions of propriety or delicacy alone, but a certain habit of restraint, originating doubtless in matters relating to sex, extends to all intercourse with women, with the result that they are not really admitted to the intellectual world of men; and there is not only a reluctance on the part of men to admit them, but a reluctance—or rather, a real inability—on their part to enter. Modesty with reference to personal habits has become so ingrained and habitual, and to do anything freely is so foreign to woman, that even free thought is almost of the nature of an immodesty in her.

In connection also with the adventitious position of woman referred to in another paper,²¹ the feminine interests and habits are set so strongly toward dress and personal display that they are not readily diverted. Women may and do protest against the triviality of their lives, but emotional interests are more immediate than intellectual ones, and human nature does not drift into intellectual pursuit voluntarily, but is forced into it in connection with the urgency of practical activities. The women who are obliged to work are of the poorer classes, and have not that leisure and opportunity preliminary to any specialized acquirement, while those who have leisure are supported in that position

²¹ "The Adventitious Character of Woman," *American Journal of Sociology*, Vol. XII, pp. 32 ff.

both by money and by precedent and habit, and have no immediate stimulation to lift them out of it. They sometimes entertain ideas of freedom and plan occupational interests, but they have usually become thoroughly habituated to their unfreedom, and continue to feed from the hand.

Custom lies upon them with a weight
Heavy as frost and deep almost as life.

The usual reasoning as to the ability of women also overlooks the fact that many women are larger and stronger than many men, and some of them possessed of tremendous energy, will, wit, endurance, and sagacity. This type appears in all classes of society, but more frequently in the lower classes and among peasants, both because the natural qualities are less glozed over there by aristocratic custom, and because these classes are bred truer to nature. Unfortunately, the attention of the women of these classes is limited to very immediate concerns; but, on the other hand, they present the true qualities of the female type, and few, I believe, will deny that the peasant woman described below would shine in intellectual walks if fate had called her there:

Mother was a large, stout, full-blooded woman of great strength. She could not read or write, and yet she was well thought of. There are all sorts of educations, and though reading and writing are very well in their way, they would not have done mother any good. She had the sort of education that was needed in her work. Nobody knew more about raising vegetables, ducks, chickens and pigeons than she did. There were some among the neighbors who could read and write and so thought themselves above mother, but when they went to market they found their mistake. Her peas, beans, cauliflower, cabbages, pumpkins, melons, potatoes, beets, and onions sold for the highest price of any, and that ought to show whose education was the best, because it is the highest education that produces the finest work.

Mother used to take me frequently to the market. . . . The market women were a big, rough, fat, jolly set, who did not know what sickness was, and it might have been well for me if I had stayed among them and grown up like mother. One time in the market-place I saw a totally different set of women. It was about eight o'clock in the morning, when some people began to shout: "Here come the rich Americans! Now we will sell things!"

We saw a large party of travelers coming through the crowd. They looked very queer. Their clothes seemed queer, as they were so different from ours. They wore leather boots instead of wooden shoes, and they all looked weak and pale. The women were tall and thin, like bean-poles, and their shoulders were stooped and narrow; most of them wore glasses or spectacles, showing that their eyes were weak. The corners of their mouths were all pulled down, and their faces were crossed and crisscrossed with lines and wrinkles, as though they were carrying all the care of the world. Our women all began to laugh and dance and shout at the strangers. . . . The sight of these people gave me my first idea of America. I heard that the women there never worked, laced themselves too tightly, and were always ill.²²

The French dressmaker who wrote this passage has the true idea of education and of mind. The mind is an organ for controlling the environment, and it is a safe general principle that the mind which shows high power in the manipulation of a simple situation will show the same quality of efficiency in a more complex one.

The savage the peasant, the poor man, and woman are not what we call intellectual, because they are not taught to know and manipulate the materials of knowledge. The savage is outside the process from geographical reasons; the peasant is not in the center of interest; the poor man's needs are pressing, and do not permit of interests of a mediate character; and woman does not participate because it is neither necessary nor womanly.

Even the most serious women of the present day stand, in any work they undertake, in precisely the same relation to men that the amateur stands to the professional in games. They may be desperately interested and may work to the limit of endurance

²² *The Life Stories of Undistinguished Americans*. (Edited by Hamilton Holt), pp. 100 ff.

This peasant woman represents the true female type, and the American women in the scene represent the adventitious type of woman. The frail and clinging type is an adjustment to the tastes of man, produced partly by custom and partly by breeding. But in so far as the selection of frail women by men of the upper classes has contributed to the production of a frail or so-called "feminine" type in these classes, this applies to the males as well as the females of these classes. And there is, in fact, a more or less marked tendency to "feminism" apparent among the men and women of the "better classes." If we want to breed for mind, we can do so, but we must breed on a better principle than beauty.

at times; but, like the amateur, they got into the game late, and have not had a life-time of practice, or they do not have the advantage of that pace gained only by competing incessantly with players of the very first rank. No one will contend that the amateur in billiards has a nervous organization less fitted to the game than the professional; it is admitted that the difference lies in the constant practice of the professional, the more exacting standards prevailing in the professional ranks, and constant play in "fast company." A group of women would make a sorry spectacle in competition with a set of men who made billiards their life-work. But how sad a spectacle the eminent philosophers of the world would make in the same competition!

Scientific pursuits and the allied intellectual occupations are a game which women have entered late, and their lack of practice is frequently mistaken for lack of natural ability. Writing some years ago of the women in his classes at the University of Zürich, Professor Carl Vogt said:

At the lectures the young women are models of attention and application; perhaps they even make too great effort to carry home in black and white what they have heard. They generally sit in the front seats, because they register early, and, moreover, because they come early, long before the lecture begins. But it is noticeable that they give only a superficial glance at the preparations which the professor passes around. Sometimes they pass them to their neighbor without even looking at them; a longer examination would prevent their taking notes.

On examination the conduct of the young women is the same as during the lectures. They know better than the young men. To employ a classroom expression, they are enormously crammed. Their memory is good, so that they know perfectly how to give the answer to the question which is put. But generally they stop there. An indirect question makes them lose the thread. As soon as the examiner appeals to individual reason, the examination is over; they do not answer. The examiner seeks to make the sense of the question clearer, and uses a word, perhaps, which is in the manuscript of the student, when, pop! the thing goes as if you had pressed the button of a telephone. If the examination consisted solely in written or oral replies to questions on subjects which have been treated in the lectures or which could be read up in the manuals, the ladies would always secure brilliant results. But, alas! there are other practical tests in which the candidate finds herself face to face with reality, and that she cannot meet successfully

unless she has done practical work in the laboratories, and it is there that the shoe pinches.

The respect in which laboratory work is particularly difficult to women—one would hardly believe it—is that they are often very awkward and clumsy with their hands. The assistants in the laboratories are unanimous in their complaint; they are pursued with questions about the most trifling things, and one woman gives them more trouble than three men. One would think the delicate fingers of these young women adapted especially to microscopic work, to the manipulation of small slides, to cutting thin sections, to making the most delicate preparations; the truth is quite the contrary. You can tell the table of a woman at a glance: from the fragments of glass, broken instruments, the broken scalpels, the spoiled preparations. There are doubtless exceptions, but they are exceptions.²³

Zürich was among the first of the European universities opening their doors to women, and it is particularly interesting to see their first efforts in connection with the higher learning. Without a wide experience of life, and without practice in constructive thinking, they naturally fell back on the memory to retain a hold on results in a field with which they were not sufficiently trained to operate in it independently. It is frequently alleged, and is implied in Professor Vogt's report, that women are distinguished by good memories and poor powers of generalization. But this is to mistake the facts. A tenacious memory is characteristic of women and children, and of all persons unskilled in the manipulation of varied experiences in thought. But when the mind is able at any moment to construct a result from the raw materials of experience, the memory loses something of its tenacity and absoluteness. In this sense it may even be said that a good memory for details is a sign of an untrained or imitative mind. As the mind becomes more inventive, the memory is less concerned with the details of knowledge and more with the knowledge of places to find the details when they are needed in any special problem.

The awkwardness in manual manipulation shown by these girls was also surely due to lack of practice. The fastest typewriter in the world is today a woman; the record for roping steers (a feat depending on manual dexterity rather than physical

²³ Ploss, *Das Weib*. 3. Aufl., Vol. I, p. 46.

force) is held by a woman; and anyone who will watch girls making change before the pneumatic tubes in the great department stores about Christmas time will experience the same wonder one feels on first seeing a professional gambler shuffling cards.

In short, Professor Vogt's report on women students is just what was to be expected in Germany forty years ago. The American woman, with the enjoyment of greater liberty, has made an approach toward the standards of professional scholarship, and some individuals stand at the very top in their university studies and examinations. The trouble with these cases is that they are either swept away and engulfed by the modern system of marriage, or find themselves excluded in some intangible way from association with men in the fullest sense, and no career open to their talents.

The personal liberty of women is, comparatively speaking, so great in America, suggestion and copies for imitation are spread broadcast so copiously in the schools, newspapers, books, and lectures, and occupations and interests are becoming so varied, that a number of women of natural ability and character are realizing some definite aim in a perfect way. But these are sporadic cases, representing usually some definite interest rather than a full intellectual life, and resembling also in their nature and rarity the elevation of a peasant to a position of eminence in Europe. Nowhere in the world do women as a class lead a perfectly free intellectual life in common with the men of the group, unless it be in restricted and artificial groups like the modern revolutionary party in Russia.

Even in America a number of the great schools are not co-educational, and in those which are so, many of the instructors claim that they do not find it possible to treat with the men and women on precisely the same basis, both because of their own mental attitude toward mixed classes and the inability of the women to receive such treatment. In the case of women also we can say what Mr. Smith says of the Chinese and their system of education, that it is impossible not to marvel at the results they accomplish in view of the system under which they work.

The mind and the personality are largely built up by suggestion from the outside, and if the suggestions are limited and particular, so will be the mind. The world of modern intellectual life is in reality a white man's world. Few women and perhaps no blacks have ever entered this world in the fullest sense. To enter it in the fullest sense would be to be in it at every moment from the time of birth to the time of death, and to absorb it unconsciously and consciously, as the child absorbs language. When something like this happens, we shall be in a position to judge of the mental efficiency of woman and the lower races. At present we seem justified in inferring that the differences in mental expression are no greater than they should be in view of the existing differences in opportunity.

Whether the characteristic mental life of women and the lower races will prove to be identical with those of the white man or different in quality is a different question, and problematical. It is certain, at any rate, that our civilization is not of the highest type possible. In all of our relations there is too much of primitive man's fighting instinct and technique; and it is not impossible that the participation of woman and the lower races will contribute new elements, change the stress of attention, disturb the equilibrium, and force a crisis which will result in the reconstruction of our habits on more sympathetic and equitable principles. Certain it is that no civilization can remain the highest if another civilization adds to the intelligence of its men the intelligence of its women.