

## THE INTELLECTUAL CAPACITY OF WOMEN

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I BELIEVE THAT the intellectual capacity of women is on the whole inferior to that of men. By "on the whole," I do not mean just "on the average"; though I do mean that much. My belief is, if you take any degree of intellectual capacity which is above average for the human race, as a whole, then a possessor of that degree of intellectual capacity is a good deal more likely to be man than a woman.

This proposition is consistent, of course, with there being women, and indeed with there being any number of women, at any level of intellectual capacity however high. But it does mean, for example, that if there is a large number of women at a given above average level of intellectual capacity, then there is an even larger number of men at that level.

In the past almost everyone, whether man or woman, learned or unlearned, believed the intellectual capacity of women to be inferior to that of men. Even now this is, I think, the belief of most people in most parts of the world. In this article my main object is simply to remind the reader of what the evidence is, and always was, for this old belief, and of how strong that evidence is.

An opposite belief has become widely current in the last few years, in societies like our own: the belief that the intellectual capacity of women is on the whole equal to that of men. If I could, I would discuss here the reasons for the sudden adoption by many people of this opinion. But I cannot, because I have not been able to find any reasons for it, as distinct from causes of it. The equality-theory (as I will call it) is not embraced on the grounds of any startling facts which have only lately come to light. It is not embraced on the grounds of some old familiar facts which have been misunderstood until lately. It is not embraced, as far as I can see, on any grounds at all, but from mere prejudice and passion. If you ask people, "What evidence is there for the equality-theory?", you do not get an answer (though you are likely to get other things).

Rather, the question is felt to be somehow improper, morally or intellectually, and is thought not to deserve any answer.

I do not know why it should be thought so. The question is a perfectly proper one morally and intellectually, and should not be hard to answer. That men and women have the same intellectual capacity is not, after all, a self-evident proposition, like (say) " $7 + 5 = 12$ " nor is it something just obvious, like (say) the sun's rising in the east. So if it is rational to believe it, there must be evidence for it: facts which lead to it by good reasoning. But where is that evidence to be found?

By contrast, there is no difficulty at all in saying what the evidence is, and always was, for the other theory, the theory of the inferior intellectual capacity of women. This evidence is not at all esoteric, but on the contrary is of the most familiar and homely kind. The main reason why I believe, and the main reason why nearly everyone always has believed, that the intellectual capacity of women is inferior to that of men, is just this: that the intellectual *performance* of women is inferior to that of men.

The reasoning involved, then, is reasoning from inferior performance to inferior capacity. It is reasoning of the same general kind, therefore, as that which convinces us, even if we understand nothing of the internal make-up of cars, that Fords are on the whole inferior to Mercedes; or as that which convinces dog-fanciers that Irish setters are not as smart as labradors; or as that which convinces everyone that the intellectual capacity of seven-year-old children is on the whole inferior to that of nine-year-olds. They do not do as well, and we infer from this that they cannot do as well.

This is a very homely kind of reasoning, to be sure. But that is not to say that there is anything wrong with it, and in fact no one distrusts reasoning of this kind. On the contrary, we could scarcely take a single step, in science or in common life, if we did not rely on this kind of reasoning.

Of course no thoughtful person mistakes such reasoning for proof. Inference from inferior performance to inferior capacity is fallible: that should go without saying. Everyone knows that a car, or an organism, may on a given occasion fail to perform as well as it can perform: there was some interfering factor at work. And this can happen not just on one occasion, or to just one organism. A whole class of organisms might perform below capacity, in a given respect, for any length of time, or forever. It is even logically possible that every organism of a certain kind should have a certain capacity, and yet that interfering factors prevent every one of them from ever exercising that capacity even once. So far, then, is inferior performance from being an infallible indication of inferior capacity. And so far, too, should we be, from mistaking the inferior intellectual performance of women for a *proof* of their inferior intellectual capacity.

This, then, is one commonplace truth which needs to be borne in mind when we think about the intellectual capacity of women: that capacity does not require performance. But there are other such commonplace truths, and some of these point in the opposite direction.

One is that, although performance is no infallible guide to capacity, it is, in the end, the only guide we have or can have. I do not mean that there

can be no evidence of A's capacity to F, unless A actually has F-ed at least once. That would be a stupid thing to say. When I meet a brown snake in the bush, I have good evidence of its capacity to inflict a dangerous bite on me, even if this particular snake has never bitten anyone. Again, a chemist often has good evidence concerning the capacities of a compound which, until he makes it in the laboratory, has never even existed, and which therefore cannot possibly have yet exercised any of its capacities. All I mean is, that the evidence for an unexercised capacity, which is a kind of unrealised possibility, cannot consist in its turn just of *other* unexercised capacities, or unrealised possibilities. Such evidence must include some actualised possibilities, some *exercises* of capacities. If the chemist, for example, is entitled to say in advance that his new compound X will have the capacity to F, that is because he knows of capacities which have actually been exercised by existing elements or compounds. While, then, capacity does not require performance, still *evidence* of a capacity does require performances, of some kind, by something or other, somewhere along the line.

Another important commonplace about capacity and performance is this: if we believe that something has a certain capacity, but the expected performance is not forthcoming, then we may not postulate just any old interfering factors in order to explain the discrepancy. Suppose our pet theory is that every B has the capacity to G, but the evidence is that B's have never or hardly ever G-ed, although there have been billions of B's, placed in the widest variety of circumstances. Then we may not save our theory just by saying: "H is a factor which inhibits G-ing, and it is *possible* that H has been present in most of the cases." Nor may we just say, "Oh well, there must be *something* which has so far stopped B's from G-ing", or "Somehow, B's have never had a fair chance to G." Nor may we just say, "Satan likes to stop B's from realising their G-potential; he is a non-B himself, you know." Statements such as these might happen, indeed, to be *true*. But given the evidence of the B's' actual performance, one would be irrational to believe them. Where the relevant performance is absent, it is rational to believe that a capacity is present, only if there is evidence of some actual, specific, and detectable interfering factor. Merely possible interfering factors, or actual but indefinite ones, or ones which, even if actual and definite, are undetectable (like Satan), will not do.

The reason why they won't do is obvious enough: that otherwise anyone could safely ascribe any capacity to anything. I, for example, a former village-cricketer but now too old even for that, could safely claim to have the capacity, at this very moment, to play cricket as well as Vivian Richards does. Brown bread, as well as brown snakes, could be credited with the capacity to inflict a dangerous bite. Men could be credited with a thousand times the intellectual capacity of women; and *vice versa*; and so on. We would need only to blame undetectable interfering factors, or indefinite ones, or merely possible ones, for having so far prevented the exercise of these interesting capacities.

Suppose that you want to know whether a certain coin is a fair one, but that for some reason or other you are not allowed to subject the coin to any direct physical test. In that case you will have to rely on tossing it, and observing the relative frequency with which "heads" and "tails" come up. You will have to *infer* what the probability of heads is, i.e. whether it is .5 or not, from the observed frequency of heads. As it would be manifestly irrational to draw such a conclusion from a few tosses, you will of course toss the coin a large number of times. A thousand tosses would surely be a large enough "sample" to base a rational inference on. Suppose the coin comes up heads 539 times in this thousand tosses. Then, if you are rational, you will strongly incline to the belief that the coin is not fair, but slightly biased to heads. If you wanted to put the matter beyond reasonable doubt, you would try to exclude, as far as one can, the possibility that the coin itself is fair but that the tossing of it has so far not been fair. The only rational way to do that is to arrange for more sets of tosses, of a thousand each, to be made. You will have some of them made by Jack and some by Jill, some in January and some in June, and so on. In short you will "vary the circumstances" (as philosophers say), in every way you can think of that seems at all likely to make any difference to the frequencies. If you have suspect that a factor H, which was present for certain sets of tosses, may have interfered to depress the frequency of tails below the probability of tails, then you will ensure that H is absent in an equal number of other sets of tosses. Suppose that in this way you make a thousand sets of a thousand tosses each, i.e. a million tosses all told, and that the number of heads in a thousand tosses never falls below 500, never rises above 550, and in almost every case is between 525 and 535. Then, if you are rational, you will be firmly convinced that the coin is not fair, but is biased to heads to the tune of about 53-47: that is, that the probability of heads with it is about .53. Someone who knew all the evidence of the tosses, and had no specific objection to make to the variety or the number of the trials, yet persisted in believing that the coin is fair, would be manifestly irrational. Indeed, one would have to doubt such a person's sanity, or suspect that the fairness of the coin is a point of religion with him. His crazy proposition, that the probability of heads with this coin is .5, is not logically inconsistent with the observed frequency of heads being about .53. The fact is, a probabilistic or statistical generalisation (with the trivial exception of "closed" ones, like "80% of the present Federal Cabinet are men"), can *never* be disproved by observed frequencies. "The probability of an F being a G is r" is consistent (once you set aside the "degenerate" values of r, 1 and 0), with *every* possible frequency of G's which might be observed in a sample of F's, however large the sample, and however varied. Hence if someone were to accept all the evidence mentioned above about the tosses, and still maintain that our coin is fair, he would not actually be contradicting himself

This only goes to show, of course, that consistency, or not contradicting yourself, is only a very small part of rationality. To believe that the coin is

fair is irrational in the light of our evidence, even though it is consistent with that evidence. After all, if the coin had *never once* come up heads in all of our million tosses, then that too—that is, an observed frequency of no heads in a million tosses—would have been logically consistent with the hypothesis that the coin is fair. Or again, if someone had the hypothesis that the coin is so very biased that the probability of heads with it is .99, then that hypothesis too would be consistent with an observed frequency of no heads in a million tosses. And so on: we need to fix in our minds the point that absolutely any observed frequency is consistent with *every* probability other than 1 and 0. And a consequence is this: where probabilistic or statistical hypotheses are concerned, *consistency* with the observed frequency counts for literally nothing in favour of any one hypothesis, because it is a property common to every hypothesis.

In our coin case, therefore, with an observed frequency of heads uniformly around .53, it would be merely fatuous if some one kept on saying "Still the coin *might* be a fair one," or "You haven't *proved* that the coin is biased," or "There *could* have been an unnoticed factor at work, depressing the frequency of tails below the probability." These statements are *true*, but they are fatuous, because they are merely logical truths. They are simply ways of expressing the truth that the frequency of heads which has been observed is logically consistent with the proposition that the coin is fair; and that, as we have seen, would be true whatever the observed frequency had been. The logical possibility that a factor interfered with tails is no reason whatever to believe that a factor did interfere with tails; any more than the logical possibility of your car having turned into a lobster last night is a reason to believe that you have a four-wheeled lobster in the garage now. Reason to believe in an unexercised capacity, such as a capacity in our coin to come up tails as often as heads, requires evidence, (as I said before), of a detectable, definite, and actual interfering factor. The logical possibility of interference is no evidence whatever of interference.

The only rational inference to make about our coin, in view of the number and variety of the trials, is that the probability of heads with it is close to the observed frequency of heads, i.e. about .53. Of *course* this reasoning is not proof. Of *course* we may be mistaken in rejecting the hypothesis that the coin is fair.

But these, as I keep emphasising, are trivial logical truths. And they take nothing away from another logical truth, namely this: that in relation to the evidence which we actually have, it is nearly certain that the coin is not fair, but that the probability of heads with it is about .53.

Probabilities are a sort of graduated capacities, and the question about the comparative intellectual capacity of men and women is, like the question whether a certain coin is fair, a question about probabilities. What we want to know is whether the probability of a woman having *d*, where *d* is a given above-average degree of intellectual capacity, is equal to the probability of a man having *d*. We were not able, I supposed, to make direct physical

tests from our coin: that was why we were obliged to infer the probability of heads from the frequency of heads observed in a large and varied sample of tosses. Just so, we are in fact not able to make direct tests of human intellectual capacity. We do not know enough to be able to do so at all as yet, and tests which are both precise and reliable are indefinitely far off. Even when they become technically possible, law or morality may well forbid their being made.

We are therefore thrown back, just as in the coin case, on having to infer the probabilities from the observed frequencies: that is, on inferring the comparative intellectual capacities of men and women from their comparative intellectual performances in that large and varied "sample" which is past human history.

In this sample, just as in the coin case, the observed frequencies are uniformly unfavourable to the equality-theory. In every field in which intellectual capacity can be exercised, from the most severely theoretical to the most intensely practical such as business, or medical practice, or war, there have always been far more men than women at any above-average level of performance. This is not in dispute.

No one disputes the following, either: that from this uniform inequality in the frequencies of intellectual performances between the two sexes, it will be rational to infer a similar inequality in their probabilities of intellectual performances, that is, in their intellectual capacities, if the observed sample, namely human history, is (first) large enough, and (second) varied enough.

And no one disputes that the sample is large enough. There have been a very great many women and men. Human intellectual capacity is a coin which has been tossed, not a million times, but very many billions of times.

The question, therefore, on which everything in this dispute turns, is whether human history is a *varied* enough sample to base a rational inference on. I believe, and most others, I think, believe, that it is. That is, we believe that there has been enough variety, in the circumstances in which humans have been placed, to exclude every explanation worth considering, of the observed difference in the intellectual performance of the two sexes, except a difference between them in intellectual capacity. We therefore conclude that the respective probabilities are close to the observed frequencies, or that the intellectual capacity of women is about as much below that of men as their past intellectual performance has been below that of men.

The equality-theorist says, and as we have seen must say, that there has not been enough variety in the "trials." Common to all or most past history, he must say, there has always been some factor or factors interfering with the exercise of the intellectual capacity of women, depressing the frequency of their intellectual performance below the probability of it.

Well, have there been such common factors, or have there not? Has the variety of human circumstances been great enough to constitute a fair trial of the intellectual capacity of women, or has it not? This is the question, I repeat, on which all turns.

On such a matter it should go without saying that *certainty*, or even the degree of rational confidence which we can reach concerning the bias of a coin, is out of the question. No one can have a detailed knowledge of all human history. Even more to the point, humans are not only more complicated than coins, but are, as far as we know, the most complicated things there are. As a result, a human has more ways of interacting with its surroundings than anything else has; and as a further result, there are more ways, in the case of a human than in any other case, in which a capacity can fail to get full expression in performance. It must therefore be harder, in the human case than any other, to reach a given degree of rational confidence that we have in fact excluded all but one of the possible causes of a given effect.

But the complexity of human beings, and the scale of human history, should not tempt us to draw the sceptical conclusion, that human history can *never* constitute a fair trial, or a trial reasonably believed to be fair, of human capacities. That would be merely silly. At that rate, if the intellectual performance of women were to be equal to that of men for the next million years, and in the widest variety of circumstances, we would still have to say at the end of that time that we hadn't the vaguest idea how the intellectual capacities of the two sexes compare. Anyway, this sceptical or "desperation" position is not open to either side of our dispute, which is between two parties each of which holds that, although certainty is out of reach, rational belief on the matter is not only possible in principle, but possible on the evidence which is available now.

Whether or not the historical sample is varied *enough*, it is certainly prodigiously varied. The variety of physical and social circumstances in which women have found themselves is, surely, just about as great as the variety which is possible for any class of persons. Women have been pirates and poets, princes and paupers, priests and prostitutes: you name it, some women have been it, if it is logically and biologically possible for a woman to be it. Almost every conceivable factor, therefore, which might have been thought to constitute an impediment to the intellectual performance of some women, has been removed in the case of some other women. Yet their intellectual performance, or at least the comparison of it with the intellectual performance of men, has not varied. This is true of the variety in women's circumstances which occurs spontaneously between or within societies; but the same is true of that variety in women's circumstances which has been introduced by human contrivance. Wherever some defect has been found or imagined in existing arrangements for the education of females, energetic and ingenious people have always been busy setting up a form of education free from that real or supposed defect. Novel schemes of education, intended among other things to remove obstacles to the exercise of the intellectual capacity of women, are, at least as old as Plato, and hundreds of them have been put into more or less widespread practice. Yet despite all this variety in the supposed causes of female intellectual performance, the effects have

been singularly invariant. I do not mean that these schemes of education have never had any effect at all on female intellectual performance. I do not know, but it is in any case indifferent to my thesis, whether they have or not. My thesis only requires, what is the case, that educational innovations have never shown any significant tendency to bridge the gap between male and female intellectual performance.

Is not this virtually-unlimited variety, variety enough? Has it not constituted a fair trial of the intellectual capacity of women? "No," says the equality-theorist. But this theory now begins to remind us of a supremely silly thing which G. K. Chesterton once said: that Christianity has not been tried and found wanting, but was found difficult, and never properly tried. Now, I ask you: *Christianity* not had a fair trial? Why, at this rate, *nothing* has ever had a fair trial, and we can know, or even rationally believe, nothing whatever about the capacities of anything: brown snakes, brown bread ... anything. But this is just an even stronger version of that silly scepticism which I mentioned a moment ago. In fact we know, or near-enough know, that Christianity does *not* have the capacity, which it claims to have, to satisfy indefinitely the religious aspiration of all human beings. And such a case proves, let us notice, that an historical sample of performance can be varied enough, and large enough, to be the basis of a rational inference to capacity, or rather to the lack of capacity.

A comparison between Christianity, and the supposedly-equal intellectual capacity of women, is in fact worth pausing over. Equality-theorists are never tired of reminding us of the obstacles which have been put in the way of the exercise of the intellectual capacity of women, at such-and-such a period, in that society or the other; and of course there are countless such cases. Those obstacles, however, have never been more than trifles when compared with the obstacles which, in countless cases, have been put in the way of the practice of the Christian religion. It is a mere abuse of words to speak, as some do, of "martyrs" and "persecution" in the one case as in the other. In both cases, for every instance in which some obstacle was put in the way, there is another instance in which that obstacle was *not* put in the way. Now, Christianity has sometimes made its way, sometimes without obstacles, sometimes even with obstacles; whereas the supposed equal intellectual capacity of women has *never* made its way, with or even without obstacles. Yet female intellectual capacity has obviously been tried in a far greater number of cases, and in a far wider variety of circumstances, than Christianity.

You can't go on forever saying "The game's not fair," when the game has been played ten billion times, under a billion different circumstances; at least, if you are rational you cannot, unless you are prepared to say in just what way it is not fair. Exactly where, then, is the variety in our historical sample deficient? Just what is that factor, common to all or most past history, which has interfered with the exercise of the intellectual capacity of



women? And the answer must be, as I said earlier, some actual, definite, and detectable factor.

But of course not every such factor will do. Some people love just stringing together *anecdotes*: women were prevented from exercising their intellectual capacity by this obstacle in Periclean Athens, by that obstacle in Confucian China, by the other obstacle in seventeenth-century France, etc. But an equality-theorist must do more than this. He has to offer some definite *explanation* of why the intellectual capacity of women has so consistently met with obstacles it could not overcome, and his explanation must be one which is consistent with the equality-theory. It would obviously be no good, for example, if he were to say, "The main interfering factor has been the aggressiveness, sexual exclusiveness, and superior cunning of males." This suggestion, considered in itself, is by no means without merit: aggressiveness, sexual exclusiveness, and superior cunning are definite and detectable things, and I at least believe that they actually do operate in males, and do impede, to some extent, the intellectual performance of women. But of course the suggestion is not one which an equality-theorist can adopt, since to ascribe superior cunning to males is to contradict the very intellectual equality for which he contends.

Presumably no equality-theorist has ever been quite so foolish as to offer the explanation just mentioned. But there are subtler forms of the same inconsistency which do constitute a serious temptation to an equality-theorist, and a more serious temptation, the more sensible the equality-theorist happens to be. What could possibly be more natural and sensible, for example, than to suggest that the uniformly inferior intellectual performance of women is connected in some way with their reproductive capacity? Some of the more sensible equality-theorists, accordingly, are somewhat drawn to this suggestion. But then it will scarcely be possible for them to avoid contradicting their own theory.

A plantation-owner gave his slaves a large quantity of whisky on New Year's Eve, and asked them next morning what they thought of its quality. "Just right," was the answer. "What do you mean, 'just right'?" "Well, if it had been any worse we couldn't have drunk it, and if it had been any better you wouldn't have given it to us." If this story is not true it is at least well-founded.

It is also of very wide application: "Just right" is the general rule in the organic world. A species has those capacities, in those degrees, which are necessary, but no more than are necessary, to keep up its numbers. As Hume wrote (in Part XI of his *Dialogues Concerning Natural Religion*): "Every animal has the requisite endowments; but these endowments are bestowed with so scrupulous an economy, that any considerable diminution must entirely destroy the creature. Wherever one power is increased, there is a proportional abatement in others. Animals which excel in swiftness, are commonly defective in force. Those which possess both are either imperfect in some of their senses, or are oppressed with the most craving wants."

Darwinian theory acknowledges this fact, of course, and even up to a point explains it. But the fact was noticed long before Darwin, and must be acknowledged on any theory.

Although "Just right" is the general rule in nature, it is not the invariable rule. Since species are sometimes extinguished, their capacities are not always up to their tasks. And on the other side there are, or appear to be, excessive endowments, and capacities of a degree quite beyond what is needed to enable the species to keep up with the Joneses. A famous example of excessive endowments is the peacock's tail: Darwin tells us it gave him nightmares, as well it might. But human intellectual capacity is itself another striking example. Humans do indeed need *some* intellectual superiority over other animals, precisely because (as Hume goes on to say) they are, of all animals, "the most necessitous, and the most deficient in bodily advantages": they have no natural weapons, no body-covering, no uncommon strength, stamina, or speed. But why have humans got so much intellectual capacity? What biological need was there for the intellectual capacity, I will not say of a Hume or a Darwin, but even of the average philosopher? Wallace, though more Darwinian than Darwin himself, in the sense of being less Lamarckian, was convinced, by the superfluity of human intellectual capacity, that something more than natural selection must have been at work in the descent of man; as well he might be.

Still, whether or not there is an Author of Nature, there certainly is, overall, a recognisable style in nature, and it is the 'Just right' style: the style, as Hume says, not of "an indulgent parent" but of "a rigid master." And the principle of parsimony does not stop at the distribution of capacities to species. It extends to the distribution of capacities between the sexes of a single species. If a species devotes a large part of its energy-budget to food-getting, say, or the defence of territory, or home-making, or reproduction, or nurture of young, then one sex takes on more of that task than the other does, and it will take on less of some other major task; and either sex will be comparatively or entirely deficient in the capacities required for the "specialisms" of the other sex. Again, this is not an invariable rule. In many species of birds, for example, the heavy task of getting food for the young falls equally on both sexes. But it is the general rule: if you take any major task that a species performs, it is exceptional for the two sexes to be exactly equally equipped to perform it.

The energy of organisms is like your money: it can be turned into almost anything, but there is only a certain amount of it to go round. So, whether among species or between the sexes of one species, lavish expenditure on one side means going short on another. The more you invest in heavy body-covering, say, the less you can put into mobility, and so on. And if one sex spends energy extravagantly on defence of territory, say, then the other sex is going to have to do more than an equal share of other main jobs, such as food-getting, or nurture of young.

On the side of reproduction and nurture, the human race carries a uniquely heavy burden. Gestation is long and taxing: yet that is the comparatively easy part. The adults of the species are omnivores, yet the new-born are such tiresome doctrinaires about food that almost nothing in the world except milk will do for them, and even at non-human milk they are apt to look askance and die. Above all there is the extreme and prolonged helplessness of the human young. This is, indeed, so marked a peculiarity of our species, and so cruel a drain on its energy-budget, that it gave rise to the thought, as early as the sixth century BC, that we must have descended from some other species which had a more sensible policy on nurture. We would never have got here, the Greek philosopher Anaximander reasoned, if all our antecedents had been as extravagant as we are in spending energy on absolute beginners!

Virtually all of this huge burden must fall on women. Men are not equipped for gestation or lactation, and what they can do to share the burden of nurture of the new-born is extremely little. The mother and the new-born, in man as in all the higher mammals, are obviously programmed to attach themselves to one another, literally and metaphorically; but there is no such programme in the father. Recently, of course, fathers of a certain kind have made a great business of being at the birth of their children, sharing the nappy-changing, etc., and no doubt some of them are occasionally of some real help in this way. But really, when you compare this with the deadly-earnest business which is going on at every moment between mother and infant, it is play. It is about as much help as those elaborate mock-confinements, etc., which fathers in many primitive societies insist on undergoing, and it should indeed be recognised as our contemporary version of those. In short the whole affair is mainly an expression of injured male self-importance, and a graceless one at that. Of course all this may be different, and the burdens of reproduction and nurture may be shared more equally between the sexes, if and when our species is superseded by another. But I am talking about *H. sapiens*, and in that species those burdens cannot fall to any significant extent on males.

Now in man, as in all animals, a peculiarity of reproduction-and-nurture is this: that of all the major tasks of the species, it is the one for which the innate programme is most complete, and the one, therefore, which requires the least intellectual effort for its performance. In plain English: a woman does not need to use her brains to have a baby, and doesn't even need to use them much in order to see the infant through the period of its most extreme helplessness. Nearly everything she needs to know is already written in her inner manual. By contrast, every other major task, such as getting food or defending territory, abounds in totally-unforeseeable individual contingencies. It can therefore be only schematically programmed-for: you have to fill in most of the important details *ad hoc*, as each new situation arises. And that means that you constantly have to be using your brains. Think, for example, of the task, the very urgent task, of getting meat to eat. It

is an extremely difficult task, and the difficulty is intellectual as much as physical. There is no meat going round asking to be made a meal of, and all the meat that is going round displays amazing cunning in the effort to preserve its life. Even finding the animal is often an intellectual feat, but even when you have found it, unless you can also out-think it, you will eat vegetarian or not at all that night. In short, the intellectual activity which is required for successful hunting is extremely great. And so it is, to a greater or less degree, with all the other major tasks confronting the human species, except reproduction. And so it must be, for the simple reason which Hume gave: that humans have got very little going for them except "reason and sagacity."

In summary, then: our species has, like every other, a fixed energy-budget, and out of this it spends very heavily, far more heavily than any other species does, on reproduction-and-nurture. This great cost is borne exclusively by women, while reproduction-and-nurture is, of all the major calls on the budget, that one which demands the least intellectual activity. Now, there is a general principle of parsimony prevailing in the organic world, according to which a species, or a sex within a species, is endowed only with the minimum capacities, or degrees of capacities, needed for survival.

One would expect, then, that the sex not burdened with reproduction-and-nurture would shoulder the main burden of those other major tasks which are intellectually more demanding; and therefore, by the principle of parsimony, that men will have a higher degree than women of what is peculiarly required for those tasks, intellectual capacity. I do not claim that this inference is inevitable, but it is at least a natural one. And vague as its premises are, they do furnish, I believe, the lines along which an explanation must be sought for the intellectual difference observed between men and women.

Even some equality-theorists, as I said before, show signs of inclining to some such biological explanation of the facts. But any equality-theorist who accepted the explanation which I have just outlined would be simply inconsistent; just as one would be who accepted an explanation in terms of superior male cunning. What the equality-theorist needs is an explanation, consistent with the equal intellectual capacity of men and women, of their unequal intellectual *performance*. But what I have just advanced, if it is an explanation of anything, is an explanation of the inferior intellectual *capacity* of women. I offer, indeed, a *kind* of interfering factor, but that factor is inferior capacity, rooted in the general biology of the species and its sexes. The equality-theorist, on the other hand, has to try to find some interfering factor which, though it has beset the entire female sex throughout the entire history of the species, is not rooted in biology. Well, it is his work, and he is welcome to it.

I have sometimes been asked "What would it take to convince you that the intellectual capacity of women is equal to that of men?" This is a kind

of question which it is often instructive to ask, and certainly it is a fair one here. I can easily answer it and will.

But since intellectual performance is the only guide we have to intellectual capacity, while the intellectual performance of men has always been superior to that of women, the question is an ever fairer one if it turned around, and addressed to the equality-theorist: "What would convince you of the *inferior* intellectual capacity of women?" And this question is one which many equality-theorists, I think, would not find at all easy to answer. The religious quality of their attachment to their theory is, in many instances, only too obvious.

Here is something which would *not* convince me of the equality-theory: reports by psychologists or educationists of tests, conducted within recent years, on (for example) the comparative mathematical ability of boys and girls. Such reports would not only not convince me: I do not believe that any attention at all should be paid to them. My main reason for this is not the public record of psychologists for fraud or susceptibility to fraud or of educationists for unswerving obedience to the winds of fashion; although this record is sufficient in itself to justify a hearty scepticism towards their reports. My main reason is a quite general principle: that a person's testimony should carry no weight or little weight with you, if you are sure or nearly sure that his testimony would have been the same whatever had actually happened. If you are pretty sure that the boy would be crying "Wolf!" whether he had seen a wolf or not, you give him little credence, if you are rational, when he does cry "Wolf!". Well, everyone can be pretty sure that, if educationists or psychologists report nowadays on a test of mathematical ability between boys and girls, say, they will report the girls as doing at least as well as the boys, whether they really did or not. If the tests *seem* to show markedly superior mathematical ability in the boys, the experimenters will not only withhold publication of the results, but will almost certainly themselves believe that their experiment must have been defective in some way. It is as simple as that. So, when such persons do report equal mathematical performance by girls and boys, rational people simply ignore their reports.

This is a sad state of affairs, but it is, of course, the equality-theorists who are chiefly to blame for bringing it about. For they have created in recent years a climate of feeling in which many men are afraid to deny the equality-theory openly, and even ashamed to doubt it inwardly. Hence the phenomena which are now so observable, of hypocrisy, self-deception, and pious fraud: those invariable concomitants of a militant religion.

"Would fifty years, or five hundred years, of equal intellectual performance by women and men, convince you of their equal intellectual capacity?" That would depend entirely on the circumstances. For it *might* then be my turn to cry "The game's not fair," and I might be able to make the charge stick too. I might be able to identify some interfering factor which was more than adequate to explain the discrepancy between my theory and the observed

facts. Pressure-cooker education for all girls, say, or huge cash-incentives for brilliant women university students, or punishment for brilliant male ones. Obviously, if there really were such factors at work, it would be quite irrational for me, or for anyone, to take the equal performance at face-value, however long it might go on.

What would convince me of the equal intellectual capacity of men and women is, simply, the kind of evidence which, as things are, convinces me of the opposite: that is, equal intellectual performance, over a long time, and in the widest variety of circumstances.

Nothing else would convince me, or even begin to do so. In particular, no *experiments* of any kind, however well-conducted, would weigh with me, *if* their results were inconsistent with the verdict of ordinary experience. If intellectual performance continued to be, as it has always been, unequal, in all the limitless and largely-undesigned variety of life, then that is the evidence I would trust. If all the educationists (etc.) in the world, even without the influence of fraud or self-deception, reported equal intellectual performance by the juveniles of either sex, it would cut no ice with me; and similarly if all the geneticists and molecular biologists could not detect, by their most refined experiments, any physical basis for the unequal performance of the two sexes. I would still stand by the evidence, raw and unanalysed as it is, of a long and varied experience, if that still testified to inequality.

I think that every rational person would do the same, yet I must admit that what I have just said sounds a bit off-key. It does so, because it conflicts, or appears to conflict, with a point of orthodox scientific method to which we all subscribe: that an ounce of controlled experiment is worth a ton of unanalysed observation.

I could say, with some plausibility, that the conflict is only apparent. I could say, that is, that controlled experiment does always outweigh unanalysed observation, but that, on something as complex as human genes, experiments never *are* able to be rigidly controlled, and therefore can sometimes be outweighed by a large mass of mere observations. But this does not seem quite plausible enough. Experiments on human genes which are at least *nearly* as rigidly-controlled as the best experiments anywhere, will surely be possible soon, *if* they are not so already. I am therefore inclined to think that the conflict is real, but that it is just not true that controlled experiment always outweighs unanalysed observation.

There is independent reason to think this. Consider the proposition: "Monkeys treading at random on typewriter-keys will never reproduce the works of Shakespeare." It is not a scientific law, or anything like one. The evidence we have for it is massive, indeed irresistible, but it is utterly unanalysed, and certainly includes no controlled experiments, on monkeys, typewriters, or anything else. Consider, on the other hand, those propositions which we have the best reason to believe are scientific laws. For these, the best evidence *does* consist of certain rigidly-controlled experiments.

Yet every rational person, I think, *is more* confident of the above proposition about the monkeys, than he is of any proposition which he takes to be a scientific law.

There are certain things which, though they would not convince me of the intellectual equality of men and women, would certainly, if true, go some way to confirm that proposition. One is, statistics which suggest that the past intellectual performance of *non*-reproductive women has been equal or nearly equal to that of men.

Child-bearing is so extremely obvious an impediment to intellectual performance that, to any sensible equality-theorist, a compromise is bound to suggest itself, between the equality-theory and any inequality-theory like the one which I sketched above. My suggestion was, in effect, that it is the reproductive capacity, and not the actual bearing and nurture of children, which accounts for the inferior intellectual performance of women. But the suggestion is bound to arise that the burden of actual reproduction-and-nurture is sufficient to account for the observed inferior intellectual performance of women.

If this were so it would undoubtedly save the equality-theory, But it simply does not seem to be so. Women university students, although hardly any of them have given birth, are uniformly present in smaller numbers (proportionately) than men, at any above-average level of intellectual performance. At least, this is the case in any branch of university work which is very intellectually-demanding.

The trouble with the "actual-reproduction" theory is, that it is altogether too easy. We all know, only too vividly, the sort of instances which first suggest it, and which, as far as they go, really do confirm it: the intelligent woman, with a PhD thesis uncompleted or an important novel hardly begun, whose meagre frame must sustain, through the "best" years of her life, the slings and arrows of outrageous offspring. No doubt these appearances are often delusive: the thesis would (like most others) suffer deserved neglect if it ever were completed, the novel is a phantom-child which, if it ever were produced, would prove an even greater anticlimax than the children of her body. But often, perhaps equally often, the appearances are not delusive at all. There cannot be the smallest question, in a rational mind, that in countless cases the exercise of the intellectual capacity of women has been more or less frustrated by the exercise of the reproductive capacity, and that untold suffering has resulted from this.

But then, who can tell us the extent to which non-reproductive women have had the exercise of their intellectual capacity frustrated by other causes, for example economic ones? Here our thoughts fly to the Jane Austens, George Eliots, Caroline Herschels, etc., as though their existence settled the matter. But this is merely an instance of that well-known human frailty, "accentuating the positive": we remember the day we walked under a ladder and later broke a leg, and we forget all the "negative instances." That the Jane Austens, etc., are very exceptional among women, we know. But

here we need to know that they are not equally exceptional among *non-reproductive* women; and who does know this? Non-reproductive women, as a class, are peculiarly little-known. They scarcely exist in many societies, and where they do exist they tend to lead an invisible or interstitial life. For about 1700 Years, vast numbers of them in the West found their way into religious institutions, and thus became, with not one exception in ten thousand, totally lost to our view. Yet even here, I must point out, the old cruel inequality asserts itself. The medieval monastery was often a repository, at least, of learning, and sometimes an active centre of learning; the nunnery was neither. Similarly, outside the monasteries, religious orders of celibate males have often been remarkable for intellectual activity (the Jesuits being the most striking example); but their female counterparts have never been so.

One could make a start, as far as the British are concerned, by going through *The Dictionary of National Biography*, getting out all the women noticed there for intellectual performance, and seeing how this class divides between reproductives and nonreproductives. I have not done this. As far as I know, no one else has done it either for Britons or anyone else. And I cannot help thinking that such a statistic, if it were known to anyone and pointed at all unambiguously towards a level of intellectual performance by non-reproductive women which was close to that of men, it would by now be known to everyone. In fact the very dogs would be barking it. As they are not, one must infer that such a statistic is either not known to anyone, or is not such as to afford any significant comfort to equality-theorists. And on the first of those alternatives the actual reproduction theory is unsupported, while on the second it is discredited.

As I have now said what would convince or begin to convince me of the falsity of my belief, I may be entitled to renew my question to the equality-theorists: What would convince them of the falsity of their belief? What would they even regard as being *some* evidence against it?

Any serious answers to these questions would be instructive, but I do not really expect to receive any such answer. The evidence for the inferior intellectual capacity of women is so obvious and overwhelming, that anyone who can lightly set it aside must be defective in their *attitude* to evidence; and our contemporary equality-theorists are in fact (as I have hinted several times), religious rather than rational in their attitude to evidence. As providing some further indication of this, the following thought-experiment may be of use. Suppose that the historical evidence had been the exact reverse of what it has usually been: that is, suppose that the intellectual performance of men had been uniformly inferior, under the widest variety of circumstances, to that of women. Rational people would in that case be as confident of the superior intellectual capacity of women as they now are of the reverse. But would those people who are at present equality-theorists be as confident then as they are now of the equal intellectual capacity of the two sexes? To ask this question is to answer it. The fact is, our egalitarians



treat evidence on a basis of heads-I-win-tails-you-lose; indeed, to say so is "putting it mild," at that.