

CHAPTER I

Biological Data

Woman? Very simple, say those who like simple answers: she is a womb, an ovary; she is a female: this word is enough to define her. From a man's mouth, the epithet 'female' sounds like an insult; but he, not ashamed of his animality, is proud to hear: 'He's a male!' The term 'female' is pejorative not because it roots woman in nature, but because it confines her in her sex, and if this sex, even in an innocent animal, seems despicable and an enemy to man, it is obviously because of the disquieting hostility woman triggers in him. Nevertheless, he wants to find a justification in biology for this feeling. The word 'female' evokes a saraband of images: an enormous round egg snatching and castrating the agile sperm; monstrous and stuffed, the queen termite reigning over the servile males; the praying mantis and the spider, gorged on love, crushing their partners and gobbling them up; the dog in heat running through back alleys, leaving perverse smells in her wake; the monkey showing herself off brazenly, sneaking away with flirtatious hypocrisy. And the most splendid wildcats, the tigress, lioness and panther, lie down slavishly under the male's imperial embrace, inert, impatient, shrewd, stupid, insensitive, lewd, fierce and humiliated. Man projects all females at once on to woman. And the fact is that she is a female. But if one wants to stop thinking in commonplaces, two questions arise. What does the female represent in the animal kingdom? And what unique kind of female is realised in woman?

Males and females are two types of individuals who are differentiated within one species for the purposes of reproduction; they can be defined only correlatively. But it has to be pointed out first that the very meaning of *division* of the species into two sexes is not clear.

It does not occur universally in nature. In one-celled animals, infusorians, amoebas, bacilli, and so on, multiplication is fundamentally distinct from sexuality, with cells dividing and subdividing individually. For some metazoans, reproduction occurs by schizogenesis, that is dividing the

individual whose origin is also asexual, or by blastogenesis, that is dividing the individual itself produced by a sexual phenomenon: the phenomena of budding or segmentation observed in fresh-water hydras, coelenterates, sponges, worms and tunicates are well-known examples. In parthenogenesis, the virgin egg develops in embryonic form without male intervention. The male plays no role or only a secondary one: unfertilised honeybee eggs subdivide and produce drones; in the case of aphids, males are absent for a number of generations, and the unfertilised eggs produce females. Parthenogenesis in the sea urchin, the starfish and the toad have been artificially reproduced. However, sometimes in the protozoa, two cells can merge, forming what is called a zygote; fertilisation is necessary for honeybee eggs to engender females and aphid eggs, males. Some biologists have thus concluded that even in species capable of perpetuating themselves unilaterally, the renewal of genetic diversity through mixing of parental chromosomes would benefit the line's rejuvenation and vigour; in this view, then, in the more complex forms of life, sexuality is an indispensable function; only elementary organisms could multiply without sexes, and even so they would exhaust their vitality. But today this hypothesis is most inexact; observations have proved that asexual multiplication can occur indefinitely without any noticeable degeneration; this is particularly striking in bacilli; more and more – and bolder and even bolder – parthenogenetic experiments have been carried out, and in many species the male seems radically useless. Moreover, even if the value of intercellular exchange could be demonstrated, it would be a purely ungrounded fact. Biology attests to sexual differentiation, but even if biology were imbued with finalism, the differentiation of sexes could not be deduced from cellular structure, laws of cellular multiplication, or from any elementary phenomenon.

The existence of heterogenetic gametes* alone does not necessarily mean there are two distinct sexes; the differentiation of reproductive cells often does not bring about a division of the species into two types: both can belong to the same individual. This is true of hermaphroditic species, so common in plants, and also in many invertebrates, among which are the annulates and molluscs. Reproduction takes place either by self-fertilisation or by cross-fertilisation. Some biologists use this fact to claim the justification of the established order. They consider gonochorism – that is, the system in which the different gonads[†] belong

* Gametes are reproductive cells whose fusion produces an egg.

† Gonads are glands that produce gametes.

to distinct individuals – as an improvement on hermaphroditism, realised by evolution; others, by contrast, consider gonochorism primitive: for those biologists, hermaphroditism would thus be its degeneration. In any case, these notions of superiority of one system over another involve highly contestable theories concerning evolution. All that can be affirmed with certainty is that these two means of reproduction coexist in nature, that they both perpetuate species, and that the heterogeneity of both gametes and gonad-producing organisms seems to be accidental. The differentiation of individuals into males and females thus occurs as an irreducible and contingent fact.

Most philosophies have taken sexual differentiation for granted without attempting to explain it. The Platonic myth has it that in the beginning there were men, women and androgynes; each individual had a double face, four arms, four legs and two bodies joined together; one day they were split into two 'as one would split eggs in two', and ever since then each half seeks to recover its other half: the gods decided later that new human beings would be created by the coupling of two unlike halves. This story only tries to explain love: the differentiation of sexes is taken as a given from the start. Aristotle offers no better account: for if co-operation of matter and form is necessary for any action, it is not necessary that active and passive principles be distributed into two categories of heterogenic individuals. St Thomas declared that woman was an 'inessential' being, which, from a masculine point of view, is a way of positing the accidental character of sexuality. Hegel, however, would have been untrue to his rationalist passion had he not attempted to justify it logically. According to him, sexuality is the mediation by which the subject concretely achieves itself as a genus. 'The genus is therefore present in the individual as a straining against the inadequacy of its single actuality, as the urge to obtain its self-feeling in the other of its genus, to integrate itself through union with it and through this mediation to close the genus with itself and bring it into existence – *copulation*.'* And a little further along, 'the process consists in this, that they become in reality what they are in themselves, namely, one genus, the same subjective vitality.' And Hegel then declares that in order for the process of union to occur, there has to be differentiation of the two sexes. But his demonstration is not convincing: the preconceived idea of locating the three moments of the syllogism in any operation is too obvious here. The surpassing of the individual towards the species, by which individual

* Hegel, *Philosophy of Nature*, Part 3, section 369.

and species accomplish themselves in their own truth, could occur without the third element, by the simple relation of genitor to child: reproduction could be asexual. Or the relation to each other could be that of two of the same kind, with differentiation occurring in the singularity of individuals of the same type, as in hermaphroditic species. Hegel's description brings out a very important significance of sexuality: but he always makes the same error of equating significance with reason. It is through sexual activity that men define the sexes and their relations, just as they create the meaning and value of all the functions they accomplish: but sexual activity is not necessarily implied in the human being's nature. In *Phenomenology of Perception*, Merleau-Ponty² points out that human existence calls for revision of the notions of necessity and contingency. 'Existence has no fortuitous attributes, no content which does not contribute towards giving it its form; it does not give admittance to any pure fact because it is the process by which facts are drawn up.' This is true. But it is also true that there are conditions without which the very fact of existence would seem to be impossible. Presence in the world vigorously implies the positing of a body that is both a thing of the world and a point of view on this world: but this body need not possess this or that particular structure. In *Being and Nothingness*,³ Sartre disputes Heidegger's affirmation that human reality is doomed to death because of its finitude; he establishes that a finite and temporally limitless existence could be conceivable; nevertheless, if human life were not inhabited by death, the relationship of human beings to the world and to themselves would be so deeply upset that the statement 'man is mortal' would be anything but an empirical truth: immortal, an existent would no longer be what we call a man. One of the essential features of man's destiny is that the movement of his temporal life creates behind and ahead of him the infinity of the past and the future: the perpetuation of the species appears thus as the correlative of individual limitation, so the phenomenon of reproduction can be considered as ontologically grounded. But this is where one must stop; the perpetuation of the species does not entail sexual differentiation. That it is taken on by existents in such a way that it thereby enters into the concrete definition of existence, so be it. Nevertheless, a consciousness without a body or an immortal human being is rigorously inconceivable, whereas a society can be imagined that reproduces itself by parthenogenesis or is composed of hermaphrodites.

Opinions about the respective roles of the two sexes have varied greatly; they were initially devoid of any scientific basis and only reflected

social myths. It was thought for a long time, and is still thought in some primitive societies based on matrilineal filiation, that the father has no part in the child's conception: ancestral larvae were supposed to infiltrate the womb in the form of living germs. With the advent of patriarchy, the male resolutely claimed his posterity; the mother had to be granted a role in procreation even though she merely carried and fattened the living seed: the father alone was the creator. Aristototele imagined that the foetus was produced by the meeting of the sperm and the menses: in this symbiosis, woman just provided passive material while the male principle is strength, activity, movement and life. Hippocrates' doctrine also recognised two types of seed, a weak or female one, and a strong one, which was male. Aristotelian theory was perpetuated throughout the Middle Ages and down to the modern period. In the middle of the seventeenth century, Harvey, slaughtering female deer shortly after they had mated, found vesicles in the uterine horns that he thought were eggs but which were really embryos. The Danish scientist Steno coined the term 'ovaries' for the female genital glands that had until then been called 'feminine testicles', and he noted the existence of vesicles on their surface that Graaf, in 1672, had erroneously identified as eggs and to which he gave his name. The ovary was still regarded as a homologue of the male gland. That same year, though, 'spermatic animalcules' were discovered penetrating the feminine womb. But it was thought that they went there for nourishment only, and that the individual was already prefigured in them; in 1694, the Dutchman Hartsoeker drew an image of the homunculus hidden in the sperm, and in 1699 another scientist declared he had seen the sperm cast off a kind of slough under which there was a little man, which he also drew. In these hypotheses woman merely fattened a living and active, and perfectly constituted, principle. These theories were not universally accepted and discussion continued until the nineteenth century. The invention of the microscope led to the study of the animal egg; in 1827, Baer identified the mammal's egg: an element contained inside Graaf's follicle. Soon its structure could be studied; in 1835, the sarcode – that is, the protoplasm – and then the cell were discovered; in 1877 the sperm was observed penetrating the starfish egg. From that the symmetry of the two gametes' nuclei was established; their fusion was analysed in detail for the first time in 1883 by a Belgian zoologist.

But Aristotle's ideas have not lost all validity. Hegel thought the two sexes must be different: one is active and the other passive, and it goes without saying that passivity will be the female's lot. 'Because of this

differentiation, man is thus the active principle while woman is the passive principle because she resides in her non-developed unity.* And even when the ovum was recognised as an active principle, men continued to pit its inertia against the agility of the sperm. Today, there is a tendency to see the contrary: the discoveries of parthenogenesis have led some scientists to reduce the role of the male to that of a simple physico-chemical agent. In some species the action of an acid or a mechanical stimulation has been shown to trigger the division of the egg and the development of the embryo; and from that it was boldly assumed that the male gamete was not necessary for generation; it would be at most a ferment; perhaps man's co-operation in procreation would one day become useless: that seems to be many women's desire. But nothing warrants such a bold expectation because nothing warrants universalising life's specific processes. The phenomena of asexual multiplication and parthenogenesis are neither more nor less fundamental than those of sexual reproduction. And it has already been noted that this form is not a priori favoured: but no fact proves it is reducible to a more elementary mechanism.

Rejecting any a priori doctrine, any implausible theory, we find ourselves before a fact that has neither ontological nor empirical basis and whose impact cannot a priori be understood. By examining it in its concrete reality, we can hope to extract its significance: thus perhaps the content of the word 'female' will come to light.

The idea here is not to propose a philosophy of life or to take sides too hastily in the quarrel between finalism and mechanism. Yet it is noteworthy that physiologists and biologists all use a more or less finalistic language merely because they ascribe meaning to vital phenomena. We will use their vocabulary. Without coming to any conclusion about life and consciousness, we can affirm that any living fact indicates transcendence, and that a project is in the making in every function: these descriptions do not suggest more than this.

In most species, male and female organisms cooperate for reproduction. They are basically defined by the gametes they produce. In some algae and fungi, the cells that fuse to produce the egg are identical; these cases of isogamy are significant in that they manifest the basal equivalence of the usually differentiated gametes: but their analogy remains striking. Sperm and ova result from a basically identical cellular evolution:

* Ibid.

the development of primitive female cells into oocytes differs from that of spermatocytes by protoplasmic phenomena, but the nuclear phenomena are approximately the same. The idea the biologist Ancel expressed in 1903 is still considered valid today: 'An undifferentiated progerminating cell becomes male or female depending on the conditions in the genital gland at the moment of its appearance, conditions determined by the transformation of some epithelial cells into nourishing elements, developers of a special material.'⁴ This primary kinship is expressed in the structure of the two gametes that carry the same number of chromosomes inside each species. During fertilisation, the two nuclei merge their substance and the chromosomes in each are reduced to half their original number: this reduction takes place in both of them in a similar way; the last two divisions of the ovum result in the formation of polar globules equivalent to the last divisions of the sperm. It is thought today that, depending on the species, the male or female gamete determines the sex: for mammals, the sperm possesses a chromosome that is heterogenic to the others and potentially either male or female. According to Mendel's statistical laws, transmission of hereditary characteristics takes place equally from the father and the mother. What is important to see is that in this meeting neither gamete takes precedence over the other: they both sacrifice their individuality; the egg absorbs the totality of their substance. There are thus two strong current biases that – at least at this basic biological level – prove false: the first one is the female's passivity; the living spark is not enclosed within either of the two gametes. It springs forth from their meeting; the nucleus of the ovum is a vital principle perfectly symmetrical to the sperm's. The second bias contradicts the first, which does not exclude the fact that they often coexist: the permanence of the species is guaranteed by the female since the male principle has an explosive and fleeting existence. In reality, the embryo equally perpetuates the germ cells of the father and the mother and retransmits them together to its descendants, sometimes in a male and sometimes a female form. One might say that an androgynous germ cell survives the individual metamorphoses of the soma from generation to generation.

That being said, there are highly interesting secondary differences to be observed between the ovum and the sperm; the essential singularity of the ovum is that it is supplied with material destined to nourish and protect the embryo; it stocks up on reserves from which the foetus will build its tissues, reserves that are not a living substance but an inert material; the result is a massive, relatively voluminous, spherical or ellipsoidal

form. The bird's egg's dimensions are well known. The woman's egg measures 0.13 mm while the human semen contains 60,000 sperm per cubic millimetre: their mass is extremely small. The sperm has a thread-like tail, a little elongated head; no foreign substance weighs it down. It is entirely life; this structure destines it for mobility; the ovum, on the contrary, where the future of the foetus is stored, is a fixed element: enclosed in the female organism or suspended in an exterior environment, it waits passively for fertilisation. The male gamete seeks it out; the sperm is always a naked cell, while the ovum is, according to the species, protected or not by a membrane; but in any case, the sperm bumps into the ovum when it comes into contact with it, makes it waver and infiltrates it; the male gamete loses its tail; its head swells, and, twisting, it reaches the nucleus. Meanwhile, the egg immediately forms a membrane that keeps other sperm from entering. For echinoderms where fertilisation is external, it is easy to observe the rush of the sperm that surround the floating and inert egg like a halo. This competition is also another important phenomenon found in most species; much smaller than the ovum, the sperm are generally produced in considerable quantities and each ovum has many suitors.

Thus, the ovum, active in the nucleus, its essential principle, is superficially passive; its mass, closed upon itself, compact in itself, evokes the nocturnal heaviness and repose of the in-itself: the ancients visualised the closed world in the form of a sphere or opaque atom; immobile, the ovum waits; by contrast, the open sperm, tiny and agile, embodies the impatience and worry of existence. One should not get carried away with the pleasure of allegories: the ovum has sometimes been likened to immanence and the sperm to transcendence. By giving up its transcendence and mobility, the sperm penetrates the female element: it is grabbed and castrated by the inert mass that absorbs it after cutting off its tail; like all passive actions, this one is magical and disturbing; the male gamete activity is rational, a measurable movement in terms of time and space. In truth, these are merely ramblings. Male and female gametes merge together in the egg; together they cancel each other out in their totality. It is false to claim that the egg voraciously absorbs the male gamete and just as false to say that the latter victoriously appropriates the female cell's reserves because in the act that merges them, their individuality disappears. And to a mechanistic philosophy, the movement undoubtedly looks like a rational phenomenon *par excellence*; but for modern physics the idea is no clearer than that of action at a distance; besides, the details of the physicochemical interactions leading to fertil-

isation are not known. It is possible, however, to come away with a valuable indication from this meeting. There are two movements that come together in life, and life maintains itself only by surpassing itself. It does not surpass itself without maintaining itself; these two moments are always accomplished together. It is academic to claim to separate them: nevertheless, it is either one or the other that dominates. The two unified gametes go beyond and are perpetuated; but the ovum's structure anticipates future needs; it is constituted to nourish the life that will awaken in it, while the sperm is in no way equipped to ensure the development of the germ it gives rise to. In contrast, whereas the sperm moves around, the ovum is incapable of triggering the change that will bring about a new explosion of life. Without the egg's prescience, the sperm's action would be useless; but without the latter's initiative, the egg would not accomplish its vital potential. The conclusion is thus that fundamentally the role of the two gametes is identical; together they create a living being in which both of them lose and surpass themselves. But in the secondary and superficial phenomena that condition fertilisation, it is through the male element that the change in situation occurs for the new eclosion of life; it is through the female element that this eclosion is established in a stable element.

It would be rash to deduce from such an observation that woman's place is in the home: but there are rash people. In his book *Nature and Character According to Individuals, Sex and Race*,⁵ Alfred Fouillée claimed he could define woman entirely from the ovum and man from the sperm; many so-called deep theories are based on this game of dubious analogies. It is never clear what philosophy of nature this pseudo-thinking refers to. If one considers laws of heredity, men and women come equally from a sperm and an ovum. I suppose that vestiges of the old medieval philosophy – that the cosmos was the exact reflection of a microcosm – are floating around in these foggy minds: it was imagined that the ovum is a female homunculus and woman a giant ovum. These reveries dismissed since the days of alchemy make a weird contrast with the scientific precision of descriptions being used at this very moment: modern biology does not mesh with medieval symbolism; but our people do not look all that closely. If one is a bit scrupulous, one has to agree that it is a long way from ovum to woman. The ovum does not yet even contain the very notion of female. Hegel rightly notes that the sexual relationship cannot be reduced to that of two gametes. Thus, the female organism has to be studied in its totality.

It has already been pointed out that for many vegetables and some

primitive animals, among them molluscs, gamete specification does not lead to individual specification, as they produce both ova and sperm. Even when the sexes separate, the barriers between them are not tight like those that separate species; just as gametes are defined from an originally undifferentiated tissue, males and females develop more as variations on a common base. For certain animals – *Bonellia viridis*⁶ is the most typical case – the embryo is first asexual and its eventual sexuality is determined by the incertitudes of its development. It is accepted today that in most species sex determination depends on the genotypical constitution of the egg. The virgin egg of the honeybee reproducing itself by parthenogenesis yields males exclusively; that of fruit flies in the exact same conditions yields females exclusively. When eggs are fertilised, it is to be noted that – except for some spiders – an approximately equal number of male and female individuals is procreated; differentiation comes from the heterogeneity of one of the two types of gametes: for mammals sperm possess either a male or a female potentiality. It is not really known what determines the singular character of heterogenic gametes during spermatogenesis or oogenesis; in any case, Mendel's statistical laws are sufficient to explain their regular distribution. For both sexes, fertilisation and the beginning of embryonic development occur in an identical way; the epithelial tissue destined to evolve into a gonad is undifferentiated at the outset; at a certain stage of maturation testicles take shape or later the ovary takes form. This explains why there are many intermediaries between hermaphroditism and gonochorism; very often one of the sexes possesses certain organs characteristic of the complementary sex: the toad is the most striking case of that; the male has an atrophied ovary called Bidder's organ that can be made to produce eggs artificially. Mammals also have vestiges of this sexual bipotentiality: for example the pedicled and sessile hydra, the *uterus masculinus*, mammary glands in the male, Gartner's duct in the female, and the clitoris. Even in species where sexual division is the most clear-cut, there are individuals that are both male and female simultaneously: cases of intersexuality are numerous in animals and human beings; and in butterflies and crustaceans there are examples of gynandromorphism in which male and female characteristics are juxtaposed in a kind of mosaic. Genotypically defined, the foetus is nevertheless deeply influenced by the milieu from which it draws its nourishment: for ants, honeybees and termites, how nutrition occurs makes the larva a realised female or thwarts its sexual maturation, reducing it to the rank of worker; the influence in this case pervades the whole organism: for insects the soma

is sexually defined very early on and does not depend on gonads. For vertebrates, it is essentially the gonadic hormones that play a regulatory role. Many experiments have demonstrated that varying the endocrine milieu makes it possible to act on sex determination; other grafting and castration experiments carried out on adult animals have led to the modern theory of sexuality: in male and female vertebrates, the soma is identical and can be considered a neutral element; the action of the gonad gives it its sexual characteristics; some of the secreted hormones act as stimulants and others as inhibitors; the genital tract itself is somatic, and embryology shows that it takes shape under the influence of hormones from bisexual precursors. Intersexuality exists when hormonal balance has not been realised and when neither of the two sexual potentialities has been clearly accomplished.

Equally distributed in the species, and evolved analogously from identical roots, male and female organisms seem profoundly symmetrical once they are formed. Both are characterised by the presence of gamete-producing glands, ovaries or testicles, with the analogous processes of spermatogenesis and ovogenesis, as was seen earlier; these glands deliver their secretion in a more or less complex canal according to the hierarchy of the species: the female drops the egg directly by the oviduct, holds it in the cloaca or in a differentiated uterus before expelling it; the male either lets go of the semen outside or is equipped with a copulating organ that allows it to penetrate the female. Statistically, the male and female thus look like two complementary types. They have to be envisaged from a functional point of view to grasp their singularity.

It is very difficult to give a generally valid description of the notion of female; defining her as a carrier of ova and the male as a carrier of sperm is insufficient because the relation of organism to gonads is extremely variable; inversely, the differentiation of the gametes does not directly affect the organism as a whole: it was sometimes claimed that as the ovum was bigger, it consumed more living force than the sperm; but the latter is secreted in infinitely greater quantity so that in the two sexes the expenditure balances out. Spermatogenesis was taken as an example of prodigality and ovulation a model of economy: but in this phenomenon there is also an absurd profusion; the immense majority of eggs are never fertilised. In any case, gametes and gonads are not microcosms of the whole organism. This is what has to be studied directly.

One of the most noteworthy features when surveying the steps of the animal ladder is that, from bottom to top, life becomes more individual; at the bottom it concentrates on the maintenance of the species,

and at the top it puts its energies into single individuals. In lower species, the organism is reduced to barely more than the reproductive apparatus; in this case, the ovum – and therefore, the female – takes precedence over everything else, since it is above all the ovum that is dedicated to the sheer repetition of life; but it is barely more than an abdomen and its existence is entirely devoured by the work of a monstrous ovulation. It reaches gigantic dimensions compared with the male; but its members are often just stumps, its body a formless bag; all the organs have degenerated to nourish the eggs. In truth, although they constitute two distinct organisms, males and females can hardly be thought of as individuals; they form one whole with elements that are inextricably linked: these are intermediary cases between hermaphroditism and gonochorism. For the entoniscid, parasites that live off the crab, the female is a kind of whitish sausage surrounded by incubating slivers harbouring thousands of eggs; in their midst are minuscule males as well as larvae destined to provide replacement males. The enslavement of the dwarf male is even more total in the *Edriolydus*: it is attached beneath the female's operculum and is without a digestive tube of its own; it is solely devoted to reproduction. In all these cases the female is just as enslaved as the male: she is a slave to the species; while the male is fastened to his spouse, his spouse is also fastened, either to a living organism on which she feeds as a parasite, or to a mineral substratum; she is consumed by producing eggs the minuscule male fertilises. As life takes on more complex forms, individual autonomy develops with the loosening of the link uniting the sexes; but insects of both sexes remain tightly subordinate to the eggs. In the case of ephemerals, both spouses often die after coitus and laying; and in the case of rotifers and mosquitoes, the male, lacking a digestive apparatus, sometimes perishes after fertilisation, while the female can feed herself and survive: egg formation and laying take time; the mother dies as soon as the next generation's future has been assured. The privilege of many female insects comes from the fact that fertilisation is generally a rapid process while ovulation and incubation of the eggs demand a long period of time. For termites, the enormous mush-stuffed queen that lays an egg a second until she is sterile – and then is pitilessly massacred – is no less a slave than the dwarf male attached to her abdomen that fertilises the eggs as they are expelled. In bee and ant matriarchies, males are intruders that are massacred each season: at the time of the wedding flight, all the male ants escape from the anthill and fly toward the females; if they reach and fertilise them, they die immediately, exhausted; if not, the female workers refuse them

entry. They kill them in front of the entrances or let them starve to death; but the fertilised female has a sad fate: she digs herself into the earth alone and often dies from exhaustion while laying the first eggs; if she manages to reconstitute a colony, she is imprisoned for twelve years laying eggs ceaselessly; the female workers whose sexuality has been atrophied live for four years, but their whole life is devoted to raising the larvae. Likewise for the bees: the drone that catches the queen in her wedding flight crashes to the ground eviscerated; the other drones return to their colony, where they are unproductive and in the way; at the beginning of the winter, they are killed. But the sterile worker bees trade their right to life for incessant work; the queen is really the hive's slave: she lays eggs ceaselessly; and the old queen dies; some larvae are nourished so they can try to succeed her. The first one hatched kills the others in the cradle. The female giant spider carries her eggs in a bag until they reach maturity: she is bigger and stronger than the male, and she sometimes devours him after coupling; the same practices can be seen in the praying mantis, which has taken shape as the myth of devouring femininity: the egg castrates the sperm and the praying mantis assassinates her spouse; these facts prefigure a woman's dream of castration. But in truth, the praying mantis only manifests such cruelty in captivity: free and with rich enough food around, she rarely makes a meal out of the male; if she does, it is like the solitary ant that often eats some of her own eggs in order to have the strength to lay eggs and perpetuate the species. Seeing in these facts the harbinger of the 'battle of the sexes' that sets individuals as such against each other is just rambling. Neither for the ants, nor the honeybees, nor the termites, nor the spider, nor the praying mantis can one say that the female enslaves and devours the male: it is the species that devours both of them in different ways. The female lives longer and seems to have more importance; but she has no autonomy; laying, incubation, and care of the larvae make up her whole destiny; her other functions are totally or partially atrophied. By contrast, an individual existence takes shape in the male. He very often takes more initiative than the female in fertilisation; it is he who seeks her out, who attacks, palpates, seizes her and imposes coitus on her; sometimes he has to fight off other males. Accordingly, the organs of locomotion, touch and prehension are also often more developed; many female butterflies are apterous whereas their males have wings; males have more developed colours, elytrons, feet and claws; and sometimes this profusion can also be seen in a luxurious vanity of gorgeous colours. Aside from the fleeting coitus,

the male's life is useless, gratuitous: next to the diligence of worker females, the laziness of drones is a privilege worth noting. But this privilege is outrageous; the male often pays with his life for this uselessness that contains the germ of independence. A species that enslaves the female punishes the male attempting to escape: it eliminates him brutally.

In the higher forms of life, reproduction becomes the production of differentiated organisms; it has a twofold face: maintenance of the species and creation of new individuals; this innovative aspect asserts itself as the singularity of the individual is confirmed. It is thus striking that these two moments of perpetuation and creation divide; this break, already marked at the time of the egg's fertilisation, is present in the generating phenomenon as a whole. The structure of the egg itself does not order this division; the female, like the male, possesses a certain autonomy and her link with the egg loosens; the female fish, amphibian and bird are much more than an abdomen; the weaker the mother-to-egg link, the less labour parturition involves, and the more undifferentiated is the relation between parents and their offspring. Sometimes, the newly hatched lives are the father's responsibility; this is often the case with fish. Water is an element that can carry eggs and sperm and enables their meeting; fertilisation in the aquatic milieu is almost always external; fish do not mate: at best some rub against each other for stimulation. The mother expels the ova and the father the sperm: they have identical roles. There is no more reason for the mother to recognise the eggs as her own than the father. In some species, parents abandon the eggs, which develop without help; sometimes the mother has prepared a nest for them; sometimes she watches over them after fertilisation; but very often the father takes charge of them: as soon as he has fertilised them, he chases away the female, who tries to devour them; he fiercely defends them from anything that approaches; there are those that put up a kind of protective nest by emitting air bubbles covered with an isolating substance; they also often incubate the eggs in their mouths or, like the sea horse, in the folds of the stomach. Analogous phenomena can be seen in toads: they do not have real coitus; the male embraces the female and this embrace stimulates the laying: while the eggs are coming out of the cloaca, the male lets out his sperm. Very often – and in particular in the toad known as the midwife toad – the father winds the strings of eggs around his feet and carries them around to guarantee their hatching. As for birds, the egg forms rather slowly within the female; the egg is both relatively big and hard to expel; it has much closer relations with

the mother than the father that fertilised it during a quick coitus; the female is the one who usually sits on it and then looks after the young; but very frequently the father participates in the nest's construction and the protection and nutrition of the young; there are rare cases – for example the passerine – where the male sits on the eggs and then raises the young. Male and female pigeons secrete a kind of milk in their crop that they feed to the fledglings. What is noteworthy in all these cases in which fathers play a nurturing role is that spermatogenesis stops during the period they devote to their offspring; busy with maintaining life, the father has no impetus to bring forth new life-forms.

The most complex and concretely individualised life is found in mammals. The split of the two vital moments, maintaining and creating, takes place definitively in the separation of the sexes. In this branching out – and considering vertebrates only – the mother has the closest connection to her offspring, whereas the father is more uninterested; the whole organism of the female is adapted to and determined by the servitude of maternity, while the sexual initiative is the prerogative of the male. The female is the prey of the species; for one or two seasons, depending on the case, her whole life is regulated by a sexual cycle – the oestrous cycle – whose length and periodicity vary from one species to another. This cycle has two phases: during the first one the ova mature (the number varies according to the species) and a nidification process occurs in the womb; in the second phase a fat necrosis is produced, ending in the elimination of the structure, that is a whitish discharge. The oestrus corresponds to the period of heat; but heat in the female is rather passive; she is ready to receive the male, she waits for him; for mammals – and some birds – she might invite him; but she limits herself to calling him by noises, displays or exhibitions; she could never impose coitus. That decision is up to him in the end. Even for insects where the female has major privileges and consents to total sacrifice for the species, it is usually the male that provokes fertilisation; male fish often invite the female to spawn by their presence or by touching; for amphibians, the male acts as a stimulator. But for birds and above all mammals, the male imposes himself on her; very often she submits to him with indifference or even resists him. Whether she is provocative or consensual, it is he in any case who *takes* her: she is *taken*. The word often has a very precise meaning: either because he has specific organs or because he is stronger, the male grabs and immobilises her; he is the one that actively makes the coitus movements; for many insects, birds and mammals, he penetrates her. In that

regard, she is like a raped interiority. The male does not do violence to the species, because the species can only perpetuate itself by renewal; it would perish if ova and sperm did not meet; but the female whose job it is to protect the egg encloses it in herself, and her body that constitutes a shelter for the egg removes it from the male's fertilising action; there is thus a resistance that has to be broken down, and so by penetrating the egg the male realises himself as activity. His domination is expressed by the coital position of almost all animals; the male is *on* the female. And the organ he uses is incontestably material too, but it is seen in an animated state: it is a tool, while the female organ in this operation is merely an inert receptacle. The male deposits his sperm: the female receives it. Thus, although she plays a fundamentally active role in procreation, she endures coitus, which alienates her from herself by penetration and internal fertilisation; although she feels the sexual need as an individual need – since in heat she might seek out the male – she nevertheless experiences the sexual adventure in its immediacy as an interior story and not in relation to the world and to others. But the fundamental difference between male and female mammals is that in the same quick instant, the sperm, by which the male's life transcends into another, becomes foreign to it and is separated from its body; thus the male, at the very moment it goes beyond its individuality, encloses itself once again in it. By contrast, the ovum began to separate itself from the female when, ripe, it released itself from the follicle to fall into the oviduct; penetrated by a foreign gamete, it implants itself in the uterus: first violated, the female is then alienated; she carries the foetus in her womb for varying stages of maturation depending on the species: the guinea pig is born almost adult; the dog close to a foetal state; inhabited by another who is nourished by her substance, the female is both herself and other than herself during the whole gestation period; after delivery, she feeds the newborn with milk from her breasts. This makes it difficult to know when it can be considered autonomous: at fertilisation, birth, or weaning? It is noteworthy that the more the female becomes a separate individual, the more imperiously the living continuity is affirmed beyond any separation. The fish or the bird that expels the virgin ovum or the fertilised egg is less prey to its offspring than the female mammal. The female mammal recovers her autonomy after the birth of the young: a distance is thus established between her and them; and starting from this separation, she devotes herself to them; she takes care of them, showing initiative and invention; she fights to defend them against other animals and

even becomes aggressive. But she does not usually seek to affirm her individuality; she does not oppose either males or females; she does not have a fighting instinct;* in spite of Darwin's assertions, disparaged today, the female in general accepts the male that presents himself. It is not that she lacks individual qualities – far from it; in periods when she escapes the servitude of maternity, she can sometimes be the male's equal: the mare is as quick as the stallion, the female hound has as keen a nose as the male, female monkeys show as much intelligence as males when tested. But this individuality is not asserted: the female abdicates it for the benefit of the species that demands this abdication.

The male's destiny is very different; it has just been shown that in his very surpassing, he separates himself and is confirmed in himself. This feature is constant from insects to higher animals. Even fish and cetaceans that live in schools, loosely gathered within the group, tear themselves away when in heat; they isolate themselves and become aggressive towards other males. While sexuality is immediate for the female, it is indirect in the male: he actively bridges the distance between desire and its satisfaction; he moves, seeks, feels the female, caresses her, immobilises her before penetrating; the organs for the functions of relation, locomotion and prehension are often better developed in the male. It is noteworthy that the active impulsion that produces his sperm's multiplication is accompanied by brilliant feathers, shiny scales, horns, antlers, a crest, song, exuberance; neither the 'wedding attire' he puts on in heat nor the displays of seduction are now thought to have a selective finality; but they are witness to the power of life that flourishes in him with gratuitous and magnificent splendour. This vital generosity, the activity deployed in mating and in coitus itself, the dominating affirmation of his power over the female – all of this contributes to positing the individual as such at the moment he surpasses himself. Hegel is right to see the subjective element in the male while the female remains enclosed in the species. Subjectivity and separateness immediately mean conflict. Aggressiveness is one of the characteristics of the male in heat. It cannot be explained by competition, since there are about the same number of females as males; it is rather competition that is explained by this combative will. It is as if before procreating, the male, claiming as his very own the act that perpetuates the species, confirms the reality of his individuality in his fight against his fellow creatures. The species inhabits

* Some chickens fight in the barnyard for a pecking order. Cows too become head of the herd if there are no males.

the female and absorbs much of her individual life; the male, by contrast, integrates specific living forces in his individual life. He is undoubtedly also subject to laws that surpass him; he experiences spermatogenesis and periodic heats; but these processes affect the organism as a whole much less than the oestrus cycle; neither sperm production nor ovogenesis as such is tiring: the absorbing job for the female is the development of the egg into an adult animal. Coitus is a rapid operation that does not reduce the male's vitality. He manifests almost no paternal instinct. He very often abandons the female after mating. When he remains near her as head of a family group (monogamic family, harem, or herd), he plays a protective and nurturing role vis-à-vis the whole community; it is rare for him to take a direct interest in the children. In those species that are favourable to the flourishing of individual life, the male's effort at autonomy – which, in the lower animals, leads to its ruin – is crowned with success. He is usually bigger than the female, stronger, quicker, more adventurous; he leads a more independent life whose activities are more gratuitous; he is more conquering, more imperious: in animal societies, it is he who commands.

In nature nothing is ever completely clear: the two types, male and female, are not always sharply distinguished; there is often a dimorphism – the colour of the coat, the placement of the mottling – that seems absolutely contingent; it does happen though that the two types are not distinguishable, their functions barely differentiated, as was seen with fish. However, as a whole and especially at the top of the animal scale, the two sexes represent two diverse aspects of the species' life. Their opposition is not, as has been claimed, one of passivity and activity: not only is the ovum nucleus active, but the development of the embryo is also a living process and not a mechanical one. It would be too simple to define this opposition as one of change and permanence: the sperm creates only because its vitality is maintained in the egg; the ovum can only exist by surpassing itself or else it regresses and degenerates. But it is true that in both these active operations – maintenance and creation – the synthesis of becoming is not realised in the same way. Maintaining means denying the dispersion of instants, thereby affirming continuity in the course of their outpouring; creating means exploding an irreducible and separate present within a temporal unity, and it is also true that for the female it is the continuity of life that seeks to realise itself in spite of separation, while separation into new and individualised forces is brought about by male initiative; he can affirm himself in his autonomy; he integrates the specific energy into his own life; by contrast, female

individuality is fought by the interest of the species; she seems possessed by outside forces: alienated. This explains why sexual opposition increases rather than abates when the individuality of organisms asserts itself. The male finds more and more ways to use the forces of which he is master; the female feels her subjugation more and more; the conflict between her own interests and those of the generating forces that inhabit her exasperate her. Giving birth for cows and mares is far more painful and dangerous than for female mice and rabbits. Woman, the most individualised of females, is also the most fragile, the one who experiences her destiny the most dramatically and who distinguishes herself the most significantly from her male.

In the human species as in most others, almost as many individuals of both sexes are born (100 girls for 104 boys); embryonic evolution is analogous; however, the original epithelium remains neuter longer in the female foetus; as a result it is subjected to hormonal influence over a longer period and its development is more often inverted; most hermaphrodites are thought to be genotypically female subjects who are masculinised later: it could be said that the male organism is immediately defined as male, whereas the female embryo is reluctant to accept its femaleness; but these tentative beginnings of foetal life are not yet well enough understood for them to be assigned a meaning. Once formed, the genital apparatus is symmetrical in both sexes; the hormones of each type belong to the same chemical family, the sterols, and when all things are considered, all of them derive from cholesterol; they order the secondary differentiation of the soma. Neither their formula nor their anatomical singularities define the human female as such. Her functional evolution is what distinguishes her from the male. Man's development is comparatively simple. From birth to puberty, he grows more or less regularly; at around fifteen or sixteen years old, spermatogenesis begins and continues until old age; hormone production occurs at the same time and marks the male constitution of the soma. When that happens, the male's sex life is normally integrated into his individual existence: in terms of desire and coitus, his surpassing towards the species is an integral part of the subjective moment of his transcendence: he is his body. Woman's history is much more complex. At the beginning of embryonic life, the supply of ovocytes is definitively formed; the ovary contains about fifty thousand ova and each one is enclosed in a follicle with about four hundred reaching maturity. At the moment of birth the species has taken possession of her and seeks to affirm itself; on coming into the world, the woman goes through a kind of first puberty; ovocytes suddenly

grow bigger; then the ovary reduces by about one-fifth. One could say that the child was granted a reprieve; while its organism develops, its genital system remains more or less stationary. Some follicles swell up without reaching maturity; the girl's growth is analogous to the boy's: at the same age she is often bigger and heavier than he. But at puberty the species reasserts its rights: influenced by ovarian secretions, the number of growing follicles increases, the ovary becomes congested and grows, one of the ova reaches maturity and the menstrual cycle begins; the genital system attains its definitive size and form, the soma becomes feminised, and the endocrine balance is set up. It is worth noting that this event has all the characteristics of a crisis; the woman's body does not accept the species's installation in her without a fight; and this fight weakens and endangers her; before puberty, about the same number of girls die for every 100 boys: from fourteen to eighteen, 128 girls die for every 100 boys, and from eighteen to twenty-two, 105 girls for every 100 boys. This is the period when chlorosis, tuberculosis, scoliosis, osteomyelitis, and such strike. Puberty is abnormally early for some subjects: it can occur at four or five years of age. For others, it does not begin at all: the subject is infantile, suffering from amenorrhoea or dysmenorrhoea. Some women manifest virile characteristics: too many secretions from the adrenal glands give them masculine characteristics. These anomalies are absolutely not a victory of the individual over the tyranny of the species: there is no way to escape that tyranny because it enslaves individual life at the same time that it nourishes it; this duality can be seen in the ovarian functions; the woman's vitality takes root in the ovary, that of the man in the testicles: in both cases the castrated individual is not only sterile: it regresses and degenerates; un-'formed' and badly formed, the whole organism is impoverished and out of balance; it can only flourish with the flourishing of the genital system; and yet many genital phenomena are not in the interest of the subject's individual life and even put it in danger. The mammary glands that develop at puberty have no role in the woman's individual economy: they can be removed at any moment in her life. The finality of many ovarian secretions is in the egg, in its maturity, in the adaptation of the uterus for its needs: for the organism as a whole, they are a factor of imbalance more than regulation; the woman is more adapted to the egg's needs than to herself. From puberty to menopause she is the principal site of a story that takes place in her and does not concern her personally. Anglo-Saxons call menstruation 'the curse', and it is true that there is no individual finality in the menstrual cycle. It was thought in Aristotle's

time that the blood that flowed each month, if fertilisation occurred, was to constitute the flesh and blood of the child; the truth of this old theory is that women endlessly start up the labour of gestation. For other mammals, this oestrus cycle plays itself out during one season; there is no bloody flow: only in higher monkeys and women does this cycle take place in pain and blood.* For about fourteen days one of the Graafian follicles that envelops the eggs increases in volume and ripens at the same time that the ovary secretes the hormone folliculine at the level of the follicle. Ovulation takes place on the fourteenth day: the walls of the follicle disintegrate (sometimes causing a slight haemorrhage); the egg falls into the fallopian tubes while the opening evolves into the yellow body. Then begins the second or corpus luteum phase characterised by the secretion of the hormone progesterin that acts on the uterus. The uterus changes in that the wall's capillary system swells, creases and waffles, forming a kind of lacework; this is the construction of a cradle in the womb meant to receive the fertilised egg. As these cellular transformations are irreversible, this construction is not reabsorbed in cases where there is no fertilisation: in other mammals the useless debris is possibly carried off by the lymph vessels. But for woman when the endometrial lace collapses, there is an exfoliation of the lining, the capillaries open up and a bloody mass seeps out. Then, while the corpus luteum is reconstituted, a new follicular phase begins. This complex process, whose details are still quite mysterious, sets the whole body in motion as it is accompanied by hormonal secretions that act on the thyroid and pituitary glands, the central and peripheral nervous systems and thus on all the organs. Almost all women – more than 85 per cent – show signs of distress during this period. Blood pressure rises before the beginning of the flow of blood and then falls; the pulse rate and often the temperature increase; there are frequent cases of fever; the abdomen is painful; there is often constipation and then diarrhoea, an increase in the liver volume, urea retention, albumin deficiency, or micro albumin; many women have hyperaemia of the pituitary gland (sore throat), and others complain of auditory and visual problems; there is a rise in perspiration secretions accompanied by a sometimes strong sui generis odour at the beginning of and often throughout the menstrual

* The analysis of these phenomena has been advanced in the last few years by comparing the phenomena occurring in women with those in the higher monkeys, especially for the Rhesus factor. 'It is obviously easier to experiment on the latter animals,' writes Louis Gallien (*La sexualité [Sexual Reproduction]*).

period. Basal metabolism increases. The number of red blood cells decreases; however, the blood carries substances usually kept in reserve in the tissues, in particular calcium salts; these salts act on the ovary, on the thyroid that is overactive, and on the pituitary gland that regulates the metamorphosis of the activated uterine tissue; this glandular instability weakens the nervous system: the central nervous system is affected, often causing headaches, and the peripheral nervous system overreacts: the automatic control by the central nervous system is reduced, which relaxes the reflexes and the convulsive complexes and is manifested in great mood changes: woman is more emotional, nervous and irritable than usual and can manifest serious psychological problems. This is when she feels most acutely that her body is an alienated opaque thing; it is the prey of a stubborn and foreign life that makes and unmakes a crib in her every month; every month a child is prepared to be born and is aborted in the flow of the crimson tide; woman is her body as man is his,* but her body is something other than her.

Woman experiences an even stronger alienation when the fertilised egg drops into the uterus and develops there; gestation is, of course, a normal phenomenon that is not harmful to the mother if normal conditions of health and nutrition prevail: certain beneficial interactions develop between her and the foetus; however, contrary to an optimistic theory that is so obviously useful socially, gestation is tiring work that offers woman no benefit as an individual but that demands serious sacrifices.[†] In the early months, it often brings with it appetite loss and vomiting that is not observed in any other domestic female and shows the body's revolt against the species taking possession of it; the body loses phosphorus, calcium and iron, the last of these losses being very hard to overcome later; the metabolic hyperactivity excites the endocrine system; the negative nervous system is in a heightened state of excitability; the specific weight of the blood decreases and it is anaemic, like 'that of people who fast, who are starving, or who have been bled many times, and convalescents'.[‡] All that a healthy and well-nourished woman can hope for after child-

* 'I am thus my body, at least inasmuch as I have experience, and reciprocally, my body is like a natural subject, like a tentative draft of my total being' (Merleau-Ponty, *Phenomenology of Perception*).

[†] I am taking here an exclusively physiological point of view. It is evident that maternity can be very advantageous psychologically for a woman, just as it can also be a disaster.

[‡] Cf. H. Vignes in *Traité de physiologie normale et pathologique* (*Treatise on Normal and Pathological Physiology*) volume II, edited by Roger and Binet.

birth is to recoup her losses without too much trouble; but often serious accidents or at least dangerous disorders occur during pregnancy; and if the woman is not sturdy, if she is not careful in her personal hygiene, she will be prematurely misshapen and aged by her pregnancies: it is well known how frequent this is in the countryside. Childbirth itself is painful; it is dangerous. This crisis shows clearly that the body does not always meet the needs of both the species and the individual; the child sometimes dies, or while coming into life, it kills the mother; or its birth can cause her a chronic illness. Breast-feeding is also an exhausting servitude; a set of factors – the main one undoubtedly being the appearance of a hormone, progesterin – brings milk secretion into the mammary glands; the arrival of the milk is painful and is often accompanied by fever, and the breast-feeder feeds the newborn to the detriment of her own strength. The conflict between the species and the individual can have dramatic consequences in childbirth, making the woman's body distressingly fragile. One often hears that women 'have bellyaches'; true indeed, a hostile element is locked inside them: the species is eating away at them. Many of their illnesses are the result not of an external infection but of an internal disorder: false metritis occurs from a reaction of the uterine lining to an abnormal ovarian excitation; if the yellow body persists instead of being reabsorbed after menstruation, it provokes salpingitis and endometritis, and so on.

Woman escapes from the grip of the species by one more difficult crisis; between forty-five and fifty, the phenomena of menopause, the opposite of those of puberty, occur. Ovarian activity decreases and even disappears: this disappearance brings about a vital impoverishment of the individual. It is thought that the catabolic glands, thyroid and pituitary, attempt to compensate for the ovary's deficiencies; thus alongside the change-of-life depression there are phenomena of surges: hot flushes, high blood pressure, nervousness; there is sometimes an increase in the sex drive. Some women retain fat in their tissues; others acquire male traits. For many there is a new endocrine balance. So woman finds herself freed from the servitudes of the female; she is not comparable to a eunuch, because her vitality is intact; however, she is no longer prey to powers that submerge her: she is consistent with herself. It is sometimes said that older women form 'a third sex'; it is true they are not males, but they are no longer female either; and often this physiological autonomy is matched by a health, balance and vigour they did not previously have.

Overlapping women's specifically sexual differentiations are the singularities, more or less the consequences of these differentiations; these are the hormonal actions that determine her soma. On average, she is smaller than man, lighter; her skeleton is thinner; the pelvis is wider, adapted to gestation and birth; her connective tissue retains fats, and her forms are rounder than man's; the overall look: morphology, skin, hair system, and so on is clearly different in the two sexes. Woman has much less muscular force: about two-thirds that of man; she has less respiratory capacity: lungs, trachea and larynx are smaller in woman; the difference in the larynx brings about that of the voice. Women's specific blood weight is less than men's: there is less haemoglobin retention; women are less robust, more apt to be anaemic. Their pulse rate is quicker, their vascular system is less stable: they blush easily. Instability is a striking characteristic of their bodies in general; for example, man's calcium metabolism is stable; women both retain less calcium salt and eliminate it during menstruation and pregnancy; the ovaries seem to have a catabolic action concerning calcium; this instability leads to disorders in the ovaries and in the thyroid, which is more developed in a woman than in a man: and the irregularity of endocrine secretions acts on the peripheral nervous system; muscles and nerves are not perfectly controlled. More instability and less control make them more emotional, which is directly linked to vascular variations: palpitations, redness, and so on; and they are thus subject to convulsive attacks: tears, nervous laughter and hysterics.

Many of these characteristics are due to woman's subordination to the species. This is the most striking conclusion of this study: she is the most deeply alienated of all the female mammals, and she is the one that refuses this alienation the most violently; in no other is the subordination of the organism to the reproductive function more imperious nor accepted with greater difficulty. Crises of puberty and of the menopause, monthly 'curse', long and often troubled pregnancy, illnesses and accidents are characteristic of the human female: her destiny appears even more fraught the more she rebels against it by affirming herself as an individual. The male, by comparison, is infinitely more privileged: his genital life does not thwart his personal existence; it unfolds seamlessly, without crises and generally without accident. Women live, on average, as long as men, but are often sick and indisposed.

These biological data are of extreme importance: they play an all-important role and are an essential element of woman's situation: we

will be referring to them in all further accounts. Because the body is the instrument of our hold on the world, the world appears different to us depending on how it is grasped, which explains why we have studied these data so deeply; they are one of the keys to enable us to understand woman. But we refuse the idea that they form a fixed destiny for her. They do not suffice to constitute the basis for a sexual hierarchy; they do not explain why woman is the Other; they do not condemn her for ever after to this subjugated role.

It has often been claimed that physiology alone provides answers to these questions: does individual success have the same chances in the two sexes? Which of the two in the species plays the greater role? But the first question does not apply to woman and other females in the same way, because animals constitute given species and it is possible to provide static descriptions of them: it is simply a question of collating observations to decide if the mare is as quick as the stallion, if male chimpanzees do as well on intelligence tests as their female counterparts; but humanity is constantly in the making. Materialist scholars have claimed to posit the problem in a purely static way; full of the theory of psychophysiological parallelism, they sought to make mathematical comparisons between male and female organisms: and they imagined that these measurements directly defined their functional abilities. I will mention one example of these senseless discussions that this method prompted. As it was supposed, in some mysterious way, that the brain secreted thinking, it seemed very important to decide if the average weight of the female brain was larger or smaller than that of the male. It was found that the former weighs, on average, 1,220 grams, and the latter 1,360, the weight of the female brain varying from 1,000 to 1,500 grams and that of the male from 1,150 to 1,700. But the absolute weight is not significant; it was thus decided that the relative weight should be taken into account. It is $\frac{1}{48.4}$ for the man and $\frac{1}{44.2}$ for the woman. She is thus supposed to be advantaged. No. This still has to be corrected: in such comparisons, the smallest organism always seems to be favoured; to compare two individuals correctly while not taking into account the body, one must divide the weight of the brain by the power of 0.56 of the body weight if they belong to the same species. It is considered that men and women are of two different types, with the following results:

$$\text{For man:} \quad W_{0.56} = 498 \quad \frac{1,360}{498} = 2.73$$

$$\text{For woman:} \quad W_{0.56} = 446 \quad \frac{1,220}{446} = 2.74$$

Equality is the result. But what removes much of the interest of these careful debates is that no relation has been established between brain weight and the development of intelligence. Nor could one give a psychic interpretation of chemical formulas defining male and female hormones. We categorically reject the idea of a psychophysiological parallelism; the bases of this doctrine have definitively and long been weakened. I mention it because although it is philosophically and scientifically ruined, it still haunts a large number of minds: it has already been shown here that some people are carrying around antique vestiges of it. We also repudiate any frame of reference that presupposes the existence of a *natural* hierarchy of values – for example, that of an evolutionary hierarchy; it is pointless to wonder if the female body is more infantile than the male, if it is closer to or further from that of the higher primates, and so forth. All these studies that confuse a vague naturalism with an even vaguer ethic or aesthetic are pure verbiage. Only within a human perspective can the female and the male be compared in the human species. But the definition of man is that he is a being who is not given, who makes himself what he is. As Merleau-Ponty rightly said, man is not a natural species: he is an historical idea. Woman is not a fixed reality but a becoming; she has to be compared with man in her becoming, that is, her *possibilities* have to be defined: what skews the issues so much is that she is being reduced to what she was, to what she is today, while the question concerns her capacities; the fact is that her capacities manifest themselves clearly only when they have been realised: but the fact is also that when one considers a being who is transcendence and surpassing, it is never possible to close the books.

However, one might say, in the position I adopt – that of Heidegger, Sartre and Merleau-Ponty – that if the body is not a *thing*, it is a situation: it is our grasp on the world and the outline for our projects. Woman is weaker than man; she has less muscular strength, fewer red blood cells, a lesser respiratory capacity; she runs less quickly, lifts less heavy weights – there is practically no sport in which she can compete with him; she cannot enter into a fight with the male. Added to that are the instability, lack of control and fragility that have been discussed: these

are facts. Her grasp of the world is thus more limited; she has less firmness and perseverance in projects that she is also less able to carry out. This means that her individual life is not as rich as man's.

In truth these facts cannot be denied: but they do not carry their meaning in themselves. As soon as we accept a human perspective, defining the body starting from existence, biology becomes an abstract science; when the physiological given (muscular inferiority) takes on meaning, this meaning immediately becomes dependent on a whole context; 'weakness' is weakness only in light of the aims man sets for himself, the instruments at his disposal and the laws he imposes. If he did not want to apprehend the world, the very idea of a *grasp* on things would have no meaning; when, in this apprehension, the full use of body force – above the usable minimum – is not required, the differences cancel each other out; where customs forbid violence, muscular energy cannot be the basis for domination: existential, economic and moral reference points are necessary to define the notion of *weakness* concretely. It has been said that the human species was an antiphysis; the expression is not really exact because man cannot possibly contradict the given; but it is in how he takes it on that he constitutes its truth; nature only has reality for him insofar as it is taken on by his action: his own nature is no exception. It is not possible to measure in the abstract the burden of the generative function for woman, just as it is not possible to measure her grasp on the world: the relation of maternity to individual life is naturally regulated in animals by the cycle of heat and seasons; it is undefined for woman; only society can decide; woman's enslavement to the species is tighter or looser depending on how many births the society demands and the hygienic conditions in which pregnancy and birth occur. So if it can be said that among the higher animals individual existence is affirmed more imperiously in the male than in the female, in humanity individual 'possibilities' depend on the economic and social situation.

In any case, it is not always true that the male's individual privileges confer upon him superiority in the species; the female regains another kind of autonomy in maternity. Sometimes he imposes his domination: this is the case in the monkeys studied by Zuckermann; but often the two halves of the couple lead separate lives; the lion and the lioness share the care of the habitat equally. Here again, the case of the human species cannot be reduced to any other; men do not define themselves first as individuals; men and women have never challenged each other in individual fights; the couple is an original *Mitsein*; and it is always a fixed or transitory element of a wider collectivity; within these societies,

who, the male or the female, is the more necessary for the species? In terms of gametes, in terms of the biological functions of coitus and gestation, the male principle creates to maintain and the female principle maintains to create: what becomes of this division in social life? For species attached to foreign bodies or to the substrata, for those to whom nature grants food abundantly and effortlessly, the role of the male is limited to fertilisation; when it is necessary to search, chase or fight to provide food needed for offspring, the male often helps with their maintenance; this help becomes absolutely indispensable in a species where children remain incapable of taking care of their own needs for a long period after the mother stops nursing them: the male's work then takes on an extreme importance; the lives he brought forth could not maintain themselves without him. One male is enough to fertilise many females each year: but males are necessary for the survival of children after birth, to defend them against enemies, to extract from nature everything they need. The balance of productive and reproductive forces is different depending on the different economic moments of human history and they condition the relation of the male and the female to children and later among them. But we are going beyond the field of biology: in purely biological terms, it would not be possible to posit the primacy of one sex concerning the role it plays in perpetuating the species.

But a society is not a species: the species realises itself as existence in a society; it transcends itself towards the world and the future; its customs cannot be deduced from biology; individuals are never left to their nature; they obey this second nature, that is, customs in which the desires and fears that express their ontological attitude are reflected. It is not as a body but as a body subjected to taboos and laws that the subject gains consciousness of and accomplishes himself. He valorises himself in the name of certain values. And once again, physiology cannot ground values: rather, biological data take on those values the existent confers on them. If the respect or fear woman inspires prohibits man from using violence against her, the male's muscular superiority is not a source of power. If customs desire – as in some Indian tribes – that girls choose husbands, or if it is the father who decides on marriages, the male's sexual aggressiveness does not grant him any initiative, any privilege. The mother's intimate link to the child will be a source of dignity or indignity for her, depending on the very variable value given to the child; this very link, as has already been said, will be recognised or not according to social biases.

Thus we will clarify the biological data by examining them in the light of ontological, economic, social and psychological contexts. Woman's

enslavement to the species and the limits of her individual abilities are facts of extreme importance; the woman's body is one of the essential elements of the situation she occupies in this world. But her body is not enough to define her; it has a lived reality only as taken on by consciousness through actions and within a society; biology alone cannot provide an answer to the question that concerns us: why is woman the *Other*? The question is how, in her, nature has been taken on in the course of history; the question is what humanity has made of the human female.