BEYOND THE PLEASURE PRINCIPLE

BY

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I

In the psycho-analytical theory of the mind we take it for granted that the course of mental processes is automatically regulated by the 'pleasure-principle': that is to say, we believe that any given process originates in an unpleasant state of tension and thereupon determines for itself such a path that its ultimate issue coincides with a relaxation of this tension, i.e. with avoidance of 'pain' or with production of pleasure. When we consider the psychic processes under observation in reference to such a sequence we are introducing into our work the *economic* point of view. In our opinion a presentation which seeks to estimate, not only the *topographical* and *dynamic,* but also the economic element is the most complete that we can at present imagine, and deserves to be distinguished by the term *meta-psychological.*

We are not interested in examining how far in our assertion of the pleasure-principle we have approached to or adopted any given philosophical system historically established. Our approach to such speculative hypotheses is by way of our endeavour to describe and account for the facts falling within our daily sphere of observation. Priority and originality are not among the aims which psycho-analysis sets itself, and the impressions on which the statement of this principle is founded are of so unmistakable a kind that it is scarcely possible to overlook them. On the other hand, we should willingly acknowledge our indebtedness to any philosophical or psychological theory that could tell us the meaning of these feelings of pleasure and 'pain' which affect us so powerfully. Unfortunately no theory of any value is forthcoming. It is the obscurest and least penetrable region of psychic life and, while it is impossible for us to avoid touching on it, the most elastic hypothesis will be, to my mind, the best. We have decided to consider pleasure and 'pain' in relation to the quantity of excitation present in the psychic life—and not confined in any way—along such lines that 'pain' corresponds with an increase and pleasure with a decrease in this quantity. We do not thereby commit ourselves to a simple relationship between the strength of the feelings and the changes corresponding with them, least of all, judging from psycho-physiological experiences, to any view of a direct proportion existing between them; probably the amount of diminution or increase in a given time is

the decisive factor for feeling. Possibly there is room here for experimental work, but it is inadvisable for us analysts to go further into these problems until we can be guided by quite definite observations.

We cannot however profess the like indifference when we find that an investigator of such penetration as G.Th. Fechner has advocated a conception of pleasure and 'pain' which in essentials coincides with that forced upon us by psycho-analytic work. Fechner's pronouncement is to be found in his short work 'Einige Ideen zur Schöpfungs- und Entwicklungsgeschichte der Organismen', 1873 (Section XI, Note p. 94) and reads as follows: 'In so far as conscious impulses always bear a relation to pleasure or "pain", pleasure or "pain" may be thought of in psycho-physical relationship to conditions of stability and instability, and upon this may be based the hypothesis I intend to develop elsewhere, viz.: that every psycho-physical movement rising above the threshold of consciousness is charged with pleasure in proportion as it approximates—beyond a certain limit—to complete equilibrium, and with "pain" in proportion as it departs from it beyond a certain limit; while between the two limits which may be described as the qualitative thresholds of "pain" or pleasure, there is a certain area of aesthetic indifference.'

The facts that have led us to believe in the supremacy of the pleasure-principle in psychic life also find expression in the hypothesis that there is an attempt on the part of the psychic apparatus to keep the quantity of excitation present as low as possible, or at least constant. This is the same supposition only put into another form, for, if the psychic apparatus operates in the direction of keeping down the quantity of excitation, all that tends to increase it must be felt to be contrary to function, that is to say painful. The pleasure-principle is deduced from the principle of constancy; in reality the principle of constancy was inferred from the facts that necessitated our assumption of the pleasure-principle. On more detailed discussion we shall find further that this tendency on the part of the psychic apparatus postulated by us may be classified as a special case of Fechner's principle of the *tendency towards stability* to which he has related the pleasure-pain feelings.

In that event, however, it must be affirmed that it is not strictly correct to speak of a supremacy of the pleasure-principle over the course of psychic processes. If such

existed, then the vast majority of our psychic processes would necessarily be accompanied by pleasure or would conduce to it, while the most ordinary experience emphatically contradicts any such conclusion. One can only say that a strong tendency towards the pleasure-principle exists in the psyche, to which, however, certain other forces or conditions are opposed, so that the ultimate issue cannot always be in accordance with the pleasure-tendency. Compare the comment of Fechner in a similar connection.[1] "Therewithal it is to be noted that the tendency towards the goal does not imply the attainment of it and that in general the goal is only approximately attainable . . . .' If we now address ourselves to the question of what circumstances have the power to frustrate the successful carrying out of the pleasure-principle we shall be treading on safer and better-known ground, and we can draw in abundant measure on our analytical experiences for the answer.

The first case of such a check on the pleasure-principle is perfectly familiar to us in the regularity of its occurrence. We know that the pleasure-principle is adjusted to a primary mode of operation on the part of the psychic apparatus, and that for the preservation of the organism amid the difficulties of the external world it is *ab initio* useless and indeed extremely dangerous. Under the influence of the instinct of the ego for self-preservation it is replaced by the 'reality principle', which without giving up the intention of ultimately attaining pleasure yet demands and enforces the postponement of satisfaction, the renunciation of manifold possibilities of it, and the temporary endurance of 'pain' on the long and circuitous road to pleasure. The pleasure-principle however remains for a long time the method of operation of the sex impulses, which are not so easily educable, and it happens over and over again that whether acting through these impulses or operating in the ego itself it prevails over the reality-principle to the detriment of the whole organism.

It is at the same time indubitable that the replacement of the pleasure-principle by the reality-principle can account only for a small part, and that not the most intense, of painful experiences. Another, and no less regular source of 'pain' proceeds from the conflicts and dissociations in the psychic apparatus during the development of the ego towards a more highly co-ordinated organisation. Nearly all the energy with which the apparatus is charged comes from the inborn instincts, but not all of these are allowed to develop to the

same stage. On the way it over and again happens that particular instincts, or portions of them, prove irreconcilable in their aims or demands with others which can be welded into the comprehensive unity of the ego. They are thereupon split off from this unity by the process of repression, retained on lower stages of psychic development, and for the time being cut off from all possibility of gratification. If they then succeed, as so easily happens with the repressed sex-impulses, in fighting their way through—along circuitous routes—to a direct or a substitutive gratification, this success, which might otherwise have brought pleasure, is experienced by the ego as 'pain'. In consequence of the old conflict which ended in repression the pleasure-principle has been violated anew, just at the moment when certain impulses were at work on the achievement of fresh pleasure in pursuance of the principle. The details of the process by which repression changes a possibility of pleasure into a source of 'pain' are not yet fully understood, or are not yet capable of clear presentation, but it is certain that all neurotic 'pain' is of this kind, is pleasure which cannot be experienced as such.

The two sources of 'pain' here indicated still do not nearly cover the majority of our painful experiences, but as to the rest one may say with a fair show of reason that their presence does not impugn the supremacy of the pleasure-principle. Most of the 'pain' we experience is of a perceptual order, perception either of the urge of unsatisfied instincts or of something in the external world which may be painful in itself or may arouse painful anticipations in the psychic apparatus and is recognised by it as 'danger'. The reaction to these claims of impulse and these threats of danger, a reaction in which the real activity of the psychic apparatus is manifested, may be guided correctly by the pleasure-principle or by the reality-principle which modifies this. It seems thus unnecessary to recognise a still more far-reaching limitation of the pleasure-principle, and nevertheless it is precisely the investigation of the psychic reaction to external danger that may supply new material and new questions in regard to the problem here treated.

II

After severe shock of a mechanical nature, railway collision or other accident in which danger to life is involved, a condition may arise which has long been recognised and to which the name 'traumatic neurosis' is attached. The terrible war that is just over has been responsible for an immense number of such maladies and at least has put an end to the inclination to explain them on the basis of organic injury to the nervous system due to the operation of mechanical force.[2] The clinical picture of traumatic neurosis approaches that of hysteria in its wealth of similar motor symptoms, but usually surpasses it in its strongly marked signs of subjective suffering—in this resembling rather hypochondria or melancholia—and in the evidences of a far more comprehensive general weakening and shattering of the mental functions. Neither the war neuroses nor the traumatic neuroses of peace are as yet fully understood. With the war neuroses some light was contributed, but also on the other hand a certain confusion introduced, by the fact that the same type of malady could occasionally occur without the interposition of gross mechanical force. In the traumatic neuroses there are two outstanding features which might serve as clues for further reflection: first that the chief causal factor seemed to lie in the element of surprise, in the fright; and secondly that an injury or wound sustained at the same time generally tended to prevent the occurrence of the neurosis. Fright, fear, apprehension are incorrectly used as synonymous expressions: in their relation to danger they admit of quite clear distinction. Apprehension (*Angst*) denotes a certain condition as of expectation of danger and preparation for it, even though it be an unknown one; fear (*Furcht*) requires a definite object of which one is afraid; fright (*Schreck*) is the name of the condition to which one is reduced if one encounters a danger without being prepared for it; it lays stress on the element of surprise. In my opinion apprehension cannot produce a traumatic neurosis; in apprehension there is something which protects against fright and therefore against the fright-neurosis. We shall return later to this dictum.

The study of dreams may be regarded as the most trustworthy approach to the exploration of the deeper psychic processes. Now in the traumatic neuroses the dream life has this peculiarity: it continually takes the patient back to the situation of his disaster, from which he awakens in renewed terror. This fact has caused less surprise than it

merits. The obtrusion on the patient over and again, even in sleep, of the impression made by the traumatic experience is taken as being merely a proof of its strength. The patient has so to speak undergone a psychical fixation as to the trauma. Fixations of this kind on the experience which has brought about the malady have long been known to us in connection with hysteria. Breuer and Freud stated in 1893 that hysterics suffer for the most part from reminiscences. In the war neuroses, observers, such as Ferenczi and Simmel, have been able to explain a number of motor symptoms as fixation on the factor of the trauma.

But I am not aware that the patients suffering from traumatic neuroses are much occupied in waking life with the recollection of what happened to them. They perhaps strive rather not to think of it. To regard it as self-evident that the dream at night takes them back to the situation which has caused the trouble is to misunderstand the nature of dreams. It would be more in correspondence with that nature if the patient were presented (in sleep) with images from the time of his normal health or of his hoped-for recovery. If we are not to go thoroughly astray as to the wish-fulfilment tendency of the dream in consequence of these dreams of the shock neuroses, perhaps the expedient is left us of supposing that in this condition the dream function suffers dislocation along with the others and is diverted from its usual ends, or else we should have to think of the enigmatic masochistic tendencies of the ego.

I propose now to leave the obscure and gloomy theme of the traumatic neuroses and to study the way in which the psychic apparatus works in one of its earliest normal activities. I refer to the play of children.

The different theories of child-play have recently been collated by S. Pfeifer in *Imago*[3] and their analytical value estimated; I may here refer the reader to this work. These theories endeavour to conjecture the motives of children's play, though without placing any special stress on the 'economic' point of view, i.e. consideration of the attainment of pleasure. Without the intention of making a comprehensive study of these phenomena I availed myself of an opportunity which offered of elucidating the first game invented by himself of a boy eighteen months old. It was more than a casual observation, for I lived for some weeks under the same roof as the child and his parents, and it was a

considerable time before the meaning of his puzzling and continually repeated performance became clear to me.

The child was in no respect forward in his intellectual development; at eighteen months he spoke only a few intelligible words, making besides sundry significant sounds which were understood by those about him. But he made himself understood by his parents and the maid-servant, and had a good reputation for behaving 'properly'. He did not disturb his parents at night; he scrupulously obeyed orders about not touching various objects and not going into certain rooms; and above all he never cried when his mother went out and left him for hours together, although the tie to his mother was a very close one: she had not only nourished him herself, but had cared for him and brought him up without any outside help. Occasionally, however, this well-behaved child evinced the troublesome habit of flinging into the corner of the room or under the bed all the little things he could lay his hands on, so that to gather up his toys was often no light task. He accompanied this by an expression of interest and gratification, emitting a loud long-drawn-out 'o-o-o-oh' which in the judgement of the mother (one that coincided with my own) was not an interjection but meant 'go away' (*fort*). I saw at last that this was a game, and that the child used all his toys only to play 'being gone' (*fortsein*) with them. One day I made an observation that confirmed my view. The child had a wooden reel with a piece of string wound round it. It never occurred to him, for example, to drag this after him on the floor and so play horse and cart with it, but he kept throwing it with considerable skill, held by the string, over the side of his little draped cot, so that the reel disappeared into it, then said his significant 'o-o-o-oh' and drew the reel by the string out of the cot again, greeting its reappearance with a joyful 'Da' (there). This was therefore the complete game, disappearance and return, the first act being the only one generally observed by the onlookers, and the one untiringly repeated by the child as a game for its own sake, although the greater pleasure unquestionably attached to the second act.[4]

The meaning of the game was then not far to seek. It was connected with the child's remarkable cultural achievement—the foregoing of the satisfaction of an instinct—as the result of which he could let his mother go away without making any fuss. He made it right with himself, so to speak, by dramatising the same disappearance and return with the objects he had at hand. It is of course of no

importance for the affective value of this game whether the child invented it himself or adopted it from a suggestion from outside. Our interest will attach itself to another point. The departure of the mother cannot possibly have been pleasant for the child, nor merely a matter of indifference. How then does it accord with the pleasure-principle that he repeats this painful experience as a game? The answer will perhaps be forthcoming that the departure must be played as the necessary prelude to the joyful return, and that in this latter lay the true purpose of the game. As against this, however, there is the observation that the first act, the going away, was played by itself as a game and far more frequently than the whole drama with its joyful conclusion.

The analysis of a single case of this kind yields no sure conclusion: on impartial consideration one gains the impression that it is from another motive that the child has turned the experience into a game. He was in the first place passive, was overtaken by the experience, but now brings himself in as playing an active part, by repeating the experience as a game in spite of its unpleasing nature. This effort might be ascribed to the impulse to obtain the mastery of a situation (the 'power' instinct), which remains independent of any question of whether the recollection was a pleasant one or not. But another interpretation may be attempted. The flinging away of the object so that it is gone might be the gratification of an impulse of revenge suppressed in real life but directed against the mother for going away, and would then have the defiant meaning: 'Yes, you can go, I don't want you, I am sending you away myself.' The same child a year later than my observations used to throw on the floor a toy which displeased him, and to say 'Go to the war!' He had been told that his absent father was at the war, and he did not miss him at all, giving the clearest indications that he did not wish to be disturbed in the sole possession of his mother.[5] It is known of other children also that they can give vent to similar hostile feelings by throwing objects away in place of people.[6] Thus one is left in doubt whether the compulsion to work over in psychic life what has made a deep impression, to make oneself fully master of it, can express itself primarily and independently of the pleasure-principle. In the case discussed here, however, the child might have repeated a disagreeable impression in play only because with the repetition was bound up a pleasure gain of a different kind but more direct.

Nor does the further pursuit of the question of play resolve our hesitations between two conceptions. We see that children repeat in their play everything that has made a great impression on them in actual life, that they thereby abreact[7] the strength of the impression and so to speak make themselves masters of the situation. But on the other hand it is clear enough that all their play is influenced by the dominant wish of their time of life: viz. to be grown-up and to be able to do what grown-up people do. It is also observable that the unpleasing character of the experience does not always prevent its being utilised as a game. If a doctor examines a child's throat, or performs a small operation on him, the alarming experience will quite certainly be made the subject of the next game, but in this the pleasure gain from another source is not to be overlooked. In passing from the passivity of experience to the activity of play the child applies to his playfellow the unpleasant occurrence that befell himself and so avenges himself on the person of this proxy.

From this discussion it is at all events evident that it is unnecessary to assume a particular imitation impulse as the motive of play. We may add the reminder that the dramatic and imitative art of adults, which differs from the behaviour of children in being directed towards the spectator, does not however spare the latter the most painful impressions, e.g. in tragedy, and yet can be felt by him as highly enjoyable. This convinces us that even under the domination of the pleasure-principle there are ways and means enough of making what is in itself disagreeable the object of memory and of psychic pre-occupation. A theory of aesthetics with an economic point of view should deal with these cases and situations ending in final pleasure gain: for our purposes they are of no help, since they presuppose the existence and supremacy of the pleasure-principle and bear no witness to the operation of tendencies beyond the pleasure-principle, that is to say, tendencies which might be of earlier origin and independent of this.

III

Five-and-twenty years of intensive work have brought about a complete change in the more immediate aims of psychoanalytic technique. At first the endeavours of the analytic physician were confined to divining the unconscious of which his patient was unaware, effecting a synthesis of its various components and communicating it at the right time. Psychoanalysis was above all an art of interpretation. Since the therapeutic task was not thereby accomplished, the next aim was to compel the patient to confirm the reconstruction through his own memory. In this endeavour the chief emphasis was on the resistances of the patient; the art now lay in unveiling these as soon as possible, in calling the patient's attention to them, and by human influence—here came in suggestion acting as 'transference'—teaching him to abandon the resistances.

It then became increasingly clear, however, that the aim in view, the bringing into consciousness of the unconscious, was not fully attainable by this method either. The patient cannot recall all of what lies repressed, perhaps not even the essential part of it, and so gains no conviction that the conclusion presented to him is correct. He is obliged rather to *repeat* as a current experience what is repressed, instead of, as the physician would prefer to see him do, *recollecting* it as a fragment of the past.[8] This reproduction appearing with unwelcome fidelity always contains a fragment of the infantile sex-life, therefore of the Oedipus complex and its off-shoots, and is played regularly in the sphere of transference, i.e. the relationship to the physician. When this point in the treatment is reached, it may be said that the earlier neurosis is now replaced by a fresh one, viz. the transference-neurosis. The physician makes it his concern to limit the scope of this transference-neurosis as much as he can, to force into memory as much as possible, and to leave as little as possible to repetition. The relation established between memory and reproduction is different for every case. As a rule the physician cannot spare the patient this phase of the cure; he must let him live through a certain fragment of his forgotten life, and has to see to it that some measure of ascendency remains, in the light of which the apparent reality is always recognised as a reflection of a forgotten past. If this is successfully accomplished then conviction on the part of the patient is attained, and with it the therapeutic result that depends on it.

In order to render more comprehensible this 'repetition-compulsion' which appears in the psycho-analytic treatment of neurotics, we must above all get entirely rid of the erroneous idea that in this struggle with resistances we are concerned with any resistance on the part of the unconscious. The unconscious, i.e. the 'repressed' material, offers no resistance whatever to the curative efforts; indeed it has no other aim than to force its way through the pressure weighing on it, either to consciousness or to discharge by means of some real action. The resistance in the treatment proceeds from the same higher levels and systems in the psychic life that in their time brought about the repression. But since the motives of the resistances, and indeed the resistances themselves, are found in the process of the treatment to be unconscious, we are well advised to amend an inadequacy in our mode of expression. We escape ambiguity if we contrast not the conscious and the unconscious, but the coherent ego and the repressed. Much in the ego is certainly unconscious itself, just what may be called the kernel of the ego; only a part of it comes under the category of preconscious. After thus replacing a purely descriptive method of expression by a systematic or dynamic one, we may say that the resistance on the part of the analysed person proceeds from his ego, and then we at once see that the 'repetition-compulsion' must be ascribed to the repressed element in the unconscious. It probably could not find expression till the work of the treatment coming to meet it had loosened the repression.

There is no doubt that the resistance of the conscious and preconscious ego subserves the pleasure-principle; it is trying to avoid the 'pain' that would be aroused by the release of the repressed material, and our efforts are directed to effecting an entry for such painful feeling by an appeal to the reality-principle. In what relation to the pleasure-principle then does the repetition-compulsion stand, that which expresses the force of what is repressed? It is plain that most of what is revived by the repetition-compulsion cannot but bring discomfort to the ego, for it promotes the bringing to light of the activities of repressed impulses; but that is a discomfort we have already taken into account and without subversion of the pleasure-principle, since it is 'pain' in respect of one system and at the same time satisfaction for the other. The new and remarkable fact, however, that we have now to describe is that the repetition-compulsion also revives experiences of the past that contain no potentiality of

pleasure, and which could at no time have been satisfactions, even of impulses since repressed.

The efflorescence of infantile sex-life was, by reason of the irreconcilability of its wishes with reality and the inadequacy of the childhood stage of development reached, destined to pass away. It perished in most painful circumstances and with feelings of a deeply distressing nature. Loss and failure in the sphere of the affections left behind on the ego-feeling marks of injury comparable to a narcissistic scar, which, according to my experience and the exposition given by Marcinowski,[9] yields the most important contribution to the 'inferiority complex' common among neurotics. The sex-quest to which the physical development of the child set limits could be brought to no satisfying conclusion; hence the plaint in later life: 'I can't do anything, I am never successful.' The bonds of tenderness linking the child more especially to the parent of the opposite sex succumbed to disappointment, to the vain expectation of satisfaction, and to the jealousy aroused by the birth of a new child, unmistakable proof as it is of the faithlessness of the loved parent; the child's attempt, undertaken with tragic seriousness, to produce another such child himself met with humiliating failure; while the partial withdrawal of the tenderness lavished on the little one, the more exacting demands of discipline and education, severe words and an occasional punishment finally revealed to him the whole extent of the disdain which is his portion. Some few regularly recurring types are to be found, according to the way in which the typical love of this period was brought to an end.

All these undesired happenings and painful affective situations are repeated by neurotics in the 'transference' stage and re-animated with much ingenuity. They struggle to break off the unfinished treatment, they know how to re-create the feeling of being disdained, how to force the physician to adopt brusque speech and a chilling manner towards them, they find suitable objects for their jealousy, they substitute for the ardently desired child of early days the promise of some great gift which becomes as little real as that was. Nothing of all this could ever have afforded any pleasure; one would suppose it ought to bring somewhat less 'pain' if revealed as memory rather than if lived through as a new experience. It is a question naturally of the action of impulses that should lead to satisfaction, but the experience that instead of this they even then brought 'pain' has borne

no result. The act is repeated in spite of everything; a powerful compulsion insists on it.

That which psycho-analysis reveals in the transference phenomena with neurotics can also be observed in the life of normal persons. It here gives the impression of a pursuing fate, a daemonic trait in their destiny, and psycho-analysis has from the outset regarded such a life history as in a large measure self-imposed and determined by infantile influences. The compulsion which thereby finds expression is in no way different from the repetition-compulsion of neurotics, even though such persons have never shown signs of a neurotic conflict resulting in symptoms. Thus one knows people with whom every human relationship ends in the same way: benefactors whose protégés, however different they may otherwise have been, invariably after a time desert them in ill-will, so that they are apparently condemned to drain to the dregs all the bitterness of ingratitude; men with whom every friendship ends in the friend's treachery; others who indefinitely often in their lives invest some other person with authority either in their own eyes or generally, and themselves overthrow such authority after a given time, only to replace it by a new one; lovers whose tender relationships with women each and all run through the same phases and come to the same end, and so on. We are less astonished at this 'endless repetition of the same' if there is involved a question of active behaviour on the part of the person concerned, and if we detect in his character an unalterable trait which must always manifest itself in the repetition of identical experiences. Far more striking are those cases where the person seems to be experiencing something passively, without exerting any influence of his own, and yet always meets with the same fate over and over again. One may recall, for example, the story of the woman who married three men in succession, each of whom fell ill after a short time and whom she had to nurse till their death.[10] Tasso gives a singularly affecting poetical portrayal of such a trend of fate in the romantic epic: 'Gerusalemme liberata.' The hero, Tancred, has unwittingly slain Clorinda, the maiden he loved, who fought with him disguised in the armour of an enemy knight. After her burial he penetrates into the mysterious enchanted wood, the bane of the army of the crusaders. Here he hews down a tall tree with his sword, but from the gash in the trunk blood streams forth and the voice of Clorinda whose soul is imprisoned in the tree cries out to him in reproach that he has once more wrought a baleful deed on his beloved.

In the light of such observations as these, drawn from the behaviour during transference and from the fate of human beings, we may venture to make the assumption that there really exists in psychic life a repetition-compulsion, which goes beyond the pleasure-principle. We shall now also feel disposed to relate to this compelling force the dreams of shock-patients and the play-impulse in children. We must of course remind ourselves that only in rare cases can we recognise the workings of this repetition-compulsion in a pure form, without the co-operation of other motives. As regards children's play we have already pointed out what other interpretations its origin permits. The repetition-compulsion and direct pleasurable satisfaction of impulse seem there to be inextricably intertwined. The transference phenomena obviously subserve the purpose of the resistance made by the ego persisting in its repression: the repetition-compulsion is, as it were, called to the aid of the ego, which is resolved to hold fast to the pleasure-principle. In what one might call the destiny compulsion much appears capable of rational explanation, so that no need is felt to establish a new and mysterious impulse. The least suspicious case is perhaps that of the shock-dream, but on closer examination it must be admitted that in the other examples too the state of affairs is not completely explained by the operation of the motives known to us. There remains enough over to justify the assumption of a repetition-compulsion, and this seems to us more primitive, more elementary, more instinctive than the pleasure-principle which is displaced by it. But if there is such a repetition-compulsion in psychic life, we should naturally like to know with what function it corresponds, under what conditions it may appear, and in what relation it stands to the pleasure-principle, to which we have heretofore ascribed the domination over the course of the processes of excitation in the psychic life.

IV

What follows now is speculation, speculation often far-fetched, which each will according to his particular attitude acknowledge or neglect. Or one may call it the exploitation of an idea out of curiosity to see whither it will lead.

Psycho-analytic speculation starts from the impression gained on investigating unconscious processes that consciousness cannot be the most general characteristic of psychic processes, but merely a special function of them. Metapsychologically expressed, it asserts that consciousness is the functioning of a particular system which may be called Bw. Since consciousness essentially yields perceptions of excitations coming from without and feelings (*Empfindungen*) of pleasure and 'pain' which can only be derived from within the psychic apparatus, we may allot the system W-Bw.[11] (= perceptual consciousness) a position in space. It must lie on the boundary between outer and inner, must face towards the outer world, and must envelop the other psychic systems. We then note that in this assumption we have ventured nothing new, but are in agreement with the localising tendencies of cerebral anatomy, which places the 'seat' of consciousness in the cortical layer, the outermost enveloping layer of the central organ. Cerebral anatomy does not need to wonder why—anatomically speaking—consciousness should be accommodated on the surface of the brain, instead of being safely lodged somewhere in the deepest recesses of it. Perhaps we may carry matters a little further than this in our deduction of such a position for our system W-Bw.

Consciousness is not the only peculiar feature that we ascribe to the processes in this system. Our impressions gained by psycho-analytic experience lead us to the supposition that all excitation processes in the other systems leave in them permanent traces forming the foundations of memory-records which have nothing to do with the question of becoming conscious. They are often strongest and most enduring when the process that left them behind never reached consciousness at all. But we find it difficult to believe that such lasting traces of excitation are formed also in the system W-Bw. itself. If they remained permanently in consciousness they would very soon limit the fitness of the system for registration of new excitations;[12] on the other hand, if they became unconscious we should be confronted with the task of explaining the existence of unconscious

processes in a system whose functioning is otherwise accompanied by the phenomenon of consciousness. We should, so to speak, have gained nothing and altered nothing by our supposition which relegates to a special system the process of becoming conscious. Though this may not be an absolutely binding consideration, it may at any rate lead us to conjecture that becoming conscious and leaving behind a memory-trace are processes incompatible with each other in the same system. We should thus be able to say: in the system Bw. the process of excitation becomes conscious but it leaves behind no lasting trace; all the traces of it on which memory relies would come about in the next systems inwards from the propagation of the excitation on to them. It is on these lines that the scheme is sketched which I inserted into the speculative section of my 'Traumdeutung' in 1900. If one reflects how little we know from other sources about the origin of consciousness the pronouncement that *consciousness arises in the place of the memory-trace* must be conceded at least the importance of a statement which is to some extent definite.

The system Bw. would thus be characterised by the peculiarity that the excitation process does not leave in it, as it does in all other psychic systems, a permanent alteration of its elements, but is as it were discharged in the phenomenon of becoming conscious and vanishes. Such a departure from the general rule requires an explanation on the ground of a factor which comes into account in this one system only: this factor which is absent from all other systems might well be the exposed situation of the Bw. system—its immediate contact with the outer world.

Let us imagine the living organism in the simplest possible form as an undifferentiated vesicle of sensitive substance: then its surface, exposed as it is to the outer world, is by its very position differentiated and serves as an organ for receiving stimuli. Embryology, repeating as it does the history of evolution, does in fact show that the central nervous system arises from the ectoderm; the grey cortex of the brain remains a derivative of the primitive superficial layer and may have inherited essential properties from this. It would then be easily conceivable that, owing to the constant impact of external stimuli on the superficies of the vesicle, its substance would undergo lasting alteration to a certain depth, so that its excitation process takes a different course from that taken in the deeper layers. Thus a rind would be formed which would finally have been so burned

through by the effects of stimulation that it presents the most favourable conditions for the reception of stimuli and is incapable of any further modification. Applying this idea to the system Bw., this would mean that its elements are not susceptible of any further lasting alteration from the passage of the excitation, because they are already modified to the uttermost in that respect. But they are then capable of giving rise to consciousness. In what exactly these modifications of the substance and of the excitation process in it consist many views may be held which as yet cannot be tested. It may be assumed that the excitation has, in its transmission from one element to another, to overcome a resistance, and that this diminution of the resistance itself lays down the permanent trace of the excitation (a path): in system Bw. there would no longer exist any such resistance to transmission from one element to another. We may associate with this conception Breuer's distinction between quiescent (bound) and free-moving 'investment-energy' in the elements of the psychic systems;[13] the elements of the system Bw. would then convey no 'bound' energy, only free energy capable of discharge. In my opinion, however, it is better for the present to express oneself as to these conditions in the least committal way. At any rate by these speculations we should have brought the origin of consciousness into a certain connection with the position of the system Bw. and with the peculiarities of the excitation process to be ascribed to this.

We have more to say about the living vesicle with its receptive outer layer. This morsel of living substance floats about in an outer world which is charged with the most potent energies, and it would be destroyed by the operation of the stimuli proceeding from this world if it were not furnished with a protection against stimulation (*Reizschutz*). It acquires this through its outermost layer—which gives the structure that belongs to living matter—becoming in a measure inorganic, and this now operates as a special integument or membrane that keeps off the stimuli, i.e. makes it impossible for the energies of the outer world to act with more than a fragment of their intensity on the layers immediately below which have preserved their vitality. These are now able under cover of the protecting layer to devote themselves to the reception of those stimulus masses that have been let through. But the outer layer has by its own death secured all the deeper layers from a like fate—at least so long as no stimuli present themselves of such a strength as to break through the protective barrier. For the living

organism protection against stimuli is almost a more important task than reception of stimuli; the protective barrier is equipped with its own store of energy and must above all endeavour to protect the special forms of energy-transformations going on within itself from the equalising and therefore destructive influence of the enormous energies at work in the outer world. The reception of stimuli serves above all the purpose of collecting information about the direction and nature of the external stimuli, and for that it must suffice to take little samples of the outer world, to taste it, so to speak, in small quantities. In highly developed organisms the receptive external layer of what was once a vesicle has long been withdrawn into the depths of the body, but portions of it have been left on the surface immediately beneath the common protective barrier. These portions form the sense organs, which essentially comprise arrangements for the reception of specific stimuli, but also possess special arrangements adapted for a fresh protection against an overwhelming amount of stimulus, and for warding off unsuitable kinds of stimuli. It is characteristic of them that they assimilate only very small quantities of the outer stimulus, and take in only samples of the outer world; one might compare them to antennae which touch at the outer world and then constantly withdraw from it again.

At this point I shall permit myself to touch cursorily upon a theme which would deserve the most thorough treatment. The Kantian proposition that time and space are necessary modes of thought may be submitted to discussion to-day in the light of certain knowledge reached through psycho-analysis. We have found by experience that unconscious mental processes are in themselves 'timeless'. That is to say to begin with: they are not arranged chronologically, time alters nothing in them, nor can the idea of time be applied to them. These are negative characteristics, which can be made plain only by instituting a comparison with conscious psychic processes. Our abstract conception of time seems rather to be derived wholly from the mode of functioning of the system W-Bw., and to correspond with a self-perception of it. In this mode of functioning of the system another form of protection against stimulation probably comes into play. I know that these statements sound very obscure, but I must confine myself to these few hints.

So far we have got to the point that the living vesicle is equipped with a protection against stimuli from the outer world. Before that, we had decided that the cortical layer

next to it must be differentiated as the organ for reception of external stimuli. But this sensitive layer (what is later the system Bw.) also receives excitations from within: the position of the system between outer and inner and the difference in the conditions under which this receptivity operates on the two sides become deciding factors for the functioning of the system and of the whole psychic apparatus. Towards the outer world there is a barrier against stimuli, and the mass of excitations coming up against it will take effect only on a reduced scale; towards what is within no protection against stimuli is possible, the excitations of the deeper layers pursue their way direct and in undiminished mass into the system, while certain characteristics of their course produce the series of pleasure-pain feelings. Naturally the excitations coming from within will, in conformity with their intensity and other qualitative characteristics (or possibly their amplitude), be more proportionate to the mode of operation of the system than the stimuli streaming in from the outer world. Two things are, however, decisively determined by these conditions: first the preponderance over all outer stimuli of the pleasure and 'pain' feelings, which are an index for processes within the mechanism; and secondly a shaping of behaviour towards such inner excitations as bring with them an overplus of 'pain'. There will be a tendency to treat them as though they were acting not from within but from without, in order for it to be possible to apply against them the defensive measures of the barrier against stimuli (*Reizschutz*). This is the origin of projection, for which so important a part is reserved in the production of pathological states.

I have the impression that by these last considerations we have approached nearer to a comprehension of the supremacy of the pleasure-principle, but we have not attained to an explanation of those cases which are opposed to it. Let us therefore go a step further. Such external excitations as are strong enough to break through the barrier against stimuli we call traumatic. In my opinion the concept of trauma involves such a relationship to an otherwise efficacious barrier. An occurrence such as an external trauma will undoubtedly provoke a very extensive disturbance in the workings of the energy of the organism, and will set in motion every kind of protective measure. But the pleasure-principle is to begin with put out of action here. The flooding of the psychic apparatus with large masses of stimuli can no longer be prevented: on the contrary, another task presents itself—to bring the stimulus under control, to

'bind' in the psyche the stimulus mass that has broken its way in, so as to bring about a discharge of it.

Probably the specific discomfort of bodily pain is the result of some local breaking through of the barrier against stimuli. From this point in the periphery there stream to the central psychic apparatus continual excitations such as would otherwise come only from within.[14] What are we to expect as the reaction of the psychic life to this invasion? From all sides the 'charging energy' is called on in order to create all round the breach correspondingly high 'charges' of energy. An immense 'counter-charge' is set up, in favour of which all the other psychic systems are impoverished, so that a wide-spread paralysis or diminution of other psychic activity follows. We endeavour to learn from examples such as these to base our metapsychological conjectures on such prototypes. Thus from this behaviour we draw the conclusion that even a highly charged system is able to receive new energy streaming in, to convert it into a 'quiescent charge', thus to 'bind' it psychically. The more intense is the intrinsic quiescent charge the greater is its binding force: and conversely the lower the charge of the system the less capable is it of receiving the energy that streams in, and so the more violent are the consequences when the barrier against stimuli is broken through. It is not a valid objection to this view that the intensifying of the charges round the place of irruption could be much more simply explained as the direct action of the oncoming mass of excitation. If that were so, the psychic apparatus would merely undergo an increase of its energy charges, and the paralysing character of pain, with the impoverishment of all the other systems, would remain without explanation. Nor do the very violent discharge effects of pain invalidate our explanation, for they happen in a reflex manner, that is to say, they follow without the interposition of the psychic apparatus. The indefinite nature of all the discussions that we term metapsychological naturally comes from the fact that we know nothing about the nature of the excitation process in the elements of the psychic systems and do not feel justified in making any assumption about it. Thus we are all the time operating with a large X, which we carry over into every new formula. That this process is accomplished with energies which differ quantitatively is an easily admissible postulate, that it also has more than one quality (e.g. in the direction of amplitude) may be regarded as probable: the new consideration we have brought in is Breuer's proposition that we have to do with two ways in

which a system may be filled with energy, so that a distinction has to be made between a 'charging' of the psychic systems (or its elements) that is free-flowing and striving to be discharged and one that is quiescent. Perhaps we may admit the conjecture that the binding of the energy streaming into the psychic apparatus consists in a translating of it from the free-flowing to the quiescent state.

I think one may venture (tentatively) to regard the ordinary traumatic neurosis as the result of an extensive rupture of the barrier against stimuli. In this way the old naïve doctrine of 'shock' would come into its own again, apparently in opposition to a later and psychologically more pretentious view which ascribes aetiological significance not to the effect of the mechanical force, but to the fright and the menace to life. But these opposing views are not irreconcilable, and the psycho-analytic conception of the traumatic neurosis is far from being identical with the crudest form of the 'shock' theory. While the latter takes the essential nature of the shock as residing in the direct injury to the molecular structure, or even to the histological structure, of the nervous elements, we seek to understand the effect of the shock by considering the breaking through of the barrier with which the psychic organ is provided against stimuli, and from the tasks with which this is thereby faced. Fright retains its meaning for us too. What conditions it is the failure of the mechanism of apprehension to make the proper preparation, including the over-charging of the systems first receiving the stimulus. In consequence of this lower degree of charging these systems are hardly in a position to bind the oncoming masses of excitation, and the consequences of the breaking through of the protective barrier appear all the more easily. We thus find that the apprehensive preparation, together with the over-charging of the receptive systems, represents the last line of defence against stimuli. For a great number of traumata the difference between the unprepared systems and those prepared by over-charging may turn the scale as to the outcome: with a trauma beyond a certain strength such a difference may no longer be of any importance. When the dreams of patients suffering from traumatic neuroses so regularly take them back to the situation of the disaster they do not thereby, it is true, serve the purpose of wish-fulfilment, the hallucinatory conjuring up of which has, under the domination of the pleasure-principle, become the function of dreams. But we may assume that they thereby subserve another purpose, which must be fulfilled before the pleasure-principle can begin its

sway. These dreams are attempts at restoring control of the stimuli by developing apprehension, the pretermission of which caused the traumatic neurosis. They thus afford us an insight into a function of the psychic apparatus, which without contradicting the pleasure-principle is nevertheless independent of it, and appears to be of earlier origin than the aim of attaining pleasure and avoiding 'pain'.

This is therefore the moment to concede for the first time an exception to the principle that the dream is a wish-fulfilment. Anxiety dreams are no such exception, as I have repeatedly and in detail shown; nor are the 'punishment dreams', for they merely put in the place of the interdicted wish-fulfilment the punishment appropriate to it, and are thus the wish-fulfilment of the sense of guilt reacting on the contemned impulse. But the dreams mentioned above of patients suffering from traumatic neuroses do not permit of classification under the category of wish-fulfilment, nor do the dreams occurring during psycho-analysis that bring back the recollection of the psychic traumata of childhood. They obey rather the repetition-compulsion, which in analysis, it is true, is supported by the (not unconscious) wish to conjure up again what has been forgotten and repressed. Thus the function of the dream, viz. to do away with the motives leading to interruption of sleep by presenting wish-fulfilments of the disturbing excitations, would not be its original one; the dream could secure control of this function only after the whole psychic life had accepted the domination of the pleasure-principle. If there is a 'beyond the pleasure-principle' it is logical to admit a prehistoric past also for the wish-fulfilling tendency of the dream, though to do so is no contradiction of its later function. Now, when this tendency is once broken through, there arises the further question: are such dreams, which in the interests of the psychical binding of traumatic impressions follow the repetition-compulsion, not possible apart from analysis? The answer is certainly in the affirmative.

With regard to the war neuroses, so far as the term has any significance apart from a reference to the occasion of the appearance of the illness, I have explained elsewhere that they might very well be traumatic neuroses which have arisen the more easily on account of an ego-conflict.[15] The fact mentioned [above, Chapter II], viz. that a severe injury inflicted at the same time by the trauma lessens the chance of a neurosis arising, is no longer difficult to understand if two circumstances emphasised by psycho-analytic research

are borne in mind. First that mechanical concussion must be recognised as one of the sources of sexual excitation (cp. the remarks: 'The effects of swinging and railway travelling' in Drei Abhandlungen zur Sexualtheorie, 4. Auflage 1920); and, secondly, that a painful and feverish illness exerts for the time it lasts a powerful influence on the distribution of the libido. Thus the mechanical force of the trauma would set free the quota of sexual excitation which, in consequence of the lacking preparation by apprehension, has a traumatic effect: but, on the other hand, the contemporaneous bodily injury would bind the surplus excitation by the putting in of a claim to a narcissistic over-charging of the injured part (see 'Zur Einführung des Narzissmus', Sammlung kleiner Schriften zur Neurosenlehre, IV. Folge, 1918). It is also known, though the idea has not been sufficiently made use of in the Libido theory, that disturbances in the distribution of the libido so severe as those of melancholia may be removed for a time by an intercurrent organic disease; in fact even the condition of a fully developed dementia praecox is capable of a transitory improvement in these circumstances.

V

The fact that the sensitive cortical layer has no protective barrier against excitations emanating from within will have one inevitable consequence: viz. that these transmissions of stimuli acquire increased economic significance and frequently give rise to economic disturbances comparable to the traumatic neuroses. The most prolific sources of such inner excitations are the so-called instincts of the organism, the representatives of all forces arising within the body and transmitted to the psychic apparatus—the most important and most obscure element in psychological research.

Perhaps we shall not find it too rash an assumption that the excitations proceeding from the instincts do not conform to the type of the 'bound' but of the free-moving nerve processes that are striving for discharge. The most trustworthy knowledge we have of these processes comes from the study of dreams. There we found that the processes in the unconscious systems are fundamentally different from those in the (pre)conscious; that in the unconscious 'charges' may easily be completely transferred, displaced or condensed, while if this happened with preconscious material only defective results would be obtained. This is the reason for the well-known peculiarities of the manifest dream, after the preconscious residues of the day before have undergone elaboration according to the laws of the unconscious. I termed this kind of process in the unconscious the psychic 'primary process' in contradistinction to the secondary process valid in our normal waking life. Since the excitations of instincts all affect the unconscious systems, it is scarcely an innovation to say that they follow the lines of the primary process, and little more so to identify the psychic primary process with the freely mobile charge, the secondary process with changes in Breuer's bound or tonic charge.[16] It would then be the task of the higher layers of the psychic apparatus to bind the instinct-excitation that reaches the primary process. The failure to effect this binding would evoke a disturbance analogous to the traumatic neuroses; it is only after the binding had been successfully accomplished that the pleasure-principle (and its modification the reality-principle) would have an opportunity to assert its sway without hindrance. Till then, the other task of the psychic apparatus would take precedence, viz. to obtain control of or to bind the excitation, not in opposition to the pleasure-principle but independently of it and in part without regard to it.

The expressions of a repetition-compulsion which we have described, both in the early activities of infantile psychic life and in the experiences of psychoanalytic treatment, show in a high degree an instinctive character, and, where they come into contrast with the pleasure-principle, a daemonic character. In the play of children we seem to arrive at the conclusion that the child repeats even the unpleasant experiences because through his own activity he gains a far more thorough mastery of the strong impression than was possible by mere passive experience. Every fresh repetition seems to strengthen this mastery for which the child strives; even with pleasurable experiences the child cannot do enough in the way of repetition and will inexorably insist on the identity of the impression. This characteristic is destined later to disappear. A witticism heard for the second time will almost fail of effect; a theatrical performance will never make the same impression the second time that it did on the first occasion; indeed it is hard to persuade the adult to read again at all soon a book he has enjoyed. Novelty is always the necessary condition of enjoyment. The child, however, never gets tired of demanding from a grown-up the repetition of a game he has played with him before or has shown him, till at last the grown-up refuses, utterly worn out; similarly if he has been told a pretty story, he wants always to hear the same story instead of a new one, insists inexorably on exact repetition and corrects each deviation which the narrator lets slip by mistake, which perhaps he even thought to gain new merit by inserting. Here there is no contradiction of the pleasure-principle: it is evident that the repetition, the rediscovery of the identity, is itself a source of pleasure. In the case of a patient in analysis, on the other hand, it is plain that the compulsion to repeat in the transference the occurrences of his infantile life disregards *in every way* the pleasure-principle. The patient behaves in this respect completely like a child, and thus makes it clear to us that the repressed memory-traces of his primitive experience are not present in a 'bound' form, are indeed, in a sense, not capable of the secondary process. To this fact of their not being bound they owe their power to weave a wish-phantasy that will be represented in a dream, by adhering to the residues from waking experiences. We frequently encounter the same repetition-compulsion as a therapeutic obstacle, when at the end of the treatment we wish to bring about complete detachment from the physician; and it may be supposed that the vague dread with which those who are unfamiliar with it

view analysis, as though they feared to wake what they think is better left to sleep, is at root a fear of the appearance of this daemonic compulsion.

In what way is the instinctive connected with the compulsion to repetition? At this point the idea is forced upon us that we have stumbled on the trace of a general and hitherto not clearly recognised—or at least not expressly emphasised—characteristic of instinct, perhaps of all organic life. According to this, *an instinct would be a tendency innate in living organic matter impelling it towards the reinstatement of an earlier condition,* one which it had to abandon under the influence of external disturbing forces—a kind of organic elasticity, or, to put it another way, the manifestation of inertia in organic life.[17]

This conception of instinct strikes us as strange, since we are accustomed to see in instinct the factor urging towards change and development, and now we find ourselves required to recognise in it the very opposite, viz. the expression of the conservative nature of living beings. On the other hand, we soon think of those examples in animal life which appear to confirm the idea of instinct having been historically conditioned. When certain fish undertake arduous journeys at spawning-time, in order to deposit the spawn in certain definite waters far removed from their usual habitats, according to the interpretation of many biologists they are only seeking the earlier homes of their kind, which in course of time they have exchanged for others. The same is said to be true of the migratory flights of birds of passage, but the search for further examples becomes superfluous when we remember that in the phenomena of heredity and in the facts of embryology we have the most imposing proofs of the organic compulsion to repetition. We see that the germ cell of a living animal is obliged to repeat in its development—although in a fleeting and curtailed fashion—the structures of all the forms from which the animal is descended, instead of hastening along the shortest path to its own final shape. A mechanical explanation of this except in some trifling particulars is impossible, and the historical explanation cannot be disregarded. In the same way we find extending far upwards in the animal kingdom a power of reproduction whereby a lost organ is replaced by the growth of a new one exactly like it.

The obvious objection, that it may well be that besides the conservative instincts compelling repetition there are others

which press towards new formation and progress, should certainly not be left unnoticed; it will be considered at a later stage of our discussion. But we may first be tempted to follow to its final consequences the hypothesis that all instincts have as their aim the reinstatement of an earlier condition. If what results gives an appearance of 'profundity' or bears a resemblance to mysticism, still we know ourselves to be clear of the reproach of having striven after anything of the sort. We are in search of sober results of investigation or of reflections based upon it, and the only character we wish for in these results is that of certainty.

If then all organic instincts are conservative, historically acquired, and are directed towards regression, towards reinstatement of something earlier, we are obliged to place all the results of organic development to the credit of external, disturbing and distracting influences. The rudimentary creature would from its very beginning not have wanted to change, would, if circumstances had remained the same, have always merely repeated the same course of existence. But in the last resort it must have been the evolution of our earth, and its relation to the sun, that has left its imprint on the development of organisms. The conservative organic instincts have absorbed everyone of these enforced alterations in the course of life and have stored them for repetition; they thus present the delusive appearance of forces striving after change and progress, while they are merely endeavouring to reach an old goal by ways both old and new. This final goal of all organic striving can be stated too. It would be counter to the conservative. nature of instinct if the goal of life were a state never hitherto reached. It must rather be an ancient starting point, which the living being left long ago, and to which it harks back again by all the circuitous paths of development. If we may assume as an experience admitting of no exception that everything living dies from causes within itself, and returns to the inorganic, we can only say *'The goal of all life is death',* and, casting back, *"The inanimate was there before the animate'.*

At one time or another, by some operation of force which still completely baffles conjecture, the properties of life were awakened in lifeless matter. Perhaps the process was a prototype resembling that other one which later in a certain stratum of living matter gave rise to consciousness. The tension then aroused in the previously inanimate matter strove to attain an equilibrium; the first instinct was present,

that to return to lifelessness. The living substance at that time had death within easy reach; there was probably only a short course of life to run, the direction of which was determined by the chemical structure of the young organism. So through a long period of time the living substance may have been constantly created anew, and easily extinguished, until decisive external influences altered in such a way as to compel the still surviving substance to ever greater deviations from the original path of life, and to ever more complicated and circuitous routes to the attainment of the goal of death. These circuitous ways to death, faithfully retained by the conservative instincts, would be neither more nor less than the phenomena of life as we now know it. If the exclusively conservative nature of the instincts is accepted as true, it is impossible to arrive at any other suppositions with regard to the origin and goal of life.

If these conclusions sound strangely in our ears, equally so will those we are led to make concerning the great groups of instincts which we regard as lying behind the vital phenomena of organisms. The postulate of the self-preservative instincts we ascribe to every living being stands in remarkable contrast to the supposition that the whole life of instinct serves the one end of bringing about death. The theoretic significance of the instincts of self-preservation, power and self-assertion, shrinks to nothing, seen in this light; they are part-instincts designed to secure the path to death peculiar to the organism and to ward off possibilities of return to the inorganic other than the immanent ones, but the enigmatic struggle of the organism to maintain itself in spite of all the world, a struggle that cannot be brought into connection with anything else, disappears. It remains to be added that the organism is resolved to die only in its own way; even these watchmen of life were originally the myrmidons of death. Hence the paradox comes about that the living organism resists with all its energy influences (dangers) which could help it to reach its life-goal by a short way (a short circuit, so to speak); but this is just the behaviour that characterises a pure instinct as contrasted with an intelligent striving.[18]

But we must bethink ourselves: this cannot be the whole truth. The sexual instincts, for which the theory of the neuroses claims a position apart, lead us to quite another point of view. Not all organisms have yielded to the external compulsion driving them to an ever further development. Many have succeeded in maintaining themselves on their

low level up to the present time: there are in existence to-day, if not all, at all events many forms of life that must resemble the primitive stages of the higher animals and plants. And, similarly, not all the elementary organisms that make up the complicated body of a higher form of life take part in the whole path of evolution to the natural end, i.e. death. Some among them, the reproductive cells, probably retain the original structure of the living substance and, after a given time, detach themselves from the parent organism, charged as they are with all the inherited and newly acquired instinctive dispositions. Possibly it is just those two features that make their independent existence possible. If brought under favourable conditions they begin to develop, that is, to repeat the same cycle to which they owe their origin, the end being that again one portion of the substance carries through its development to a finish, while another part, as a new germinal core, again harks back to the beginning of the development. Thus these reproductive cells operate against the death of the living substance and are able to win for it what must seem to us to be potential immortality, although perhaps it only means a lengthening of the path to death. Of the highest significance is the fact that the reproductive cell is fortified for this function, or only becomes capable of it, by the mingling with another like it and yet different from it.

There is a group of instincts that care for the destinies of these elementary organisms which survive the individual being, that concern themselves with the safe sheltering of these organisms as long as they are defenceless against the stimuli of the outer world, and finally bring about their conjunction with other reproductive cells. These are collectively the sexual instincts. They are conservative in the same sense as the others are, in that they reproduce earlier conditions of the living substance, but they are so in a higher degree in that they show themselves specially resistant to external influences; and they are more conservative in a wider sense still, since they preserve life itself for a longer time. They are the actual life-instincts; the fact that they run counter to the trend of the other instincts which lead towards death indicates a contradiction between them and the rest, one which the theory of neuroses has recognised as full of significance. There is as it were an oscillating rhythm in the life of organisms: the one group of instincts presses forward to reach the final goal of life as quickly as possible the other flies back at a certain point on the way only to traverse the same stretch once more from a given spot and thus to prolong the duration of the journey. Although

sexuality and the distinction of the sexes certainly did not exist at the dawn of life, nevertheless it remains possible that the instincts which are later described as sexual were active from the very beginning and took up the part of opposition to the rôle of the 'ego-instincts' then, and not only at some later time.

Let us now retrace our steps for the first time, to ask whether all these speculations are not after all without foundation. Are there really, *apart from the sexual instincts,* no other instincts than those which have as their object the reinstatement of an earlier condition, none that strive towards a condition never yet attained? I am not aware of any satisfactory example in the organic world running counter to the characteristic I have suggested. The existence of a general impulse towards higher development in the plant and animal world can certainly not be established, though some such line of development is as a fact unquestionable. But, on the one hand, it is often merely a question of our own valuation when we pronounce one stage of development to be higher than another, and, on the other hand, biology makes clear to us that a higher development in one particular is often purchased with, or balanced by, retrogression in another. Then there are plenty of animal forms the youthful stages of which teach us that their development has taken a retrograde character rather than otherwise. Higher development and retrogression alike might well be the results of external forces impelling towards adaptation, and the part played by the instincts might be confined in both cases to retaining the enforced changes as sources of pleasure.[19]

Many of us will also find it hard to abandon our belief that in man himself there dwells an impulse towards perfection, which has brought him to his present heights of intellectual prowess and ethical sublimation, and from which it might be expected that his development into superman will be ensured. But I do not believe in the existence of such an inner impulse, and I see no way of preserving this pleasing illusion. The development of man up to now does not seem to me to need any explanation differing from that of animal development, and the restless striving towards further perfection which may be observed in a minority of human beings is easily explicable as the result of that repression of instinct upon which what is most valuable in human culture is built. The repressed instinct never ceases to strive after its complete satisfaction which would consist in the repetition of

a primary experience of satisfaction: all substitution- or reaction-formations and sublimations avail nothing towards relaxing the continual tension; and out of the excess of the satisfaction demanded over that found is born the driving momentum which allows of no abiding in any situation presented to it, but in the poet's words 'urges ever forward, ever unsubdued' (Mephisto in 'Faust', Act i. Faust's study.). The path in the other direction, back to complete satisfaction, is as a rule barred by the resistances that maintain the repressions, and thus there remains nothing for it but to proceed in the other, still unobstructed direction, that of development, without, however, any prospect of being able to bring the process to a conclusion or to attain the goal. What occurs in the development of a neurotic phobia, which is really nothing but an attempt at flight from the satisfaction of an instinct, gives us the prototype for the origin of this ostensible 'impulse towards perfection' which, however, we cannot possibly ascribe to all human beings. The dynamic conditions are, it is true, quite generally present, but the economic relations seem only in rare cases to favour the phenomenon.

VI

Our discussion so far results in the establishing of a sharp antithesis between the 'ego-instincts' and the sexual instincts, the former impelling towards death and the latter towards the preservation of life, a result which we ourselves must surely find in many respects far from adequate. Further, only for the former can we properly claim the conservative—or, better, regressive—character corresponding to a repetition-compulsion. For according to our hypothesis the ego-instincts spring from the vitalising of inanimate matter, and have as their aim the reinstatement of lifelessness. As to the sexual instincts on the other hand: it is obvious that they reproduce primitive states of the living being, but the aim they strive for by every means is the union of two germ cells which are specifically differentiated. If this union does not take place, then the germ cell dies like all other elements of the multicellular organism. Only on this condition can the sexual function prolong life and lend it the semblance of immortality. Of what important happening then in the process of development of the living substance is sexual reproduction, or its forerunner, the copulation of two individual protozoa, the repetition? That question we do not know how to answer, and therefore we should feel relieved if the whole structure of our arguments were to prove erroneous. The opposition of ego- (or death-) instincts and sexual (life-) instincts would then disappear, and the repetition-compulsion would thereupon also lose the significance we have attributed to it.

Let us turn back therefore to one of the assumptions we interpolated, in the expectation that it will permit of exact refutation. We built up further conclusions on the basis of the assumption that all life must die from internal causes. We made this assumption so light-heartedly because it does not seem to us to be one. We are accustomed so to think, and every poet encourages us in the idea. Perhaps we have resolved so to think because there lies a certain consolation in this belief. If man must himself die, after first losing his most beloved ones by death, he would prefer that his life be forfeit to an inexorable law of nature, the sublime Ἀνάγκη, than to a mere accident which perhaps could have been in some way avoided. But perhaps this belief in the incidence of death as the necessary consequence of an inner law of being is also only one of those illusions that we have fashioned for ourselves 'so as to endure the burden of existence'. It is certainly not a primordial belief: the idea of a

'natural death' is alien to primitive races; they ascribe every death occurring among themselves to the influence of an enemy or an evil spirit. So let us not neglect to turn to biological science to test the belief.

If we do so, we may be astonished to find how little agreement exists among biologists on the question of natural death, that indeed the very conception of death altogether eludes them. The fact of a certain average length of life, at least among the higher animals, is of course an argument for death from inner causes, but the circumstance that certain large animals and giant trees reach a very great age, one not to be computed up to now, once more removes this impression. According to the grandiose conception of W. Fliess all the vital phenomena—and certainly also death—are linked with the accomplishment of certain periods of time, among which there finds expression the dependence of two living substances, one male and one female, upon the solar year. But observations of how easily and extensively the influences of external forces can alter vital manifestations, especially in the plant world, as to their occurrence in time, can hasten or retard them, militate against the rigidity of the formulae laid down by Fliess and leaves at least doubtful the universality of the laws he sought to establish.

The treatment of these themes, death and the duration of life among organisms, in the works of A. Weismann[20] possesses the greatest interest for us. This investigator originated the distinction of living substance into a mortal and an immortal half; the mortal is the body in the narrower sense, the soma, which alone is subject to natural death; while the germ cells are potentially immortal, in so far as they are capable under certain favourable conditions of developing into a new individual, or expressed otherwise, of surrounding themselves with a new soma.[21]

What here arrests our attention is the unexpected analogy with our conception developed along so different a line of thought. Weismann, who is considering living substance morphologically, recognises in it a constituent which is the prey of death, the soma, the body viewed apart from sex or heredity elements, and, on the other hand, an immortal part, the germ-plasm, which serves the purpose of preservation of the species, of propagation. We have fixed our attention not on the living matter, but on the forces active in it, and have been led to distinguish two kinds of instincts: those the purpose of which is to guide life towards death, and the

others, the sexual instincts, which perpetually strive for, and bring about, the renewal of life. This sounds like a dynamic corollary to Weismann's morphological theory.

This appearance of an important correspondence vanishes as soon as we examine Weismann's pronouncement on the problem of death. For Weismann admits the differentiation between the mortal soma and the immortal germ-plasm only in relation to multicellular organisms; with the unicellular beings the individual and the reproductive cell are still one and the same.[22] The unicellular he thus affirms to be potentially immortal; death appears only among the metazoa, the multicellular. This death of the higher organisms is, it is true, a natural one, a death from inner causes, but it does not depend on an inherent quality of the living substance,[23] is not to be conceived as an absolute necessity based on the nature of life.[24] Death is rather a purposive contrivance, a phenomenon of adaptation to the external conditions of life, because after the differentiation of the corporeal cells into soma and germ-plasm the indefinite prolongation of the life of the individual would have become a quite inexpedient luxury. With the appearance of this differentiation among multicellular organisms death became possible and expedient. Since then the soma of the higher organisms dies after a certain time from internal causes; the protozoa, however, remain immortal. Propagation, on the other hand, was not first introduced with death; it is on the contrary a primordial property of living matter like growth, in which it originated, and life has gone on uninterruptedly from its inception on the earth.[25]

It is easy to see that to concede natural death to the higher organisms does not greatly help our case. If death is a late acquisition of life, then death-instincts traceable to the beginning of life on this planet no longer come into question. Multicellular organisms may continue to die from internal causes, whether defect of differentiation or imperfections of their metabolism; it possesses no interest for the inquiry on which we are engaged. Such a conception and derivation of death certainly more nearly approaches the ordinary human view of it than the unwonted assumption of 'death-instincts'.

The discussion which has centred round Weismann's assertations has in my opinion had no decisive result in any direction.[26] Many writers have reverted to the standpoint of Goette (1883) who saw in death the direct consequence of

propagation. Hartmann does not regard as the characteristic of death the appearance of a 'corpse', a piece of living substance which has 'died off', but defines it as the 'definitive end of individual development'. In this sense protozoa are also subject to death; with them death invariably coincides with propagation, but it is, so to speak, disguised by the latter, for the whole substance of the parent organism may be absorbed directly into the new individuals.[27]

The interest of the inquiry was soon directed towards testing experimentally the asserted immortality of living substance in unicellular beings. An American, named Woodruff, instituted a culture of a ciliated infusorium, a 'slipper-animalcule', which reproduces itself by division into two individuals; each time he isolated one of the products and put it into fresh water. He traced the propagation to the 3029th generation, when he discontinued the experiment. The last descendant of the first slipper-animalcule was just as lively as its original ancestor, without any sign of age or degeneration: if such numbers are convincing, the immortality of protozoa seemed thus experimentally demonstrable.[28]

Other investigators have arrived at other results. Maupas, Calkins, etc., found, in contradiction to Woodruff, that even these infusoria after a certain number of divisions become weaker, decrease in size, lose a portion of their organisation, and finally die if they do not encounter certain invigorating influences. According to this, protozoa die after a phase of senile decay just like higher animals, in direct contravention of what is maintained by Weismann, who recognises in death a late acquisition of living organisms.

Taking the net result of these researches together, we note two facts which seem to afford us a firm foothold. First: if the animalculae, at a time when they as yet show no signs of age, have the opportunity of mingling with each other, of 'conjugating'—afterwards again separating—then they remain exempt from age, they have been 'rejuvenated'. This conjugation is doubtless the prototype of sexual propagation of higher organisms: as yet it has nothing to do with multiplication, it is confined to the mingling of the substances of both individuals (Weismann's Amphimixis). The invigorating influence of conjugation can also be replaced, however, by certain modes of stimulation, changes in the composition of the nutrient fluid, raising of temperature, or shaking. The famous experiment of J. Loeb

will be recalled, who by the application of certain chemical stimuli to the ova of sea-urchins brought about processes of division which usually take place only after fertilisation.

Secondly: it is after all probable that the infusoria are brought to a natural death through their own vital process, for the contradiction between Woodruffs findings and those of others arises from Woodruff having placed each generation in fresh nutrient fluid. When he refrained from doing so he observed, as did the other investigators, that the generations showed signs of age. He concluded that the animalculae were injured by the products of metabolism which they gave off into the surrounding fluid, and was then able to prove convincingly that only the products of *its own* metabolism had this effect in bringing about the death of the generation. For in a solution over-saturated with waste products of a distantly related species the very same animalculae throve excellently which when allowed to accumulate in their own nutrient fluid inevitably perished. Thus, left to itself, the infusorium dies a natural death from the imperfect disposal of its own metabolic products: perhaps all higher animals die ultimately from the same inability.

At this point the doubt may then occur to us whether any good purpose has been served in looking for the answer to the question as to natural death in the study of the protozoa. The primitive organisation of these forms of life may conceal from us important conditions which are present in them too, but can be recognised only among the higher animals where they have achieved for themselves a morphological expression. If we abandon the morphological point of view for the dynamic, it may be a matter of entire indifference to us whether the natural death of the protozoa can be proved or not. With them the substance later recognised as immortal has not yet separated itself in any way from the part subject to death. The instinctive forces which endeavour to conduct life to death might be active in them too from the beginning and yet their effect might be so obscured by that of the forces tending to preserve life that any direct evidence of their existence becomes hard to establish. We have heard, it is true, that the observations of biologists allow us to assume such death-ward tending inner processes also among the protozoa. But even if the protozoa prove to be immortal in Weismann's sense, his assertion that death is a late acquisition holds good only of the outward manifestations of death, and does not invalidate any hypothesis as to such

processes as impel towards death. Our expectation that biology would entirely put out of court any recognition of the death-instincts has not been fulfilled. It is open to us to occupy ourselves further with this possibility, if we have other reasons for doing so. The striking resemblance between Weismann's separation of soma and germ-plasm and our distinction between the death and the life-instincts remains unshaken, moreover, and retains its value.

Let us dwell for a moment on this exquisitely dualistic conception of the instinctive life. According to E. Hering's theory of the processes in living matter there course through it uninterruptedly two kinds of processes of opposite direction, one anabolic, assimilatory, the other katabolic, disintegrating. Shall we venture to recognise in these two directions of the vital processes the activity of our two instinctive tendencies, the life-instincts and the death-instincts? And we cannot disguise another fact from ourselves, that we have steered unawares into the haven of Schopenhauer's philosophy for whom death is the 'real result' of life[29] and therefore in so far its aim, while the sexual instinct is the incarnation of the will to live.

Let us boldly try to go a step further. According to general opinion the union of numerous cells into one vital connection, the multicellularity of organisms, has become a means to the prolongation of their span of life. One cell helps to preserve the life of the others, and the cell-community can go on living even if single cells have to perish. We have already heard that also conjugation, the temporary mingling of two unicellular entities, has a preservative and rejuvenating effect on both. The attempt might consequently be made to transfer the Libido theory yielded by psychoanalysis to the relationship of the cells to one another and to imagine that it is the vital or sexual instincts active in every cell that take the other cells for their 'object', partially neutralise their death-instincts, i.e. the processes stimulated by these, and so preserve those cells in life, while other cells do the same for them, and still others sacrifice themselves in the exercise of this libidinous function. The germ cells themselves would behave in a completely 'narcissistic' fashion, as we are accustomed to describe it in the theory of the neuroses when an individual concentrates his libido on the ego, and gives out none of it for the charging of objects. The germ cells need their libido —the activity of their vital instincts—for themselves as a provision for their later enormous constructive activity.

Perhaps the cells of the malignant growths that destroy the organism can also be considered to be narcissistic in the same sense. Pathology is indeed prepared to regard the kernels of them as congenital in origin and to ascribe embryonal attributes to them. Thus the Libido of our sexual instincts would coincide with the Eros of poets and philosophers, which holds together all things living.

At this point opportunity offers of reviewing the gradual development of our Libido theory. The analysis of the transference-neuroses forced on our notice in the first place the opposition between 'sexual instincts' which are directed towards an object and other instincts which we only imperfectly discerned and provisionally described as 'ego-instincts'. Among the latter those which subserve the self-preservation of the individual had the first claim for recognition. What other distinctions were to be made, it was impossible to say. No knowledge would have been so important for the establishment of a sound psychology as some approximate understanding of the common nature and possible differences of the instincts. But in no department of psychology did one grope more in the dark. Everyone posited as many instincts or 'fundamental instincts' as he pleased, and contrived with them just as the ancient Greek philosophers did with their four elements: earth, air, fire and water. Psycho-Analysis, which could not dispense with some kind of hypothesis as to the instincts, adhered to begin with to the popular distinction, typically represented by the phrase 'hunger and love'. It was at least no new arbitrary creation. With this one adequately covered a considerable distance in the analysis of the psychoneuroses. The conception of 'sexuality'—and therewith that of a sexual instinct—certainly had to be extended, till it included much that did not come into the category of the function of propagation, and this led to outcry enough in a severe and superior or merely hypocritical world.

The next step followed when Psycho-Analysis was able to feel its way a little nearer to the psychological ego, which was at first known to us only as a repressing, censoring agency, capable of constituting defences and reaction-formations. Critical and other far-seeing minds had indeed for a long time raised objections to the narrowing of the libido concept down to the energy of the sexual instinct as directed to the object. But they omitted to say whence they obtained this fuller comprehension, and failed to deduce anything from it of value for Psycho-Analysis. In the course of more

deliberate advance it came under psycho-analytic observation how regularly libido is withdrawn from the object and directed towards the ego (introversion), and through the study of the libido-development of the child in its earliest phases it became clear that the ego is the true and original reservoir of the libido, which is extended to the object only from this. The ego took its place as one of the sexual objects and was immediately recognised as the choicest among them. Where the libido thus remained attached to the ego it was termed 'narcissistic'.[30] This narcissistic libido was naturally also the expression of the energy of sexual instincts in the analytical sense which now had to be identified with the 'instincts of self-preservation', the existence of which was admitted from the first. Whereupon the original antithesis between the ego-instincts and the sexual instincts became inadequate. A part of the ego-instincts was recognised as libidinous: in the ego sexual instincts were found to be active—probably in addition to others; nevertheless one is justified in saying that the old formula, viz. that a psychoneurosis arises out of a conflict between the ego-instincts and the sexual instincts, contained nothing that we should have to reject to-day. Only, the difference of the two kinds of instincts which was supposed originally to be in some kind of way qualitative has now to be defined otherwise, namely on a topographical basis. In particular the transference neurosis, the real object of psychoanalytic study, is still seen to be the result of a conflict between the ego and libidinous investment of an object.

We are the more compelled now to accentuate the libidinous character of the self-preservative instincts, since we are venturing on the further step of recognising the sexual instinct as the Eros, the all-sustaining, and of deriving the narcissistic libido of the ego from the sum of the libido quantities that bring about the mutual adherence of the somatic cells. But we now find ourselves suddenly confronted with this question: If the self-preservative instincts are also of a libidinous kind, then perhaps we have no other instincts at all than libidinous ones. There are at least no others apparent. In that event we must admit the critics to be in the right who from the first have suspected that psycho-analysis makes sexuality the explanation of everything, or the innovators like Jung who, quickly making up their mind, have used 'libido' as a synonym for 'instinctive force' in general. Is that not so?

This result was at all events one not intended by us. On the contrary, we took as our starting point a sharp distinction between the ego-instincts (= death-instincts) and the sexual instincts (= life-instincts). We were prepared indeed to reckon even the alleged self-preservative instincts of the ego among death-instincts, a position which we have since corrected and withdrawn from. Our standpoint was a dualistic one from the beginning, and is so to-day more sharply than before, since we no longer call the contrasting tendencies egoistic and sexual instincts, but life-instincts and death-instincts. Jung's libido theory, on the other hand, is a monistic one; that he has applied the term libido to his only instinctive energy was bound to create confusion, but should not have any further effect on us. We suspect that there are in the ego other instincts than those of self-preservation; only we ought to be in a position to demonstrate them. Unfortunately so little progress has been made in the analysis of the ego that this proof becomes extraordinarily difficult of attainment. The libidinous instincts of the ego may indeed be conjoined in a special way with other ego-instincts of which we as yet know nothing. Before ever we had clearly recognised narcissism, the conjecture was already present in the minds of psychoanalysts that the 'ego-instincts' had drawn libidinous components to themselves. But these are merely vague possibilities which our opponents will hardly take into account. It remains an awkward fact that analysis up to now has only put us in the position of demonstrating libidinous impulses. The conclusion that therefore there are no others is one to which we do not assent.

In the obscurity that at present shrouds the theory of instinct, we shall certainly not do well to reject any idea that promises to throw light. We have made the antithesis between the life and death instincts our point of departure. Object-love itself displays a second such polarity, that of love (tenderness) and hate (aggression). What if we could succeed in bringing these two polarities into relation with each other, in tracing the one to the other! We have long recognised a sadistic component of the sexual instinct:[31] it can, as we know, attain independence, and as a perversion, dominate the whole sexual trend of a person. In one of the organisations which I have termed 'pregenital' it appears as a dominating part-instinct, But how is one to derive the sadistic impulse, which aims at the injury of the object, from the life-sustaining Eros! Does not the assumption suggest itself that this sadism is properly a death-instinct which is driven apart from the ego

by the influence of the narcissistic libido, so that it becomes manifest only in reference to the object? It then enters the service of the sexual function; at the oral stage of organisation of the libido, amorous possession is still one and the same as annihilation of the object; later the sadistic impulse separates itself, and at last at the stage of the genital primacy it takes over with the aim of propagation the function of so far overpowering the sex-object as the carrying out of the sexual act demands. One might even say that the sadism expelled from the ego has acted as guide to the libidinous components of the sexual instinct; these later press on towards the object. Where the original sadism experiences no abatement or fusion, the well-known hate-love ambivalence of the love-life is set up.

If the above assumption is justifiable then we have met the challenge of demonstrating an example of a death-instinct—though a displaced one. This conception, however, is far from being evident, and creates a frankly mystical impression. We incur the suspicion of having attempted at all costs to find a way out of an *impasse.* We may appeal against this verdict by saying that the assumption is no new one, that we have once before made it when there was no question of an *impasse.* Clinical observations forced upon us the view that the part-instinct of masochism, the one complementary to sadism, is to be understood as a recoil of the sadism on to the ego itself.[32] A turning of the instinct from the object to the ego is, however, essentially the same as a turning from the ego to the object, which is just now the new idea in question. Masochism, the turning of the instinct against the self, would then be in reality a return to an earlier phase of this, a regression. The exposition I then gave of masochism needs correction in one respect as being too exclusive: masochism may also be what I was there concerned to deny, primary.[33]

Let us return, however, to the life-sustaining sexual instincts. We have already learned from the investigation of the protozoa that the mingling of two individuals without consequent partition, just as copulation between two individuals which soon after separate, has a strengthening and rejuvenating effect (*vide supra* Lipschütz). There is no sign of degeneration in their descendents, and they also seem to have gained the capacity for withstanding for a longer time the injurious results of their own metabolism. I think that this one observation may be taken as a prototype of the effect of sexual intercourse also. But in what way does

the blending of two slightly different cells bring about such a renewal of life? The experiment which substitutes for conjugation among protozoa the effect of chemical or even of mechanical stimuli[34] admits of our giving a reply with certainty: it comes about by the introduction of new stimulus-masses. This is in close agreement with the hypothesis that the life-process of an individual leads, from internal causes, to the equalising of chemical tensions: i.e. to death, while union with an individually different living substance increases these tensions—so to speak, introduces new vital differentia, which then have to be again lived out. For this difference between the two there must naturally be one or more optima. Our recognition that the ruling tendency of psychic life, perhaps of nerve life altogether, is the struggle for reduction, keeping at a constant level, or removal of the inner stimulus tension (the Nirvana-principle, as Barbara Low terms it)—a struggle which comes to expression in the pleasure-principle—is indeed one of our strongest motives for believing in the existence of death-instincts.

But the course of our argument is still disturbed by an uneasy feeling that just in the case of the sexual instinct we are unable to demonstrate that character of a repetition-compulsion which first put us on the track of the death-instincts. It is true that the realm of embryonic developmental processes offers an abundance of such repetition phenomena—the two germ cells of sexual propagation and their life-history are themselves only repetitions of the beginning of organic life: but the essential feature in the processes designed by the sexual instinct is nevertheless the mingling of two cells. Only by this is the immortality of the living substance among the higher forms of life assured.

To put it in other words: we have to make enquiry into the origin of sexual propagation and the source of the sexual instincts in general, a task before which the lay mind quails and which even specialists have not yet been able to solve. Let us, therefore, make a condensed selection from all the conflicting accounts and opinions of whatever can be brought into relation with our train of thought.

One view deprives the problem of propagation of its mysterious attraction by representing it as part of the phenomenon of growth (multiplication by division, germination, budding). The arising of propagation by means

of germ-cells sexually differentiated might be conceived, in accordance with the sober Darwinian mode of thought, as a way of maintaining and utilising for further development the advantage of the amphimixis which resulted in the first instance from the fortuitous conjugation of two protozoa.[35] 'Sex' would not thus be of very ancient origin and the extraordinarily powerful instincts which aim at bringing about sexual union would thereby repeat something which once chanced to happen and since became established as being advantageous.

The same question now recurs as arose in respect of death—namely, whether the protozoa can be credited with anything beyond what they exhibit, and whether we may assume that forces and processes which become perceptible only in the case of the higher animals did first arise in the more primitive. For our purpose the view of sexuality mentioned above helps very little. The objection may be raised against it that it presupposes the existence of life-instincts as already operative in the simplest forms of life, for otherwise conjugation, which works against the expiration of life and makes the task of dying harder, would not have been retained and elaborated, but would have been avoided. If, then, we are not to abandon the hypothesis of death-instincts maintained, we must associate them with life-instincts from the beginning. But we must admit that we are working here at an equation with two unknown quantities. Anything else that science can tell us of the origin of sexuality amounts to so little that this problem may be likened to an obscurity into which not even the ray of an hypothesis has penetrated. In quite another quarter, however, we encounter such an hypothesis, but it is of so fantastic a kind—assuredly a myth rather than a scientific explanation—that I should not venture to bring it forward if it did not exactly fulfil the one condition for the fulfilment of which we are labouring. That is to say, it derives an instinct from the *necessity for the reinstatement of an earlier situation.*

I refer, of course, to the theory that Plato in his Symposium puts into the mouth of Aristophanes and which deals not only with the origin of the sexual instinct but also with its most important variations in relation to the object. 'Human nature was once quite other than now. Originally there were three sexes, three and not as to-day two: besides the male and the female there existed a third sex which had an equal share in the two first . . . . In these beings everything was double: thus, they had four hands and four feet, two faces,

two genital parts, and so on. Then Zeus allowed himself to be persuaded to cut these beings in two, as one divides pears to stew them. . . . When all nature was divided in this way, to each human being came the longing for his own other half, and the two halves embraced and entwined their bodies *and desired to grow together again.*[46]

Are we to follow the clue of the poet-philosopher and make the daring assumption that living substance was at the time of its animation rent into small particles, which since that time strive for reunion by means of the sexual instincts? That these instincts—in which the chemical affinity of inanimate matter is continued—passing through the realm of the protozoa gradually overcome all hindrances set to their striving by an environment charged with stimuli dangerous to life, and are impelled by it to form a protecting covering layer? And that these dispersed fragments of living substance thus achieve a multicellular organisation, and finally transfer to the germ-cells in a highly concentrated form the instinct for reunion? I think this is the point at which to break off.

But not without a few words of critical reflection in conclusion. I might be asked whether I am myself convinced of the views here set forward, and if so how far. My answer would be that I am neither convinced myself, nor am I seeking to arouse conviction in others. More accurately: I do not know how far I believe in them. It seems to me that the affective feature 'conviction' need not come into consideration at all here. One may surely give oneself up to a line of thought, and follow it up as far as it leads, simply out of scientific curiosity, or—if you prefer—as advocatus diaboli, without, however, making a pact with the devil about it. I am perfectly aware that the third step in the theory of instinct which I am taking here cannot claim the same certainty as the two former ones, viz. the extending of the conception of sexuality and the establishing of narcissism. These innovations were direct translations of observation into theory, subject to no greater sources of error than is inevitable in anything of the kind. The assertion of the regressive character of instinct rests also, it is true, on observed material, namely on the facts of the repetition-compulsion.

But perhaps I have over-estimated their significance. At all events there is no way of working out this idea except by combining facts with pure imagination many times in

succession, and thereby departing far from observation. We know that the final result becomes the more untrustworthy the oftener one does this in the course of building up a theory, but the precise degree of uncertainty is not ascertainable. One may thereby have made a brilliant discovery or one may have gone ignominiously astray. In such work I trust little to so-called intuition: what I have seen of it seems to me to be the result of a certain impartiality of the intellect—only that people unfortunately are seldom impartial where they are concerned with the ultimate things, the great problems of science and of life. My belief is that there everyone is under the sway of preferences deeply rooted within, into the hands of which he unwittingly plays as he pursues his speculation. Where there are such good grounds for distrust, only a tepid feeling of indulgence is possible towards the results of one's own mental labours. But I hasten to add that such self-criticism does not render obligatory any special tolerance of divergent opinions. One may inexorably reject theories that are contradicted by the very first steps in the analysis of observation and yet at the same time be aware that those one holds oneself have only a tentative validity. Were we to appraise our speculations upon the life and death-instincts it would disturb us but little that so many processes go on which are surprising and hard to picture, such as one instinct being expelled by others, or turning from the ego to an object, and so on. This comes only from our being obliged to operate with scientific terms, i.e. with the metaphorical expressions peculiar to psychology (or more correctly: psychology of the deeper layers). Otherwise we should not be able to describe the corresponding processes at all, nor in fact even to have remarked them. The shortcomings of our description would probably disappear if for the psychological terms we could substitute physiological or chemical ones. These too only constitute a metaphorical language, but one familiar to us for a much longer time and perhaps also simpler.

On the other hand we wish to make it quite clear that the uncertainty of our speculation is enhanced in a high degree by the necessity of borrowing from biological science. Biology is truly a realm of limitless possibilities; we have the most surprising revelations to expect from it, and cannot conjecture what answers it will offer in some decades to the questions we have put to it. Perhaps they may be such as to overthrow the whole artificial structure of hypotheses. If that is so, someone may ask why does one undertake such work as the one set out in this article, and why should it be

communicated to the world? Well, I cannot deny that some of the analogies, relations and connections therein traced appeared to me worthy of consideration.[37]

VII

If this attempt to reinstate an earlier condition really is so universal a characteristic of the instincts, we should not find it surprising that so many processes in the psychic life are performed independently of the pleasure-principle. This characteristic would communicate itself to every part-instinct and would in that case concern a harking back to a definite point on the path of development. But all that the pleasure-principle has not yet acquired power over is not therefore necessarily in opposition to it, and we have not yet solved the problem of determining the relation of the instinctive repetition processes to the domination of the pleasure-principle.

We have recognised that one of the earliest and most important functions of the psychic apparatus is to 'bind' the instreaming instinctive excitations, to substitute the 'secondary process' for the 'primary process' dominating them, and to transform their freely mobile energy-charge into a predominantly quiescent (tonic) charge. During this transformation no attention can be paid to the development of 'pain', but the pleasure-principle is not thereby annulled. On the contrary, the transformation takes place in the service of the pleasure-principle; the binding is an act of preparation, which introduces and secures its sovereignty.

Let us distinguish function and tendency more sharply than we have hitherto done. The pleasure-principle is then a tendency which subserves a certain function—namely, that of rendering the psychic apparatus as a whole free from any excitation, or to keep the amount of excitation constant or as low as possible. We cannot yet decide with certainty for either of these conceptions, but we note that the function so defined would partake of the most universal tendency of all living matter—to return to the peace of the inorganic world. We all know by experience that the greatest pleasure it is possible for us to attain, that of the sexual act, is bound up with the temporary quenching of a greatly heightened state of excitation. The 'binding' of instinct-excitation, however, would be a preparatory function, which would direct the excitation towards its ultimate adjustment in the pleasure of discharge.

In the same connection, the question arises whether the sensations of pleasure and 'pain' can emanate as well from the bound as from the 'unbound' excitation-processes. It

appears quite beyond doubt that the 'unbound', the primary, processes give rise to much more intense sensations in both directions than the bound ones, those of the 'secondary processes'. The primary processes are also the earlier in point of time; at the beginning of mental life there are no others, and we may conclude that if the pleasure-principle were not already in action in respect to them, it would not establish itself in regard to the later processes. We thus arrive at the result which at bottom is not a simple one, that the search for pleasure manifests itself with far greater intensity at the beginning of psychic life than later on, but less unrestrictedly: it has to put up with repeated breaches. At a maturer age the dominance of the pleasure-principle is very much more assured, though this principle as little escapes limitations as all the other instincts. In any case, whatever it is in the process of excitation that engenders the sensations of pleasure and 'pain' must be equally in existence when the secondary process is at work as with the primary process.

This would seem to be the place to institute further studies. Our consciousness conveys to us from within not only the sensations of pleasure and 'pain', but also those of a peculiar tension, which again may be either pleasurable or painful in itself. Now is it the 'bound' and 'unbound' energy processes that we have to distinguish from each other by the help of these sensations, or is the sensation of tension to be related to the absolute quantity, perhaps to the level of the charge, while the pleasure-pain series refers to the changes in the quantity of charge in the unit of time? We must also be struck with the fact that the life-instincts have much more to do with our inner perception, since they make their appearance as disturbers of the peace, and continually bring along with them states of tension the resolution of which is experienced as pleasure; while the death-instincts, on the other hand, seem to fulfil their function unostentatiously. The pleasure-principle seems directly to subserve the death-instincts; it keeps guard, of course, also over the external stimuli, which are regarded as dangers by both kinds of instincts, but in particular over the inner increases in stimulation which have for their aim the complication of the task of living. At this point innumerable other questions arise to which no answer can yet be given. We must be patient and wait for other means and opportunities for investigation. We must hold ourselves too in readiness to abandon the path we have followed for a time, if it should seem to lead to no good result. Only such 'true believers' as expect from

science a substitute for the creed they have relinquished will take it amiss if the investigator develops his views further or even transforms them.

For the rest we may find consolation in the words of a poet for the slow rate of progress in scientific knowledge:

Whither we cannot fly, we must go limping.
The Scripture saith that limping is no sin.[38]