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The Modern Conception of Personality.

By Prof. H. Austin Aikins, of the Western Reserve University, Cleveland.

ADDRESSING the Canadian Club on "The Modern Conception of Personality," Prof. H. Austin Aikins, of the Western Reserve University, Cleveland, spoke as follows:—

Mr. President and Gentlemen,—It is always a pleasure to get back to Toronto and to meet the friends here. It is particularly a pleasure to meet the members of the Canadian Club and to have the honor of addressing them. It is often said that university men do not get in contact with business men as they ought to. This used to be the fault of the university men; now it is the business men's fault. The university men don't get a chance.

Twenty odd years ago at the University of Toronto, when the boys sat around on the desks of empty lecture rooms talking about Prof. Young's last lecture on mental science, we discussed many profound and interesting problems and we asked all sorts of things about the mind and how it got its ideas. But it did not occur to us to ask with any seriousness what a mind was, much less to ask what was a person. That was one of the things we supposed we knew.

But since that time so many revolutions have taken place in the field of psychology that most of us have been left in a state of hopeless confusion, and it is pretty hard for anyone to know what he is or what he means when he says he is a person.

First of all came the theory of evolution, and the suspicion that perhaps after all we are not so very different from the brutes. Then came the physiologists attributing more and more of the things we supposed we were doing to a mysterious potentate they called the nervous system.

Then came more physiologists to show that each one of us is not only a brute, but a swarm of brutes. For is not every body made up of cells and is not each cell in your body a living creature, comparable to amoebas, microbes and other minute animals and plants?

And now there are more physiologists trying ingenious experiments to show that these living creatures so like our own body cells are moved by purely mechanical forces, actually making them reverse all their instincts by changing the amounts of salt and lime in the sea water that they live in, and then proceeding to prove that we are no better off. We also, and all that we do, are products of purely mechanical forces, which said physiologists then proceed to enumerate, and leave us with a sense of absolute helplessness.

This sense of our own helpless dependence on purely mechanical forces is increased by Lombroso, Max Nordau, and the whole school of degeneration writers. If our ears are not set on right or our palate is too high or our eyes too close together, or if we possess birth marks or hare lip or any of the other stigmata that they discovered, then we had better look out for the jail or the lunatic asylum, for the seeds of degeneration are in us.

But through it all the preachers and the judges have kept on talking as though we could be good if we wanted to, and in the midst of it the hypnotists and the Christian scientists have seemed to give indisputable demonstrations of the dominion of mind over matter, for if mind does not control how can a mere suggestion accomplish all the wonderful things that it sometimes does? To say nothing of all the real and alleged performances of the mediums and spiritists.

If the story ended here we might have a mere repetition, with variations, of the old familiar fight between materialists and spiritualists, with the physiologists and most of the doctors on one side, and the preachers, many of the hynotisers and the Christian scientists on the other. But it doesn't; for the fight is not fairly started before we begin to hear well authenticated tales of double, treble, nay multiple personality; where the very mind itself seems to be split up into any number of fragmentary minds, each living a life of its own, with its own thoughts and its own desires, of which the other mind or minds in the same body may perhaps be absolutely ignorant.

Most of us were brought up to believe in an immaterial soul or mind that was bound to be immortal because somehow or other it was too small to split. But now we seem to see them split before our very eyes, and it is pretty hard to apply the old conceptions to the new facts.

In this dilemma a good many popular writers adopt the idea that there really are two different minds always present in every one of us. One of them does the plain, every-day things that everybody knows about; the other one, which is always out of

sight, performs the miracles. This myth of two minds—a "subjective" and an "objective," as one writer calls them—is quite unwarranted, and it won't begin to explain the facts. But its very existence and the wide-spread credence which has been given to it is one of many signs that our old conceptions of human nature are no longer adequate.

To find a new conception that will fit the facts showered upon us during the last 20 years, and perhaps even help us to distinguish facts from fictions, is certainly as pretty a problem as one could well try to solve.

If we are to bring order out of all this confusion our first task must be to gain some tenable conception of the general relations of the mind to the body. Then I want to show how both mind and body are developed out of simpler elements and how they can be broken down again into all sorts of curious fragments by a perfectly natural process, and then put together once more—all without any miracle whatever, but by perfectly natural processes with which everyone is familiar. And, finally I should like to have you go away with the conviction that however much the physiologists and psychologists may analyse our personality into simpler elements, and however much it may be broken up by mental and physicial disorders, each one of us still possesses the only kind of unity and spirituality that means anything, and we can increase it if we want to.

First then the question of the relation between mind and body:

The French and Latin writer Des Cartes, who lived something over three hundred years ago, is often called the father of modern philosophy, and he set that philosophy going with the conception of a mind and a body just as different from each other as any two things in this whole universe could possibly be. According to Des Cartes a human body is like any other bit of matter in this world. It fills a certain amount of space, has some weight, can move from one place to another and it is capable of being acted on by physical forces. It can be pushed and pulled by other bodies—and it does not think.

But a mind is very different. It thinks, but it cannot do anything else. It does not occupy any space, has no size or shape, is not affected by gravitation or any other physical force, and cannot possibly exert any force or act in any way on anything whatever—not even the body that it inhabits—it is so very spiritual. It is thinner than thin air, more impotent than any ghost you ever heard of, and if it were not for God it could not be connected in the slightest even with its own particular body. But God is always present, and when I—the

mind—want to open my physical mouth and talk, God opens it for me, and then when the sound waves strike your ear and stir up your nerves, He bridges the chasm between matter and mind in you and gives you—the mind—the required idea.

This seems pretty far-fetched; but it is what Des Cartes believed, and the hard and fast distinction which he made between mind and body on which it rests has been passed down from one generation to another and been woven into a good deal of our Sunday school theology and metaphysics, until we all believe it more or less, though most of us are not so consistent as Des Cartes was.

The materialists believe in this distinction, but then they add that matter is the only one of the two different realities that really counts. Idealists believe in it too, but they say that matter does not exist at all and it is only mind that counts.

Most of us believe that somehow or other they both exist and both count, and we don't usually stop to ask Des Cartes' question of how one can act on the other.

But really this wholesale separation and distinction of mind and matter is very artificial. A child who has never been taught such things does not usually think that there are two of him—a mind that is afraid and a body that runs away, or a mind that feels hungry and a body that steals the jam. And ever since the time of Des Cartes there have been philosophers who maintain that the child is right and Des Cartes is wrong. He must be wrong; for that miracle of a God stepping in to make my mind feel the pain when somebody steps on my toes is too ridiculous.

The philosophers called Monists say that materialists and idealists are both right enough in trying to simplify the world and to find only one kind of reality there instead of two; but they are both too one-sided. There is no use in ruling all our thoughts and feelings out of the world by saying that nothing exists but body, or in ruling out all our physical acts and organs by saying there is nothing but mind. There is only one thing, to be sure, but you don't recognize all the facts about it when you call that thing a body, and you don't recognize all the facts about it when you call it a mind.

The simple fact is that I am one person and I can occupy so much space, move about from place to place and exert physical force. And I can also think. I do them both. I don't own one slave called a body that does the walking and talking, and another slave called a mind that does the thinking. The physical act and the mental act both belong directly to me—

and what is more, they belong together. My anger and my loud voice, my love and my melting eye, my blush and my embarrassment, my words and my thought, my brain process and my inward feeling or impulse, are simply different aspects of one and the same fact. The one is outer and you can see it, the other is inner and I feel it, but the outer and the inner, the physical act and the mental state, are as inseparable as the inside and the outside of a bubble. We can continue to use the words Mind and Body if we want to, but if we do so we must remember that they are not really names of two different things but only of two different sides of the same thing.

This doctrine is called monism, and it is so simple and natural that it was all worked out by the first philosophers of Greece hundreds of years before Christ. At the present day, it is the favorite doctrine amongst all the younger writers on philosophy, for it is not only reasonable in itself, but it helps us to understand many curious things about ourselves that Des Cartes paid no attention to.

It was Des Cartes who gave philosophical form to the conception of a soul or mind different from the body and separable from it—and he carried the conception to its logical extreme. But he did not originate it. The other day a little girl came into my laboratory to see some brains. She looked at them a moment and then said disappointedly: "But, where is the little man that does the thinking?" She wanted to find the little man inside of the big one to account for his inner life, and we all have times of doing the same. Our idea of a soul or mind is really a refined conception of a ghost, and the ghost is thought of as a kind of bodily double. Nine-tenths of the time we never distinguish between mind and body; but you see that every once in a while we feel that there must be two things there, even though we have no clear idea of the difference between them. We are such natural believers in the division of labor that when two different kinds of work are being done we rush to the conclusion that two different persons are doing them.

Then when we once get the idea of a mind or soul distinguishable from the body we cling to it because it seems to make it easier to believe in immortality. We don't see the soul destroyed with the body, so we take it for granted that it lives on, and most of us don't stop to ask how this is possible.

If the monistic doctrine, which I have been explaining, threatens to take away your religion and makes you tremble for immortality you may comfort yourselves with the Christian doctrine of the resurrection of the body, and thank the gods

that you are not a mediaeval saint starving and lacerating your body to liberate the soul, or a Mohammedan woman who has no soul, though her husband has one, or a Hindu letting vermin eat you up because perhaps the souls of your ancestors are reincarnated in them. You see that even in religion the doctrine of mind and body as two separate things, the one inhabiting the other, is not without its drawbacks.

But let this go. It is not the future I am talking about, but the present. So let us turn to the practical psychologists. It has been said by way of reproach that modern psychology is a psychology without a psyche—a soul, a mind. In some particular text books of psychology the conception of soul or mind as a kind of spiritual substance may be formally admitted or it may not. But when it comes to working out the concrete details of the subject no use whatever is made of the conception. The books tell all about the brain and the sense organs, and, perhaps—as in James's—there is a confession of faith at the end, but as I have said, for the science of psychology in the solution of its ordinary problems the conception of a soul or mind as an entity, separable and distinguishable from the body is absolutely neglected. So far as I know the only practical psychologists outside of the Catholic schools, who make use of the conception of such a spiritual entity are the spiritists and psychic researchers, who tell how the physical organism of Mrs. Piper, or some other medium, in a trance becomes controlled by the disembodied spirits of Phinuit, Pelham, Rector, Imperator and the rest, as the swine of Gadara were possessed by the demons cast out of the man.

With the recognition of the complete unity of the person, so far as mind and body are concerned, we must reinterpret old expressions. The members may be at war one with another, but there is no literal warfare between the spirit and the flesh. When we use the phrase we mean that our nobler aspirations are at odds with our grosser impulses and that the complex brain processes which go with the former tend to be broken up by the simpler but stronger nervous currents that go with the latter. There is something mental and something physical on both sides.

In the same way growth in spirituality can be defined in terms of thought and feeling as a growing predominance of finer feelings over coarser, or it can be defined in physiological terms as a growing control of the higher cerebral centres and the more complex processes over the lower centres and more direct processes. But in point of fact the growth is both spiritual and physical.

So we need not talk any more as though there were any irreconcilable difference between one physician who cures your indigestion with medicine and another one who sees that it is caused by worry, i.e., a certain complex condition in the brain, and cures it by suggestion with or without the aid of hypnotism or the theological accessories of Christian Science and Dowieism. They both act on the whole person and sometimes it is best to go at it in one way, sometimes in another. A wise physician knows which is best in any particular case.

So we need not bother to ask whether any particular performance is caused by the body or the mind, and if anyone talks about a subconscious or subjective mind as though it could explain all sorts of things, we must ask exactly how that mind is supposed to work in any particular case and what it all means in terms of the nervous system. The mere word "subconscious" explains no more than the word "electricity" or the letter X. To this extent then the monistic standpoint simplifies our problem and helps to make it definite. We can understand better what a personality is and how it can be split to pieces if we gain some idea of how it is built up, for it certainly is built up, not ready made.

This is something that the evolutionary biologists and physiologists delight in, and I will try to explain it as simply as I can from their standpoint. But I wish to warn you before I begin that I am not a physiologist and that I am giving you the barest outline or scheme of the situation as I interpret the physiologists. There are literally billions of nerve cells and fibers in the brain and a model that showed them all would have to be as large as St. Paul's cathedral.

You all know how tape worms or centipedes and other scaly worms are made up of a lot of separate segments all strung together, and biologists would tell you that each one of these visible segments is comparable to an independent creature of a lower order. You know how all the separate parts can wriggle when you cut a fish worm up.

Now so far as the nervous system is concerned a man is built up in the same way, so that at one period of his prenatal existence he is little more than a string of independent animals, and this segmental arrangement is perpetuated in the adult so that each segment preserves its identity and a certain amount of independence, in spite of all sorts of connections which have grown up between it and other segments. A new-born baby can not properly be called a person, largely because the different parts of its nervous system have so little to do with each other. Its fingers will close on one of yours, its lips will close

on a nipple, and after a while its eyes will follow a moving light, as purely independent performances. None of these things means anything to the baby as a whole. Indeed, from the standpoint of mental and nervous life the baby as a whole can hardly be said to exist at all. He is just so many rather disconnected segments, and it is really quite wonderful how these disconnected segments can give the appearance of rational, purposive action, by the purely mechanical connection between them.

If you cut a fish-worm in two and then tie the two cut ends to a piece of string you can see a wonderful spectacle. The tail crawls after the head. The head is the more active end, when it moves it gives the tail a jerk and that jerk is all that is needed to make the tail crawl too. It doesn't matter much whether the jerk is given through the string or in the regular way through the skin. Even our own human acts that seem quite reasonable are due in part at least to these mechanical relations.

As I stand here a nice red apple at one side of the room catches my eye. The eye turns instinctively towards it; the turning eye irritates the socket and the irritated socket sends in a nervous current that turns the head; that stretches the neck and so sets up a current that turns the body; and when the feet start to move it doesn't take much to start me towards the pretty object; then I stretch out my hand as any baby would. If it touches the apple, the contact makes the fingers close upon it. Then, like every baby with a toy, I move it to my mouth. Mouthing it makes me bite. Then the tongue moves against it, and the chemical action of the sugar in it makes me chew and the fragments at the back of my mouth make me swallow.

This may seem a bit far-fetched, but it gives some idea of the first step in the building up of a personality, as the physiologist sees it.

The next step is found in the establishment of direct nervous connections between the different segments. As the limbs grow out from the spinal cord the nerves are lengthened too so as to form long loops—the nervous connection between the skin of the finger and the muscle that moves it, passing back to the cord and then out again.

In this way nerve loops from almost all of the body are arranged one above another in the spinal cord, so that currents can be diffused directly from one to another. But we haven't yet a complete human personality. The communication is still too mechanical.

A still further kind of development can be shown by the case of sight. If you cut out an animal's eye and then expose it at once to a bright light, the pupil will gradually contract although the nerves have been cut. We can say if we like that the disconnected eye sees or feels the light; but it is an extremely crude and rudimentary kind of seeing. The light is there and it makes the eye act, just as the nipple makes the baby's mouth act or the food makes the intestine act. That is all.

If the nerve had not been cut the pupil would have contracted more quickly and the eye might also have turned towards the bright object, and perhaps the lid would have been affected too, and closed a little or opened wider. The head also might have turned, and finally the whole body might have moved to or from the object seen.

In this case the disturbance caused by the light goes along the optic nerve to certain centres in the brain and then comes out again along a whole group of nerves to the muscles concerned in these actions. But even then the creature might only be seeing in a very limited way. If you cut out a pigeon's cerebrum—the top of its brain—the bird can still see well enough to avoid bumping into things, or even fly from one perch to another. It sees so many lumps and bumpers in the world about it, but it has no idea of what these lumps and bumpers really are—other pigeons and grains of corn and prowling cats mean no more to it than so many stupid sticks and stones. This pigeon has what is called mental blindness. The impressions that affect its eyes mean something to its wings and legs, enough to keep it from bumping into things, but they form no connections whatever with its stomach and its sex organs and the other things within it that make life interesting, for they lead to no pecking of the grain, no love-making, no flight from the cat.

When we cut out the cerebrum we cut out some, but not all, of the nervous connections that bind the whole creature together and to make an individual of it, and at the same time give a coherent meaning to the world.

In the pigeon there are evidently two nervous loops, both going back to the brain but one carried higher than the other, and in our experiment we cut the higher one and left the lower. And although no animal could live without the lower centres, which we left, it is the higher ones, which we cut, that give the animal its mental unity and its general intelligence. The mental blindness which I described in pigeons is sometimes produced in man also when accident or disease has destroyed

the occipital lobe of his brain. When that occurs a man also may be able to see things well enough to take hold of them or avoid bumping into them, but is without any idea of what they should mean to him in other respects.

Now the great difference between a man and a brute is that man can form all sorts of nervous connections that brutes cannot. The human brain is larger and parts of it seem to have no other function than to enable us, in response to the exigencies of our experience, to build loop upon loop in a way quite beyond the capacity of any brute.

One such loop is built up when we learn to speak, and still another when we learn to read. And when this reading loop is destroyed we get a kind of blindness called alexia or visional aphasia that brutes have always. If the occipital lobe is unimpaired we may still see perfectly—as brutes see— but the written words mean no more than they do to untaught savages.

All this goes to show that it is not the mere eye that sees, but the man as a whole, and the more nervous loops there are connecting the man's whole system with the eye the more of a performance the seeing is. And it shows also something of the way in which the man is built up. Living cells are united into segments, each with some life of its own, and the higher an animal is in the scale of life the more of these segments are bound together by loop after loop of nervous connections. But remember this: The nearer you get to the top of the brain the less ready-made are the nervous connections. What these highest connections shall be depends on our own individual experiences and on the effort that we make to establish them. A child learning D-O-G—dog, or learning not to cry when it is hurt is building up these connections and helping to form its own personality.

From the physiological standpoint then, we are persons because we can unify our acts, and we can do that because of these many nervous connections. Now, we do not know why but it seems to be true that our thoughts are connected so that one may know the other and they can form parts of one coherent whole, only when there is a physical connection between the nerve currents that go along with them. My brain and yours are not connected, and so I know nothing about your thoughts. The question of how many different thoughts a person can have at once is a question of how many entirely different and disconnected sets of nerve currents he can have at once. And if the number is limited it is not because there are not enough different nerve cells and fibres to work with—you

remember the vast number of cells in the brain—but because it is hard to keep them working separately.

All coherent thinking is for a purpose, and so is all coherent bodily action, and as a matter of fact we are so constructed that it is hard to carry on two operations of either sort at once—the two pairs of thoughts and nervous processes tend to run together. But they don't run together always, and if anybody can learn to row a boat, and smoke and look at the scenery all at the same time, doing each one of them absolutely without any reference whatever to the others, then he has also learned to carry on three distinct mental operations at once, and you can say if you like that for the moment he has three distinct consciousness, each independent and ignorant of the others.

In this particular case two of the consciousnesses are as uninteresting and mechanical and automatic as the movements that they go with, but they are there nevertheless, and sometimes these disconnected or split-off consciousnesses are by no means uninteresting and automatic. There are cases on record of one's two hands feeling as foreign to each other as the two Siamese twins and actually fighting, and in hypnotic experiments it is not at all uncommon to develop two independent trains of thought. I carry on a conversion with one of you and at the same time I write answers to questions that someone else is whispering in my ear. Or perhaps the second experimenter is sticking pins in my leg and I protest most vigorously on the paper while the vive voce conversation is wholly undisturbed, and if you ask me I will say that nothing unusual is taking place.

All this means that each one of us is a unit, an individual, a single person, only in so far as all the forces within him are working or can work together for a common end. If some impulse inconsistent with this end arises the other processes can crowd it down. This is why man is responsible. Responsibility and personality go together. Brutes and babies are not responsible and they are not called persons, because their impulses are too scattered, their brain-processes too disconnected to make this possible. They cannot set themselves an ideal and make it dominate their lives.

But each man is developed from a baby and the whole race is developed from the brute. So personality is something won—an achievement gained through years of struggle for the individual on top of ages of struggle for the race. And the most important question that any one of us can ask himself is not whether he possesses some kind of an immaterial double

called a soul, which the brutes don't have; but whether he has succeeded in pulling himself together as the brutes can not, in creating a functional unity, a singleness and integrity of aim and action out of all sorts of scattered impulses. The attainment of this unity, this integration of one's nervous processes, is the deepest motive in the whole drama of life, and our whole sense of worth depends upon it. When a baby summons all the world to watch it jump three inches it is rejoicing in the same sense of growth and victory as Newton, when he has found the same law on the earth and in the heavens or the saint who has made the last great sacrifice for his ideal; and joy in heaven amongst the angels seems altogether appropriate —and perhaps it is, for what is the kingdom of heaven but such a happy union within and without—the little cells within us have learned to act together, and we have learned to act in harmony with our fellows and with the great universe beyond. Even such a vulgar gain as teritorial expension and corporate bigness gives us some sense of this harmony of the spheres.

To me at least it looks as though this formative impulse—this desire to pull ourselves and others into shape and enter into wider and wider functional unities, were about the deepest and most pervasive law of the whole universe and everything in that universe seems to obey it from the electrons swinging together in an atom, the atoms in a molecule, the molecules in a cell, the cells in an individual, the individuals in a city, a state, and an empire; and the whole earth in a solar system and a wider cosmos beyond. If feeling and physical movement go together in us, why may they not also in the great world of which we are a part; and why may not the whole universe rejoice in its unity and harmony as we rejoice in ours?

Aristotle believed that everything in the world was continually entering into higher and higher harmonies, and our modern philosophers are beginning to say that he was right. The story of any life is the story of this struggle for unity, and often the struggle is bitter enough, because a higher unity attained often means something of a lower unity lost. In the great American war, the Virginian fought against the union because he cared so much about his state, the smaller unit with which he was familiar, and in much the same way the Hanoverians fought against the Prussians. But no one doubts now that they gained more by defeat that they could have gained by victory. What felt like surrender and extinction was only the beginning of expansion.

And so it is within ourselves. Every mood, every impulse, every present interest, fights for life. We don't want to be coaxed out of the blues or distracted from our petty game. We always hug the present consciousness, for the consciousness is the self, and to give it up feels like extinction. But when the thing is really done and we are living in some broader system of interests and acts, we are glad. Thus every day we die to live; and the great drama of religious conversion—where a whole set of interests must give way and subordinate itself to something higher—is not without its humbler prototypes.