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SEX AND THE SENSES

BY

JAMES S. VAN TESLAAR (For sale only to Members of the Medical Profession)



BOSTON

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PREFACE

The data and observations which form the basis for this work have been gathered in the course of several years. The actual writing, of course, has taken only a very short time.

The present volume is part of a work given over to a subject of universal importance. I have dwelt at such great length upon autoerotism, as the practice or habit of masturbation may be properly called, for the reason that it is one of the most obscure as well as one of the most significant and characteristic manifestations of mental life. Perhaps no other habit, apparently ingrained and so widespread, is so badly misunderstood even by those who take a professional interest in it. On account of the universal ignorance regarding its significance, this habit, like all others which result from undirected erotic trends, is the center of endless difficulties and gives rise to numerous personal problems of an intimate and very troublesome character.

We hear on all sides warnings against the evil consequences of the misunderstanding of the facts of sex. There is perceptible in our midst a growing movement for enlightenment on the subject. But for the most part popular knowledge is as yet very unsatisfactory. The information currently exploited is still largely a heritage of that pre-scientific, dogmatic attitude which has generated the

well known and futile system of a priori moral precepts regarding sexual physiology and hygiene,—mostly of a bundle of taboos symptomatic of prejudice and fear.

Fortunately we are also witnessing at the present the development of a true science of sex having its roots in biology and genetic psychology. Already the descriptive method is being replaced by this newer method of approach which promises to yield, at last, a satisfactory and helpful understanding of the facts of human sexuality.

The plan for the present work has been incubating in my mind for a long time. But it would have been useless to attempt to do justice to the subject before familiarizing myself with, and testing out for myself, the technique of the genetic method of approach. It is the application of this method to the interpretation of mental problems and to the analysis of man's psychic endowments that we owe to Freud, Stekel and the other pioneers of the new psychology. The work of Havelock Ellis, Moll, Liepmann, Loewenfeld and the other leading sexologists, of course, has also been indispensable.

Sex and the Senses is one of a series of similar studies on related topics which will be issued at intervals depending on the pressure from other work as well as on the measure of interest these studies may rouse among those who, as physicians or educators, are professionally concerned with the subject.

JAMES S. VAN TESLAAR

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PART I

SEX AND THE SENSES

CHAPTER I

Every sentient being dwells in a world made up of external reality and of its own sensations. Much of the complexity of human existence is due to this double aspect of life.

We perceive the external world in which we dwell and have our physical being in the first place through the instrumentality of our senses. Touch is the sense which yields the earliest information concerning the realm of existence which-extends beyond the sentient body. It is the sense which stands at the bottom of the scale of animal existence.

In its biologic aspects life is a matter of nutrition and reproduction. Both functions depend on the capacity of the living organism to react to excitations from the outside. The special senses mediate these functions. Reaction to contact, or touch, is the first of the special senses to make its appearance upon the animal scale of sentient existence. The sensitiveness of plant life is chiefly chemical; that of animal life, while losing none of the chemical fea-

tures, assumes more and more definitely the peculiarities which we associate with sentient life as a process in nature.

One of the striking characteristics of touch is its protean character. It merges into and becomes practically continuous with general sensibility upon which depends locomotion, or the ability of sentient beings to change position in space. Sensibility, of course, is the alpha of animal response to excitations or external stimuli. While it cannot be denied that some forms of vegetal life manifest this capacity in elementary form, for practical purposes it may be said that animal life, as distinguished from vegetal, begins with general sensibility and locomotion.

The touch sense is widely distributed. The outer layer of the simplest animal forms which consist merely of a lump of living protoplasm already manifests sharp sensitiveness on contact with external objects. The very capacity of these simple living forms to nourish themselves and to avoid danger depends almost wholly upon this sensitiveness. In quasi-technical terms, the outermost layer of protoplasm, the slightly thickened covering of all unicellular organisms, is specially sensitive to external stimuli. That is perhaps the first adumbration of the process called "differentiation of function" which leads eventually to the permanent establishment of bodily parts or organs as carriers of specific functions. But the functionally undifferentiated

mass of living protoplasm, the amœba proteus, for instance, carries on the primal functions characteristic of living bodies as a unit of which every particle is equally adapted to these primal functions. The amœba is a unicellular organism unendowed with an external layer specially sensitive to external stimuli. Its internal mass is equally sensitive and there is no "differentiation" of vital functions. Indeed, as it changes position in space this little speck of living protoplasm extends from within its mass a prolongation and with this, or with several such as a sort of fulcrum, it carries its whole mass forward. Thus internal portions of its mass become external, and reversely, in turn. Eventually every particle of its bodily mass comes into contact with the external world and exhibits the same sensitiveness to contact.

The important point for us to consider is that at this lowermost level of sentient existence response to contact is diffused throughout the living mass: touch, the first adumbration of psychic life, becomes practically identical with the innermost essence of life. Reality, sentient existence, being alive, means many things to us. At the bottom of the scale of life it means, viewed from one aspect, the capacity to respond to stimuli and that in turn, stripped of details, means sensitiveness to contact. Abolition of this sensitiveness means the cessation of individual existence. We shall see later the bearing of this

psychobiotic fact upon the natural history of human instincts and emotions.

But in order to make clear the general statements which follow I must point out that touch retains throughout the animal scale, including the human species, all the qualities and values which it bears from the beginning as the most fundamental characteristics of sentient existence.

Inasmuch as the important consequences of this simple fact may not be easily grasped by those who are unfamiliar with the recent advances in the biological sciences and particularly with the genetic standpoint in psychology it seems desirable to explain at the outset that the persistence of the primordial characteristics of touch is part of the general tendency in virtue of which all primal endowments and instincts persist and endeavor to perpetuate themselves. This basic tendency to persevere has been largely overlooked until recently; at any rate it is scarcely mentioned in some works on general biology and not at all in the textbooks on psychology. On the other hand, there has been such a tremendous emphasis given to the facts which display the obverse tendency to transformism and change that most persons and, I surmise, even some of our weighty teachers of biology and psychology, entertain an erroneous notion regarding the workings of so-called evolution.

Evolution means unfoldment; it implies growth and change. But it is wrong to assume that psychic forms are transformed in the process of evolution as completely as the physical phases through which some species pass in the course of their individual growth. There are points beyond which comparisons between physical and psychic evolution break down. Psychic evolution takes in all the principles observable in the physical realm of growth and unfoldment but with varying degrees of elaboration. the human species, for instance, certain infantile and embryonic organs persist beyond their period of physiologic usefulness, and some of them reappear persistently in spite of the fact that they have lost all significance in the life of the human species; they are mere phyletic vestiges-mute testimony of previous phases of racial history. These incidental and perhaps exceptional occurrences upon the physical realm have their psychic counterpart, but the persistence of old psychic forms is far from exceptional; it is a fundamental rule of psychic evolution. Psychic growth appears to imply no complete transformation of old into new forms. The transformation is always partial; always something of the old form persists. No matter how complex and highly developed the newer responses to stimuli may be, the older, archaic, primal forms of response persist; not only do they persist but it is evident also that they tend to regain their aboriginal supremacy over

sentient existence. The newer psychic acquisitions and endowments are not gained wholly at the expense of the old. Viewed in its developmental course, the life urge presents the apparently mystifying peculiarity of the burning bush which consumes not, for in spite of numerous evolutionary transformations it also retains throughout sentient existence, its primal forms of expression.

Moreover, psychic life presents a peculiar capacity to revert, in part or even wholly, to the earlier and archaic forms of expression. It is not physically possible for a frog to turn back into a tadpole but it is a most common occurrence for an adult human being to revert to childish ways of responding to life's requirements. In fact progression forward is psychically not as easy as regression backwards. The downward pull is often stronger than the forward urge. Nor does every change imply evolution. Involution is distressingly common.

Psychobiotic evolution is characterized, among other features, by the regular persistence of all primordia! and archaic forms of reacting to stimuli along with the relatively more recent modifications of behavior. Cultural man retains the chief characteristics of the primal phyletic endowments which his species shares with all other living creatures. There is so much emphasis placed upon the facts of change it is time to give due consideration to the

truth that basically human nature remains the same in spite of all cultural history. There is no conclusive evidence that evolution has effected thus far a single significant or permanent change in the nature of man, although as a mere theoretic hypothesis the ground is open for the contention that evolution may possibly be directed in that general sense. For the present all we are justified to conclude positively is that the human species has not evolved away from its aboriginal matrix enough to lose the least of the primordial characteristics of animal life; man's aboriginal reactions and feeling-attitudes have become modified; they have undergone numerous transformations and culture presents human nature as apparently very complex; but back of the manifold differentiations, back of the range of all cultural complexities, which are mostly but "skin deep," man still exhibits the aboriginal life cravings in their raw forms and with all the primordial imperativeness typical of the lower species. If we choose to ignore this fundamental fact it is possible to construct a human psychology very flattering to ourselves and to build upon it fanciful notions regarding man's "uniqueness" in the scheme of nature. The plain and sobering truth, however, is that man is neither very unique nor in any valid sense outside the laws which govern all life. Our kinship to the other living species in nature is but strengthened by this persistence within cultural man of the chief endowments of life in their aboriginal raw form. Therein lies the real touch which makes "the whole world kin."

CHAPTER II

The dermal sense retains even in cultural man every vital feature which it displays at the bottom of the animal scale. It is the most diffuse of the senses. Every portion of the bodily surface is sensitive to contact though particular regions are specially sensitive. The primal touch sense is also differentiated into a number of special sensations. It has undergone important modifications. But throughout all sentient existence touch retains its character of directness and mediacy,—and generates the most intense feeling of "being alive."

Indeed, this quality of directness belongs to all the special senses but to none in such intensive measure as to dermal contact. There are qualities or degrees to the feeling of reality; these depend on the functioning of the special senses; and touch, or contact, is the basis of the strongest sense, of the most intimate feeling of reality. Organisms endowed also with visual, olfactory and auditory senses depend very largely on the testimony of these senses for the general feeling of being alive. But the simple organisms which structurally show no such differentiation of functions, even down to the unicellular

structures, share in some measure this aliveness, and they do so sometimes wholly because they are endowed with the contact sensation. Indeed for such organisms contact response, as already intimated, represents the very essence of being alive. Developmentally the contact sensation is the earliest, the most archaic, the most diffuse; functionally, from the standpoint of biology and psychology alike, touch is the most fundamental of the senses. All the other special senses have developed as modifications of it. Touch, then, or the contact response, is the matrix of psychic existence.

Countless observations from all the spheres of human life show that touch retains its basic characteristics. It is rationally the least intellectual and emotionally the most powerful of the special senses. The caress, the kiss, the embrace, are modifications of contact; the ordinary hand shake is a form of it. The testimony of touch is craved in a thousand ways and in connections distinctly erotic often not thought of consciously or deliberately, as I shall have abundant opportunity of proving in the pages which follow.

Touch is the least intellectual of the senses partly, perhaps chiefly, because it antedates the development of intellectual processes by many aeons. In the developmental history of life on earth, the whole period of intellectual ascendance sinks into insignificance

by comparison with the ages during which touch reigned nearly alone as the arbiter of life. What touch lacks in intellectual shadings it more than makes up in its feeling-value and for the same reason. Sensation, feeling and emotion are so closely linked that popular language still confuses these terms. Response to stimuli is loosely called feeling and the same term is applied to the primal emotions. The free interchange of these terms may be somewhat confusing but it must be admitted that popular usage in this connection has some justification. The view here implied, that feeling states rise out of general sensitiveness,—that the two are practically identical, -is supported by the developmental history of life. At the bottom of the scale we find a diffuse and powerful contact sensitiveness; that comprises practically all there is to the sense of being alive at that level of sentient existence; it is the first faint foreshadowing of psychic life. Through the many developmental phases which unfold life touch remains the only and for a time the chief arbiter of sentient existence. A philosopher reflecting on life may start with the premise cogito ergo sum, I think therefore I am. But the sense of being alive is probably no less suffusing and compelling among the forms of life limited chiefly to contact sensitiveness. has its roots in a realm of vague feeling devoid of selfhood,—as a craving, blind, inchoate, diffuse but gripping and of tremendous sway. That feeling or craving finds its inarticulate, first chaotic expression in dermal sensitiveness.

In the human species the protective rôle of the skin is the one obvious function usually emphasized. Indeed the dermal covering is particularly well adapted to protect the underlying soft organs and delicate structures. The skin is tough, elastic, impervious, durable, resistant to electric currents,—Woods Hutchinson calls it "one of the toughest and most danger-proof substances in the three kingdoms of nature." It regulates the heat of the body and promotes or retards circulation, thus acting like a kind of "skin-heart." As an excretory organ it fulfills a function second in importance only to the kidneys which, embryologically, are a development of it.

The dermal covering is recognized, of course, as the seat of the sense of touch, but formal psychology thus far has failed to take into cognizance properly the rôle which the dermal sense plays in daily life. The genetic viewpoint has been adopted only recently in the study of this and allied psychologic problems; but it has opened up already a wide sphere of knowledge concerning the practical problems of daily life. We are on the threshold of a new science of human behavior.

Functionally, the skin manifests a certain biotic

automatism. Thus, for instance, healthy skin shows signs of life for days after excision. It is not a new discovery that the persistence of vitality varies with different organs and tissues but the legitimate explanation and use of this fact is a recent gain in biology; it has most important psychologic bearings. While from one standpoint the complex living organism is a unit, in one sense, equally strong and valid, the living organism is an aggregate of many interdependent parts. The tendency in biologic sciences until recently has been to overstress the concept of the organism as a unit. We are learning to regard it as a unit whose parts have arisen from one basic living substance at different stages of its developmental history so that the parts and respective organs present, so to speak, the disparity of different ages. The fore-brain, for instance, is a relatively recent organ compared with the spinal cord. The most archaic structure, functionally, is the dermal covering; to it belong all the primal psychic functions of life. The sense of touch is the mother of all other senses. It preserves something of its aboriginal tenseness and vitality. Perhaps none of the subsequent psychic adjustments wholly reproduce the intimate sensitiveness of the dermal function. The contact sense preserves a certain massive fullness which is shared only in a much lesser measure by the other special senses. No other sensation seems so intimate, so real, so close to the very gist and fountain of existence as touch, in spite of its lack of intellectual precision.

Standing closest to the fons et origo of life, touch holds a peculiar sway over sentient existence. It is the first and remains for that reason the most potent testimony of "being alive"; in this sense the saying that "to feel is to be alive" finds genetic corroboration.

The whole craving for life, "the will to live" about which so much is said and written, sums itself up most potently in the contact sense. Touch tends to overshadow, either in its raw form or in some of its endless ramifications, the coexistent cravings generated by the other senses; it intrudes upon the higher intellectual faculties furnishing the ground-pattern for considerable mystical and abstract thinking. Our special senses do not merely supplement each other, they not only contribute to the sum total of excitations and responses which make up the life of the organism; each of them also tends to function quasi-automatically. Perhaps none is capable of holding such complete sway as the contact sense, because touch, as already mentioned, is the most archaic, the most diffuse, and in many ways the most vital expression of the life urge.

CHAPTER III

As the earliest response to stimuli touch sensations are the first to prove pleasurable. The contact sense apprises the simplest organisms of the presence of food. All primitive life revolves around contact; and the sensation of touch remains the most vital arbiter of gratification in all the chief concerns of individual existence. The human species is no exception. Here, too, the skin reflexes appear before birth. The child's earliest feeling attitude towards the mother is doubtless determined first by contact with the breast and by the pleasurable sensation evoked in its lips when placed in contact with the maternal nipple.

All primal functions are endowed with pleasurable sensations. The special senses are not mere "functions"; they also have a distinct pleasure-value.

The senses, therefore, have a double value for the individual. Functionally they subserve certain biotic needs. Psychically they generate at the same time the sensation or feeling of pleasure and gratification. Touch, of course, stands forth as the archaic bearer of all the sense of pleasure of which the lower species and all individuals of higher species during their

earlier periods of development are capable. For the newborn infant contact with the mother's nipple is the source of supreme gratification.

The pleasure-value is distinct from the functional value of sensorial excitation. The individual may be most intensely aware of the pleasure-end and but dimly, if at all, of the functional value of his sensorial experiences. Sexual gratification, to point out the most conspicuous example in biology, is carried on among the lower organisms entirely on account of the pleasurable qualities of the touch excitations involved. Here Schopenhauer's contention that the individual is practically "tricked" by nature into subserving the needs of his species through a premium in the form of individual pleasure is partially true.

The trend of the sensorial excitations to repeat and perpetuate themselves is perceived subjectively as craving. The animal cravings are the aboriginal endowments of life. They owe their intensity to their archaic origin. For numberless aeons, long before any organ of consciousness made its appearance within the animal kingdom the repetitive trend of sensorial excitations,—the cravings,—represented the sum of existence. What all living beings particularly and specifically crave is the pleasure-feeling or the sense of gratification afforded by the functional use of the special senses. The functional value of sensorial excitations is racial-individual; their

pleasure value is individual-racial. By this conjunction of the terms "racial" and "individual" in reverse order in the two instances I mean to indicate that from the standpoint of the individual organism the pleasure value, if anything, takes precedence, while from the standpoint of the species the function is what primarily counts, the pleasure-value being significant only because it is an effective means of insuring the interest of the individual in the respective function.

The infant at the breast feeds, we say, because it is hungry. But the process is not induced in a negative way, merely as a means to overcome the unpleasant sensation of hunger. Feeding is also a source of positive pleasure on account of the contact excitations involved. Food is often craved as an indulgence apart from hunger. Children and even adults do not eat merely when they are hungry. They also eat because things "taste good" and because the act of eating is pleasurable.

The tendency of sensory excitations to function automatically is due to their pleasure value. The excitations are craved on account of the gratification they yield, regardless of their functional value and often in excess of the physiologic needs of the organism. In this sense the individual exploits the racial endowments of his species for his individual gain as pleasure-yielding sources. That is the ob-

verse of the truth pointed out by Schopenhauer. (Every biologic truth, like every other truth, has at least two sides.)

The consummation of sexual union, biologically speaking, has been described as consisting of a special adaptation of the sense of touch. It means contact intensified to the point of highest pleasure summation.

It is not easy to draw distinctions of degree or quality in feelings which have the same origins and which are expressed sensorially in the same manner. The identity of origin and the similarity of somatic expression definitely point to an essential unity, perhaps identity, of feelings or sensations which are sometimes considered distinct from one another. Sexual gratification and nutritional gratification are certainly different in many ways. They are not very different from the standpoint of the ultimate rôle which the respective functions fulfill in the economy of life. For the individual concerned the pleasure-value of the functions of nutrition and reproduction is practically the same; at any rate the two sources of pleasure are closely interdependent; and the pleasure-value of life's fundamental functions is a blind, raw, primal feeling within which no valid distinctions can be drawn. Intellect is either too subtle or not subtle enough for the task. Apparently the primal sense or feeling which moves

sentient existence on the "internal" or "subjective" side is pleasure or gratification. Dysphoria, beginning as a mild degree of unpleasantness, perhaps having one of its roots in a sense of oversatiety, is the obverse of the pleasure principle; it leads up by degrees and manifests various stages of intensity culminating in actual pain. The avoidance of pain, the indulgence in states and excitations capable of yielding pleasure or gratification,—that seems biologically to be the two-faceted mainspring of life.

The only gradation of pleasure known to the lower species is quantitative. Food is good, more food is better and so also with sex. The quantitative summation of the pleasure-value of sensorial functions is nature's means of insuring the interest of the individual in the functions which perpetuate the species. Contact being pleasurable, the pleasure-value of contact raised to the nth degree, as it were, became the most fitting and at one time was the only available means for securing the perpetuation of the species.

Sexual craving is ultimately a craving for union, for that most intense form of excitation of which the contact sense is capable. The craving of hunger is somewhat similar. Nutrition, too, involves an intensification of touch sensations together with various modifications. The pleasure-value of both cravings is practically identical, just as at the bottom of the scale of life the two fundamental functions,

nutrition and reproduction, merge into one another. In certain important respects nutrition and reproduction balance and check each other. This holds true not only in the economy of nature but within the realm of individual existence as well. Metazoa attain sexual ripeness only after the individual has reached a certain stage of physical growth. In the simpler protozoa reproduction is directly complementary to nutrition. The amœba, for instance, to take again the most elementary illustration, grows by absorbing suitable substances from the external world. It depends wholly upon the sensitiveness of its surface for finding the appropriate pabulum. There is, therefore, a certain ratio between its bulk and the square of its surface. When the amœba attains a certain size the surface is no longer adequate to place it in touch with sufficient nutritive material to maintain itself. The disproportion between its surface and the square of its mass is probably one of the inciters which sets into motion the changes leading to a division of the amœba into two masses or lumps of living protoplasm. This division besides reducing the mass approximately one half, increases the total surface area. It is a nutritive or trophic function and at the same time insures the reproduction and perpetuation of the One individual has become two; each daughter amæba throws out its pseudopodia or feelers seeking food with rejuvenated energy. The ratio of surface to bulk is now excessive in the reverse direction. In their turn the daughter cells attain maturity of growth, excessive bulk, and subdivide; the cycle thus endlessly repeats itself. Here nutrition, growth and reproduction, the characteristic functions of life are carried on with wonderful simplicity, so far as the physical and visible aspect of these processes is concerned, and we see how closely they are interdependent.

It may be a far stretch of the imagination to ascribe any pleasurable sense to these most primitive animalcules. It is possible that in the amœba the attraction and choice of special foods is wholly a matter of biochemical affinity,—that the whole cycle of nutrition, growth and reproduction, over and over, is determined entirely by the same chemical laws which govern, for instance, the digestion of food in the metazoa. But somewhere along the scale of animal life, probably long before even a specialized nerve center for the reception of stimuli has become established, the pleasure sense makes its ap-If the vital functions be wholly biopearance. chemical below it, at that level at least they become reinforced by this quality of pleasure for the individual concerned,—a quality which I do not hesitate to consider essentially psychic, the first adumbration of that realm which eventually looms forth in contrast with the external world as "the inner" life.

CHAPTER IV

Great emphasis is laid by writers upon the dermal qualities as inciters to love. I do not refer here to physiologic descriptions but to the place which references to the skin occupy in belles lettres. Novelists and romancers and poets alike have devoted some of their most impassioned flights of imagination to attempts adequately to describe the erotic appeal of a beautiful skin. It is a subject which has taxed the ingenuity of many writers but no one has yet given a description, adequate and comprehensive, of its appealing power. Literature contains mere suggestions and flashes of insight here and there. It is an inexhaustible topic, and even in our oversophisticated, prosaic age it remains a source of inspiration to poet and romancer.

The typical comparisons of skin with velvet, silk, marble and other objects, natural or manufactured, are strikingly inadequate. In short, inspiration fails here; the writers are baffled; they feel unable to do justice to the tremendous erotic appeal of the skin. On few subjects is so clearly felt the force of the truth that "to describe is to limit." What the descriptions of the skin gain in suggestiveness

through comparisons with other objects is more than canceled by what the skin loses by such comparison, no matter how adroit. The whiteness of skin is not that of marble; its color has been described also as of "peaches and cream," but even that comparison, though more effective, fails to evoke the sense of warmth and life, of softness and pliability which touch reveals. In short, every comparison falls short.

This inadequacy of description is partly due to the limitations of language. Words are symbols which are intended to evoke and suggest, specifically even to delineate at times; their descriptive power is very limited. In the case of the skin, attempts at description invariably fail and are likely to prove inadequate particularly when the attempts are intended to express the primordial appeal of the touch sense. The appeal of touch is inexpressible precisely on account of its archaic character. Skillful writers attempting to put in language and to express the feelings generated by the contemplation of an object which awakens the most intimate and primordial emotions limit themselves to evoking and suggesting; they do not attempt comprehensive descriptions.

The sexual embrace represents a special adaptation, an intensification of touch sensations, as already stated; but dermal sensations are capable of

expressing innumerable gradations of feeling. Moreover, all dermal sensations are endowed with erotic qualities. The gist of touch is contact; nutrition requires it, reproduction utilizes it; contact, in fact, is the keystone to both functions. The physiologic craving for contact and its concomitant pleasurevalue has evolved gradually the mechanism of the whole body; in the last analysis it is the foundation of thought and of all the forms of expressivity which we meet in the animal kingdom. All animal forms have evolved in response to the need of gratifying the craving for contact, nutritional and sexual. Indeed, it may be said that the contact hunger, or rather the craving for its gratification, is neither wholly nutritional nor wholly sexual: it is both at once. This craving for contact and union is the expression upon the psychic realm of the essential unity of the life urge. Thus, "hungry for love" is not merely a figure of speech; it has a deep biogenetic foundation; and the reference to sexual propensity as an appetite is more than a coincidence, more than a chance association of ideas.

I have already referred to the primacy of the dermal sensations, their intense reality or "immediacy." These qualities have an important bearing on human nature and specifically on the character of human affections,—particularly love.

Every emotion has its dermal equivalents. Feelings and yearnings when most intense are expressed

preferably in terms suggestive of imageries derived from the realm of touch sensations. Touch sensations, the gradations of feelings which they evoke, and the figurative language which they generate, are capable of expressing every gradation of affection, from formal acquaintanceship to a love yearning so tremendous that no ordinary terms are adequate to express the state of feelings. Persons who dream of love, whether human or divine, often draw upon the nutritional realm for terms with which to express, at least approximately, their consuming desires. They revel in such terms as "fusion with the divine," "getting in tune with the infinite," "oneness," etc. Above all, love is expressed, either figuratively or literally, as a longing for union. That, of course, denotes the genetic background of the feeling in question. Biologically the craving antedates the literal origin of its figurative expression: the subjects express themselves more fittingly than they are aware. In the last analysis all love cravings reverberate physical states and include the physical, even when there is no subjective awareness of this fact.

So deeply ingrained a biologic trait is this craving for union that in the human species, so highly sophisticated, it breaks out in all sorts of connections apparently non-sexual and having little or nothing to do with nutritional needs. But a proper appreciation of the genetic bearing of the more sophisticated forms of human yearnings and feelings shows that these too have their roots in the basic needs of life.

Contact is the preliminary step to that fusion, that union which is the physical and visible expression of the gratification of hunger. Contact, specialized, intensified, is also the quintessence of the physical act of sexual indulgence. The craving for union, for oneness, for identification with this or that ideal, whether corporeal,—a creature of flesh and sinew,—or abstract,—a divinity,—has the same genetic basis.

CHAPTER V

Man is prone to claim allegiance to invisible powers. Writers trained in theologic institutions, professional religionists and others who are unacquainted with genetic psychobiology point to this peculiarity as proof that man is essentially, or, as one writer expressed himself, "incorrigibly," a "religious animal." The inference that man is a religious being may be proper but it cannot be so on the ground indicated above for the reason that man's tendency to revel in phantasies which often,—but not always,—take a religious turn, is explainable on simpler grounds.

Man turns his mind to abstract feeling-objectives broadly speaking, either to cover, consciously or unconsciously, the real objectives of his feelings or else because the real objectives are unattainable, unknown, perhaps awe-inspiring; and here again, their unattainable character may be realized but dimly, subconsciously or not at all. Indulgence in abstract feelings means that a portion of the human cravings find no direct outlet. Man conjures up more or less elaborate fancies for vicariously indulging in the gratification of instinctive cravings.

This is one of the chief psychobiotic functions of man's faculty of fancy-weaving, or day-dreaming. Whenever he indulges in this soaring into the subjective realm of dreams and fancies he is impelled by his instinctive cravings; the phantasies are but a dress, perhaps a mask for his cravings; and when he reverts to earth and attempts to give his dreams a form he is prone to revert to figurative expressions borrowed from the realm of the senses and particularly to those suggested by dwelling, subconsciously or otherwise, upon the pleasurable touch sensations. Mystical dreaming is full of references to union, fusion, oneness and the like. The highest flights of ecstasy of which man is capable place him in a state of blissful self-sufficiency precisely like that suggested by the effortless gratification of the primary functions of living, as, for instance, during the intra-uterine stage of existence. This is a subject to which I shall have occasion to refer at greater length in the course of the present study.

The sense of touch is doubly diffuse: it is distributed over the whole body, although certain dermal regions are specially sensitive, and its massive vagueness, the lack of intellectual qualities stands in strong contrast to its tremendous emotional appeal. Indeed, in the last analysis, nothing seems so real to the living organism as what it can touch and grasp. The testimony of touch is the ultimate wit-

ness of reality. The ascendance of the sense of vision, for instance, in daily life of the human species is but partial and more apparent than real. Not uncommonly we hear that "to sense a thing we must feel it"; the reference here is apparently to the emotional realm in general; but in a strict biologic sense what is meant is the testimony of the dermal sense. The skin viewed genetically is the "mother of all feeling" in the animal world, and from that standpoint "we must feel it" means that to be valid and real to us an experience must be supported by the testimony of the dermal sense. Genetic biology discloses that "I feel" means practically "I sense it dermally"; indeed, before a central nervous system developed in the animal world for the perception and elaboration of stimuli, the skin was the organ through which alone all living organisms "sensed" their environment.

Expressing the matter more boldly, we may say that before the brain appeared the dermal covering fulfilled literally the essential functions of a central nervous system. Embryologically the central nervous system actually develops from a skin fold so that brain and spinal cord represent differentiations of dermal functions. This I regard as the biogenetic background for the fact that in many "dissociated" persons the dermal cravings and sensorial excitations generally function as a sort of secondary psychic center, and the higher mental activities become sub-

servient to it insofar as they are not obliterated. In other words, the pleasure-value of sensorial excitations asserts its primacy once more, thus reproducing a very primordial state which finds its parallel ontogenetically in early infancy; phyletically we must look for the parallel of this condition far back in the "palæontologic" past of the human psyche.

A fairly correct interpretation of many of the complaints which fall from the lips of hypochondriacs and other neurotics is the following: These persons allow their dermal and other sensorial cravings to govern their thinking and feeling. Literally as well as figuratively, their cravings, more or less elaborated, more or less masked, "run away" with their higher brain functions.

The intellectual vagueness of the dermal sensations is due in part to their biologic antiquity. Touch is the oldest endowment of all living organisms. It antedates the rise and development of the brain by many aeons. The dermal stimuli have roused the states of feeling which have governed life long before the feeling-states were accompanied by any cognitive or other intellectual elements. Intellect, contrasted with the pleasure-value of dermal excitations, is an upstart; often it is treated and perceived as a usurper. The natural history of the intellect carries us back only for a short period, while the evolutionary history of the dermal sensations and of their pleasure-value reaches far into

life's very beginnings. Our dermal sense links us to all creation more intimately than any other of our psychic endowments. The sensations and feelings evolved by the activities of the skin represent the paleontologic realm of psychology, the prehistoric phase of the natural history of the mind. Feeling-attitudes of a "touch" character form the pattern-types with which all life's impressions upon the intellectual and higher emotional spheres are unconsciously compared and contrasted.

Biologists have pointed out that although untold ages have passed since man's ancestors have assumed the erect position, the human organism is still but poorly adapted to the sitting or standing postures. Other biologists, taking a broader perspective for a survey of human evolution have concluded that man's lungs constitute organically his "weak spot" because the human species has not yet become thoroughly acclimatized as a dry land inhabitant and man is but a poor and imperfect air-breathing ani-Pulmonary diseases still lead among the causative factors of physical illness and death. The genetic psychologist is similarly justified to conclude that the rise of a brain and particularly of the higher intellectual centers is relatively so recent that man is as yet but ill adapted to his new cortical centers. The disharmonies between brain and the behavior which was customary before the advent of the higher cortical centers are responsible for most of the disharmonies in our social and individual life.

Some persons propose to solve the disharmony by an overvaluation of the brain, and particularly of the intellectual functions, at the expense of the instincts. But the instincts are not an ephemeral growth; they are the root and foundation of life; they may be partly refined or sublimated and "intellectualized" but suppressed altogether they cannot be. Persons who attempt to deny the instincts only find themselves sooner or later the more deeply enmeshed in them. Most processes of "intellectualization" carried out without a correct understanding of the genetic aspect of the task prove ineffective and often downright harmful.

CHAPTER VI

The gastro-intestinal tract is also lined with a highly sensitive covering, the mucous membrane. The psychic accompaniments of the activities of the nutritive tract are obscure in the extreme; but, as in the case of the dermal sensations, the intellectual vagueness of the nutritive sensorium stands in extreme contrast to its massive feeling-value throughout the animal world. If what the skin touches on the outside is extremely real to the living organism how much more so that which the inner, specialized skin fold, the mucous membrane, hugs close and proceeds to incorporate as pabulum, or food, into the body proper. In a sense the external covering outside but serves the lining within. The skin is the "rudimentary brain" which links the lower forms of animal life with their environment; the mucous membrane lining the nutritive tract, when the latter evolves and makes its appearance forms the rudimentary world of inner sensation. The archeology of the psyche reaches back over aeons and spreads over these two regions. The "feelings" generated by skin and mucous membrane constituted the world of psychic reality for the living forms throughout the

long ages before specialized nerve centers made their appearance in the animal world.

Among the mammals, during the intra-uterine existence the nutritive pabulum is absorbed directly from the maternal body through the circulation. All life begins with parasitism and no living form ever fully abandons its parasitic character, although it is quite possible that man's evolutionary course makes for a decrease of parasitism. state of passive absorption of food generates its own psychic accompaniment and pleasure-value. A certain rudiment of psychic activity, a feeling at least, of well-being, no matter how inchoate it may be from the standpoint of intellect, cannot be denied to the fetus in utero. The infant is devoid of any intellectual or cognitive faculties but emotionally it must have a tremendous sense of "aliveness" from the first. Between the infant and its environment there can exist, at first, no break of continuity. The world, so far as the infant is in contact with it, is its oyster. That is the essence of parasitism. What is good is good to eat. There is no other pleasurevalue possible in parasitism. In other words, for the infantile rudimentary psyche only that exists which is capable of contributing to its euphoria, and enhance its state of well-being, of satiety. From the standpoint of parasitic existence (of which predatory existence, later, is an outgrowth) there can be no "sense" and no valid "reality" to anything else.

What we, in our intellectualized perceptions, call the world of reality as distinguished from the inner subjective world, the infant, like all other lower or primitive forms of life must perceive as a continuum. as a more or less harmonious, perfect whole. The whole of existence is for it one continuum. So long as the nutritional processes keep up their parasitary course, there is no break in the continuity and oneness of the infant's world. At birth unpleasant or novel sensations, such as the onrush of the cool air upon its dermal surface and the inrush of air into the lungs causing them to expand and setting the pulmonary and automatic circulatory functions into action, generate the first infantile reaction, usually an outcry or a series of outcries, having, of course, nothing to do directly with nutrition.

The child's first outcry at birth has been a subject of considerable speculation. Some observers believe it is possible to detect in that outcry a note of protest, of anger, or resentment against the disturbance of its customary intra-uterine existence. Undoubtedly the act of birth constitutes a serious trauma, not without its psychic connotations.

The infant continues to live as if it still were in its intra-uterine world for some time after birth. It is covered with warm blankets, placed in a darkened room and the conditions of its prenatal existence are reproduced by the careful nurse and attendants as closely as possible. The trauma of birth over,

the newly born infant falls back into its customary state of catalepsy or sleep. Its first cry of hunger brings it in contact with the mother's warm breast; the infant's lips inaugurate their nutritional function. A new life has begun of which the infant is unaware and of which he continues to be ignorant. The infant carries into extra-uterine life its prenatal psychic attitude,—if we may thus designate the primordial, inchoate, massive intra-uterine feeling-state. The latter constitutes the pattern-type after which the infant regulates little by little its new life.

That persistence of the intra-uterine pattern-type of feeling during extra-uterine life is typical of a series of similar overlappings in later life. The child similarly preserves its infantile ways and carries along into post-adolescent adulthood its childish feeling-states; old age continues also to show strong traces of all previous stages if it does not revert wholly to them. This coexistence of various levels or phases of psychic states is one of the most important facts of life. The discovery of this truth, first formulated by Sigmund Freud in a practical form, constitutes one of the most important steps in the advancement of our knowledge concerning human nature. When its import is fully appreciated it will rank as one of the most brilliant discoveries of science.

The child at the breast still lives nutritionally a quasi-parasitic existence. But through the act of suckling, it at least participates actively in the process of nourishing itself while during the intrauterine life the nutritive processes carried themselves on without any active participation. The change from the passive to the quasi-active phase of nutrition constitutes perhaps the most important and most striking difference between the two phases of existence and the first psychic alterations induced in the infant's feeling-state must be ascribed to this change and its immediate consequences. So long as nutrition carries itself out through the blood stream, automatically, so long as the infant is confined within the womb,—there exists no break between nutritional need and gratification. The fœtal organism is engaged continuously in absorbing from the mother's blood stream the elements it needs for its growth. The corresponding psychic state, though rudimentary and most vague, must be one of uninterrupted euphoria, in adult terms, an "all-is-well" feeling.

This feeling-state is interrupted after birth with the first perception of hunger. A measurable interval, or break, intervenes between the rise of the dysphoric feeling of hunger and its gratification at the breast or with the nursing bottle. This break, this gap, induces the first dysphoric feeling-note and threatens to break up the infantile paradisiac existence. The infant's hunger cry is at the same time a note of protest, a challenge, resentment against the dreadful unknown, unknowable something, that threatens to break up the perfect sphere of its existence. Thus when reality first dimly begins to break in upon the infantile feeling-state it is met with aversion and resentment because it ushers in a dysphoric note,—the unpleasantness and gnawing pain of hunger. Henceforth reality becomes inextricably linked with dysphoria and every unpleasant feeling is referred to the realm beyond, that something unknown and therefore dreadful.

The infant probably grasps the nipple with something of alarm because of the new feeling it experiences; at the breast it finds again its customary gratification, replenishment, satiety, safety, bliss. The infant is again united to the mother. Its own feeling-state is probably one of reintegration, completion rather than union; the "sense" of union comes very much later. At any rate the threatened break in the continuity of the infantile perfect world of existence is the occasion for the infant's first dysphoria and alarm. Reintegration, oneness, becomes its cherished first want, because contact with the mother is its earliest and most pleasurable, satisfying experience.

Certain dermal areas become early endowed with a strong pleasure-value for the infant. These are

the so-called erogenous zones and their enhanced pleasure-value develops at first in connection with the nutritive functions. The lips, naturally, are the first erogenous zone. The dermal parts around the excretory canals also become endowed from the first with tremendous pleasure-value on account of the relief from overdistension associated with the parts. Generally speaking all lines of contact between skin and mucous membrane, i.e., all orifices, are specifically erogenous. Certain habits in infants and children endow other dermal parts with enhanced pleasure-value. Thus various skin areas become centers of particular interest. Eventually any bodily organ or region may thus be the seat and source of erotic cravings.

The specialized, intensified pleasure-value of the various erogenous zones may subside in later life. More often it is preserved either in its raw form or, if that be incompatible with the individual's ethical standards, the pleasure-value is preserved under forms which mask from consciousness the fact that the erogenous cravings of infancy and early childhood are still astir.

The direction taken by the pleasure-value of the various dermal and other erogenous zones determines in large measure the trend of personality and one's feeling-attitude towards life. Healthy growth requires that all sensorial pleasure-value should become restrained within the limits of physiologic use-

fulness. The erogenous zones, so-called, naturally flare up in connection with certain intense experiences of an intimate character. At first standing in the service of nutrition, later in life some of the erogenous zones enhance with their pleasure-value the preparatory stages of sexual gratification. In a sense the preservation and enhancement of the pleasure-value of dermal and other erogenous areas, like nutrition and growth as a whole, are a preparation for sex.

The almost universal overvaluation of the pleasure-value of the erogenous zones during adult life is due in large part to the fact that cultural development does not favor early and normal gratifications of sex. Whenever instinctive cravings are depreciated, emotionally they become more massive; the sexual cravings revert to those erotic excitations and feeling-states which under physiologically normal conditions represent merely the initial stage of gratification. Just as sensorial excitations often stand for an act which is forbidden, depreciated, feared or avoided, so erogenous zones may replace in pleasure-value the sexual organs proper. jection of the facts of sex, no matter on what grounds it may be motivated, implies and eventually leads to a corresponding depreciation of the sexual organs. Persons cannot be ashamed of sex without being ashamed of their sexual parts at the same time. But sex and the organs which represent it are

backed up, so to speak, by the whole phyletic history; ontogenetically the whole body is a preparation for the proper functioning of sex. The pleasure-value which belongs to the function of sex is partially anticipated as fore-pleasure through the erogenous zones. When sexual gratification is depreciated or avoided its pleasure-value remains distributed more or less permanently among the various erogenous zones.

The most intense cravings of sex may find a fairly appropriate expression, vicarious, anticipatory, at times also compensatory, in the pleasure-value of the dermal erogenous zones. Unless normal sexual gratification takes up for its own enhancement and absorbs the pleasure-value generated by the various erogenous zones the latter continue to hold sway.

CHAPTER VII

Incidentally the primacy of the dermal sensations is shown also by the fact that some of the earliest reminiscences sometimes center around touch. Of course, such reminiscences would be even more common but for the fact that tactile memories commingle with others and are easily transposed. Pure tactile memories are relatively rare. But I have secured a number of data showing that they are sometimes very significant; the rôle they play in the emotional life of certain persons cannot be easily overestimated. Undoubtedly tactile memories play a far greater rôle in the life of all persons than may be traced through ordinary remembrances.

A young man, thirty-one years of age, of artistic bend, related among his early memories the following:

The first recollection of myself stands out with the clearness of a sharp engraving in the midst of a background lost in darkness. . . .

I rush into the house; mother holds me with one of her hands. She bends over me and with her other hand under my clothes she feels my skin. She decides that I am not dressed warmly enough to go

out. The touch of her warm, soft hands upon my cool flanks produces a most exquisite thrill!

At the touch of mother's hand I believe I almost swooned with delight. At any rate it remains in my memory as a most exquisite experience; I shall probably never forget it.

It seems I had entered the house to fetch some object which we children wanted to use in our game out-of-doors. But I forgot at once the object of my appearance in the house and most happily submitted to being dressed up in warmer underclothes by mother. I do not recall the precise words she used while she coaxed me to stay; but I know her words sounded divine to my ears and filled me with a sort of solemn awe. My sentiment was one of mixed adoration and love such as only children are capable of feeling and it arose spontaneously, suddenly, overwhelmingly in connection with that rather trivial act of mother's. Trivial though it was, the touch of her hand, symbol of protection and service, upon my cool skin, thrilled me beyond expression.

This was so powerful a feeling that suddenly it occurred to me how much I was dependent on her, how much I needed her,—though this was not so much a deliberate thought as a "feeling" and it presently melted into a bigger sense of love and devotion.

I did not go out all of that day; I hung about mother's apron under the spell of the awe-inspiring sense of dependence on her which had suddenly arisen within me, looking mutely up to her thoughtful face as she went about the rooms and kitchen doing her chores.

It was perhaps the first time that I had perceived

a sense of a different personality to mother,—sensed that she was a being apart from me, yet some one on whom I was dependent. The condition was not anything new or novel, of course, but when I awoke to an awareness of it, this fact struck me with the suddenness of a revelation.

Regarding the age at which this occurrence took place the young man states:

My own impression is that I must have been under four. . . . Can that be possible? I am unable to trace the date of the occurrence except indirectly. I remember, for instance, the house where we lived, though I recall little or nothing about the house and only one other incident connected with it. This incident looms up in my memory as the next earliest childhood episode which I am able to recall. It is of significance partly because it corroborates the earlier episode emotionally and partly because it enables me to trace the date of the latter at least approximately. . . .

Almost diagonally across from the road where we lived there was a small empty house; we were going to move into that. One morning mother went there with broom and mop to clean the place. We children, of course, tagged along. We tried to help and started to clean a big old-fashioned brick oven. I must have touched some red pepper seeds which had been left on the oven . . . presently I began gasping for breath and stamping the floor in alarm. Mother came to my aid. I was unable to utter a word, nor did I know what had happened. I could not breathe. The other children stood around

scared, either shouting or weeping, which only increased my alarm. Mother took me in her arms, rushed with me across the street to our home and splashed water over my face. I also recall that I kept up my complaints long after I felt complete relief so as to keep mother close by me and to be held in her arms. . . .

Mother and the other members of my family remember when we moved over to that other house. I was exactly four years of age at the time. The incident previously mentioned took place some time before that. I conclude, therefore, that I was not quite four years of age. . . .

Touch sensations are capable of expressing nearly the whole gamut of feelings. A slight touch contact is enough to evoke deep reverberations. Often the thought of contact alone is enough to stir the deepest emotions. The extreme emotional value of touch sensitiveness is explainable in part through the fact that the lightest excitations are enough to arouse associations of the most intimate character. In the psychic realm the lesser often stands for the greater and the part for the whole.

A young woman relates:

I have always been not only very ticklish but extremely sensitive to touch. As a young girl when I shook hands with a boy or man, the impression of the hand determined whether I should like his acquaintance or not. The cold and clammy hand of elderly people I found most detestable. I disliked immensely an uncle. He had a glass eye; that made

him hideous to me. But the thing for which I disliked him most was his wrinkled face. The wrinkles were not due to age. His skin was peculiar; it had the appearance of curled up parchment and was mottled all over his face and neck. I had nightmares about that.

Handling silks and satins was my chief delight. Father knew it; and once when I had tonsillitis and was cross with him over some trifle, he brought home an armful of silk goods, enough for a number of dresses. I made up with him quickly enough.

I grew into that perhaps through my early love of pets. . . . Cats were my specialty. I loved to stroke their fur; nothing so pleased me as a small child. I gathered all the little kittens in our neighborhood, fed them and brushed them clean. At night they would disappear. Father put them out of the way; but was careful not to let me see him do it. To this day I bury my face in fur and love to stroke it; and touching silks gives me almost the same feeling of most exquisite delight I had as a child.

A French writer has defined love cynically as "l'échange de deux phantasies, et le contact de deux épidermes." This statement is partially true. Dermal sensations are capable of expressing not only love itself but every degree of emotion leading up to it. The attitude of many persons towards the minor sensory excitations of skin is often determined not by the trivial character of the dermal sensations in question but by something greater that the latter stand for. The dammed-up feelings which in their

backwash endow the sensorial excitations with increased pleasure-value are usually derived from the sexual sphere. The reasons for that are obvious. Sensorial excitations become the jargon through which more vital cravings express themselves. Novelists and short-story writers have skillfully drawn out the voluptuous connotations of even ordinary tactile contacts; and this fact has also been recognized by the medieval church.

Many persons are averse to the intimacy of touch. This is so strong a characteristic and the sexual connotations of this aversion are so obvious that William James, for instance, has been led to infer the presence of a distinct antisexual instinct which he explains further as consisting of "the actual repulsiveness to us of the idea of immediate contact with most of the persons we meet, especially those of our own sex." This is a hasty conclusion on the part of the famous American psychologist and upon closer analysis it proves untenable. The repulsiveness of the idea of immediate contact, especially with persons of our own sex, cannot be taken as proof of an antisexual instinct, any more than the even greater repulsiveness of the idea of incest cancels the fact of sexuality. Aversion and repulsiveness are very largely defensive measures with which the individual often instinctively surrounds himself against the possibility of temptation. We see this clearly, for instance, in the case of the many persons of both sexes whose reactions against the intimacy of touch involved in ordinary relations is morbid either in the direction of excess or morbid in the sense that the contact necessary during ordinary social intercourse, as in the formal handshake, is unduly unpleasant and even painful.

I am acquainted with a man, forty-two years of age, occupying an important position as an official in his native town, who regarded the habit of handshaking as lascivious, a relic of days when "folks were more forward than they should be." This man has endeavored on several occasions to start a campaign for the abolition of the custom. However, he was careful to justify his attitude on the ground that, like kissing, the habit was unhygienic and dangerous to health. After submitting to a course of psychoanalysis this man lost his aversion to handshaking as well as various other compulsive ideas and mannerisms. Probably no agitation for the abolition of handshaking could enlist his interest.

CHAPTER VIII

As I have already pointed out, the first striking feature about touch as a sensation is its primordial character. The sensation invoked by contact of the surface of the living organism with another body is the most archaic. Upon the lowest animal scale this contact determines the choice of food, and the avoidance of danger. It serves also as the initial process in sexual union. Near the bottom of the scale of life sexual union and the contact involved appear to be a nutritional response. Thus at one stage of life food-and-sex-urge are very nearly one process; in both cases the response of the organism depends on contact.

This primordial character of immediacy is a quality which the touch sense preserves throughout the animal scale. For man, touch, genetically, is the earliest source of pleasure; as an infant man is largely governed by it. Touch is the first sense aroused after birth. In fact it is commonly understood that the infantile skin is capable of responding to touch stimuli before birth. During the intrauterine existence the infantile brain is already the recipient of sensorial stimuli through the skin. On

the whole these impressions must be pleasurable in quality. This inference is justified when we consider how well the growing fœtus is protected during its parasitic existence within the womb and how completely its nutritional needs are automatically satisfied during that stage.

The touch sense becomes early specialized around particular areas of skin and mucous membrane. First the pleasurable sensitiveness of the infant's lips is enhanced by contact with the mother's nipple. The lips become an erogenous zone chiefly concerned with nutrition. But the pleasurable sense with which they thus become endowed is later placed at the service of sex. Nutrition and sex, the two levers which govern all manifestations of life on the lower plane, preserve their intimate relationship throughout life.

The whole skin is sensitive to touch, though its parts are sensitive in varying degrees. The infant at first naturally associates its own dermal sensations with the presence of the mother. It is she or the nurse who in handling and feeding his body, generates all the pleasurable feelings of which the infant is capable. The infantile qualities imparted to the sense of touch by the early impressions and experiences are never wholly lost. Though we grow into manhood or womanhood, through our skin sensations (and in other ways) it is possible for us to project ourselves back to our own infantile state of

pleasurable existence, under many conditions. Our dermal sense enters into the texture of mind and personality in ways which are not obvious to the superficial observer. If we should trace the deepest layers of our impressions of the physical world, and if we would follow the most subtle ramifications of our metaphysical sense of reality, back of both extremes, we should find reverberations of the dermal sense. The world truly exists for us not because we think but because we feel. Thought, after all, is impersonal. Feeling, on the contrary, is perceived as specifically individual. The poet, the writer and the philosopher aim to make us feel the sense of reality as they experience it. The neurotic, too, describes his numerous complaints in great detail; but, lacking self-confidence, he is not satisfied that he has made us see the things as he feels them; partly because he perceives his feelings to be individual and exclusive he doubts the possibility of transferring a knowledge of them to another mind. Things may be described, you may think about another's feelings, but the question is: can another's feelings become intimately yours? Most neurotics and many creative writers are obsessed with scepti-They fear that they cannot fully express themselves. And in truth the best often remains unsaid because it cannot be adequately expressed.

What suggests this ominous sense of the inadequacy of expression? The answer to this question has to do with the archaic character of our senses and with the important rôle touch plays in the early stages of our individual existence.

The dermal sense is the mother of all other senses. It forms the earliest substratum of mental life in the animal world. The earliest pleasurable impressions, the most archaic memories, the rudiments of all mental life consist of data furnished by the skin. Since contact of external objects with the dermal surface is the first sense to awaken the feeling of self as a physical entity apart from nature, we owe to the dermal sensations the earliest adumbration of the feeling of a separate physical selfhood or entity. The feelings, first of identity with all existence, then of a break or separation between self and non-self as two aspects of existence, arise near the beginnings of our individual existence, repeating, in condensed form, the similar stages of expression through which the human race has passed in the course of its evolutionary history.

On account of the lesser complexity of their mental mechanism, the lower species undoubtedly preserve a more direct sense of reality. The external world is, so to speak, more massive to the animals of the lower species. In that respect infants and children resemble them. Like the lower animals, the human infant carries on its mental processes and its activities or reactions on a fairly straight

level. There is little or no masking between activity and the immediate promptings of the instincts. The typical adult is different in that respect, although man, too, preserves in some measure the mental peculiarities characteristic of some of his earlier or infantile phases of life. Between the expression of man's instinctive cravings and his subjective awareness of them, there has been developed also a vast symbolism in the course of man's cultural history. Among other things culture involves indirectness. It is a trite observation that language is used sometimes as a means of disguising rather than for disclosing the true nature of one's inner promptings. Man is often unwilling to acknowledge even to himself some of the obvious trends of his nature. He is generally anxious to hide from others a goodly portion of himself. Man's unconscious is the reservoir for many suppressed tendencies and masked, untamed cravings.

The mention of suppression recalls man's sexual life. Erotic experiences antedating sexual maturity are the earliest to become suppressed from memory.

Under the influence of civilization the human race apparently has evolved from the phase of life permitting unrestricted indulgence in erotic excitations primarily for the sake of the resulting gratification. The instincts are partly gratified under "refined" forms and partly sublimated into socially useful purposes.

Nevertheless, it would be an error to conclude that civilization thus far has changed in any essential particular the basic nature of man. Civilization does not abolish the instincts which man shares in common with all living creatures, nor the cravings to which they give rise; culture alters merely their mode of expression and the manner of gratifying them. Far from abolishing or substantially modifying any instinct, civilization sharpens and reinforces the most essential cravings of animal life. A number of these cravings have become detached from the primary instincts to which they pertain in the first place and have acquired a quasi-autonomous function under our social system. This subject will be considered more fully in another volume in connection with a study of the aberrations of the sexual instinct upon the social and economic sphere.

Dermal sensations, whether in the service of nutrition or sex, are capable of pleasurable summations out of all proportion to the size of the original stimuli. The sight of a beautiful, clear skin is always pleasurable, probably because of the suggestion it rouses of pleasurable possibilities of contact.

We admire irresistibly a skin that is clean, fresh and presents the glow of health. There is apparently no self-seeking in the contemplation of such a skin. But the exact nature of the feelings roused by the contemplation of a beautiful skin depends on many particular circumstances.

An attractive skin, according to the testimony of many answers to a questionnaire on the subject, involves the idea of girlish innocence. A woman's face cannot be conceived as beautiful, no matter how regular the features may be, unless the skin be clear and preferably without a blemish. On the other hand, the statement comes from many others that nothing presents so beautiful a sight in the whole realm of nature as a woman's skin in the glow of good health, and that nothing is so exquisite as the touch of such a skin.

The testimony of novelists and poets is certainly corroborative on this point. They lavish their highest praise upon the skin and turn to the theme again and again. But in contrast to the abundance of literary references and the exalted descriptions of its beauty we note a remarkable poverty of adjectives and qualifying terms. The skin has been compared, respectively, to marble, snow, alabaster, milk, cream, ivory, silk, velvet, and other substances from all the three kingdoms of nature. But the writers themselves indicate that comparisons fail to convey an adequate idea of the attractiveness of the skin. This living structure is unique in nature and endowed with limitless affective connotations.

Novelists and poets are baffled when they attempt to describe the wonders and beauty of skin. The state of feelings generated by the contemplation or touch of a beautiful skin is well known; but it remains yet to be explained or even satisfactorily described.

The apparent inadequacy of language to express the lure of skin is due to the fact that dermal stimuli and the pleasurable sensations to which they give rise, belong to a phase of life antedating the realm of ordinary speech. Dermal sensation and its psychology belong properly to the palæontologic fringe of the mind. These themes we have already briefly reviewed.

The contemplation of an attractive skin and intimate contact rouses an appeal archaic and inexpressible, because of the primordial character of the sensation. Moreover, the instinct to which a simple act of touch refers itself automatically under certain circumstances, as will be explained later, is deep and irresistible.

Lovers seek to keep within each other's sight and during enforced absences think and dream most ardently of reunion. But a meeting of lovers is satisfactory only when the sense of contact is also brought into play. The caress, the handshake and the kiss stand in the service of affection, friendship and love.

The skin is not merely a passive recipient; touch also provokes feeling. Dreams of love often revolve very largely around touch. The love embrace is typical of union.

Let us scrutinize a little more closely the meaning

of these universal facts in the light of comparative biology and psychology.

Why does love require the presence of the beloved person? Why is absence painful? Why is mere presence of the beloved person not enough? Why does the contact sensation come into play even in maternal love, platonic friendship and other states of feeling not obviously sexual?

The longing for a beloved person is a mixed craving. It involves more than the anticipated gratification of the visual sense for, as mentioned, the longing is not gratified by the mere presence of the beloved person. This suggests the inference that touch comes nearer the aim of which the longing is a manifestation. Vision serves; but touch answers more fittingly the cryptic yearnings of affection and love.

This state of things may be expressed either in physico-psychic or psycho-physical terms. In either case we arrive but at an approximation, a parallel, for this realm of feeling antedates the precisions and delineations of language. As near as we can express the state we say that the lover longing for the most intimate union with the beloved is harking back to a primordial state of feeling; he is really longing for that measure of gratification which is experienced during the stage of development when there is no psychic break in the continuity of pleasurable sense and its source. Clearly this is the in-

fantile stage of existence. Love reawakens the desire for that oneness which is lost when the physical self becomes delineated from the external world and we acquire the sense of an internal world of our own. The craved union with a beloved person or ideal may be thought of in terms of "spirituality"; but the physical sense is the basis of that longing; without the latter the dream of union remains incomplete and the illusion of oneness fails.

The desire for oneness, the wish to melt one's identity with that of the beloved person or with some symbolic ideal is based on infantile reminiscence. It harks back to the primitive state,—largely through the archaic jargon of dermal sensation. The testimony of physical contact is craved as a means of enhancing that illusion of oneness, and of restoring thus the aboriginal feeling of continuity wherein the distinction of self and non-self is lost.

This consideration gives us a key for the explanation of many facts pertaining to the rôle of dermal stimuli in love and sex.

CHAPTER IX

Tenderness is a special quality of affection. The term is derived from the jargon of touch, as is shown by the very origin, form and uses of the word. Tactile impressions react upon the whole personality.

All gradations of affection are represented in touch. The ordinary handshake is a conventional symbol of good will and friendship. At the other extreme, the sexual embrace involves the most exquisite sensations of touch through the excitation of specially sensitized dermal areas. Between these extremes, the sexual and the non-sexual merge imperceptibly into each other. Much that pertains to cutaneous sensation and is inexplicable on the surface becomes clear the moment we look for the sexual connotations. A greater knowledge of the sexual connotations of dermal sensations will disclose the meaning of many obscure and curious aspects of human nature.

Indeed touch symbolism looms up in most unexpected connections. This is a vast subject upon which our information is as yet scant and unsatisfactory; but what little is already known discloses tremendous bearings on practical life, Many investigators regard the sense of touch as occupying first place in the genesis of sexual emotions. The sexual embrace has been called a special adaptation of the sense of touch and the sexual orgasm, a summation of tactile gratification.

Touch means contact; contact involves intimacy. Everything in human speech which implies intimacy suggests also the possibility of sexual interest. To say, for instance, that a man is intimate with a certain woman has come to mean more than the same expression ordinarily implies about the relations of members of the same sex. This is not accidental. The fluidity of language and the wide elasticity in the meaning of words is due to sensory imageries and associations. The whole gamut of affection is played upon and contained in touch. Words expressive of touch are currently used to describe the grossest sexual deeds as well as the loftiest emotions of love, human and divine.

Trivial acts and mannerisms become packed with meaning under particular circumstances. Because touch inevitably approaches the threshold of sexual excitation any form of dermal contact may invoke the latter. A flicker upon the lips, or neck, or ear lobe, rouses erotic feelings in some women. The breasts, of course, are specially sensitive. During an out-of-door game a certain young woman was playfully, perhaps accidentally, touched across the knees by a man whom she admired greatly; this

aroused in her an intense sexual emotion. She discovered afterwards that her knees were specially sensitive in that regard. In the course of analysis there was found a direct relationship between that and her insatiable interest in pictures of actresses displaying bare knees which she always compared with her own. Eventually she evolved a very fanciful theory regarding the relationship of knees to sexual activity. Since giving her account this woman has married.

Another young woman discovered that her ear lobes were most sensitive. She was nearly overcome to the point of losing her self-control once when a young man, to whom she was engaged at the time, playfully pinched her ear. The occurrence overawed her. Her fear that the young man may have guessed what had happened, or perhaps had intentionally roused her, caused the young woman to dislike him and eventually led to the breaking of the engagement. Of course, she had never disclosed to any one the true reason for her mistrust of him. The fact was brought out in the course of the analysis of her psychoneurotic complaints.

The breasts are generally recognized as a strongly erogenous zone in woman. Inquiry reveals that this is not uniformly the case in young women before marriage. The breasts, an emblem of femininity, owe their strong sexual appeal to their symbolic rôle. It is true, however, that after marriage and particu-

larly after childbirth, the breasts develop strong erogenous qualities in many women who were not aware of any sexual feelings in the breasts before that time.

Ordinarily our memory reaches as far back as the fifth or possibly the fourth year. The recall of anything beyond that age is rather rare and uncertain. In many respects the third is one of the most important years of childhood for around that age we begin to be impressed with the requirements of our social environment. Except in rare instances the earliest steps in our adjustment to social life are carried on during a period of which we have no distinct recollection.

We know nothing, of course, of our early dermal impressions. We enter into the life of consciousness Minerva-like,—with our primordial impressions and feeling-attitude all formed. The tactile sensations merge early into and become part of our complex mental content. When we inquire into the origin of skin sensations and endeavor to trace their biologic rôle in man's sexual life we enter a realm beset with difficulties but one of fundamental importance. The recall of memories helps only in part because ordinary memory does not reach back far enough. In fact the recollection of tactile impressions is too diffuse and vague even for the periods covered by ordinary memory. It is an open question whether

tactile memories, or any sensorial impressions persist in pure form.

A few testimonials and some answers which I have received to a questionnaire show that occasionally a cutaneous impression is to be found among the earliest childhood experiences subject to spontaneous recall.

Certain touch contacts between persons have become conventionalized by custom and tradition and on the surface they bear no sexual connotations. The kiss as an ordinary greeting between men and women was very common in antiquity and during early Christianity. It persisted in some countries, as in France, down to the middle of the seventeenth century and later. The conventional kiss on the cheek is still maintained between friends and relatives among some European inhabitants. But that is to be distinguished from the kiss on the mouth which is a custom among lovers only and also between women.

The most typical and widespread conventional form of touch contact is the handshake. But even this slight and wholly formal contact is capable of suggesting or rousing erotic excitement. Some women are very sensitive when shaking hands with some one they admire and men are said to be even more so under similar circumstances. One woman (a widow, thirty-nine years of age) of excellent

training and unimpeachable principles in the conventional sense, confesses having experienced a mortifying excitation under such circumstances. The experience of another woman was similar; during a prolonged handshake with a man for whom she bore the greatest admiration she found herself overcome with emotion and involuntarily she smacked her lips, as in kissing, much to her discomfiture. The man in the case overlooked the incident although she thinks that he must have perceived by her blushing and trembling what happened and for this she was very grateful. But she was always uncomfortable in his presence after that incident.

CHAPTER X

The skin develops from the outer embryonic layer,—the so-called ectoblast. The nervous system consisting of the most highly different ated animal tissue is also of ectoblastic origin. Thus brain and spinal cord owe their origin to the same embryonic skin fold. Genetically the brain, as a portion of the ectoderm, may be said to be, in the last analysis, a portion of skin tissue, highly specialized in structure and placed within a bony vault for complete protection.

This embryologic fact has its psychologic complement. In the unicellular organisms the surface alone receives all the stimuli. Response is determined probably at the point of contact with the stimulus. The protoplasmic covering plays the rôle of a brain and is the earliest rudiment of one. Skin or ectoderm and brain, though far apart in structure and, apparently, in function, have psychically a great deal in common. Their kinship is also shown by many facts other than their common embryonic origin.

Many physical disorders, the exanthemata, for instance, affect the nervous system and the skin at the same time.

Perhaps the most typical example of a disorder attacking both systems, the neural and the dermal, is syphilis.

Briefly, there is an embryologic, a physiologic and a pathologic kinship between brain and skin. The psychologic kinship between the two, though little understood and only partially worked out as yet, is fully as strong and equally significant.

Sensorial impressions derived from the skin furnish the earliest raw material upon which the brain mechanism sets to work. During the earliest period of our individual life the pattern-type of thinking is largely dermal (possibly also kinesthetic, or muscular). Our sense of reality is conditioned in large measure by the physical impact of external nature upon sentient skin. One of the arguments of the Scotch common-sense school of philosophy against the idealistic theory is based on the validity of sensorial impressions, such as skin sensations. "What proof do you demand of the reality of external nature?" the realists argue with those who deny the latter, "would you be satisfied only if the earth pressed against the soles of your feet with greater impact? Or is the touch of your skin against the cool rock or wall not 'real' enough?"

Although touch is the least intellectual of our special senses upon its testimony rests a great deal of our habitual feeling-attitude towards reality. Individuals of weak muscular constitution, with a feeble

dermal sense, and perhaps other deficiencies, or infirmities, probably fail to acquire so keen a sense of the validity of the external world as those who happen to be endowed with stronger sensorial apparatus. Thus reality may not be equally real to all persons. Some aspects of reality are probably not so fresh to any of us during the later stages as it is at first,—during that golden age of childhood and adolescence when we are more thoroughly absorbed in the life of the senses.

There are types of thinking, feeling and doing corresponding to the particular special sense which plays a predominant part in the blend of all senses. The visual type is fairly common and relatively intellectual. At any rate it is a higher type and represents a more effective form of thinking than that which would be represented by the predominance of dermal impressions. Whenever we crave the testimony of touch this is due to a reverberation of the most primitive type of thinking and feeling. Philosophic theories of knowledge are lofty intellectual structures, but weak and unsatisfactory because they are sophistications and incapable of reproducing for us that basic feeling which alone informed us originally of the primary qualities of matter and external reality. Traditional philosophy does not satisfy all seekers after the "ultimate reality.". Many persons feel constrained to construct systems of their own.

I have had opportunities to examine a number of

metaphysical systems formulated by persons living under an irresistible urge to solve the deeper riddles of existence. Many of these formulations by persons unacquainted with the history of philosophic thought compare favorably with the concepts of traditional philosophy. Most of these seekers display a keen desire more particularly to solve the ancient philosophic riddle of "the many and the one," over which many experts have brooded with dubious results. In other words the chief interest of these seekers after "ultimate truth" is to reconcile separate existences with universal harmony,—to restore for themselves the primordial oneness of life's beginnings.

If reasonably pursued this interest constitutes an excellent intellectual exercise. But the problem is still, as it was in the days of Heraclitus, one of the standing philosophic enigmas. The various systems of thought which have been formulated by some of the keenest minds in the history of the race furnish a sufficient variety to satisfy every type of mind. Therefore when some individual without any particular training in philosophy finds himself impelled to spin a new system "out of his inner consciousness" the suspicion is justified that the individual in question is responding to an urge to revert in some manner back to some primitive world-view,—to some stage or other of his infantile past. Philosophic

speculation, mysticism and religious ardor are paths that often lead straight back to one's infantile Weltanschauung.

Regarding this vast subject I limit myself to a few general remarks at this time, as it will be considered fully in another work.

One of the most general impressions which I have gathered through the examination of the loftiest and wordiest metaphysical systems and mythical theories about the Cosmos privately unfolded to me by some of those tender and yearning souls who feel themselves among the "world's stepchildren" is the prevalence of dermal symbolisms. The thinly veiled symbolism of the union of cosmic forces, or of self with Infinity or with ultimate reality is really descriptive of sexual union. When closely examined Cosmic love, union with the Infinite, identification of self with the Great-All and all similar mouth-filling aspirations reduce themselves to fairly defined concrete longings, often of a crassly physical character.

Great emphasis is placed upon emotion in all these symbolic constructions. One should "feel" one's self "in tune with the infinite," etc. Thus the pivotal experience to which reference is made is typically infantile; for the infant, unaware of a break between himself and the universe, is "in tune with the infinite." This feeling is an experience which dates back to the period preceding the division of the

world of reality into self and non-self. Mysticism, far from being a step forward from intellectualism and science, is a plunge back into the cradle, an attempt to crawl back into the mother-womb.

CHAPTER XI

All love symbolism includes touch elements. For that reason any division of love into strictly sexual and non-sexual must remain arbitrary. Love is sensorially conditioned and fostered from one end of the gamut to the other, irrespective of the function it fulfills, the depths to which it may plunge, or the heights it may reach. The texture of love is the same though it serve a variety of purposes according to circumstances. "There are many arts of love," said La Rochefoucauld, "but there is only one love."

The erogenous zones are secondary sexual centers. They are roused to their highest pitch as a preliminary phase of the sexual embrace. Previous to the maturity of sexual organs proper stimulation of the erogenous skin zones is craved merely for the sake of the resulting gratification. Erotic gratification which does not subserve the interests of reproduction becomes an end in itself. The normal process is for sensuous gratification to converge towards the act of reproduction and to find its highest summation in the sexual embrace. Physical and mental health is influenced largely by the character and course of this convergence towards the supreme sexual goal.

The thwarting of the mating instinct, so widely prevalents in civilization, and aggravated by economic conditions as much as by ignorance about sexual matters, leads to a number of disorders. For one thing, the secondary sexual centers of the skin and the erogenous character of other sensory functions become unduly emphasized. Thwarted along its primary channel, the sexual instinct breaks forth through the secondary centers under various disguises. The primary function of the sexual instinct is to insure reproduction. Thwarted in that direction gratification of the instinct proceeds along the customary, infantile, preadolescent channels. The erogenous zones become the bearers of the sexual function. This is the psychobiotic mechanism which underlies many of the so-called perversions of Perversion is merely a particular form of the thwarted or misdirected portion of an instinct. There are numerous social and economic causes which foster the thwarting of the sexual instinct and are directly responsible for mental ill health. But numerous aberrations of instinct are brought about through the operation of subtle peculiarities of our psychophysical constitution which become settled during early life. Of course here, too, the social and economic substratum is not without its influence since our psychophysical constitution is in turn largely a product of environment.

Dermal erotism forms the oldest sensorial sub-

stratum of the mind; the pleasurable sensations derived from the skin are responsible for the earliest mould of the infantile psyche. First the lips in suckling become the seat of the highest gratification known to the infant. Suckling is a muscular activity but touch plays an important rôle. Both lips and tongue are involved. The sensitiveness of the lips is as exquisite in the infant as the corresponding sensitiveness of tongue and fauces, and through the associated movements during feeding this sensitiveness extends downwards over the throat. It is not accidental that this region becomes later more intimately associated with the feeling of self than any other. The classical description by William James of the sense of self as an awareness of throat, head and associated parts is a typical illustration.

The mouth is not the only orifice which becomes early endowed with crotic qualities. The outlet of the gastro-intestinal tract achieves the preferential position of an erogenous zone second in importance only to the inlet. The evacuation of the bowels produces a sense of relief distinctly pleasurable to the infant; associated with this physiologic relief are the pleasurable sensations engendered by nurse and mother handling, cleaning and washing the parts. The anal region becomes a secondary erotic center of highest importance.

All bodily orifices show the same transition of skin and mucous membrane. A process of irradia-

tion eventually endows every orifice or bodily aperture with erogenous qualities. In general the line of contact between skin and mucous membrane, wherever found, is the seat of intense and specialized erotic sensations. The buccal and anal muco-cutaneous areas are the most important, because they are the earliest erogenous zones. The nasal openings attract children's attention much later. Many children show a great deal of interest in the nasal secretions and acquiring the habit of boring with their fingers or sticking beans, buttons, seeds and other objects into the nose. The habit indicates the erotic value of orificial contacts and its irradiation to other than the openings around which the sensorial pleasures are first roused.

CHAPTER XII

The desire of lovers to touch each other recalls that genetically the contact sense is the one which precedes all others. Physical embrace becomes the symbol for the most complete union. During the earlier stages of courtship the touch contact may be ever so light but is enough to produce the deepest emotional reverberations. The falling in love of a young man with a girl whom he has to carry in his arms, or saved from falling, or from drowning, or with whom he otherwise comes into accidental touch-contact is a hackneyed short story theme which continues to find its illustrations in daily life.

Sexual emotion increases dermal sensibility; it rouses sometimes a distinct dermal craving somewhat analogous to the well-known light-hunger, localized in the eye of the newly blind, and may be called skin hunger. And just as ordinary appetite has its vagaries so this new skin hunger manifests itself in a number of ways which are distinctly peculiar.

The skin hunger of sex is but a flaring up of the earlier dermal erotism. It indicates the convergence of the various dermal and other pleasurable excitations towards the adult sexual goal. It arises

whenever the love instinct calls upon all senses for reinforcement.

The more or less deliberate contact through touch under circumstances which make the occurrence appear accidental is a play often staged as a means of rousing pleasurable emotions. A young man brushes his hand, ever so lightly, over a lady's hand, and begs her pardon, explaining it was an accident. The young lady blushes as she acknowledges the ex-Incidentally this triviality has brought them closer; their acquaintance may blossom more rapidly. So far as ordinary awareness is concerned, mannerisms and games leading to accidental or innocent and playful touch contact among persons of both sexes contain nothing erotic; but, although little appears upon the surface, the lightest touch may be full of meaning. A minimum of touch is capable of rousing a maximum of emotion under certain circumstances; the typical emotion aroused in that way is distinctly erotic. It is not too far fetched to state that, from the standpoint of the psychology of its deeper implications, the most trivial touch potentially is not without its sexual connotations. All games between young people involving the sense of touch are highly pleasurable. Often these games are favored precisely because they are cryptic forms of erotic ex-It is during such games that frequently adolescent girls first become aware of the erogenous

quality of some of their facial and other skin areas. Girls in their teens are addicted to the habit of touching each other under the form of caresses. This form of excitation seems a more common secondary sexual irradiation in the female sex than in the male. Boys prefer wrestling, fighting and other vigorous sports which bring into play the musculature, in the male the irradiation of secondary sexual excitation assuming a kinesthetic form. This corresponds to the alleged passive female and active male rôle in sexuality.

The games of children during the preadolescent period as well as some adult games display many forms of contact and dermal excitations which are undoubtedly a rich source of pleasure. Such gratification is not sexual, in the grosser meaning of the term, but that it partakes of the erotic is shown in a number of ways. The special sensitiveness of particular skin areas as manifested during games is later turned into sexual channels. The kissing game, for instance, may be innocent, but the character and significance of the apposition of the kighly erogenous lips between lovers is unmistakable. Children play at strangling or choking one another and devise various other games reproducing many activities and caresses which find their full significance only in connection with courtship and the playfulness preliminary to the sexual embrace. Even the pressure of a hand, as in ordinary greeting, may prove exciting.

A woman of my acquaintance declares that she could never like certain persons after finding their first hand-grip unsatisfactory. Some persons attract her from the very first by the warmth and friendliness of their handshake. She believes that in these matters her sense almost never deceives her; and is always willing to trust to her "hand impressions." At times she has deliberately sought the opportunity to shake hands with some person as the one best means for her to appraise that person's character.

This is a sensitiveness about which much has been said. It does not deserve all the emphasis which some persons, mostly lacking scientific training, are inclined to place upon it. As a test of character the hand-grip has slight value; empirically it may be possible to use it to some extent. No doubt some persons are guided, deliberately as this woman claims to be, or otherwise, by the impression which the handshake makes upon them. But this does not prove that the "test" is reliable.

The handshake involves the contact of palm and fingers between two persons. It registers not only something about another person but something about one's self as well. The so-called "impression" we receive at the moment of shaking hands with some one represents our emotional reaction to that person; the reaction is determined by many vague and

subtle mental factors and its precise emotional tone is determined by the character of numerous remote experiences. And we must bear in mind that in its wide sense, our past experience includes innumerable elementary impressions of which we were unaware at the time of their occurrence but which nevertheless become part and parcel of our emotional make-up and to a great extent govern our subsequent reactions. The first sight of a person may be enough to rouse antagonism or sympathy, even without a handshake. This is not a sixth sense. There is nothing mysterious about it, nothing uncanny or supernatural. First impressions, whether brought on through a handshake or merely visual, denote our inner reaction to an object or person as representative of a type with which we have certain emotional associations. First impressions belong first to the type and subsequently to the individual concerned. Furthermore first impressions register our emotional attitude; but these impressions tell us nothing objective unless our previous experiences have accurately registered in our mind some objective realities. This is rarely the case. Our first impressions may be the result of prejudice. We do not always distinguish between prejudice and knowledge. First impressions, therefore, denote only emotional predispositions; nothing is more untrustworthy as a guide to objective knowledge.

An idealized aspect of the impulse to touch one

another so common among lovers is expressed by a lady in a lengthy communication of which the following is a passage:

"To me touch symbolizes chaste love. I have always been sensitive in this respect. As a small child, when I saw little animals, and even big ones, I was not happy until I was allowed to approach and stroke them. I have once been bitten viciously by a dog whom I approached to caress in that way; in spite of the pain, I still remember, though I must have been a very small girl at the time, that my feelings were hurt more than I minded the pain; but I could not make that clear to my elders. They said, after the worst was over, that if the experience will cure me of the habit of seeking out and petting every stray animal, it will be a good lesson, but it did not. I found the dog that had bitten me (he belonged to a distant farmer) and my sense of triumph was great when bribing him repeatedly with eatables he allowed me at last to caress him.

"During school years it was remarked that I loved to touch pretty things. A strong habit of mine was to test the smoothness of every small object by rubbing its surface lightly under my chin. I have tested in this way every flower in field and garden and every kind of leaf; my recollection of most flowers and many other objects to this day evokes the sensation of the exquisite smoothness peculiar to them.

"When I first learned about sexual matters, I was ten years old. I have tried to recall what my notions were on this subject before that time but I remember nothing. I know I held strong to the conviction that

reproduction in the human race is not the same as among animals in spite of numerous evidence to the contrary which must have come within my range of observations. I still find the truth about this discouraging and degrading. I appreciate that this is an emotional reaction. Intellectually I am able to perceive that the human race is but one of the species of animal life on earth; and I recognize that there is probably no warrant to consider reproduction, any more than digestion, or any other process, different in man than in the lower animals. But in spite of everything I find myself clinging stubbornly to the belief that it is possible to humanize this as well as every other function which stands under human control so that all brutal, raw, animal-like aspects of life should be abolished almost completely if not wholly. And yet what little I have learned about the experiences of some of my married women friends does not justify me to hold any favorable opinion on the prospects of subjugating passion. . . .

"I can conceive, however, the sexual embrace as an intense form of the exquisite delight I have so often experienced even long before adolescence, when caressing objects or persons I loved. It should be possible to love a body as one loves a flower and with the same satisfaction. . . . Do I make an involuntary confession here, and does this make my preadolescent experience precociously sexual?"

The writer of the above excerpt is a college graduate, single, who has furnished me with a number of very interesting records concerning the erotic rôle of touch gathered among her friends, besides a description of her own experiences.

CHAPTER XIII

The kiss is a subject to which I have already made slight reference. The act of kissing involves more than the mere contact of two muco-cutaneous surfaces, because the lips represent the earliest erogenous zone and are most sensitive. The kiss is reinforced by the muscular character of the lips just as its significance is due to their erogenous quality.

The displacement of sexual excitation from the primary sexual area to the erogenous lip zone is often found in so-called sexual frigidity. A woman may respond with passionate kisses and have no desire whatever of going any further, if the convergence of the secondary erotic excitations towards the primary sexual goal is inhibited. In such a case the secondary erotic excitations assume a primary significance although naturally no substitute is capable of gratifying adequately the sexual craving. Thus an affectionate, warm kiss does not necessarily denote a passionate woman as is commonly but erroneously believed. It may indicate a woman in whom the primary sexual goal is blocked so that she is incapable of either enjoying or tolerating the sexual embrace proper.

The kiss is an ancient expression of love. It is not without its parallel among the lower species. The caresses among various insects as carried out by means of their antennæ during the sexual embrace have been compared to the kiss. That may be far fetched; but the billing and cooing of birds during their love season is undoubtedly a form of caress, as is also their nibbling at and preening of each other.

Licking with the tongue or merely touching with the lips as a sign of affection or pleasure is common among most mammals. The human infant instinctively carries to its mouth everything it touches,probably a reaction induced by its nutritional habits. The infant may also lick the people it likes; that is one of the most primitive ways of showing affection since it is found also among the lower animals. Affectionate children have been known to lick the neck, face, hands or any other exposed surface of those whom they wish to caress; in their turn they love to be licked by animals. That this tendency is a reverberation in the human race of an old animal impulse is shown by a great many isolated facts and observations which otherwise remain detached and unexplained. The habit, of course, is widespread among the lower species. Most female mammals lick their newly born offspring and the suckling young. This tongue kiss, as it may be called, undoubtedly generates pleasurable feelings not only in the young but in the nursing mother. She may be prompted to lick her young in the first place by the desire herself to feel the resulting gratification and only incidentally by the desire to bestow a similar pleasure upon her offspring.

Under the stress of strong sexual feeling this remarkable impulse to use the tongue may break forth in human adults, male or female.

The impulse to bite during the sexual embrace belongs to the kinesthetic or muscular category of erotic excitations, but as it also has its cutaneous substratum it may be considered here briefly.

It has been pointed out that during intercourse many animals use their teeth and birds their bill to grasp and steady more firmly the female. But the analogy is feeble. In man the impulse to bite probably breaks forth to enhance the lover's illusion of complete union with the sexual partner and possibly aids in generating the illusion of such a union by bringing into play an additional, highly sensitive surface and set of muscles.

Bites as substitutes for kisses may be observed in the relation between mother and offspring as well as between lovers. Literature, both ancient and modern, contains numerous references to this subject. It has been mentioned by Catullus, Horace, Ovid, Petronius, Propertius, Plautus, Plutarch, and other Roman writers. The Indian Kama Sutra of Vatsyayana, an oriental Classic on the Art of Love, contains a special chapter on the love-bite and the subject is also referred to a number of times in the Arabic *Perfumed Garden*.

In folk-lore the theme is represented by a large variety of stories. One variant of a Slavic story is as follows:

The parents of a beautiful girl found for her a groom in a distant village. The parents on both sides having come to terms the young man was allowed to visit the girl, although this request on his part was most unusual. He declared himself supremely happy with the choice his parents had made for him. During his visit it was noticeable that he rushed out of the room every few minutes under one pretext or another.

He repeated the same strange behavior during the marriage ceremony. His frequent absences from the feast table were noticed by one of the guests, a clever old man who stealthily followed and watched to see what the young man was doing. He saw the young man rush to the cellar, watched him bite a chunk out of one of the wooden kegs, once, twice, three times, and then return to his bride's side.

The guest called the girl's father aside and related what he had seen. Incredulous, the father hid in the cellar to watch for the young man. The chunks of wood bitten out of the kegs were no proof to him. That could have been the work of enemies trying to discredit the young man. In a short time the young man appears and is caught in the act of biting chunks of wood out of the barrels. Confronted by the bride's father, he confesses that he took this means of thwarting the impulse to bite his bride. The irate father declares him too dangerous a lover and announces that he would not entrust his tender daughter to the mercies of such a man.

But the bride is present during the scene, hidden and unobserved. She slipped out of the festival room when she saw her father make his way towards the cellar; for nothing that was going on escaped her keen eye.

While the groom protests that he would be as careful after marriage as he has been during the brief hours of courtship not to hurt his bride the young girl appears and throwing herself into his arms requests him to take her away with him then and there. To her astonished father she explains that she had known all along about the habit having tracked her lover and watched his vicarious love-bites on the occasion of his visits but that she wants him the more on account of the manly strength of his love.

According to another version of the same story the groom carries the bride to his home and she returns later with the side of her face and both lips bitten clear off. Confronted with the evidence of his cruelty the young man confesses that it was the result of an accident. For a number of days and nights he had been running to the cellar whenever the impulse to bite his bride came irresistibly upon him and showed dozens of barrels with hundreds of holes bitten out of them as evidence. Finally one night he delayed too long and bit his bride before he could master himself.

The inclination to bite is more common among women than among men both as an expression of love and of anger. This is also true of children who often bite playfully those whom they love but also bite and scratch viciously when angry. During the first teething period, biting is merely a reflex action induced by the desire to relieve the swollen, hot gingival surface of the uncomfortable feeling of pressure by an act of counter-pressure. But the tendency to show affection by biting is manifested very soon afterwards. The bite finds its fullest expression during offensive-defensive fighting, and at the climax of sexual excitement, especially in women. A slight pressure of the teeth against any part of the body appears to be an intensive form of kissing; but from this the impulse shows all gradations; finally it leads to very painful and even dangerous bites. This aspect of the subject will be considered in another volume, in connection with the study of the impulses to violence in sex, or algolagnia.

Biting, like the kiss, may become a substitute for

the sexual embrace. Instead of becoming concentrated upon its goal the sexual impulse remains diverted in one of its secondary channels, persisting therein with the attenuated power of a thwarted instinct.

CHAPTER XIV

In many parts of the world where kissing is practically unknown among adults small children are kissed by their mother. It would seem, therefore, that the lovers' kiss has developed out of the maternal. The fact that the desire is stronger in the female sex also points to its maternal origin. Even among lovers the kiss serves to evoke the tenderness and primacy of feeling characteristic of the motherand-child relationship. A very observant woman states: "To the woman in love her hero may be everything that is grandiose and noble; but in her eyes he does not cease to be also a child needing the comfort of her warm and generous arms; or else, she is the one to assume the attitude of an infant nestling at the breast of her comforter and craving protection." More often these two fundamental attitudes alternate in the same person; each enhancing the sentiment which binds the sexes.

A woman's kiss may preserve its aboriginal maternal character under the most diverse circumstances. Though the lips that bestow the kiss may be a sweetheart's the heart that prompts that kiss may be essentially a mother's heart. This, of course, is

not an adult type of love; nevertheless, it is a form of tenderness which for obvious reasons is specially craved by some men.

Next to the maternal stands the infantile type of kiss. This is the kiss which manifests that complete sense of dependence upon and trust in the protecting or nourishing adult characteristic of the early stages of childhood. A great deal of this attitude is invoked also by the sexual kiss. The passion displayed in the adult's kiss may belong to the infantile level of emotion. This is nearly always the case during the so-called calf-love stage. The emotion really vacillates between the infantile and the adult type, between the goal-less erotic and the typically sexual.

The infantile element in the love-kiss is also fostered by the predominance of current inhibitions regarding the sexual instinct. The love-kiss of many women is of infantile type because these women have not attained the emotions of adult love; they fear and dread the consequences of yielding to all the demands of the larger, all-inclusive love and cling instead to the forms of erotic gratification to be achieved by caressing, kissing and other means with which they have become familiar during their preadolescent and presexual period of life. The marital experience of such women is necessarily unsatisfactory. They are inclined to blame marriage or their

husbands for their unhappiness. As a matter of fact, ignorance alone and failure to grow up emotionally is responsible for the incompatibility of most marriages which turn out unhappy.

The sacramental kiss was very widespread at one time and it survives in many religious ceremonials; it is undoubtedly of infantile origin. The sacred kiss is a testimony of reverence. Whether found in Ancient Rome, among the primitive Arabians who worshiped their gods with a kiss, or as a fraternal greeting among the early Christians, the sacred kiss symbolizes the same attitude. The holiness of the kiss is a creed which survives among ourselves in that legal procedure which requires the kissing of the Bible in oath taking. The churches preserve the custom in various ways. The images of the gods which were reverently kissed by the ancient Greeks are replaced with relics and images of saints and for these reverence is shown in the same manner. Kissing the foot of the pope and the hands of bishops is also an established religious custom.

The religious kiss does not differ essentially from the vassal's kiss of his suzerain; it is like the same token of reverence and respect for the parent on the part of the child. Next to the mother's kiss of her offspring the infantile kiss of subjection and reverence is the oldest. Like the latter it signifies submission, assent, dependence, even awe; the gradation upwards of the emotion which accompanies the kiss increases its pleasurable effect.

The growth of the child changes the character of its kiss just as the object sought in kissing shifts in time from the broadly erotic to the specifically sexual gratification. In the same way the holy kiss shifts by imperceptible degrees, losing its pristine mystical character. In many a religious person's fancy, at least, the kiss attains a fairly concrete significance. The religious exhortation to love the Savior has been taken in a very literal sense by many saints of both sexes thus rousing in them many of the physical concomitants of sexual love. Extreme instances of this kind have been recognized by the churches. By far the largest number are "borderland" experiences. The transition from spiritual and religious to physical and sexual love is very obvious as may be observed during revivals. A woman physician writes me as follows:

"I have come to the view modern psychologists hold, if I understand you aright, that between the sexual and the religious emotions the path is continuous and there is no break. I am now having under observation a girl who has undergone recently a severe shake-up on account of the breaking up of her engagement. A scandal arose and the young man thought best to leave. For several months after that the young woman lived like a recluse. She kept herself aloof and was mentally unapproachable. Finally she took a spontaneous interest in church

affairs. She came under my care two months ago. In the course of these two months, I have prevailed upon her, gradually and very carefully, of course, to foster and appreciate her religious sentiments so that, through them, she may acquire a better hold on herself. My idea was to turn a blind groping after sublimation into a well-directed purpose. I was not a little surprised to find the girl displaying considerable insight into the erotic character of her religious devotion. She is quite aware that it is a substitute for the affection she lost. She still loves the missing young man and recognizes that her longing for him supplies the norm for her intense religious feelings.

"Her cravings are expressed in quasi-hallucinary form, mostly tactile. She feels the love in her breasts and throat as a tingling, creeping, blissful, unearthly sensation which brings her to the point of swooning. Sometimes this feeling is brought on by pressing the Bible to her bosom; then she 'loses herself,' as she calls it. If she cannot stand the excitement she dashes cold water on her breasts and neck. Her thoughts and reveries pass frequently from holy subjects to the young man, although when this happens she always makes an effort to turn her mind back to her new devotion. She is subject to dreams and day imageries which would be considered grossly sensuous, in the absence of the religious atmosphere.

"I have read of similar experiences in the lives of religious mystics and saints and of course, they are not uncommon during insanity; but this is a borderland case. The young woman is getting well. I am intensely interested in her. The study of her condition has opened my eyes to a number of things.

For one thing, I see the connection between the erotic and the religious emotions in a new light. I now begin to understand why religious mystics felt suffused and physically overcome when contemplating union with Christ. Many of them must have craved literally what they were dreaming about and their craving conjured up tactile and other hallucinations. The Divine touch, apparently, is not an abstraction. The yearning mind may make it very real when the earthly touch disappoints or fails."

CHAPTER XV

The sight and touch of the female breast rouse intense sexual emotion although breast and nipple primarily serve the needs of infantile life. The secondary sexual rôle of this region contains a tinge of its primary nutritional function. The erotic sensitiveness of lips is developed in the first place through contact with the mother's breast. The great inclination during love to caress, touch or kiss the breasts must be recognized in light of their primary biologic function. The breasts symbolize womanhood ideally and physically. They are the source of the earliest known sensorial gratification being functionally an integral part of the infant's mechanism of feeding. The infant takes to the breast instinctively; the lover craves contact with it partly on account of unconscious associations. Contact with the breast reproduces the state of infantile bliss.

During the later stages of pregnancy the breasts automatically prepare themselves to assume their function. The changes which are taking place in the breasts are brought about through the influence of the nervous system as well as through the blood. The alteration in form, structure and appearance of the breasts stand in most intimate connection with the changes in the sexual organs proper.

Even before pregnancy the breasts undergo changes in harmony with the state of development of the sexual organs. The swelling and tenderness of the breasts at puberty are characteristic. A certain amount of tenderness in the breasts is also fairly common in girls at or near the time of menstruation showing a strong association between breast and womb. With the onset of pregnancy the breasts become the seat of active changes which continue throughout the period and become more marked towards the end of pregnancy.

The primary purpose of these changes is to prepare the breasts to receive and nourish the infant. In some women the act of suckling produces voluptuous sensations. Many women find suckling a delicious sensation occasionally shared by the sexual organs proper. The breasts often figure as a substitute for the sexual organs or as a symbol of femininity in folk-lore, myth and daydreaming.

The nipple is a highly sensitive, pseudo-erectile organ. Unlike the clitoris which it suggests and slightly resembles it contains no erectile fibers of its own. Originally mammæ and nipple were developed by the grouping together of a number of glands dif-

ferentiated from among the many sudoriferous glands distributed all over the breast. The first traces of them appear in man about the end of the second month of intra-uterine life.

The first secretion of the mammæ in the human female is not milk but colostrum, a pale watery substance containing a quantity of salts, sugar, butter, caseins and solids.

The mammæ are intimately involved in woman's vita sexualis throughout life, both physically and psychically. The outer form of the breasts as well as their inner structure is the same in both boys and girls, or nearly the same. The changes which make up the characteristics of the female breast begin at or around puberty and from that time the breasts respond sympathetically to most changes and feelings generated in the pelvic organs. The galactophores or mammary glands develop rapidly and the supportive areolar tissue increases in proportion. The glandular elements continue to proliferate in both sexes until the eleventh or twelfth year but without forming true lobules.

The mammary cushion consists chiefly of fat. The gland proper grows from one-half to three-fourths of an inch across and one-sixth of an inch in thickness in the male. But in the female the mammary gland attains an average width of four or five inches and is approximately one-half inch thick. Occa-

sionally a very slight mammary secretion and discharge is found at puberty; this is known to occur even earlier, though rarely.

The attitude towards dermal hairs raises an interesting problem in sexual biology. The impulse to remove the hairs is almost universal yet it has received unsatisfactory explanations thus far. True, the desire for smoothness may be operative; but this is not enough to explain so widespread a peculiarity of adolescence. The tendency to defilation in both sexes bears some relation to the desire to maintain a smooth and pleasing skin.

The loss of hair from the human body is a phyletic process to which corresponds the loss of the lanugo of the fetus. The increased growth of hair at puberty is a partial reversal of the process of natural selection. The sexual significance of this reversal is indicated by the fact that the axillary and pubic regions are the seat of the most abundant growth of hair.

Under the influence of the sexual impulse the postadolescent attitude towards hair becomes bipolar: it amounts to an aversion and a new love at the same time. Young men shave their face, girls pull out their superfluous hairs. At the same time hair becomes also an object of admiration: there arises a new love of coiffure; although alongside that there may be noted in some girls an impulse to cut their braids. The awakening of the sexual impulse generates a new skin consciousness; this centers particularly on the erogenous zones such as breasts, lips, neck, abdomen, etc., as developed during earlier life and eventually shifts over to the sexual organs proper. Adolescence is bubbling over with the desire to touch, stroke, caress, pat, embrace, clasp, kiss and to reassert in every possible way the primordial supremacy of skin sensations.

The habit of picking the skin, so often observed in children, breaks forth anew during the period when sexual consciousness asserts itself. There is a keen desire to remove scabs or pimples and to rub out eruptions amounting at times to a new kind of dermal hypersensitivity. The least roughness becomes intolerable to touch. The scabs of accidental injuries to face or hands are removed again and again before they can perform their healing function so that not infrequently permanent scars are formed. Hangnails, blisters and callosities are torn off or cut, often unskillfully; in short, the least break in the smoothness and continuity of the skin is unbearable.

CHAPTER XVI

The skin has its hygiene, its toilet and its cult. Children are not particularly sensitive; at first the hygienic requirements of the skin must be drilled into young people. But sexual awakening brings about a new dermal consciousness. It is during adolescence that the care of face and hands becomes a cult. Even the dermal appendages, hair and nails, acquire a new interest. The looking-glass is brought into use as an indispensable adjunct to the toilet. No dressing room is conceivable without it.

The pleasure that the adolescent girl begins to take in the care of her complexion reaches deeper than any conscious elements of that feeling. The touch of her own facial skin in rubbing, massaging and applying creams, skin tonics, rouge, astringents and other medicaments sometimes is in itself pleasurable, aside of the benefits, fancied or real, of the practice. Of course, in the background of the young woman's mind, as she attends to her facial toilet, may be only the thought that she is following custom and doing her duty; to appear at her best is the privilege and duty of every woman and she may be unaware of any other consideration. But there is

a strong similarity between the facial toilet, especially when it becomes a cult, and preening among birds, for instance. The custom rests upon a deep biologic background. It is largely governed by the sexual instinct.

The esthetic appeal of the various devices for improving facial complexion obscures from view the fact that often the custom of indulging in these devices is strengthened by the sensory gratification which accompanies facial "treatments." This is also true about the care of the scalp; over and beyond the hygienic requirements the custom of treating hair and scalp with shampoos and tonics is maintained by the erotic impulse to repeat a dermal excitation of childhood days.

Bathing is also a sensory gratification, aside of its hygienic value. The history of warm baths, in particular, forms a most interesting chapter in the history of morals. Bathing establishments attained their highest degree of development probably among the Romans. During the period of Roman decadence the baths were establishments of great luxury. At one stage in the history of Roman society many homes of prominence possessed their private steam baths. The common people frequented public baths. The custom of bathing at these establishments degenerated after a time into all sorts of sexual abuses. Christianity reversed the pagan attitude; to the

adepts of early Christianity, bathing, and skin cleanliness generally, became synonymous with lasciviousness. The Christians of the first centuries considered neglect of the skin a religious duty. During the Middle Ages personal filth became a cult and a virtue.

This dual attitude,—the Roman or pagan cult of the bath and the medieval religious abhorrence of skin cleanliness as identical with lasciviousness—is richly illustrated in the private life of peculiar personalities. On the larger social scale the objections of early Christianity against bathing have been overcome although bathing establishments hardly attain the splendor which characterized these institutions during the period when the social life of pagan Rome was at its zenith. The custom of bathing is as characteristic of modern civilization as the cult of personal filth was characteristic of the Middle Ages.

Cold baths and swimming are prescribed during adolescence as measures for curbing the tendency to self-abuse. Nothing so quickly reduces the engorgement of the sexual organs as a plunge into cold water. At the same time we must recognize all forms of bathing as capable of rousing dermal excitation to a degree of sensuousness but thinly veiled from the erotic excitation proper. The success of the Kneipp and Kuhne hydrotherapeutic methods

and of their numerous modifications rests largely upon the extent to which the dermal sense is roused and stimulated. The efficacy of gymnastics, massage and passive movements of limbs as practiced for therapeutic purposes also reveals a dermo-erotic quality underlying these practices.

Cold bathing is highly commendable on account of its physiologic effect but the extent to which it is practiced by some persons amounts to abuse. The best possible tonic for skin and dermal circulation is the reaction which follows brisk rubbing with a coarse towel after the cold plunge or shower. pressure of the water over the whole dermal surface during immersion drives the blood away from the surface and the cold further contracts the dermal capillaries as well as the underlying vessels and tissues. Under this influence the eliminative, cleansing action of lungs and kidneys is promoted and possibly also the function of the digestive apparatus. reaction following cold bathing is beneficial to all the non-striated or involuntary muscles of the body, swimming being the best exercise for them. Heart and blood vessels are stimulated thereby, the processes of excretion are helped, circulation and breathing are quickened, and the skin is relieved and cleared of its débris. The general tone of health is undoubtedly improved by judicious bathing.

The custom of plunging into cold water reduces sensory overtenderness; it makes for sturdiness of spirit. Swimmers are aware at times of a distinct sense of gratification derived from the act of supporting the body in deep water. Immersed in water the body becomes the instrument of volition in a new sense, for it is lighter, more graceful and yields a greater sense of freedom. The moral value of the new feeling affects variously different persons.

CHAPTER XVII

Stimulus and sensation are related in direct proportion. The intensity of the sensation is heightened if the stimulus is increased. The Fechner-Weber law of psychophysical parallelism is based upon this principle.

But the threshold of touch sensation seems to be governed by a more archaic principle: here, the weaker the stimulus, the more intense appears to be the resulting sensation.

Minimal touch excitations are perceived as titillation, or tickling. This curious reflex action, by its quickness, spontaneity, vigor and apparent lack of purpose in the human species betrays its remote origin. The tickle reflex probably arose upon the lowermost level of psychic life; its survival through all stages of evolution and its persistence in man has given rise to various speculations concerning its possible significance.

The tickle reflex is a vestige which illustrates the prompt and explosive manner in which less complex organisms habitually respond to external stimuli. Before the various special senses become differentiated the all inclusive sense of touch alone guides

the living organism in its search for food or shelter. In man the tickle reflex persists as a strange survival from bygone ages. It reminds us how vigorously lower organisms respond to the slightest stimuli from the surrounding world. Highly differentiated structures and a multiplicity of organs, each subserving a particular and specific need, eventually bring about a better adaptation of the living organisms; but the subdivision and splitting up of functions results also in a certain loss of keenness. The intensity of feeling in connection with some vital processes is probably not the same in the higher as in the lower organisms. But the primal instincts, concerned with food and sex, undoubtedly preserve their primordial keenness throughout nature; and man is not an exception. It is characteristic of man's sexual cravings that they break forth with all the aboriginal intensity of what is called "animal desire." The intensity of the sexual feeling rehearses the intensity of life during the earlier stages. It is not surprising, therefore, to find that sex calls into play all the sensory excitations in turn. Naturally, the tickle reflex, as an archaic survival and a special modification of the touch sense, enters into the erotic life and plays a sexual rôle.

The minimal touch excitations have been compared to the "tentacular experience" in the insect world and even to the touch sensations of the amæboid organisms. Indeed, the tentacles, hair, antennæ and other projecting fibrils wherever found in the animal world are highly sensitized. The whole organism responds to their slightest contact with external objects thus suggesting the tickle reflex in man. Lower organisms respond with intense agitation to the slightest tentacular stimulation as part of the basic scheme of life. The contact signifies either danger or food; it produces a state of alarm in the one case and rouses a sense of gratification in the other.

Already at birth the infant shows a very marked tickle reflex along various bodily regions, such as the soles of the feet, etc. This sensitiveness undoubtedly excites muscular activities which keep the fœtus in the position most favorable for its growth during the intra-uterine period. As proof of this it has been pointed out that excitation of the ticklish parts of the skin tends to produce the curled-up, flexed position of limbs and body which is the typical intra-uterine position.

Self-tickling is not possible. Neither the adult, nor the child, in whom the tickle reflex is highly developed can produce the reaction upon himself. This fact, apparently trivial, corresponds with the important biologic function of the reflex; for titillation would be robbed of its rôle if the lower organisms failed to distinguish in some way the self-generated dermal stimuli from the stimuli induced by

contact with the external world. The point made by Havelock Ellis that absence of self-tickling indicates a mental element in the process cannot be maintained; quite the reverse seems to be the case. The need of protection against attack and of warning against danger which must have developed ticklishness in the first place under the influence of natural selection "involves the necessity of a minimal excitation producing a maximal effect," as Havelock Ellis himself remarks, and this "end would be defeated if it involved a simple reaction to the contact of the organism with itself." The absence of self-tickling is a biologic adaptation; it cannot be taken as proof that the tickle reflex involves some intellectual element of a grade unrepresented in the touch sense generally.

In the absence of any definite knowledge of the precise mechanism responsible for the tickle reflex the theory of the summation of stimuli seems reasonable enough as a provisional explanation. That theory is based on experimental facts and has been proved true in connection with other processes of the nervous system. Briefly it is as follows: All reflex reactions are the result of wave-like stimuli, or repeated shocks to the nerve-centers. The response represents really a summation of these wave-like successive excitations of the cortical center. In other words, a single external stimulus is transmitted by the nerve fibers as a succession of excitations and the cumu-

lative force of the latter may be increased by local conditions of blood-supply and other factors. Thus the stimulus of a peripheral cell may be transmitted with an avalanche-like increase; presently hundreds of thousands of nerve-cells in the cortex reproduce the excitation or respond to it. The structural basis for this process has been actually worked out for hearing, vision and smell; it is quite likely, of course, that a similar histologic arrangement may be responsible for the tickle reflex.

The associations between ticklishness and the sexual feeling are so intimate that various investigators have arrived at the conclusion that all ticklishness is pervaded by an erotic quality. Infants giggle or laugh when tickled; it seems that touching lightly almost any part of their body is enough to rouse this reaction. Children and adolescents, particularly girls, and sometimes adult women, are so sensitive that to suggest tickling by a remote act or hint, without actually touching their skin, is enough to produce convulsive laughter. The adolescent age in girls is predominantly the tickling and giggling stage; sometimes these habits are carried into adult life.

During adolescence the general tickle reflex is distinctly an erotic superexcitation. This is shown partly by the fact that after sexual relations are established this form of dermal sensitiveness greatly diminishes,—in women more so than in men. Sensitiveness to titillation remains strong around certain skin areas; it is particularly preserved, and perhaps, in some instances, heightened, around the sexual parts proper; but the reflex is no longer dispersed practically over the whole skin. Thus, for instance, women who before marriage were "too ticklish" to tolerate the slightest touch on the breasts, or under the arms, find these parts less sensitive after the establishment of marital relations.

In the unmarried woman the tickle reflex is also associated with modesty. This suggests a protective mechanism against aggression,—specifically against sexual attack. The establishment of marriage relations cancels the need for this protection; sensitiveness to tickling correspondingly decreases. When a woman yields through love her bodily parts also yield; she no longer needs the protection against contact with the male involved in the tickle reflex.

The subtle connections between the tickle reflex and sexuality betray themselves at times in roundabout ways as in the following instance:

B. L., a woman of twenty-five, unmarried, complained of various paresthesias involving particularly the breasts. Large anesthetic patches were found upon the trunk as well as upon the limbs, particularly on inner side of the thighs.

Some of her complaints were as follows: She had to watch and guide by a conscious effort every morsel of food, because her lips were "all gone," "dead," "unreliable." The "dead feeling" was slowly creeping forward over tongue and throat; before long she would be unable to feed herself, or will choke. Worms and bugs and other creatures, too small to see, were "creeping" just beneath her skin, filling her with uncanny sensations. These microscopic creatures have crawled in through her nose; they are multiplying at an alarming rate. Her condition is rapidly growing worse.

Finally, according to her account, some one had made an attempt to assault her some time previous to the onset of these numerous symptoms. She was very indefinite as to the circumstances of this alleged assault. It seems she was returning on a night boat; while lying in her berth she felt some one bending over her, or rather she perceived a warm breath striking her in the face. She had to make a great effort in order to open her eyes. - It seemed to her she was being drugged. At last she raised her head and opened her eyes in time to see a colored fellow, one of the porters on that boat, hastily making his way out through the window. She raised an alarm. Next morning all the negro roustabouts on that boat were lined up and she was asked to identify the man. She thought she recognized him but as she was not

quite certain she refused to take any action against him. Nevertheless she was told that the young negro would be discharged at once.

Returning home she did not disclose her experience to her family or to any of her friends until some weeks had passed. Meanwhile her symptoms developed one by one and she had been growing steadily worse.

During her brief visit to Nova Scotia she had taken a great fancy to a young man whom she allowed certain liberties with her person. He unbuttoned her waist and she allowed him to caress and kiss her breasts. Once he attempted to raise her skirt over the knees but this she violently resisted; thereupon he bit her playfully on the inner side of the thigh, through the clothes, and next clinched his teeth on her breasts. That night she used witchhazel. Her skin discolors and bruises easily and she wanted to avoid the marks which she would not know how to explain away.

Surely enough, soon thereafter a girl friend questioned her about the patches of discoloration which she noticed upon her breasts and arms. She told a more or less fanciful story about falling down a stairway in the dark. It was a clumsy explanation and in order to make it appear more plausible she added that, indeed, she had noticed for some time that her skin was not as resistant as formerly and slight bruises leave lasting marks. This, she had

once heard, was the sign of failing health and she would go to see some physician about it as soon as she returned to her home city.

The young woman friend told her that she, too, had heard something of the kind but understood that the condition arose only in married women. She urged her most decidedly to consult a specialist.

Returning home late that evening she kept thinking about what she had heard. It worried her; she could not fall asleep. What she had mentioned as a deliberate "story" took serious hold of her imagination. She touched herself under the arm pits, on the soles of her feet and thought she discovered that she truly was not as ticklish as she used to be.

This discovery clinched in her mind the conviction that something serious was the matter.

Just what, she could not tell; but in some obscure manner the absence of the tickle reflex became related in her mind with the possible loss of virginity. She became obsessed with the fear that her virginity was affected in some way. She determined to see to it that no one in the world would ever discover her predicament; on the other hand she feared that every one was suspecting it! She suspected allusions to herself, obscure hints and references, in the most innocent remarks of others. Psychoanalysis brought about complete relief in this case.

It is interesting to note that the tickle reflex is popularly considered a sign of virginity in many parts of the world. Among the southern Slavs, for instance, to say of a girl that "one may poke safely a finger at her ribs," is equivalent to a reflection upon her innocence in sexual matters.

The young woman whose case I have mentioned above had reformulated and applied in her own case this bit of folklore.

PART II

CHAPTER XVIII

Viewed as a self-indulgence and leaving aside all moral preconceptions we observe that the pleasure-yielding function of sex is anticipated and indulged in long before the adolescent period. Dissociation of functional rôle and pleasure-sense is not peculiar to the sexual structures alone. The function of other organs involves pleasure summations which are similarly craved for their own sake.

Important practical consequences follow this separation of the pleasure quality of organs and structures from their physiologic rôle. In the first place, a repetition of function is craved for the pleasure it yields; and this craving establishes our earliest habits. In the case of nutrition it happens that the repetitive craving of the function is determined partly on physiologic grounds. Frequent feeding is a normal requirement, the infant's capacity being limited while its nutritional needs are great. The infant is fed every few hours.

During the first few weeks the intervals between feedings are passed mostly in slumber,—a state favoring the persistence, in hallucinatory form, of the intra-uterine conditions. The infant does not become part and parcel of this world in every sense as soon as born. On the contrary, for a long time its brain functions continue in a state which in every essential resembles intra-uterine existence.

Animal functions, so-called, carry themselves out without any directive control. Many of them, like circulation, digestion, etc., remain automatic throughout life, while others, like bowels and the bladder functions, are placed gradually under control. But during the period when the latter still remain automatic, like the other animal functions, the infant's relationship to them is not one of passivity. On the contrary, these animal functions produce a keen sense of satisfaction, the feeling that "all is well." In connection with the bowel and bladder functions the pleasure sense is probably most keen during the infantile state. During that state, too, there is as yet no perception of functional need. So far as the infantile mind is aware the functions exist for the sake of the pleasure they yield. Only much later and very gradually does the growing infant learn to adapt its bodily functions to physiologic needs. Meanwhile it craves repetition merely on account of the sensorial satisfaction the functions yield. For a long time the pleasure principle overshadows completely all other guiding principles.

The infant's psychic life, rudimentary, raw and inchoate though it be, is steeped in what adult con-

sciousness perceives as erotism. All primitive life is, so to speak, "materialistic and sensuous." The infantile period of the human race is no exception. In the last analysis infantile life represents but a continuous cycle of bodily needs and satisfactions following in rotation and automatically! The subjective aspect of this stage of existence consists chiefly of the perception of sensuous gratifications. If the infant's brain perceives anything at all before birth it must be a diffuse, all-is-well sense; for life within the womb is parasitic, effortless, well protected,—an existence wherein the growing infant's needs are automatically satisfied. Intra-uterine existence probably furnishes the psychophysical reverberation responsible for most pictures of paradise.

After birth, the first efforts of the infant's mind are probably directed towards continuing the existence to which it is accustomed. The special senses must begin their development very largely as means to perpetuate the illusion of intra-uterine blissful existence. The infant's brain is keen to seize upon the pleasure-feeling that belongs to skin and to all the other senses which have developed out of the sense of touch in the course of animal evolution.

The pleasure-sense is particularly keen in connection with certain skin and mucous membrane areas. The discovery of the great rôle which these and other bodily parts play in the development of mental

functions is one of the recent achievements of psychologic research.

The bodily orifices and the muco-cutaneous areas surrounding them, the lips, the tongue, the sphincters and all constricting muscles are endowed with powerful pleasure-generating qualities. These the infant early discovers for himself and in their turn determine to a great extent the infant's mental development.

The infant is concerned with nutrition and growth; but subjectively he is dominated by the sense of gratification and satisty.

The processes of elimination play a most significant rôle from the standpoint of this principle. Around these operations, no less than during the taking in of food, the pleasure-yielding cravings are earliest developed.

Thus the infant's earliest perceptions are not determined by any principle of broad utility such as governs later life. In its quasi-hallucinatory state, which is probably the typical infantile attitude, the infant perceives at first no break in the continuity of existence; no difference between self and non-self is possible because the sense of self does not develop till much later. The external world of reality and the internal world of feelings are for the infant a continuum. The mother's breast and its own lips have the same function, the same pleasurable quality and are non-divisible. Every object belonging to

what adult consciousness perceives as the external world is ranged and eventually classified, after a manner, in accordance with its pleasure-yielding capacity. For a long time the infantile mind is incapable of perceiving any other standard. The notion of utility in any other sense is a late development.

The special senses develop similarly and are prized by the infant in accordance with the pleasure-yielding quality of the stimuli they furnish. Touch is the protean sense of which all other special senses are modifications. It is very keen; its excitations play a tremendous rôle in the infantile psyche because of their enhanced euphoric value. The sensations are most keen at the meeting points between skin and mucous membrane and therefore all orifices and their sphincters have a tremendous influence upon the quasi-hallucinatory formulations of the infantile psyche.

A great deal of the sensuous picture of infancy is due to the pleasure-yielding quality of the excretory processes. These become early associated with the sensations around the respective parts.

Thus, for instance, the emptying of the bladder is not merely a necessary function. Even during later periods it may be distinctly pleasurable. The same is true of the bowel functions.

The handling of the infant's body for bathing and cleansing purposes cannot but be pleasurable.

Early the child discovers its external sexual organs and these excite as high an interest as other parts of the body partly on account of the allied bladder function. The infant discovers its body part by part. With each discovery its interest and curiosity are newly aroused. Just as it plays with its fingers and toes when it first perceives them it will touch, and perhaps attempt to play with, its genital parts upon discovering them. Incidental occurrences such as eczematous conditions around the parts, injuries, chafing of the skin and the necessary medicinal and soothing applications often center unduly the child's attention to these parts.

But even if that is not the case, as the seat of pleasurable gratifications on account of their association with the excretory functions and as objects of early curiosity, the genito-urinary parts play a very important rôle in the child's fancy. Children almost never fail to show great interest when first discovering these parts. The excretory processes particularly rouse their curiosity because to their mind these functions appear self-dependent and yet somehow related to their body.

Pleasurable sensations such as are aroused during the fulfillment of certain physiologic needs are probably a quality of every function and of every organ of the body. The infant's psyche is made up of loosely interrelated euphoric sensations and cravings. Every physiologic process, every external

excitation, contributes its share to the infant's general euphoria.

The pleasure quality of organic functions becomes of secondary importance in later life; but during infancy that quality is preëminent and becoming split off the function is craved for its own sake. In other words, during infancy physiologic rôle and subjective function become dissociated. Any organ or bodily area may be incited to enhance the pleasure sense which it is capable of yielding irrespective of physiologic requirements. Thus, the earliest type of dissociation takes place between physiologic rôle and pleasure function.

The dissociation occurs in two general ways: the infant learns to crave pleasurable sensations roused by the animal functions and excites them by repeating the functions beyond physiologic requirements or by various mechanical means; or it discovers the pleasure-yielding quality of functions which will develop at a later period and meanwhile indulges in the new pleasure-sense. The latter is a case of sensuous gratification anticipating the function. The function which thus casts its shadow ahead is the sexual.

Puberty is the period during which the sexual organs undergo the changes preparing them to assume their physiologic rôle. But the psychic accompaniment of the function is split off: part of the pleasure-sense which sexual activity is capable of

yielding may be anticipated and perhaps indulged in as early as during the infantile period. As, a pleasure-yielding source the sexual parts are said to be discovered soon after birth, at least in certain instances.

It is important to bear in mind that pleasurable sensations have the same value for the infant irrespective of source. The growing boy or girl soon learns that certain bodily parts and certain functions are considered "shameful" or "degrading"; but not so the infant. At first nothing interferes with the latter's indulgence in mechanical excitations as a means of pleasurable gratification. Pressing together of the limbs while holding the lower abdominal muscles in tension, carrying out rhythmic up-anddown movements with the same set of muscles, sucking movements of the lips apart from nutritional requirements, playful biting of tongue or cheeks and similar infantile mannerisms are common. The association of certain skin areas with important functions, actual or anticipated, renders these areas specially sensitive to irritations of any kind.

The question may be asked: Why is it proper to consider all pleasurable sensations arising out of bodily functions as erotic? The answer is obvious. Erotism means the exercise of a pleasurable sensation for its own sake, or of a useful function for its pleasurable quality only, regardless of physiologic requirements or of any considerations which appeal

only to the adult mind. This has been most distinctly recognized in connection with sexuality: for that reason erotism has become almost identical with certain aspects of sexuality. But there is otherwise no justification for limiting the term to the physical aspects of sexuality. On the contrary, in conformity with its original meaning and scientific use the term erotism exactly covers the idea of pleasurable indulgence for the sake of mere gratification. It would be difficult to find another term covering so completely the idea. Its opprobrious moral connotations cannot have any weight in scientific inquiry.

The euphoric state, the feeling of well-being brought about through one's bodily functions or excitations as an end in itself, is erotogenetic. From that standpoint early life is steeped in erotism since the body alone is the source of all infantile feeling of well-being. Psychically this marks one of the chief differences between adult and infantile existence.

Adult human beings are able to perceive pleasure over abstract considerations. They may be concerned with the welfare of human beings other than themselves. Human sympathy or interest is capable of reaching out so as to include, first one's family and friends, gradually a larger and larger group of human beings; eventually it may grow so as to take in not only one's community, or country, but, in rare instances, the interests of the whole human race.

The infant of course is not capable of anything of the sort. He is absorbed exclusively in his own bodily needs and sensations. These govern his whole outlook and attitude. For the child the value of all objects pertaining to the world outside its immediate realm of sensations is determined by the same standard, namely, the degree of pleasurable gratification those objects are capable of yielding. Inferentially the infant's acceptance of the world may be designated as instrumentalistic; to the infantile mind the world is made up of a limited number of things, including persons such as mother, nurse, father, etc., who are useful because they contribute to its euphoria, and of other objects, such as fire, sharp edges and corners, etc., which are hurtful; or such entities as brothers and sisters, who compete with the child for the parents' attention and are therefore antagonistic.

The infantile attitude corresponds with that of the primitive man or savage. Contact with new objects, whether persons or things, suggests first of all the following capital questions which must somehow lurk in the background of infantile and savage mind alike: firstly, "Will it hurt me?" and secondly, "Can I eat it?" (Parenthetically I may remark that a more sophisticated form of the latter infantilistic question appears in commercial and political spheres under the well-known practical question "What is there in it for me?"; and that the first

question, typical of the infantilistic attitude, "Will it hurt me?" is also formulated in numerous ways and acts as a governing principle in the life of adults whose infantilistic trends are dominant.)

A new object may be hurtful; if not, it should be capable of yielding pleasure,—it must be made to contribute to the subjective state of well-being; otherwise it fails to convey any meaning, and the reason for its existence eludes the grasp of the infantile mind.

The mind of savage and child alike gauges all life from a standpoint that is at once utilitarian, instrumentalistic and sensuously self-centered; the mind governed by infantilistic principles is essentially matter-of-fact and practical in a narrow sense.

CHAPTER XIX

The auto-erotic sensations of infants become roused first in the course of nutritional gratifications and in connection also with the excretory functions. The mother's breast, or the nipple, is one of the earliest objects of interest because yielding the greatest sense of satisfaction of which the infant is capable.

The end products of nutrition, the excreta, become associated with the pleasurable sensations localized in certain parts. The sensations incident to handling by mother or nurse are also a prolific source of infantile pleasure. Sensuous gratification evokes a craving for its repetition. Later it leads the growing child into the habit of handling or otherwise mechanically exciting its anal, genito-urinary or other erogenous parts. Masturbation is not unusual during infancy. This is not always obvious on the surface because the functional immaturity of the parts, from the physiologic standpoint, obscures the meaning of some of the infant's habits.

Besides, the aversion of adults, particularly parents, is so great against recognizing these habits that they pass unnoticed. Occasionally, however,

infantile masturbation becomes so extreme as to permit its oversight no longer. Unfortunately when brought to the attention of "authorities" such cases have hitherto been declared "abnormal" and indicative of degeneracy. This, of course, is entirely wrong and unjustified.

Krafft-Ebing, for instance, in the seventh edition of his *Psychopathia Sexualis*, mentions the occurrence of masturbation during early life only to brand it as a sign of "neuropsychopathic degeneration!" Untold harm has been done in the past by these assumptions.

Similarly pernicious, because incorrect, is the contention of Moll that the appearance of sexuality before the seventh year is in itself a morbid manifestation of the sexual instinct. Unless the sexual instinct itself be considered a sign of morbidity, and the whole human race as steeped in degeneration, the view that sexual precocity is morbid cannot be maintained.

Certain rhythmic movements of the body and especially of the muscles around the pelvic and gluteal regions recurring in infants and leading to a peculiar climax in the form of a fainting-like "spell," have been recognized as the equivalent of masturbation. There are also recurrent momentary "absences," the spells lasting but a minute or two or less, betraying the same character, whether associated with pelvic movements or not. The picture of the

infant nourishing at the breast to the point of satiation and then falling exhausted in the mother's arms with head thrown back or to one side, face flushed, eyelids drooping, etc., has also been described as significant in this connection. Finally, various other sensuous indulgences leading to a vicarious climax have been described as part of the masturbation-type of indulgence.

Significant in this connection are the playful attempts at coitus said to be common among children. The extent of this occurrence cannot be easily determined. Usually older children, not always the male, introduce the younger ones to "the game." No matter how young they may be, children seem aware that they must not relate to their elders anything about these occurrences. That is one reason why it is not possible to determine exactly how widespread this form of "play" may be. According to some observers, however, the practice is almost universal—at least in certain localities.

Children become contaminated with the habit very rapidly. Once the "game" is introduced it spreads until sooner or later it comes to the attention of parents when it may be curbed by severe punishments or threats.

When excitation of the sexual parts is roused in older children it is likely that, infantile erotism having strongly prepared the path, the usual threats and punishments only complicate matters. Masturbatory practices are carried out secretly.

This early sexual period is soon forgotten. It becomes covered up against recall during later years. The childhood incidents having to do with sexual self-abuse are largely repressed. But the facts, insignificant in themselves though they be, continue to influence conduct through persistence in the unconscious. They play an important rôle in the development of certain character traits. Psychoanalytic research discloses that this early period of vicarious sexual activity determines neurotic symptoms and plays an equally important rôle in the formation of peculiarities of conduct.

Furthermore, psychoanalysis shows that memory can reach far back and bring to light repressed episodes; though ordinarily not present in consciousness these hidden and apparently forgotten bits of the past continue unconsciously to influence conduct and mental health. Inquiries regarding the prevalence of masturbation during the preadolescent period are far from trustworthy if based on ordinary memory. If, on the other hand, we resort to special methods and take into consideration the testimony of persons who have had opportunity to become acquainted with their unconscious, we find that the habit is more widespread than is generally admitted.

Taking the preadolescent period as a whole, vari-

ous investigators have calculated the average number of children masturbating all the way from eightyeight to ninety-seven per cent.

As long ago as 1876 Berger in the course of his statistical inquiry found masturbation acknowledged in every case he investigated—a result amounting to one hundred per cent.¹ Some recent investigators corroborate this result, one of the most prominent among them being William Stekel, of Vienna.

Masturbation must be a fairly universal practice if we take into consideration the many hidden forms ordinarily overlooked. The erotic character of practices and habits amounting to masturbation is covered under the plea of necessity.

The habit of scratching erogenous areas, for instance, may be brought about through an unconsciously determined auto-erotic impulse. Eczematous conditions involving the anal region in boys and adults, or around the pubic area in the female, often mask an underlying tendency to sensuous gratification. In such cases the eczematous condition proves refractory to ordinary treatment. The eczema may amount to nothing more at first than the uncontrollable desire to scratch the parts for "relief from itching." In the course of time the constant irritation brings about some local changes which in their turn justify the subjects' belief that something is

¹ Arch. f. Psychiatrie, vol. VI.

the matter. Soothing lotions and medicaments are applied and these give further opportunity for regularly handling the parts. The advantage to the individual concerned lies in the sensations roused by the treatment as much as in its alleged curative effect. The patients are not aware of the true nature of their ailment. They believe themselves the victims of an obscure and baffling skin trouble. This belief permits them to indulge in handling the respective erogenous areas. Even mentally dwelling on those parts is not without a certain sensuous value to the patient's unconscious.

The presence of hemorrhoids often masks a masturbation tendency. The bowels are handled carefully, injections are taken of various soothing medicaments, warm enemata, rectal suppositories, etc. Hemorrhoids cause itching, bring about scratching and occasionally the sufferers themselves comment upon the wonderful feeling of relief which follows prolonged scratching, titillation or gentle rubbing of the parts. They may not be in the least aware of the possible psychic import of the act.

More often the pleasurable character itself is masked so that no true inkling of the erotic meaning and nature of the relief reaches consciousness. The practice of rubbing, scratching, or otherwise handling erogenous areas may arise in the course of actual organic conditions; but even in such cases the habit may be strengthened by unconscious

promptings and if so will persist long after the physical causes have been successfully eliminated.

The persons concerned are at first inclined to scorn the idea that their habits have anything to do with erotism. In self-defense they point out, for instance, that the sexual organs proper are not involved. They are not aware that it is possible unconsciously to sidetrack a "telltale" sign or symptom; also to substitute one erogenous area for another,—if the true meaning of the indulgence is to be kept out of consciousness.

Patients are willing to acknowledge the occurrence of spermatorrhea. That is something over which they have no control and it is, moreover, something which, they point out, far from yielding any gratification, disturbs them because it may be an indication of a weakness of the sexual organs, etc.

It is significant, however, that when sexual activities are frankly indulged in the spermatorrhea often disappears. In certain cases ordinary sexual intercourse relieves spermatorrhea. The signs of alleged sexual weakness disappear. At any rate, the absence of detumescence does not disprove the sexual character of an act.

This makes necessary a definition of the meaning of onanism, or masturbation. Every one is familiar with the term but there exists a wide divergence of opinion as to what it should include. The most commonly accepted view is that onanism is a sexual act brought about not through the regular union of persons of opposite sex but by mechanical, self-directed means. Some observers would restrict the definition to include only acts that actually lead to orgasm in both sexes and ejaculation in the male. That is, of course, an unnecessary restriction. Many persons who practice onanism cut the act short of reaching the climax. They believe that to carry out the act to its fulfillment would be hurtful to health or they have an aversion to seeing the discharge. Others justify such restriction by assuming that the seminal fluid is an important "vitalizer" and must not be spent or lost except for purposes of procreation.

But even as it stands, this definition is unsatisfactory. It does not take into consideration erotogenetic practices which are masked and which constitute by far the most common form of masturbation.

Briefly, among the masturbatory indulgences without mechanical irritation, we may distinguish the following general varieties, each of which presents, in turn, numerous subdivisions: (a) onanism through indulgence in obscene reading and the contemplation of lascivious pictures; (b) obscene talk; (c) the masking of erotism under various strong emotions, particularly anxiety attacks; (d) finally, and this is the most important and most widespread variety, indulgence through self-generated fancies, so-called day-dreaming.

Mechanical excitation as an aid to masturbation is also subject to various forms. In the first place, we have seen that mechanical excitation may be partly justified (need of medication, etc.) and there is no awareness of the meaning of the act. These are illustrations of unconscious onanism. citations may be carried out without the aid of any phantasy pictures. If any tend to appear they are suppressed out of consciousness. More often certain sexual phantasies are clearly acknowledged and accompany the mechanical procedures. Fancies and mechanical means aid each other and foster the attainment of the erotic satisfaction. Fancies may initiate the act of masturbation or they may be invoked towards the end of the mechanical excitation.

The prevalence of onanism as, an unconscious practice renders the older definitions unsatisfactory. Erotic self-abuse is a pleasure craving indulgence which apears more often under various cryptic forms as psychic onanism without any physical accompaniments. The erotic satisfaction itself may be thwarted, distorted or dissociated from consciousness, the same as the erotic fancies.

Strictly speaking, self-abuse consists of an act whereby some bodily organ or function without subserving any useful purpose is made to yield gratification, consciously or otherwise, for the sake of the pleasure sense itself. The habit of gratification through one's own body has been called auto-erotism by Havelock Ellis. In the wider sense which onanism has acquired in recent years it covers the same ground and is identical with auto-erotism.

Those who are addicted to masturbation and do not cover the fact from themselves adopt various procedures to enhance the satisfaction and decrease the supposed ill consequences of the habit. They believe that stopping short of wasting the semen prolongs virility and prevents injury to health. This fanciful notion suits them also because it justifies prolonged indulgence. They carry the excitation to a high point and stop the mechanical irritation or allow their fancies to subside. As soon as they have quieted somewhat they repeat the process. This they continue for an hour or longer, each time avoiding the occurrence of the orgasm.

CHAPTER XX

Facts illustrating the occurrence of onanism during childhood are obvious. The question arises: How was it possible for the equally obvious infantile onanism to have been so generally overlooked in the past?

The oversight of infantile onanism is not accidental. It is purposive,—a corollary of our past attitude towards the whole subject of sex.

While popular instruction has reached a fair degree of efficiency on many subjects relating to health and general welfare, the state of popular information about sex is most unsatisfactory. The ignorance and superstitions still prevailing about sexual psychology are a striking anachronism in our age. In part that has been inevitable. Sex knowledge is only now being shaped into a distinct scientific branch of study. Meanwhile popular information on the subject remains full of misconceptions and distortions. Sex life stands to-day as perhaps the most obscure and least understood aspect of human existence so far as the popular mind is concerned.

The emotional attitude of most persons towards

sex makes the spread of scientific information difficult. The current popular notions on the subject show that sex has not yet emerged from the earliest of the stages through which Auguste Comte, the French founder of positivism, has pointed out that all subjects must pass before they enter the scientific phase. According to Comte, every subject of human interest first has its mythology and metaphysics; then it passes through a dogmatic-religious phase, and lastly reaches the stage of science,—of knowledge based on experience, observation and research.

From the Comtian standpoint it may be said that, so far as popular knowledge is concerned, sexology still stands between the metaphysical-mythical and the religious-dogmatic phases. Popular knowledge is very unreliable because many of the writers who assume to instruct the public have not yet freed themselves from old prejudices and are therefore unable to view the subject with that emotional detachment and objectivity, that scientific candor, which is essential to effective work.

In the current flow of sexological literature many popular superstitions and old erroneous beliefs still find representation. Numerous current vagaries about sex owe their popularity to the fact that "authorities" support the views and exploit them in their oral and written propaganda. This gives those errors the semblance of established scientific conclusions. It happens that often the authorities themselves are handicapped by their own conflicts and therefore unable to consider all aspects of the subject in their true bearings. For a writer to strike out courageously, after making sure of his ground, and record his conclusions regardless of previous unscientific notions on the subject which concerns him is not uncommon, except when the subject happens to be the sexual instinct. On that subject writers are few who dare to disregard prejudices; and fewer yet, who purge themselves of their own prejudices while taking up the subject with the intention of arriving at scientific conclusions.

This does not mean that writers on sexology deliberately appeal to current prejudices. It would be a simple matter if it were so. But the writers in question unwittingly bring current prejudices into their work. They read into the subject the conclusions which they were prepared to find in virtue of their own emotional predispositions.

If an ardent denominationist were to attempt an "impartial" history of some antagonistic denomination, sect, or church, due allowances would be made for the author's preconceptions and partisanship. But in sexological literature the predispositions which most writers reflect and display are precisely those shared by the public to which they address themselves. The uncritical reader is pleased to find

his beliefs corroborated. On the other hand, the writer is unaware of his relative unfitness to assume a teaching function because towards the preconceptions with which he approaches his subject he is as blind as all others. Moreover, current beliefs have the advantage of being in good standing with the generation to which he addresses himself. Sexology has fallen into a vicious circle because writers on the subject are burdened with conflicts. Experiences and new facts are made to dovetail with preconceived notions on the subject.

Let us consider again the current beliefs regarding the harmfulness of masturbation, for an example. Contrary to common beliefs, masturbation does not lead to insanity. It does not cause sexual, mental, or any other weakness. It is not the cause of feeble-mindedness. But the belief that masturbation does all these things is strongly ingrained in popular thinking and until very recently it has been supported by most authorities. Here we have a set of beliefs running contrary to facts, their falsity easily proven in the light of professional experience; yet the beliefs have persisted for many generations with the profession-and lay people alike—and are still current. The evils of masturbation are still painted in lurid colors. Social hygiene propaganda is based largely on the tenets that: (a) masturbation is dangerous; (b) prostitution is a

plague and finally, (c) that all we need is to be informed, or rather scared, of the terrible consequences of these evils and they will be abolished.

In the course of the present volume I propose to show that the evils ascribed to masturbation have been exaggerated; that some of the most important considerations regarding masturbation have been largely overlooked, and to point out the reasons for this remarkable oversight; finally, that the education-through-fear plan upon which the social hygiene movement seems largely based is faulty and cannot bring about any real improvement in the customs of our generation.

Why have the evils of masturbation been magnified and why have these exaggerations found authoritative support? Why have some obvious facts been overlooked? All this is due to the faulty attitude of past generations transmitted to our own and accepted uncritically. Sexuality has been conceived as evil, the aboriginal flaw in human nature, the cause of man's fall and banishment from paradisaic existence. Everything pertaining to sex has been conceived as tainted with impurity, immorality and perhaps degeneration. This feeling-attitude becomes ingrained during the impressionable period when habitual attitudes are formed. All subsequent information on the subject is received in the light of the feeling-attitude thus formed during the earlier periods of life. Facts concerning sex bear the meaning we read in them by reason of emotional preconceptions. Medical observers, educationists and others do not escape the determinative influence of current social prejudgments about sex. They approach the subject, for the most part, with the preconceptions characteristic of the age and generation to which they belong. Sex is not a subject on which accurate scientific thinking is possible on the part of those who are the victims of erotic conflicts.

In view of current prejudices, the safe course for "sexologists" who crave popularity is along the path of established public opinion. The plain truth is: mankind is still afraid of sex. This fear is fostered and maintained by many social customs, practices and beliefs.

Sexuality is a subject approached with reluctance in the abstract because our own sexuality makes us uneasy. We fear sex—the general attitude towards the subject cannot be characterized more simply and fittingly than as fear—because we are afraid of our own sexuality. Reticence betrays lack of self-mastery and is a confession of fear.

In what sense is our attitude towards sex a confession of fear? In the same sense precisely in which any power is feared, whether belonging to us or outside ourselves, about whose extent and possibilities for good and evil we are in the dark. We approach sexuality with the instinctively ingrained fear of the unknown. Only the occasional few, the

exceptional persons who have achieved sexual poise through insight into the meaning, powers, extent and possibilities of sexuality in their own life are able to consider the subject also in the abstract without "fear or prejudice."

Fear, an aggravated form of uncertainty and doubt, like the latter, brings about emotional overvaluation. When we are in a doubting frame of mind, uncertain or perplexed, we do not judge calmly. Our reasoning processes are disturbed even more seriously by fear. In such a state of mind our emotional intensity attaches itself to the matter under consideration. The object of the fear becomes of obsessive importance.

Emotional overvaluation always leads to a dual attitude. From the standpoint of its consequences fear is a dual or bipolar feeling-attitude. It leads on the one hand to scorn, or hate, on the other, it becomes the fountain-spring of veneration. The unknown, like the unknowable, we either scorn or venerate; and sometimes under the domination of uncertainty, doubt, apprehension or fear, our attitude includes both extremes.

This is richly illustrated in our attitude towards the sexual instinct. Formally sex and its manifestations are berated, scorned, considered evil and degrading, yet it would not be far-fetched to assert that in practical life, if we take into consideration its broader ramifications, sexuality governs human existence as one of its chief levers.

So long as our attitude towards sex is determined by overstressed emotions we cannot acquire an objective view. Sex is adjudged a tremendous evil and at the same time it is allowed in various ways, many of them unconscious, to affect our predisposition and attitude towards all other aspects of life. The maintenance of a bipolar attitude towards so vital a concern as sex vitiates our whole view of life. It represents a tremendous handicap to civilization. Not only is racial betterment interfered with thereby, but the relations of ordinary, practical, everyday living are hampered and distorted.

I have already mentioned that our prelogical, bipolar predisposition leads on the one hand to scorn and on the other impels an attitude of reverence; the latter may be described briefly as "religious." It is interesting and significant that many scientific writers fall into religious verbiage when discussing sex. They speak of the "sacredness" of sex, its "God-given" function, the "holiness" of marriage, the "sinfulness" of masturbation, etc. Theologic nomenclature, having failed to advance the pursuit of true religion, is not likely to accomplish anything when applied to the consideration of problems in biology or psychology.

Our first need is to overcome our own prejudices.

It will then not be necessary to borrow the religious jargon of "holiness," or the language of "scientific" invective, including such terms as degeneration, perversion, etc. For that reason I propose that we shall forego their use. The term perversion, for instance, has lost its original meaning, which made it a fitting scientific expression. It has been weighted down with tremendous "moral" connotations. As understood nowadays, the term belongs to theologic dogmatism and no longer to science. I shall adopt instead the terms proposed by I. S. Kraus, paraphilia, in the sense of "inverted instinct," as has been done already by the Viennese scientific writer, William Stekel.

CHAPTER XXI

That the popular attitude towards sex is one of emotional bipolarity is shown among other things by the characteristic overvaluation of the pleasures of sex and the extreme contrary attitude breaking out side by side. Often the extremes of indulgence and asceticism alternate in the same person. While overt sexual acts are scorned, cryptic substitutes become obsessive.

The reformer crusading for purity is often a victim of this dual attitude. Every excessive concern with negative aspects betrays a morbid interest in the subject. The individual who becomes overanxious regarding purity only creates for himself thereby the opportunity he secretly craves of dealing with impurity. It becomes his self-imposed duty to frequent dance halls, watch music shows, determine the degree of bodily exposure permissible on the stage and at the bathing beach; he scrutinizes printed matter for all traces of suggestive and erotic allusions; and generally he is the first to scent and dwell on the morbidly sexual, the erotic, the lewd and lascivious, in whatever form it presents itself to the attention of the curious. The crusading purist must

be classified as a typical victim of the overvaluation of sexuality.

Emotional overstress impairs our logical abilities. The more agitated we are over a subject the less capable do we become of considering it in its logical bearings. What is more, certain features of the subject, namely those that particularly stir our emotions, may become dissociated and we may be unable to see them at all! Prejudice, which is a form of ignorance, beginning with emotional stress, leads to an unwillingness to see,—the reductio ad absurdum of ignorance. When the unwillingness becomes automatic, as are all our unconscious mental processes, it manifests itself as an inability to see. This hardened degree of intellectual blindness is brought about as the extreme result of the narrowing influence of emotional stress.

The oversight of infantile onanism, and of autoerotism generally, illustrates this mental process.

Childhood and infancy are still looked upon as the golden age of innocence. To the mother its child is an angel of purity. It would be sacrilegious to connect it with any sensuousness. Yet the psychic aspect of infantile life is sensuous to the utmost degree at first and only gradually does it emerge from that state.

The assumption of infantile purity is very significant. In the first place it has resulted from the

notion that sensuality is "impure," a feeling-attitude irrelevant from the standpoint of science.

In its place sensuality is neither pure nor impure. During infancy it happens to be the characteristic quality of the mind. It is hard to conceive how it could be otherwise or how there could be anything "immoral" about it at that stage. Sensuous means exactly what the term implies,—dependent upon the senses,-neither more nor less. Of course the infant is sensuous. But it does not follow that he is impure! He is a growing being dependent upon the world of his sensations alone for the gratifications that make up the mental aspect of his existence. Before becoming acquainted with moral qualities and other social standards of appraisal or choice, the growing child takes an equal delight in every one of his functions and sensations. Whatever is capable of yielding pleasure is of value. At first the infant's euphoria is derived wholly through its own body, so far as it is aware. The objects of the external world are distinguished as really not a part of its own body only at a relatively advanced stage of mental unfoldment. Meanwhile the world and all it contains is part and parcel of itself and exists, so to speak, for the sole purpose of affording satisfaction to its needs. The child's pleasures are perceived as automatically self-generated. The child is its own Cosmos,—the cause and effect of its own sensations;

hence the illusion of all-powerfulness so intimately and inseparably linked with the earliest stages of existence. Infantile life is sensuous, and is perceived as self-sufficient, autistic. The infant carries on an existence steeped in auto-erotism.

The fading out of the auto-erotic attitude is very gradual,—a life long process—and never complete.

During the next phase,—the Narcissus-like attitude—the sense of reality is awakening, but all external objects are still perceived as somehow dependent upon self as the center and source of existence; that is, the feeling of all-powerfulness persists. In fact, this feeling continues throughout the course of subsequent phases of development, though it undergoes various secondary refinements. It may never be given up altogether.

At any rate, the sense of being the center of life and the pivotal point of one's Cosmos is acted out emotionally long after the illusion is formally abandoned.

For a long time the external world and all the objects therein are perceived as mirroring in one way or another aspects of one's self. The child sees a reflection of its own emotions and powers in every natural phenomenon. Infantile relations are similarly conceived; to the child its parents are replicas and pictures of itself, just as the forces of nature when it first learns to observe them stand for its own moods and feelings. Parents furnish the

Imago—the ground picture—around which the child through its fancies projects itself playfully into all directions, testing new dimensions of power and categories of existence. But the primordial erotism furnishes the first standards by which values are compared and contrasted.

It is during this phase of existence that nature's forces are subjectivized. The wind murmurs, the storm is angry, thunder and lightning speak in accents of fury, the sun goes to bed at night, etc. The child projects its own moods and powers and identifies them with nature. The whole Cosmos mirrors its moods and powers. The story of Narcissus embodies a mythical representation of this attitude which for that reason has been called narcistic.

The auto-erotic and the narcistic attitudes tend to persist in their original form. That becomes more and more difficult. The child adapts itself to the social world in the midst of which it has to find its place as a member of society; and gradually acquires the apperceptions characteristic of adult existence. Nevertheless some features of the early stages persist as emotional predispositions. Every stage beyond the earliest infantile is mixed—that, is, old and recent attitudes coexist and struggle for supremacy even while the next stage begins to make its appearance. Psychically, therefore, we are not of a uniform age; in some respects we are like children; in other respects we may be advanced for our age.

Just as during mental deterioration, in old age for instance, the recent memories are lost first while childhood memories are the most persistent, so during mental growth the earliest stages project the longest shadows in front of them. Infantile ways of thinking persist throughout life, though their mastery over mind gradually decreases and they assume a negligible rôle in those whose mental growth corresponds to their physical development. Human behavior is complex mainly because at many points it is the reaction of many divergent phases of psychic life. Adult behavior is polyvalent—it combines many motives in every act.

We do not recognize the functional polyvalence of our motives because certain aspects of our earlier existence are repressed. Our childhood experience is partly forgotten, but much more becomes actively suppressed from memory. Most, if not the whole of our frankly erotic experiences during childhood are completely forgotten later. The tendency to push out of memory and apparently forget is one of the infantile ways of dealing with what is disagreeable in life. We affect not to see whatever proves too unpleasant or painful if we can at all manage to do so.

A typical example of repression from consciousness producing a psychic inability to see is the oversight of infantile erotism. We do not see the sensuous features of the activities of children because

the similar aspects of our own childhood are repressed from our memory—a form of self-induced psychic blindness. Erotism is abhorred especially if related to the presexual stage. The life of the child is thought to be asexual and it is taken for granted that the child is also anerotic. Overlooking infantile erotism is a way of denying the fact. The primary reason for this oversight is probably the same as the motive which impels adults to forget the erotism of their own childhood period. The forgetfulness is a repression.

Our mind not only suppresses a considerable portion of its material data; much of what is left becomes distorted during the process of recall. The old purity myth about childhood is possible because the mind, when not allowed freedom of functioning, suppresses, distorts, and by various other mechanisms, places itself at the service of the repressed emotions. This mental process may be called paralogism.

The purity myth is not only useless, it is actually harmful. Those who cling to this myth become unable properly to consider many intimate facts pertaining to their personal welfare.

The maintenance of an unsound belief of this kind also has widespread social consequences; our political, economic and educational systems suffer to the extent in which we overlook important aspects of early mental life, treat lightly certain significant The earliest purposeless movements of infants are undoubtedly associated with a pleasurable muscle sense. The rolling of the eyes from side to side, even before accommodation to vision becomes established, the bending and stretching of the limbs, the various changing postures of the body, are capable of an intense pleasure summation.

Some infantile bodily movements are anticipated during intra-uterine existence, just as certain typical postures, especially during sleep, recall the infant's uterine position. Numerous links unite intra-uterine existence to the infantile phase of extra-uterine life; psychically many of these links continue through life.

The belief is current among certain people that a child is likely to be very neurotic if the pregnant mother continues marital relations up to the last stage of pregnancy. Like many another belief merged in superstition this thought may not be without a certain foundation of fact. It may be that the reflex excitation of the uterus increases the muscular movements of the fetus itself and prepares it for kinesthetic erotism. But in the present state of our knowledge a direct influence upon the rudimentary mind in utero through the operation of the mother's mind is an unwarranted assumption.

Not only muscular and skin sensation but every one of the special senses is invested with pleasurable qualities. In time erotic manifestations display themselves in connection with taste, smell, hearing, etc.

It is not necessary to go into the particulars of these interesting developments—but briefly I may mention that the infant's predilection for certain sounds, tastes, and for particular olfactory excitations, its pleasure in the sensation of nakedness, etc., indicate paths along which erotic tendencies find early expression. Preyer has observed a distinct reaction of pleasure after bathing at an age when nothing else roused so distinctly an expression of gratification outside the nutritional senses, namely, on the eighth day after birth.

The sense of taste is probably never so keen as during infancy. It is an accessory nutritional function whose pleasure-yielding capacity is enormous and becomes therefore an important channel for infantilistic gratification. The satisfaction of the hunger-sense in the infant is often followed by an attitude expressing the highest degree of euphoria, such as in later life is sought through sexual gratification.

A characteristic feature of all auto-erotic activities is lack of broader purpose. Auto-erotic habits are generated not by the perception of any physiologic need but by the craving for gratification, functioning without reference to requirements; neither the sense of utility nor of purpose is operative. The sensorial character of the early psyche, the preva-

lence of the pleasure principle as the governing standard during the earliest phase of mental development, lays the foundation for later erotism. Auto-erotic indulgences in later life represent emotional fixations at infantile levels. Such fixations are responsible for the hollowing out of adult behavior into symbolizations of infantile cravings and lead to numerous repressions. The adult cannot apply himself to the problems surrounding him or meet those problems adequately if his emotions are fixed to points of interest characteristic of the infantile phase of existence. He is held down and tied to his own past by bonds which prove stronger than the powers of mere intellect. The determination to strive forward and away from the infantile attitude is thwarted by the primacy of auto-erotic impulses. The latter must be sublimated before the adult can attain the full stature of mental growth.

Many requirements of adult living seem harsh, cruel and find us unprepared to adapt ourselves to them because of the hidden strands that bind us to our tender, ease-loving childhood. Growth is impeded because we are unwilling to part with our own past. We bring into adult age infantile ways. We cling to mannerisms and peculiarities, meaningless in themselves, uscless, and even harmful, because they are mementoes of infancy and childhood to which we are attached by ties which mere intellectual perception cannot dissolve. The odds and ends carefully

preserved in the attic of "home" and from which the "old folks" cannot make up their mind to part have their counterparts in the human brain. The mind has an old curiosity shop of its own. Remnants of auto-erotic experiences determine character traits and influence conduct long after the infantile stage is past in point of years. The outward manifestations of the auto-crotic habits undergo various transpositions and distortions through which their true character is hidden from consciousness. But however covered up they may be, it is possible to get at them through analysis. Cravings once aroused may be diverted from their original points of fixation; they may be transformed into powers with which to build and accomplish the fulfillment of aims useful in a higher sense; but they cannot be stifled through being denied customary channels for expression.

The auto-erotic forms under which instinctive cravings first manifest themselves are particularly difficult to manage in later life once they become unduly fixed. Auto-erotism represents probably the longest period in the biologic history of man as it is phyletically the most archaic type of existence. The mental components of auto-erotism being the most archaic are the most difficult to state in terms of ordinary consciousness. Primitive mentality abounds in contrary perceptions, incongruities of logic, amoralities, "perversions," etc. Those who

are acquainted only with the operations of consciousness find the whole subject baffling.

Repression of infantile cravings strengthens the determination to disregard their rôle when it becomes impossible longer to ignore their presence. Thus, for instance, it is said that the discoveries of psychoanalysis hold true of morbid mentality but that normal mind is different. As a matter of fact this assumption is contrary to the principle, long recognized, that there is no break in the processes of mind during health and disease. The evolutionistic conception of science, applied to the study of mind, reveals that the manifestations characteristic of mental disorder are but end-products of the same infantile tendencies with which every human being struggles in the course of mental development.

The infantile tendencies being partly repressed and partly sublimated (they are never wholly one or the other), give rise to peculiarities or symptoms varying with the strength and level of the conflict all the way from trifling mannerisms to psychoneuroses, character impairment, dissociation of personality and insanity.

Occasionally with the breakdown of the barriers set up in the course of repressions, the dammed up infantile attitude reveals itself to the exclusion of the sense of reality.

If the suppression of the sense of reality is complete and lasting, adjustment to the external world

becomes impossible. The subject is insane. From the standpoint of evolutionistic psychology "sane" and "insane" are quantitative concepts. Sanity proper is subject to fluctuations and has its degrees. Virtually all human behavior is the result of compromises between repressed infantile tendencies and the requirements of the world of reality as perceived by the adult consciousness. The level at which the compromise takes place determines the quality of the ensuing behavior.

Auto-erotism represents the strongest pull backwards. It is strong enough in most adults to prevent uniformly adult reactions. For the most part behavior displays mixed motives. If the backward pull is too strong a break occurs and consciousness gives way.

From the evolutionistic standpoint—which is characteristically the standpoint of psychoanalysis—morbid behavior, broadly speaking, is the untimely,—any reaction which fails to correspond to the occasion calling it forth. Narcissism, proper, for instance, is not a morbidity; neither is auto-erotism. They are perfectly "natural" during the earlier phases of mental development. But as we grow they are more and more out of place; finally they become sources of danger to mental health.

All this has a direct bearing on our subject. What I have just stated about infantilism in general holds true also of onanism in particular. The latter

is but a manifestation of the pleasure-seeking principle. As a transitory phase it belongs to infancy and childhood.

A great error in the past has been the failure to recognize that, in itself, masturbation need not be dangerous. It is but a passing manifestation. In its aimless wandering before becoming fixed upon the proper goal and before attaching itself to functionally useful purposes the erotic sense may show itself in the form of self-abuse. Onanism may be looked upon as a foreshadowing of the latter functioning of the sexual instinct. In the light of the well-known fact that "great events cast their shadows before them" the appearance of masturbation need not be alarming.

There is nothing strange in the foreshadowing of the sexual impulse during the preadolescent stage. Some aspects of that foreshadowing are subtle, others grossly physical; neither the one nor the other type need be harmful if it does not lead to fixation. At the proper time, if all goes well, auto-erotic trends converge towards the proper sexual object.

Onanism presents a serious aspect in its tendency to become fixed apart from the function which erotism is intended to subserve in later life when it should enhance the sexual and other objectives. As a light and passing phase onanism proper is not a sign of morbidity or degeneration unless a foreshadowing of the sexual instinct can be looked upon as morbid.

CHAPTER XXIII

The association of sexual self-abuse and nervousness is common. The widespread occurrence of both makes their coexistence a fact of everyday observation. All forms of nervous derangement, ranging from slight instability to the graver manifestations of neurosis, have been ascribed directly to the habit of self-abuse. The two are considered as standing in a cause-and-effect relationship.

In the light of modern knowledge this view, still widely prevalent, is no longer tenable. A relationship between neurosis and self-abuse exists, but it is not one of cause and effect. In order most convincingly to bring into view the true relationship between the two it would be necessary to give a complete account of the significance of neurosis, its psychic mechanism and history. But this is a vast subject on which there is much to be said that is novel. Perhaps the reader is unacquainted with the latest developments in psychology. Statements on the subject ought to be accompanied at every step with the proofs of the respective assertions. do so is not practical within the limits of the present work. It becomes necessary therefore to make certain assertions of general principles in a manner perhaps more positive than the status of our knowledge warrants at the present time. But for the sake of brevity this is permissible, especially as I assert at the very outset that in writing of the psychic mechanism of neurosis I am aware of treading on ground that is very complex. The reader is warned to consider the quasi-dogmatic form of some of the assertions as dictated by the need for brevity rather than as flowing out of certitude.

Limiting ourselves to the most obvious general characteristic of neurosis, it is plain that a neurotic person is one whose psychic energy, whether in the form of interest, love, devotion, striving, etc., does not flow freely outward and forward. A neurotic is a person having difficulties with himself on account of which he does not get along well with others. The instinct of self-assertion prevents such a person from seeing himself in the wrong. He blames others for all his inconveniences, misfortunes and trials. But whichever way the person concerned looks at it, the situation in which he finds himself is largely the result of his failure to come up to the requirements of the environment in which he lives.

I am far from asserting that the environmental requirements are always right and the individual in the wrong. On the contrary, the environment is seldom what it should be and its requirements are often unjust, preposterous. But the person ade-

quately prepared through proper self-control is usually capable of dealing with every situation by compromises through which he neither yields his soul nor accepts everything. Above all, a mentally poised person is able to reach a compromise or proceeds to change his environment, if necessary, without affecting his health in the process.

Not so the neurotic. He is not sufficiently detached from himself to view his problems objectively. He suffers of the handicap characteristic of the anthropoid in one of Kipling's stories: there is "too much ego in his cosmos." He is too much attached to himself, in ways perhaps unknown to him, and as others do not take him at his own innermost estimate, the neurotic feels himself one of life's stepchildren. He is beset with emotions which make his life a hardship. His work he carries out under great difficulties, if at all. The "wear and tear" on his "nerves" is tremendous; relatively slight crises are sufficient temporarily to throw him off his balance. Under the burden of real hardship or serious crises he is likely to give way completely.

This statement about the neurotic is incomplete. A great deal more belongs to the typical picture. If I do not add more to the description here it is not a purposeful omission. What I have just stated will serve the purposes of showing us the relationship of this state to sexual self-abuse.

The neurotic, I have implied, does not take himself

for granted. He is uneasy about himself. The young man who masturbates is also uneasy. He has a secret to keep. He has heard that masturbation leads to terrible consequences; therefore he is alarmed. Every time he indulges in the habit he promises himself that it shall be the last. Immediately afterwards he has a feeling of guilt which causes some depression. The habit returns; the cycle of self-reproach repeats itself over and over.

Self-abuse once established, becomes a test of strength between himself and temptation. Every time he yields to the temptation his mind is a prey to remorse.

Is this young man a neurotic? Not yet, perhaps. But he is on the way of becoming one. His relationship to the environment in which he lives, the manner in which he meets his problems will decide that question.

It is quite possible that he may prove fairly efficient in meeting the world and its requirements. He may be a fair scholar during his study years and later, as he takes his place in the world at large, he may acquit himself efficiently of his duties.

But the chances are that the struggle between the "temptation" and himself, because of its urgency, duration and secrecy establishes in the young man's psyche a pattern-type of attitude which he carries out in all his relations and problems. That is what happens most commonly. Every task or problem at

school, or in the home, or in society, becomes a "test." Will he be equal to it? He begins to be uneasy at the thought. The idea of a "test" recalls associatively that in a certain respect, unknown to others, he is weak. Will others find out his weakness? That they should not, he must pass the test, whatever it is. But can he? Has he the strength? He must not show himself weak before others! But is he equal to it? Of course he thinks he is; but how can he make sure? Another thought: Is the test fair? Is it really up to him to do whatever is required of him at the time? In this manner, not only important matters, but the simplest and most insignificant details become troublesome.

A young man who brings himself into such a state of mind has gone a long way in the direction of neurosis. The question arises: is the habit of selfabuse responsible for the condition in such a case?

That the habit has a great deal to do with the mental condition is undeniable. But it does not follow that it is the cause. Self-abuse, in its turn, is but a manifestation of a prior mental state. It is a memento, a relic of infantile life. What stands in the young man's way when he attempts to meet current situations is the infantile attitude which he has preserved and of which the secret habit is a striking manifestation. As an infant he was self-sufficient; he indulged in the illusion of all-powerfulness. Masturbation serves to preserve that attitude and

is an expression of it. He clings to the habit because he has not outgrown the infantile attitude.

When facing a problem our hypothetical young man fails to meet it properly on its own terms because the infantile outlook is yet too strongly ingrained in him. His onanism is a habit through which his auto-erotic phase of existence perpetuates itself. In the proportion that his auto-erotism perseveres the young man is unable adequately to meet his problems. It is not onanism, therefore, that brings about his difficulties, but the infantile status, the self-centered attitude, of which onanism is but a manifestation

But the auto-erotic tendency must not be conceived as the cause of neurosis, either. To conceive it so would be an error like considering youth the cause of maturity, or childhood the cause of youth. The auto-erotic and narcistic phases antedate the period of adolescence. The persistence of the psychic characteristics of the earlier phases interferes with the complete development of the later phases of mental evolution. There is a conflict between youth and maturity. This conflict is often observed within the family circle and leads to a breach between parents and offspring. The struggle in society between the old generation and the new is an evidence of the same conflict between different life ideals.

But the conflict between the old and the new does not stage itself only between different persons. It is to be found within the breast of every person. The older ideas, manner of living, habits, refuse to make room for the new. Neurosis results from the conflict between them.

But neither the old nor the new is in itself the cause of the neurosis. Their coexistence and clash, the struggle for supremacy between them, is what brings about the conflict, and consequently, the neurosis. Onanism, as I have already mentioned, furnishes the pattern-type for the old life to assert itself in its struggle for persistence in the face of the newer requirements of social environment. Onanism is not a cause. It is the outward manifestation of an attitude of mind having deep roots and a lengthy biologic history.

From what I have just said it ought to be clear that onanism does not initiate mental difficulties. It aggravates, however, existing conflicts. Every ounce of surplus weight in a soldier's pack adds to the hardships of a forced march. They travel fast and reach the objective quickest who travel light. Self-abuse adds a pack of trouble for the adolescent and adult mind to bear. It matters little that the trouble is aggravated by alarming connotations and by consequences, mostly spurious, ascribed to the habit. Troubles that are conjured up, be they partly or wholly imaginary, are as difficult to bear as troubles that have objective reality; they present the same problems to the sufferers.

To conclude, we are justified to maintain that onanism aggravates mental conflicts by furnishing them points of fixation. It is not and cannot be in itself the cause of neurosis.

The neurotic clings to the habit of onanism because it represents to his unconscious that which he intimately holds (probably unbeknown to his conscious self) as the line of least resistance in life.

The practice of onanism is significant not on account of its physical consequences so much as on account of its psychic connotations. Onanism signifies self-sufficiency,—the derivation of pleasure without the coöperation of another person. It portrays a closed cosmic circle,—the abandonment of the outside world, and again raises self as the sufficient source of one's pleasurable satisfactions. It perpetuates the infantile illusion of all-powerfulness and of the supreme worth of our sensuous self.

In every respect onanism draws the psyche backwards towards its primordial expressions. For the neurotic it becomes therefore an important staff to lean upon in his struggle against unpleasant and exacting environmental requirements.

Onanism plays an important rôle in neurosis—because it lends itself conveniently as a vehicle for the figurative expression of one's infantile aversion to the external world. It permits readily a withdrawal from the uncertain, indifferent and perhaps partly antagonistic world back to the "safe and

certain" (though illusory) primordial self. The soul cry of the neurotic is "back to the paradisaic existence of care-free infancy!" Onanism helps him to attain this illusory goal.

CHAPTER XXIV

The relationship of self-abuse and certain cases of mental disorder is well known. Indeed a great variety of mental disorders have been ascribed directly to onanism. An understanding of the true relationship between the two reveals that this notion, too, is far-fetched. As in the case of neurosis, mental breakdown and insanity, when not due to physical causes, are the result of psychic conflicts in which onanism plays, indeed, a significant rôle, but without being the cause.

In the first place mental disorder is not of sudden origin. The outbreak may be sudden; but the underlying factors are at work long before they become noticeable on the surface.

Briefly stated every mental state may be said to be the result of conflict between different psychic forces. The manner in which the conflict of psychic forces is solved determines whether the resulting mental status will be "health," neurosis, or insanity. But the result is not always clear-cut for the reason that the conflict is never completely solved. On the contrary, the conflict of psychic forces goes on continually within us. Mentally we fluctuate be-

tween health and the borderland states throughout life.

Physical health is that condition in which every part and organ of the body transmits to the brain centers the intelligence that "all is well." For mental health the "all-is-well" perception is not enough, if limited to the functions of the body. We must find that all is well within the mind itself. That is not possible if our adjustment to society is faulty. As human beings we belong to a group of other human beings in the midst of whom we must take our place with a proper appreciation of our duties and privileges. We are "members of one another" and must learn to adjust ourselves to the world in which we live.

If it were possible to leave infancy and childhood behind and grow into maturity mentally unencumbered, the adjustment would take place without serious friction. But that is not the case. We grow out of the old into the new ways of thinking and feeling by slow stages and the process is more or less painful. Every important psychic phase of our existence tends to perpetuate itself. This tendency is sometimes consciously fostered. But for the most part it operates unconsciously and has behind it all the force of the instinctive striving for survival characteristic of all living forms. We are still infants, in certain important psychic respects, while we grow up as children. We remain very much like children

with respect to our mental qualities even while we pass beyond the stage of adolescence in point of years. And throughout life we preserve certain infantile characteristics of the mind, though the extent of this clinging to the past varies in different persons.

Not necessarily as a physical fact, but by reason of its psychic qualities and function on anism belongs to the earlier phases of mental evolution. Under one form or another the habit becomes the emblem of self-indulgence and self-sufficiency in later life. Pleasurable tendencies thwarted in their outward flow return to self as object. This is particularly likely to happen during the "storm and stress" period of adolescence. It is during adolescence, too, that various forms of mental disorder first manifest themselves. The period during which the physiologic sexual activity is drawing to a close is also one of "storm and stress"; during that period, too, mental break-down is relatively frequent.

These facts need only to be stated to reveal the true nature of the relationship between onanism and insanity. Where such relationship exists the habit merely exhibits the inevitable direction of the mental conflict. Without being a cause, it has important diagnostic value for the psychiatrist, if properly analyzed and interpreted.

The average person solves partially the conflict between his psychic tendencies by adopting for the purpose various compromises between infantile, instinctive tendencies and the requirements of society. The exceptional person occasionally succeeds in refining or sublimating a great portion of his infantilism. But the average person usually does no more than repress the infantile tendencies "out of sight and out of mind," in so far as this is possible.

Though repression is an expedient, an imperfect way of "settling" with the past, it proves effective so long as no great crisis suddenly rouses the repressed tendencies into activity. For practical purposes a person adjusted to the demands of adult existence on the basis of repression may become fairly efficient and "successful." In the midst of a society composed of individuals for the most part similarly repressed he may even achieve leadership by playing upon the hidden emotions of his cotemporaries.

In passing I may remark that the average person, notwithstanding his fitness to the environment and his efficiency, is not necessarily healthy; rather, he dwells on the mental borderline of health and so long as repressions exist the possibility of trouble is not too far off.

Moreover, from the standpoint of social evolution the environment to which the average man adjusts himself may, itself, be primitive and vile. Fitting into such an environment is a narrow end and an achievement of doubtful value. It is a poor preparation for meeting the requirements of a society inspired by more mature ideals.

Nevertheless the fact remains that he who through self-knowledge acquires mastery over his own psychic resources is best prepared to master also the forces of an environment ethically like himself. He does not have to go through so lengthy and painful a period of adjustment as less practical, tenderminded members of society. The single-track practical mind saves itself tremendous wear and tear; for the many-sided mind is often a mind divided against itself. The practical man is impressed with the advantages of adhering to the standards set by the environment. He knows that only by limiting the quality of his aspirations to the standards set by the society in which he lives may he achieve what is popularly called "success," while pursuing his personal ends.

The average successful leader of public opinion does not question the beliefs, prejudices or taboos of those whom he leads. He accepts them; that is why he in turn is acceptable as a leader. Success within a given environment is predicated on the readiness to accept its standards. The people clamor for a leader willing to be led. For a passing hour such a one is accorded the homage of heroworship. Soon another takes his place, one capable of appealing to the repressed passions of the populace from a slightly new angle. In worshiping its

leaders the people are really paying homage to their own infantile passions.

Compromise between contrary tendencies is not uniformly successful, but it works for a time, although changed conditions may require new compromise. Every compromise involves parting at least with a portion of one's infantile ways, and when that is done blindly the remaining ones become endowed with the strength originally belonging to all the remnants of the infantile psyche. This compensatory transference leads to the strengthening of peculiarities of conduct, apparently meaningless, and generates mannerisms, the significance of which is revealed only through careful analysis.

This reinforcement, a common psychic mechanism, also re-enforces the habit of onanism. The habit becomes the center and emblem, so to speak, for the survival of infantilism. Giving up the habit is not possible in cases in which such a step implies figuratively a parting with one's past, for we cannot pass from one stage of psychic development to the next except gradually. We cannot altogether sever our past by a sudden turn or by an act of will. The effort to break away from one's tender childhood or beloved infantile psyche is beset with hardships; such a task is more or less painful under all circumstances and any sudden demand in this respect may lead to serious consequences.

The neurotic is a person linked to his past with

emotional ties so intimately part and parcel of his innermost sense of selfhood that he cannot readily yield to the demands of mature existence and consequently every little while he becomes entangled in bitter mental conflicts. To the tender-minded neurotic the harsh world of reality appears an ocean of merciless strife; he thrusts himself upon it, overconfident perhaps in his abilities and knowledge, but without having really learned "how to swim." Unable to endure the hardships he meets his psychic infantilism forces him back to the world of his own reveries and accustomed emotional tenderness. In other words, he reverts for a time to a previous phase of psychic evolution. Because he cannot be a man after the world's fashion he clings with increased tension to his past; psychically he becomes more and more a grown up infant.

Onanism, as I have already pointed out, is a habit that accentuates this fictive reversal of the direction of the growth of personality. It preserves the attainment of pleasure-satisfactions denied or unreachable otherwise.

Occasionally infantile tendencies persist in a form too strong to permit even that temporary makeshift of compromise whereby the neurotic at least manages to keep swinging between partial failure and health. A person in whom some primitive psychic trend breaks forth in a form distortedly resembling an instinctive phase of existence, to the complete exclusion of reason and commonsense, is said to be insane.

The insane person is one who, instead of adjusting himself to the requirements of reality through the expedient of compromises completely abolishes the external world with its requirements by withdrawing into his own fanciful, archaic world of subjective existence. He may do this with reference to everything pertaining to the external world or with respect only to that particular phase of it which he finds unbearable.

This psychic mechanism is not difficult to understand. He who with infantile notions of his own powers or worth sets out to conquer the world only to find it unresponsive and unappreciative; he who, for other, lesser reasons, though similarly infantile, finds life too harsh, unpleasant, painful and unbearable is ill-prepared to withstand an unusual strain or crisis. When such a crisis occurs, the man who loves himself too much to put up with defeat or its consequences, still has a weapon left with which to fling his defiance at the world. That weapon is the supreme withdrawal of himself from its midst and assumes the form either of insanity or suicide.

The character of suicide as a withdrawal from the world is clear. Less obvious on the surface, but equally true with respect to its underlying psychic mechanism is the rôle of insanity. Both serve the same purpose. It would not be far-fetched to con-

sider insanity a chronic suicide. Insanity accomplishes exactly what suicide does. The latter draws down the final curtain on the world. The former fences off the mind against the world or against the most unbearable portion or feature of it. In either case the result and the psychic stages that precede it are the same.

Once the barrier of insanity is raised the person involved has partly or wholly insulated himself from reality and is out of reach, just as the average person may be with reference to a particular subject on which he has his "prejudices." The mechanism of insanity is practically the same as that of psychic blindness,—the unconsciously determined unwillingness to see—of the average person.

I have already stated that insanity does not develop suddenly though its outbreak may be sudden. Long before the outbreak, the history of every case shows numerous attempts at adjustment. The various compromises between contrary tendencies do not last. The backward pull proves stronger than the forward urge, the archaic tendencies more powerful than later guiding principles. Under the strife, the mind reverts back to its earlier self, as it were; the conflict is settled at last by a flight away from the unknown and painful (the world, reality) and back to the known (itself, the world of the unconscious). The form of insanity appears to be determined largely by the level to which the individual's mind

plunges backwards as well as by the nature of the precipitating crisis.

Briefly then, insanity is a condition in which the primitive, the archaic psyche breaks forth and obscures reality by annihilating ordinary consciousness. But long before the precipitating crisis makes a recognition of the insane state inevitable the person concerned exhibits a predominance of the archaic. It is but logical therefore that such a person should show also a marked auto-erotism which may take the form of indulgence in masturbation. The popular observation that excessive self-abuse precedes certain forms of insanity is true.

But while popular observation is frequently correct, popular deduction is more often the reverse. True, excessive self-abuse occurs in conditions leading to insanity. This happens so commonly that, in the absence of the knowledge recently gained about the psychology of mental disorders, the suspicion of a causal relationship between onanism and insanity may have been justified in the past; but to maintain such a view to-day would be to fly in the face of evidence.

The prevalence of onanism among certain insane does not indicate that the habit brought them into the condition in which they find themselves. It may be pointed out that onanism, frequently carried to excess, is equally common among those who never become mentally ill, according to many investigators.

It is inconceivable that a habit will operate in one case and fail to operate in another, under identical conditions.

The question, does self-abuse lead to feeble-mindedness? must be considered as one engendered by ignorance. It can be positively asserted that feeblemindedness does not result from the habit. The popular superstition that it does, has something to do with the fanciful notions which were once prevalent regarding the miraculous functions of the seminal fluid in the bodily economy. It is easy to trace a semblance of reason for the popular post hoc ergo propter hoc error in this connection. Feeble-mindedness, at least some striking forms of it, is the result of faulty brain structure, -occasionally of brain disease, and possibly injury, during early childhood or infancy. At any rate it is in most cases a fixed condition that begins with birth or soon afterwards though it may remain unrecognized for a long time because during the first years of life, the mental development of the feeble-minded may be very much like that of the average child. when the period of arrested development is reached it may continue for some time before it is noticed. Meanwhile the feeble-minded child having discovered onanism indulges in the practice with the excess common whenever the ordinary checks are absent. One of the characteristics of feeble-mindedness, of course, is the feebleness or absence of inhibitions.

Under the circumstances on anism will be indulged in openly whereas the child of normal growth would know enough to curb or hide its inclination.

Discovery of the habit in the child may be the first or, at any rate, one of the early signs inducing the distressed parents to seek medical advice. Quite likely the physician finds upon examination other signs suggesting feeble-mindedness. The parents indignantly reject the idea. They regard it as a reflection upon their unstained family escutcheon. They go to another physician who perhaps encourages their belief that onanism alone is responsible for the child's backwardness, if some more definite signs of the condition have cropped up by that time.

When the feeble-mindedness makes itself clearly apparent at last and the parents' efforts to curb the habit prove unsuccessful, the notion that masturbation is the cause of the misfortune takes deep root. Incidentally, the belief absolves them from the painful task of searching their family tree for an hereditary blot. It is a protective idea and under the circumstances it is sometimes difficult to convince parents, proud of their ancestry and genealogic history, that their child's feeble-mindedness may be congenital or hereditary. They prefer the more comforting belief that the habit alone is responsible.

Absence of ordinary inhibitions makes indulgence in self-abuse common among the feeble-minded as

well as among certain insane. In many, if not most, instances of both categories the habit antedates the recognition of the condition.

Popular belief has erroneously ascribed to selfabuse the rôle of a cause. This belief has been upheld in the past by a portion, at least, of the scientific world. The time has come for this error to be abolished.

CHAPTER XXV

The old conception that life is a struggle for survival has been given scientific formulation by Darwin. Recently the conception has been adopted in psychology by Freud. We now recognize that mental activity is the result of a struggle between psychic forces, each aiming at supremacy.

The forces of the mind are the primitive instincts and their later elaboration which, under the influence of historical culture, appear as aspirations, ideals and emotions, such as characterize modern man at his best. Instincts prompt our activities under their raw form as well as in the guise of "civilized" formulations. The highest thinking of which man is capable represents, in the last analysis, as Nietzsche expresses it, "only a correlation of our instincts to each other," exactly like the child's first outcry or the savage shout of the Kaffir in his African jungle.

One of the most startling observations concerning the human psyche is the fact that no matter how far civilized man has progressed from the jungle stage, no matter how elaborately civilization has refined his primordial instincts, the "feel" of the jungle is in his blood still. The instincts persist very much in their aboriginal form. What we have learned thus far about man lends support to the view that human nature has undergone no change as the result of the influence of civilization or culture. Man has diversified. His original mental endowment appears under many refined forms. But the instincts that prompt man do not always appear under the refined, sublimated forms they have partly assumed in the course of centuries of culture. In spite of their civilized expressions the instincts still operate in our midst under their naked forms.

Infancy and early childhood repeat the early cycles of man's racial evolution. Repression sets in to curb the raw instincts in favor of their more refined cultural formulations. The sexual instinct is early placed under the influence of repression. This is not the place to go into the historic, cultural and individual reasons for that. The fact is so clear that the statement requires no justification.

One of the effects of repressing sexuality has been the overlooking of infantile erotism. I have already dwelt briefly on that. Parents, educators and all other adults prefer to overlook the occurrence of onanism during early life. The repression from memory of the corresponding phase in their own life makes this necessary. Instinct and repression is the key to the intrapsychic struggle with which man has to contend more or less throughout life and in that struggle onanism acquires early a symbolic rôle.

Take, for example, the qualms of conscience, the self-reproaches generally associated with the habit. A great deal of that is due, no doubt, to the false teachings on the subject, to the lurid fear of the consequences, such as insanity, feeble-mindedness, etc., to which the habit is popularly supposed to lead. But the self-reproaches, it must be recognized, are not always brought about through such outside influences. They are self-generated much more frequently than they are the result of suggestion. The overstatements of purity propagandists, the stressed warnings of social hygiene crusaders, the threats of parents and teachers, often only aggravate the evil by increasing the poor victims' fears without preparing them to give up the habit, thus adding perhaps greater injury than the habit itself involves. For as we shall see later, the sudden abolition of the habit is not without its serious dangers.

Those who practice self-abuse have a troubled conscience. The inhibitions standing between instinct and its expression constitute the psychic force called conscience. Troubled conscience means inhibition under stress, tension. In the case of onanism the state of tension, the troubled conscience, is due to the fact that the individual concerned is aware that his behavior does not accord with the

ethical standards of our present cultural level. Children, too, perceive that they run counter to their parents' will. Strangely enough, they sometimes sense this fact before they have ever been warned against the habit. Children seem to perceive at a very early age that between some of their innate predispositions and what is expected of them there exists a gap. When they begin to realize that fact, do they immediately conform themselves to the requirements of their elders? They may make some efforts to have it appear so, but in reality children are inclined more strongly to follow the bent of their instinctive cravings. They learn to practice onanism in secret, hence the feeling of guilt that it generates. Very rapidly onanism becomes the symbol of much that is forbidden, secret and, speaking broadly, unsocial.

Man is a gregarious being tending to become social. It is doubtful whether he has always been of that type. Judging by the unsocial character of his early psyche and the self-limited character of his instincts it is most likely that during some early pre-historic age he was not only preyed upon and subject to terrors on that account, but that he was, himself, a beast of prey, "red in tooth and claw," like nature.

However that may be, it is certain that the "social sense" is a relatively late development in the human psyche, if psychologic observation is a sufficient criterion. Man may have been gregarious for a long period. Many wild beasts gather in hosts for hunting or as protection against being hunted. But the higher social sense that leads eventually to the ideal of impersonal service is still sporadic, rare and is a relatively recent development,—always excepting, of course, the rare personalities that may be found in every period of history.

The conceptions of criminality are shifting. There is hardly a crime that has not been praised as a virtue at one time or another. Deeds ordinarily considered crimes are not only tolerated but fostered and praised, under certain circumstances. Man's civilization does not appear to be even skin deep. Apparently it is as easy for his instincts to break forth in their raw form to-day as ever, in spite of the supergloss of civilization. Culture has probably not altered the essential nature of man. From the standpoint of psychology the sum total of man's cultural achievement consists of a set of particular inhibitions. Without these inhibitions the structure of society would not be safe against the outbreak of raw instincts.

But man's instincts, powerful as ever and craving expression in their primordial form, are not held in check altogether. Occasionally they break through. Every war, every violent social event furnishes the occasion for the breaking through of a flood of primordial passion.

Events comparable to great social upheavals take place in the life of every person. The events may not be important in themselves, just as the precipitating causes of great revolutions and wars are often trivial. But the passions those trivial occurrences unfold are far from insignificant. They represent man's reversion to his primordial, savage, instinctive self.

In itself, as a physical act, masturbation is probably trivial. But like many other irrelevant habits and meaningless peculiarities of conduct psychologically it may become most significant.

Not the least important feature of onanism or masturbation is its function as a symbolic, and therefore vicarious, representation of the unsocial trait in human nature.

What is merely unsocial at one age becomes clearly antisocial at a later age. The reverse of that may also be observed and is particularly common in the history of social conventions. It may be unsocial for a person living in a small community to abstain from going to church when all his neighbors do. It was considered an act distinctly antisocial during puritanic times. To-day conformity in church matters is left to individual choice, but it is strictly enjoined in other matters.

There are many persons who preserve the unsocial attitude characteristic of the predominance of in-

stinctive cravings over reason, and who are innately non-conformistic, so to speak. They have strong antisocial tendencies. Many such persons find in onanism a substitute for the carrying out of their antisocial acts. Through the medium of self-conceived fancies they portray themselves as carrying out acts to which they feel themselves impelled, but which their inhibitions prevent them from carrying out in reality. As a compromise between the tendency to do certain acts and the dictates of conscience against doing them, the antisocial acts in question are thus carried out vicariously, in the subject's imagination. This may be done with or without the accompaniment of physical masturbatory In either case the pleasurable excitation is practically the same.

Many of these phantasies have to do with acts of cruelty or violence. The extent to which persons of mild temper and of exemplary social behavior indulge in fancies of this character is certainly remarkable. It shows that the need for the vicarious execution of antisocial acts is widespread, for it is undeniably a fact that onanistic fancies of this character represent a safety valve for the prevention of overt acts.

Many forms of cruelty and crime are indulged in during onanistic orgies. There are persons whose libidinous cravings are satisfied only with pictures in which they portray themselves as the leaders in the perpetration of deeds which would rouse the envy of a Nero.

The specific pictures accompanying the onanistic act or representing it (in the absence of excitation by mechanical means) determine the rôle which onanism plays in the psyche of a particular person. Judged by that criterion onanism appears to be frequently a vicarious outlet for the tendency to violence, immorality and crime.

But this must not be taken in too literal a sense. Sometimes the onanist tortures and kills off his critics, enemies and antagonists generally. But often when he indulges in orgies of bloodshed, his imaginary victims are indifferent persons and he does it with the same erotic satisfaction to himself. It is the sense of power, or rather the craving for all-powerfulness, that comes to expression through these onanistic fancies. The exhibition of bloodshed and wholesale murder is incidental. The same is true of the numerous devices for torturing their imaginary victims which many persons conjure up during onanistic indulgences. Torturing others is a means of heightening one's own sense of power.

Psychic onanism lends itself readily as a means for expressing and vicariously executing all sorts of antisocial tendencies. Its connection with crime is dual: in the first place it heightens the imagination in the direction of antisocial deeds, if the onanistic fancies happen to take that turn; but at the same time it

probably enforces the individual's inhibitions against actually carrying out the deeds of violence and crime by providing a vicarious outlet through fancy.

The prevalence of onanism among those who are confirmedly antisocial in their actual behavior has no particular significance with reference to their conduct, except in so far as the habit confirms and strengthens the antisocial tendency. But the latter cannot be ascribed to masturbation, any more than neurosis or insanity.

CHAPTER XXVI

An enormous mass of proof tends to show that self-abuse is widespread among those who in later life distinguish themselves through creative ability in literature and art. These children show even at an early age unusual qualities of mind. The exceptionally gifted child seems to be no exception to the almost universal practice of onanism.

This raises the question of the relationship between the habit we are considering and the development of those exceptional qualities generically designated as talent.

For a long time the common view has been that self-abuse destroys the higher qualities, leading instead to aberrations and perversions. The "scare literature" of former generations designated to curb the practice and partly still current, records numerous alleged instances of promising lives ruined through onanism. Stories of this sort have a strong effect upon impressionable youth. They furnish concrete reasons for self-reproach and for the feelings of guilt and the depressed moods with which youth is struggling towards an adjustment of its instinctive promptings and early habits. Such writ-

ings do a great deal of harm; it is doubtful whether they do any good.

Regarding the alleged influence of self-abuse as a hindrance to the development of exceptional traits it can be definitely asserted that the notion is based on faulty deduction. The habit does not necessarily inhibit talent. The truth is, exceptional children pass through a phase during which they perceive their inhibitions more sharply than children of the average class. Precisely this increased sensitiveness and inward tension marks certain children apart from others; it is close to the root of precocity.

The precocious child is one whose psychic growth does not proceed within the mould determined and provided by ordinary educational formulæ. The qualitative difference is determined largely by the fact that a greater amount of the primal instinctive force than ordinary stands at the disposal of the exceptional child ready to be converted into any activity, function or interest. This excess may be utilized in one of two ways: the child either learns to convert that primal urge into useful acquisitions or turns it into customary channels for the attainment of pleasure. Whether the child will do one or the other in a given instance depends on too many variable factors to be predicted beforehand with accuracy, but the choice, though unconsciously determined so far as the child is concerned, may be properly directed, if those who have the child in

charge understand their task and are prepared to acquit themselves faithfully of their duty.

Precocity, an increase in the primal urge, manifests itself as excessive curiosity, interest, tenderness, will to domineer, to learn, etc. In whatever form it shows itself precocity may lead either to a rapid development along desirable, because socially useful, lines or to an equally rapid shifting in the opposite direction. Subjectively there is no wilful, deliberate choice of direction. On the contrary, so far as the child is concerned, it is as "natural" or easy for it to drift in the direction of unsocial or even antisocial character-trait development as to assume qualities centering around the sense of social obligation in its wider range (parents, family, comrades, community, home, country, etc.). Although infantile habits tend to predominate, the persuasive influence of the right environment and, to a lesser degree, formal education determine higher channels into which the specially gifted children turn their enthusiasm and interest, their will to be or do.

Our educational system does not meet the needs of the exceptional child. As a corollary of our notions of democracy our schools are dedicated to the interests of the imaginary, hypothetical (and I may add, parenthetically, chimerical) average child. The current educational slogan seems to be "the common school for the common child"; enlargement of our democratic ideals will suggest an additional

slogan: "for the exceptional child, the exceptional school."

To-day the exceptional child is considered only if he is subnormal, that is, if he is a hindrance to the smooth running of the educational machine, or if he threatens to become troublesome to safety or morals.

The exceptional child of the opposite category, the child who is above average to an equally marked degree, as a rule, is left to shift for himself. Possessed of yearnings which he does not understand, an excessive urge—shall it be forward in the direction of social interests or backwards and inwards towards himself as the center?

Our educational system decides only in part. It takes care of him in so far as he is "average"; beyond that point he is thrown upon his own resources.

Under the circumstances the exceptional child undergoes the experience common to all: he learns by trials and error; he tests the various special directions towards which he feels himself inclined from time to time, and since he is capable of growing in any direction, he does all things, good and bad, forbidden and commendable, with equal facility.

The hit-or-miss chance of fulfilling their early promise to which exceptional children are abandoned in the midst of our "democratized" educational machine with its emphasis on the needs of the mythical "average" child is costly as well as wasteful. A large number of those who give exceptional promise

in childhood or youth lose their way and fail to live up to the earlier expectations. This is a distinct and great loss. Innate inclinations should be recognized and cultivated. There should be a choice of direction and this ought to be brought about in such a way as to enlist early and effectively all the child's forces making for growth and unfoldment.

In the absence of a willful direction of primal energies, of a process of sublimation properly graded, carefully adapted to individual conditions, the child, exceptional or otherwise, is bound to revert often to the customary pleasure-yielding attitude characteristic of the early stages of life as the line of least resistance.

There is not much more than that needed to explain the prevalence of masturbation—a habit that tends to prolong the instinctive life—among the exceptional children.

The exceptional child comes frequently into conflict with the inharmonious, the rough, the arbitrary and downright unfair conditions which adults in their self-conceit impose upon children in the attempt, not always and certainly not uniformly commendable, of moulding the new generation in its own image. The instinct of the child is at times unerring in its rebellion against the kind of life invoked and held forth as ideal by the rulings of the older generation.

Escape from the inharmonies of the world as made

up by the arbitrary demands and expectations of others is readily possible through a withdrawal into one's own world. Moreover, one's own world has claims of its own for perpetuation. The exceptional child is one least likely to abandon that world or forego lightly its claims.

The exceptional child is made exceptional through the wealth and urgency of his inner resources. Unable to transmute all these resources into useful activities from the first a great part of them are utilized in the weaving of fancies. The subjective world is enriched thereby and out of it are derived satisfactions which later, if all goes well, will be sought more and more in the world of achievement and of external reality. These gratifications through the use of one's fancy are necessarily sensuous as well as self-centered. Not only do they resemble the overt physical masturbatory acts, functionally the two are identical.

Masturbation, the physical act, as contrasted with onanism, the psychic indulgence in the same habit through the abuse of imagination, has no special significance, broadly speaking, apart from its psychic connotations. A clear-cut distinction between these two forms or varieties of the same habit such as some investigators have attempted is neither possible, since the two often commingle, nor necessary for any practical reasons. If anything, the abuses of imagination, being more subtle and elusive, play a

much more significant rôle. They are the very abuses that have been largely overlooked by those who campaign against sexual self-abuse.

The predominance and subtlety of psychic autoerotism is richly illustrated in the intimate life histories of persons possessing creative abilities. Exceptional children, those who show early a strong inclination toward artistic or literary development, exploit the habit of deriving extreme gratification through the exercise of purposeless dreaming to a higher degree than the average. Childhood with its ways and moods clings to them longer and more vividly than to others. Persons of unusual creative ability remain unusual and retain their creative ability best so long as the reservoir of forces exercised through fancy weaving does not fail them. It is only necessary for them to give some socially useful or pleasing form to their subjective conceits. Ability to translate into harmonious symbols of sound language or into plastic material, the stirrings from beyond the realm of consciousness makes the true artist. He who is master of the medium chosen for expression is on the way to become also master of his art; but unless he has overcome his repressions sufficiently to be able to keep in easy touch with the resources of the unconscious he cannot become one. The exceptional type of person in any field of creative work preserves many features characteristic of childhood and youth, but for the

most part they persist under forms which (for efficiency as artist, scientist or creator in any activity worth while) reduce the conflict to a minimum.

One who fails in any of these important particulars is thrown back upon his subjective world more and more. But no artist's course is one of steady progression. Occasional ebbings mark the outward flow of creative energy; during those periods of inhibition the artist's mind may be engaged in replenishing its resources and inspiration by deeper communion with its own primordial stirrings.

Between the artist during the incubation period of his creative ability and the artistically minded who achieves little or no control over his medium of expression, or one who fails to translate his "moods and brooding and reveries" into socially acceptable forms outwardly there is no difference. Yet the former is engaged in a very important preparatory process without which no creative work is truly possible while the latter, with his ineffective dreams and impotent moods, his scattering self-pity and remorse, is but practicing a form of self-abuse whose physical counterpart is universally recognized and condemned.

The statement of these facts in this brief and summary form is not without its danger. It is likely to suggest a number of inferences which I am not at all prepared to maintain.

Thus, for instance, although there is no distinct

line of demarkation between the early use and later abuse of erotism it does not necessarily follow that masturbation is ever desirable. True it is not as potent of harm as the professional "scare-raisers" would have us believe. But prolonging any pleasure-yielding, otherwise useless, indulgence only weakens resistance against self-indulgence. The artist, above all, must conserve his resources and learn that the path of creative work leads always away from self—through identification with socially useful activity.

CHAPTER XXVII

In ancient Greece the holy brotherhood of healers were proud of the Æsculapian Temple on the island of Cos to which merchants, sailors and other wanderers flocked before undertaking perilous journeys in order to lay their offerings before the shrine of the great health divinity and thus secure the good will of the miracle-working medical priestcraft. humble sailor refused to allow himself to become dazzled by the mountains of precious gifts he saw piled up before the altar of Æsculapius; and when told that those were free-will offerings of sailors and other grateful voyagers who had been protected against disease and shipwreck, he asked the watchers of the Temple to show him also the offerings of those unfortunate sailors and sea-faring travelers who did perish through sickness on the high seas notwithstanding their gifts; for surely, he said, their gifts must be as costly and more numerous. That sailor was a disturber of peace; in modern times he would be branded an undesirable citizen.

Those with whom the belief in the dangers and evils of onanism is an article of faith are as disturbed over the proofs that their belief is false as the medical priestcraft was shocked by the sailor's common-sense attitude regarding the alleged miraculous preventive and healing powers of free-will offerings.

Nevertheless the common-sense conclusion flowing out of the actual facts is that masturbation in itself induces no such evils as have been ascribed to it. Is not the practice widespread among those who carry on an ordinary, average, healthy life?

Onanism is not incompatible with a certain degree of health. Its wide prevalence among those who pass for healthy alone proves that the habit does not necessarily undermine health. But many of the older notions regarding onanism do contribute to mental ill health. We must distinguish between the evil effects of false beliefs about onanism and the direct consequences of the habit itself. Those who in one way or another succeed in ridding themselves of the false beliefs popularly current regarding the evil effects of self-abuse manage to go through the period when the practice is quasi-habitual with least harm to themselves. They outgrow the habit, as other habits are outgrown, when their inward urge for pleasurable excitation finds other, useful outlets. Those who entertain superstitious beliefs regarding onanism for that very reason find it harder to get rid of the habit; and when they apparently do, all they accomplish is exchanging masked forms of selfabuse for unpleasant overt acts of masturbation.

They thus calm their conscience without really parting with the habit. Such persons do not,—they cannot—abandon the belief in the evil effects of masturbation. They need that belief as a support in their fight against the overt forms of it.

There are sophisticated persons who, far from struggling against the habit, indulge even to excess either in its overt or masked forms, but acquiesce in the belief that masturbation is harmful in order to cover up their secret habit and throw off suspicion. But the choice of beliefs in such matters is not always deliberate. More often persons merely hang on to those beliefs which they can afford or which they require for protection against self or others. The choice determines itself in ways over which the persons concerned do not necessarily exercise conscious control. They believe themselves convinced when as a matter of fact they are merely agitated and they think they know a certain thing is true because they feel that particular way about it. When feelings are allowed to settle matters judgment is in abeyance; it comes trailing behind to justify the feelings.

Sexual topics are preëminently among those about which we have yet to learn to think without allowing emotional predispositions and feelings wholly to determine our thought processes, our judgment and conclusions.

Certainly a most striking feature of onanism is its

almost universal prevalence among all classes coupled with the equally widespread belief in its alleged harmful consequences. Here as in many other sexual matters practice and belief are at variance. The belief in the harmful effects of onanism is denied in practice. Those who take current beliefs and superstitions seriously pay the penalty; others escape lightly. Popularly the notion that masturbation is ruinous to health amounts to an article of faith.

The evils of onanism do not consist of any alleged consequences. Onanism may become harmful because it constitutes a misdirection of instinctive tendencies, an abuse of pleasurable summations intended to subserve useful purposes. But that is a feature which least interests the average individual. He belongs to the average class exactly because, being practical-minded, he is not likely to abandon a pleasure-yielding habit, so long as "there is something in it" for him. His keen practical sense enables him to pierce through the misty veil of social prohibitions and taboos with which indulgences are surrounded. The same practical sense automatically inspires him to divert suspicion from himself by upholding all current sex taboos.

Certain evil effects are bound to follow the bipolar attitude towards onanism,—the widespread divergence of belief and practice. Preaching one thing

and practicing another cannot be but evil. This double attitude becomes a habit. It leads to sophistication—the formal adherence to current social beliefs with a great show of loyalty which is not genuine.

The practical-minded is certainly oversophisticated. As a matter of policy, he is ready to lend moral and financial support towards the maintenance of antiquated beliefs, decrepit institutions, noisy campaigns, doubtful causes, etc., about which he really does not care at heart.

In current politics, religion, social and sexual ethics, the double attitude is almost universal. Where it is deliberately practiced it is justified on the supposition that the antiquated institutions and obsolete beliefs, etc., must be preserved "to hold the lower classes in check." The plea is always that it is for "the other fellow; he needs it." But sophistication in the end fools him who indulges in it as often as it does "the other fellow." At any rate it makes one dishonest with himself, insincere, formal and shallow. At bottom such a person becomes dual and he preserves his hold on himself only so long as it does not become necessary for him to look within. He lives the shallow life of appearances. He cannot afford to reach out towards the center of the things which make life worth while in the larger sense. But so long as the tinsel, show and pretence of which his

life is made up has social currency he is happy. In short, he is the typical "average" successful person in business, industry or politics.

Sexual ethics is the sphere within which divergence between practice and belief is first generated and from it the double attitude spreads to all other human relations as a deliberate practice. This, as I have already pointed out, makes the subject of sex of capital importance beyond its own immediate sphere.

It requires strength of character to appreciate that masturbation ought to be abandoned because it diverts into useless channels cravings intended to subserve higher aims than one's physical self. We live in an age when "being practical" is raised to a high virtue, forgetting that practicality has its degrees and unmindful that this doctrine has a ruinous aspect. It is precisely the practical-minded person who requires more practical deterrents than broad considerations of social utility. He must think that onanism leads to insanity; that it is a cause of feeble-mindedness; and he must believe that, at best, onanism is robbing him of something material, physical, by inducing a weakening of his sexual powers, for instance, before he feels warned. Accordingly ordinary social hygiene propaganda is based on beliefs which are likely to appeal to this type of mind. The average person is not sufficiently social-minded to be moved by considerations of broad and general

character. Even social motives frequently appeal to him chiefly as novel pretexts for extracting personal gratifications of a quasi-infantile order.

Nevertheless human growth consists of an enlargement of our perception of social values. The quality of our habits and their survival-value is determined in the long run by their social utility.

It is true that many persons contrive to make masturbation compatible with a certain degree of health. But theirs is not a desirable kind of health even though the habit is not responsible for the Pandora-box of troubles ascribed to it.

Mental health is the result of a successful compromise between innate tendencies and environmental conditions,-a compromise wherein instinct and environment partly cancel and partly aid each other. This compromise may be struck upon any one of an infinite number of possible levels of mental maturity. The give-and-take may not be equal; it may not remain always the same; or the compromise may be carried out at a rather low infantile level when the achievements sought are also infantile in their char-Frequently an adjustment even at so low a acter. level makes possible the carrying on of ordinary In political life it is the rule rather than activities. the exception; for there this kind of adjustment is not incompatible with, but rather suits the popular notions of "success."

But what represents a satisfactory adjustment to

one type of mind may be but the occasion for conflict to another, more adult type. Mental health has its levels as well as degrees. Better health means adjustment on a higher level of understanding.

There is little in the infantilistic features of masturbation to conflict with the aspirations of the average person when the habit is reduced to its physical limits. The average person is not given to indulging in the more subtle forms of aimless dreaming and thinking. For the most part his infantilistic indulgences are grossly physical; such psychic accompaniments as may exist are entirely unconscious; he is at all times ready to protest that they are non-existent.

Reduced to its mechanical-physical aspects with little or no conscious psychic accompaniments masturbation has been practiced for years apparently without any visible effects upon health except for such consequences as may be due to the notions with which the habit is consciously associated in the subject's mind. But this does not mean that the habit is wholly innocuous. For one thing it strengthens certain character traits like oversophistication, already mentioned, which prevent the full growth of personality by crippling man's social sense.

When in the course of his psychic growth an individual becomes attached to some infantilistic phase as shown by the persistence of onanism the development of his personality beyond that fixation point

is correspondingly crippled. A person so tied down to some emotional level of his own past, if he does not grow up a "solitarian" develops but little beyond gregariousness. True social sense requires that we should outgrow the primordial forms of our cravings. Out of our past we must carry into the present only that which is capable of being transmuted into terms of social utility.

The average person is prevented by his repressions from growing to the full stature possible for human personality to attain even in the midst of existing social and economic conditions. One still clinging to the infantile longings and ineffective ways of achieving ends remains self-centered at bottom in spite of any gregariousness to which he becomes accustomed. Formally cringing from anything which involves self-betrayal nevertheless he secretly feels impelled to hold on to everything which enhances his infantilism. This is the breeding ground for the masturbation habit and for all forms of cryptic onanism.

It is idle to preach on the evils of self-abuse to those who hide the fact of self-abuse from their own consciousness. The real evil is the self-centered character of the gratification sought; but precisely that is what makes the habit so valuable to the average man who is preëminently self-centered.

In short the average person is not likely to be freed of onanism through fear; nor is he likely to outgrow the habit merely through realizing that it makes him more determinedly self-centered. When Louis XIV cried out, "Après moi le déluge," he echoed the infantilistic attitude which, but lightly buried, lies in the heart of the average man.

CHAPTER XXVIII

The struggle for supremacy as a means of attaining assurance of survival and the play instinct—the obverse of strife, and a sort of preparation for it—make up the sum of existence from the psychobiotic standpoint. Through the manifold activities of the organism in the course of its internal and external adjustments both survival and play instinct find continuous expression.

Man is no exception to the laws of psychobiotic existence. Possessing a subjective realm of his own, man carries on this struggle within himself and with himself as well as within and with the world of external reality. Through playing with parts and aspects of himself he first learns something about the laws that govern existence. Symbolizations, resistance, repressions, these and many other psychic processes, represent half-playful, half-earnest aspects of the struggle continuously going on between the various forces of man's psyche.

What is commonly referred to as "human nature" is made up of a number of instinctive trends struggling for supremacy and for exclusive dominion. Each trend, each instinct gives rise to a variety of

manifestations; the latter, bewildering in their complexity, are but so many aspects of the few basic instincts that make up life. The infinite variety of human character is made possible through the infinite variations in the shadings of the instincts from the primordial and raw to the refined, their fusion and refinement.

The primordial cravings in man prompt him at first to reach out by the simplest paths for the attainment of gratifications and to ignore all other possible ends. But out of that raw force—the instincts—eventually there develop trends which lead man to accept higher guiding principles while the gratification motive is retained merely as secondary.

Long before man becomes aware of any other guiding motives, long before the need of adjusting himself to the world of external reality impresses itself upon him sufficiently to compel him to curtail the supremacy of the gratification principle, the sense or instinct of play reaches supreme development: and at first, as I have had occasion to reiterate frequently in the course of this work, man's own functions and bodily parts furnish his play material. Auto-erotism is the earliest step and furnishes perhaps the first nursery lessons in play.

I have already made clear, I trust, that onanism gradually shades into all sorts of activities coloring with its own infantilistic hue the interest which binds adults to their tasks. Conversely adult preoccupations are the result of a refining or sublimating process whereby the primordial erotic craving is withdrawn from the onanistic phase with its emphasis on gratification as the only guiding principle and becomes elaborated into social values with the principles of usefulness, beauty and larger service as guiding motives. In short the highest we find at the top of life is a refinement from below. That is the sense of evolution as a progression upwards. But from the lowest to the highest level the transition is gradual; no sharp lines of demarcation actually exist at any point.

Therefore, when an instinct like the infantile pleasure motive, or erotism, is viewed in action, as in onanism, it becomes necessary to consider the emotional level at which it manifests itself as well as its setting. That means that we must study the individual's developmental history; and in order to acquire a true perspective of our particular subject we must also acquire some understanding of the direction towards which the individual's growth is tending in virtue of the quality of the manifest form of his instincts. Neither onanism nor any other peculiarity of human behavior can be considered fully apart of the whole man. I found it necessary largely for that reason to go at some length into a number of subjects such as neurosis, feeble-mindedness, insanity, etc., in the course of the previous chapters, in order to make clear the particular subject which concerns us at present. That, too, is the reason why I limit myself in this volume to general and preliminary considerations.

I propose now to take up some of the commoner varieties of masked onanism in order to illustrate their subtlety and the great need for psychologic insight. Here, too, I shall deal with the subject only in a general way. Many points deserving attention are of such special character that it seems best to take them up, in connection with studies of the concrete sexual conditions, in separate volumes.

We have learned to distinguish some characteristic traits of onanism and we have observed that these characteristics belong to a large number of data, both physical and mental, which are not recognized ordinarily as onanistic. The absence of any distinguishing line between the various levels of growth and the ease with which an old form assumes the functions of a more adult expression, make it possible for infantilism, with its characteristic autoerotism, to persist through every phase of life, without betraying its true character except, of course, to the experienced psychologist.¹

We have seen that onanism has an insidious

¹ I should include not only the scientific student of mind but also the artist who appropriates the realm of human behavior for his province. The artist's technique, whatever his medium, does not depend on a systematization of the knowledge and understanding his achievement portrays; but his flashes of insight into human nature are often superior to the professional psychologist's knowledge.

growth: it begins in connection with the infant's satisfaction of its physical needs, it continues in response to the play instinct; it persists beyond the play stage and becomes an expression of the struggle between man's mutually intolerant and incompatible tendencies.

Onanism owes its ominous significance, its emotional strength and its power over the individual's mind to the fact that it is reinforced by many similar conflicts arising in other spheres than the sexual, to which in turn it lends its own infantile-erotic coloring, thus eroticizing, or sexualizing, as it were, many if not all problems which the individual meets, down to the most trivial, and turning them into occasions for deep conflicts.

In the last analysis onanism becomes a symbol representing the fundamental conflict between man's past instinctive life and his life under the rule of reason. That is what makes onanism so painful to the individual in whose mind it assumes this symbolic rôle, thus becoming the prototype and reservoir of all his life's conflicts.

Of course, onanism does not always remain a fixation point. There are persons who outgrow it. They are the persons for whom onanism carries no weighty symbolic function. The habit frankly serves them as a preparation and later, for a time, under the compulsion of necessity, as a substitute. They are able to abandon the practice readily because it is

not linked with unattainable fancies; onanism in their case is not the expression of promptings which cannot be actualized by some other route. They have no scruples against reaching out for what they crave; and for what they cannot quite attain they find more satisfactory substitutes than ordinary masturbation or excessive psychic self-abuse.

But even persons of this type do not always get rid of the habit as completely as they fancy they do. For one thing the acts which for the most part replace the habit may not belong psychogenetically to a higher scale than the habit they have replaced. A change involving little or no qualitative difference does not constitute progression away from the old path.

That such persons are still victims of the habit under some vicarious form or other is frequently shown by their uneasiness whenever the subject is brought up in its relation to other people's lives. A subject that unduly excites a person is a subject over which that person entertains some conflict. Freedom from sexual conflict implies the ability to consider sexuality without becoming unduly stirred. Agitation over trifles is symptomatic in the same sense. Lack of emotional balance betrays the characteristic distress of a psychic conflict.

More frequently onanism is given up, if at all, only after a struggle. In such cases, if it is given up for ethical or health reasons, and especially if this is

the result of warnings and admonitions, the habit is not truly abolished. It is merely transposed and overt acts become compulsory ceremonials and habits apparently meaningless. Physical masturbation becomes psychic onanism. The physical aspects of the act are suppressed; the psychic counterparts become distorted and otherwise disguised under the compulsion of fear, and the individual's plight is worse than formerly because the suppression into the unconscious leads to various compensatory mannerisms, compulsions and morbid impulses; distinct psychoneuroses are eventually thus formed.

The struggle against onanism, unaided by psychologic insight and understanding, leads to various compromises; these in turn determine certain more or less distinct character traits. The habit which the infant acquires in the course of its "innocent" exploration of the only world known to it—the world of its own sensations—begins as a playful indulgence of childhood and becomes a test of will power during youth. It stands at all ages as the symbolic language of man's conflict with himself over the choice of forces with which he should identify his future life.

CHAPTER XXIX

Erotic dreams of course are not subject to control. One's volition has nothing to do with dreams. Indeed the dreamer is likely to treat disdainfully his nightly experiences during sleep, as something trivial and irrelevant. The more absurd dreams seem, the stronger they violate the dreamer's notion of propriety and his ethical sense, the greater is his contempt for them. Yet, one of the important revelations of modern psychology has been the disclosure of the significance our dreams bear as symbols of unconscious cravings. The dream life is part of existence. It belongs to that portion of our existence of which we are ordinarily least aware, namely the unconscious.

One way in which the incompatibility between consciousness and the unconscious manifests itself is the forgetfulness of dreams. Many erotic dreams are recalled more or less brokenly, but others leave only vague shadows upon awakening. The will to exclude self-incriminating erotic fancies from consciousness leads not only to a suppression of the dream memory; it also throws a veil over nocturnal pollutions following erotic dreams of an unusual character. A

young man may rise in the morning without remembering anything of the dream and without knowing what happened in consequence thus preserving his cherished faith in himself and the belief that he is leading a model abstinent life. Dissociation from consciousness of a distinct physical act like seminal loss is not rare; but it is more common for awareness to persist.

In one notable instance the subject was so deeply distressed to find himself handling his sexual parts during sleep that he resolved to guard against the occurrence. The precautions included bandaging, the tying together of his hands, sedatives, cold baths, etc., but all these precautions proved equally futile. The subject then resorted to an extreme measure; he covered his hands with special leather gloves locked in position. But during the night he rose, found the key hidden in a vase, unlocked the gloves, and returned to bed without awakening. In the morning there was no recollection of the somnambulistic incident. These nocturnal episodes ceased after the young man's marriage. The case has been reported by William Stekel of Vienna.

The attitude of most men towards the occurrence of seminal losses is characteristic of their views regarding sexuality in general. Pollutions are feared because they are looked upon as capable of bringing about the same evil consequences as masturbation; both are dreaded alike by those in whose mind sexuality becomes somehow linked with unattainable phantasies. It is also thought that the loss of seminal secretion means loss of vitality, weakness, nervous drain, drying up of the chord, etc.

Ordinary explanations do not allay these fears. Even when the victims' minds are eased by the explanations given them they remain unconvinced; the good effect is transitory. They take up and try in turn special dieting, physical culture, hydrotherapy, hypnotism, and many other systems of treatment in the endeavor to overcome or cure their "weakness." Every pollution raises anew their doubts and fears; every repetition of the masturbatory act plunges them again into despair.

It cannot be a mere coincidence that pollutions very frequently follow the giving up of onanism under the compulsion of fear. It would appear that the pollutions, at least in a goodly number of such cases, take the place of the old habit fulfilling the same rôle, though unconsciously. The victim's attitude towards the new complication is precisely the same as towards onanism except that now his plight is even more serious since the condition is beyond his wilful control.

The propaganda of fear, still widely prevalent, brings about such substitutions of one evil habit for another. The young man who through fear abandons a bad habit is not improved thereby. If the habit is vital it cannot be shaken off by an effort

of will merely because logic directs it. That which partakes of the instinctive in life is stronger than logic and must be dealt with only through sublimation into something useful,—not by the negative policy of decreeing its suppression.

A young man who "swore off" after listening to a most convincing "scare" lecture was driven to despair when he discovered that profuse nocturnal pollutions followed his abstinence. After a detailed explanation of the physiology and psychology of the occurrence it was possible to convince him at last that the losses cannot harm him, and to relieve his mind on that score. The pollutions practically ceased after a relatively brief analysis.

There is nothing gained if those who are scared away from onanism are thereby driven to deeper despair over conscious or unconscious substitutes, such as pollutions. True, those who preach on the great evils of masturbation usually take the precaution to state that pollutions are harmless. But at this point the logic of their arguments against onanism breaks down or else their statement about the alleged harmless character of pollutions is likely to be met with incredulity. The view is self-contradictory. Many fail to see why seminal losses should be harmless and at the same time the cause of terrible dangers, depending entirely on the trifling circumstance whether the loss is involuntary or induced. Those whose own uneasiness on the subject is al-

ready grave choose to believe the worst of what they hear or read on the subject and discount the rest. They are ready to believe the worst about the evils of self-abuse; and by analogy they ascribe the same evil consequences to pollutions notwithstanding assurances to the contrary.

We often thus select our beliefs to fit in with our preconceptions and emotional predispositions. Until recently most of our beliefs and opinions regarding sex have been the result of the selective action of our emotional predispositions. For many persons it is not easy as yet to disregard their preconceptions,—as one must do if one is to acquire a true understanding of sexual matters.

The relationship of crotogenetic factors to sleep-lessness is variously determined. Dread of pollutions, or of dreams which may lead to them, shows itself in the form of sleeplessness long before the real cause is known to the subject himself. Erotic fancies of a very particular type, or rather, the struggle against them, keeps the mind in a state that prevents sleep. Worry or depression, sleeplessness, and loss of weight, when not otherwise accounted for, justify the suspicion that a knowledge of the intimate and unconscious portion of the subject's psychic experiences will reveal the cause and point the way to a cure. Of course an inquiry of this character requires the skill of a specialist trained in psychology.

Again, it cannot be merely a coincidence that

those who are timid, ashamed and otherwise emotionally uncomfortable on account of onanism, should confess the practice in a roundabout manner only, by declaring, for instance, that they suffer of nocturnal pollutions, taking place mornings but also occurring at other times, etc. They endeavor to save themselves the discomfiture of a most unpleasant avowal, by subtracting the voluntary feature of the occurrence. Just as these persons quasi-consciously transpose voluntary masturbation into involuntary pollutions, the unconscious does the reverse.

But the masturbatory character of certain cases of pollution does not always remain unconscious: whether quasi-involuntary or otherwise, when not induced by definite organic conditions, with respect to the function they fulfill psychically pollutions may take the place of other onanistic acts. The specific phantasies or dreams with which they are linked, if any be discernible, give them their functional character in every instance.

In other words, like other auto-crotic acts, pollutions must be regarded as manifestations which emanate from different infantilistic levels and which may be complicated by the clustering around them of emotional excitations from other spheres. Therefore general observations and rules hold good only in a general way. They do not apply to all cases in the same measure; every case presents some particular features of its own. But it is a fairly safe rule to

bear in mind that pollutions in which organic causes have been excluded, may be relieved upon the revealment of the specific phantasies with which they are associated or which, at any rate, govern the sufferer's mind. His typical phantasies bear the same relationship to pollutions as to ordinary forms of onanism. Without mastery over the unconscious phantasies neither condition can be overcome successfully; that is attainable only through a dissecting analysis of the unconscious fancies which keep them up.

That this is not always easy to accomplish every psychoanalyst will attest. Subjects find their fancies too "ethereal and elusive." The erotic import of dreams is hidden, their significance distorted.

For psychotherapic purposes a knowledge of the subject's dreams and fancies is most useful, almost indispensable. A careful analysis of the content and a study of the meaning of the subject's dreams with regard to his inner life may be expected to furnish the information necessary for overcoming any psychogenetic trouble.

Certain hysterical and pseudo-epileptic attacks, fainting spells, and sudden lassitudes, with or without loss of consciousness, lasting a few minutes or less, are frequently induced through auto-erotism. This fact seems paradoxical. Ordinarily it is not understood how it comes about that such episodes, the reverse of pleasurable to the subject, should in reality represent vicarious gratifications of infantile

cravings. But the truth of this has been established beyond doubt. It may be premature to assert that all such attacks and spells are erotogenetic in the specific sense of serving to cover up "onanistic sprees"; but their psychic characteristics resemble those of cryptic onanism sufficiently to suggest that they are infantilistic outbreaks of the same order.

It is probably a fact that, in the case of women, short fainting spells and certain characteristic short absences serve vicariously the same purpose as pollutions often do in the male. But sudden infantilistic regressions in the form of psycholeptic attacks are common to both sexes.

The functional fainting spells may or may not be accompanied by physical evidences of onanism. In either case the associated fancies, as revealed through psychoanalysis, leave no doubt as to the significance of the attacks and the function the latter fulfill in the subject's unconscious.

Spells of this character are troublesome. They interfere with the pursuit of ordinary preoccupations. The mental states immediately following them are characteristic of the fancies with which they are linked in the unconscious. Usually the subjects feel dejected, depressed and fatigued. Briefly the state of mind may be described as a vaguely floating "sense of guilt," inchoate but, at times, overwhelming. The sense is bedimmed since there is no awareness of any reason for entertaining such a feeling: nevertheless

"guilty conscience" seems the suitable descriptive term which by analogy may be applied to the state of bewilderment and depression following these spells. The victims themselves are occasionally aware of this fact. A classical instance is Dostoevsky's masterly description of his mental condition following his epileptic attacks. He states that the post-epileptic depression resembles nothing so much as the sense of guilt one would feel after committing some unmentionable, horrible crime.

It is noteworthy that the same inchoate feeling and sense of depression often follow ordinary masturbation,—a fact which has naturally fortified the popular belief that the act itself is dangerous. In the depression and feeling of guilt associated with masturbation the victims of the habit find their worst fears corroborated. The unconscious elements to which these effects are really due stand beyond the threshold of ordinary awareness. The fancies to which all auto-erotic acts and spells relate themselves and of which they become ungovernable outward expressions are deeply repressed; but in virtue of their archaic, infantile and—from the standpoint of adult consciousness-immoral, unethical, even criminal and perverse character, the inner promptings, untamed and uncontrolled, give rise, in connection with their symbolic expressions, to those vague but overwhelming feelings of depression, fear, doubt or guilt, as the case may be, which are typical also of onanism.

CHAPTER XXX

In the case of masturbation proper autosuggestion plays a great rôle in heightening the sense of guilt and the feeling of depression. Popular ideas, in the main, are responsible for this, although it must be pointed out that only those accept the popular notions for unshakable truths who are impelled by their own conflicts to do so; if such notions were not current victims of repression and conflicts would formulate similar ideas for themselves. The popularity of ideas which are illogical, false and even harmful is made possible by the fact that those ideas correspond to certain predispositions brought about by widely prevalent emotional conflicts. So long as conflicts persist, logical ideas play a secondary rôle and the choice of beliefs proceeds on the path of emotional preferences. Victims of internal conflicts believe and hold fast to what they must, in virtue of their overwhelming emotions; they cannot afford to give logical faculties full sway. He who practices masturbation without any particular conflict over the fact takes lightly popular opinion on the subject. But he whose auto-erotic habit is the occasion for deep conflict is affected by every notion which

enhances fear since every unresolved conflict tends to grow and enlarge its sphere.

On the other hand the power of autosuggestion should not be overestimated. Autosuggestion functions only within the limits made possible by the subject's conflicts. Autosuggestion is not responsible for the conflict proper; the latter is due to the clash of motives and forces.

The anxiety and worry resulting from conflict may also be disguised, in their turn. That serves, apparently, as an additional protection against the true meaning of the conflict piercing through and into the field of consciousness. The simulation of emotional states is thus a protective function. But it may also have a self-punitive function; or it may combine both.

These facts are little known to the general practitioner and will probably appear most strange; but to the trained psychologist they are matters of everyday observation.

Two such examples, one of a protective simulation, the other combining self-punishment and protection as the unconscious motive for the simulation of organic disease, may be mentioned briefly.

The first is the case of a very intelligent and unusually talented young lady, a musician of wide reputation, whose professional career was seriously threatened by a very painful condition involving her right hand. She had been treated by nerve special-

ists for a long time. Her condition grew worse and she changed treatment, making the rounds of various cures and cults including new thought, hypnotism and Christian Science, electrical treatments and "nerve tonics" having failed to show any results. Every new treatment helped for a while. But the improvement did not last; and each time she lost in the end more ground than she had gained. She turned to psychoanalysis as a last resort.

It was found that this young woman's trouble had come on shortly after resorting to masturbation, a habit which she had struggled against and had given up repeatedly. Inquiry into the exact circumstances and analysis of the associated fancies revealed that the painful contractions of the hand arose as a measure of protection against masturbation. was, so to speak, an act of revulsion against "slipping back." This seemed the chief unconscious motive, although there was also an element of selfpunishment in the transference of the conflict from the psychic to the physical sphere. As a child she had been left once in the care of her aunt, whom she hated, and who threatened "to cut off her hand" as punishment for a trifle which to her mind, and probably to the aunt's, had distinct erotic connotations. That incident she had never forgotten.

So long as this young woman's fear of the consequences of masturbation and feelings of shame and guilt persisted, the condition of her hand proved re-

fractory to treatment. With the fears and the self-depreciatory feelings partly allayed the hand improved somewhat but the trouble returned again and again, usually after masturbation had been indulged in. After a time, during which the associated fancies were revealed and subjected to careful analysis, the masturbation habit and the troublesome condition of the hand disappeared alike, this time permanently.

In the other case, the self-punitive (lex talionis) motive was preëminent. The patient, a young man, had been treated for an obstinate condition which in the end proved to be a hysterical pseudo-tabes.

The trouble was traced to fear and to the intention to bring upon one's self "deserved punishment," a working out of the sense of retributive justice which often takes place symbolically, as one aspect of the conflict.

In his anxiety to rid himself of the masturbation habit against which his mind had been inflamed one evening by a popular lecturer he went out that very evening to seek the companionship of a puella publica as, perhaps, the lesser of two evils. An infection followed, a "slight pimple or ulcer" which he, a young boy at the time and too abashed to seek medical aid, treated secretly. From that time on he never ceased to worry. Every ache, every pain, every symptom that developed no matter from what cause, made him think of his misfortune. He turned

with avid mind to medical treatises and books on sexological topics. His readings on the subject either generated or confirmed a dreadful suspicion, namely, that the infection had been luetic. Thoroughly alarmed he went to a specialist; by that time he gave a very suspicious history, for his reading had distorted his memory of the incriminating incident and of the subsequent history of his condition.

A cryptic variety of auto-erotism, the true character of which has not escaped even the notice of the unprofessional eye, is that sudden lassitude, amounting at times to a fainting spell, but lasting only a few seconds to a few minutes, which is occasionally brought on, especially in women and in delicate young persons of both sexes, by the excitement of various games and other playful preoccupations. The subjects of these spells may be participants or only onlookers. The spell is trivial, but at times frequent enough to suggest the possibility of some cardiac or other organic trouble. Occasionally such cases are treated as part of some associated organic condition when in fact the spells proper are psychogenetic.

A "weak heart" may be all right structurally. The weakness may be functional. If the psychogenetic character of the weakness is further masked by the coincidental presence of slight anemia or a general debility, the heart trouble will be treated ex-

clusively by physical means, whereas, under the circumstances, the condition requires a combined medicinal and psychic course of treatment.

The erotic character of the graver hysterical and psycholeptic attacks is deeply masked and cannot be recognized on the surface. Those who still attach faith to "surface-psychology" and who ignore the deeper mechanisms fail to understand these conditions. They miss the orgastic summation or erotic climax characteristic of onanism, they find no perception of any sense of gratification, since the patients, on the contrary, complain of distress and from a surface examination the conclusion is reached that the spells have little or nothing in common with erotic gratification. With fore-pleasure disguised, end-pleasure suppressed and the spell revealing only fatigue, torpor, weariness and distress, there is nothing left by which to identify the character of the attack so far as surface appearances are concerned. But an examination of the deeper mechanisms shows that genetically these attacks are substitutive forms of auto-erotic indulgences.

Whenever infantile, unwelcome and forbidden longings break to surface in the form of some sensory or motorial excitation it is subjectively perceived as "painful"; in such cases "painful" means "forbidden"; only thus masked do infantile promptings of a certain archaic type find sensory-motor expression.

Again I must point out that these various psychic

mechanisms are too complicated to be outlined in general terms in such a way as to adequately cover the particulars of every case which may come under observation. In addition to the general rules briefly mentioned herein, which should prove helpful, each case presents peculiarities which must be considered with relation to the particular conditions of that case on the basis of a thorough familiarity with the principles and technique of the new psychology.

The question whether masturbation is possible without the attainment of a pleasurable climax must be answered in the affirmative. Just as the unconsciously sought advantages mask themselves under painful sensations so the summations may be represented symbolically by paroxysms of pain, fainting spells, convulsions, etc.

Naturally victims of such serious disorders know little about bodily functions and much less about mental mechanisms. They are likely to find such views wide of the mark. How can so unpleasant an incident as a fainting spell or a convulsion be considered in any way related to erotic promptings? They argue that the assumption is unjustified, because surface appearances are against it.

But these conditions and their psychic mechanism need not be topics for argumentation. It is not necessary to argue with a patient. Let him, inductively, as he proceeds from fact to fact, discover for himself their internal relationship and meaning. The analyst aids him in getting at the facts in his own case; the patient does the rest and in time perceives their all-embracing connection.

The sensations of skin and mucous membrane furnish the earliest erotic material and they remain among the most powerful infantile indulgences which under various forms, guises and transformations may persist throughout life.

The stubborn character of various eczematous conditions is but a slightly veiled auto-erotic formulation. Eczema is probably as often erotogenetic as induced by organic conditions. Even when due to distinct physical causes itching may incite erotic areas; once it becomes complicated in that way, ordinary means of treatment prove futile. The refractory nature of many skin troubles is due to the aggravation of the physical causes by erotogenetic factors, if the latter are not wholly responsible for the condition. For that reason it is not enough to find definite physical causes and to argue that the trouble, whether dermal, or involving other structures, is wholly amenable to physical method of treatment. Long after the physical inciting factors disappear the trouble may persist; it often does; and in such cases the trained psychoanalyst can render valuable service.

Spermatorrhea is often a troublesome condition. Its relationship to sexual abstinence is significant. It has been ascribed to a large variety of causes,

mechanical, physical and chemical; in recent years its psychogenetic foundation has also received considerable attention.

The condition frequently defies treatment at the hands of specialists. It is quite likely that in such cases psychogenetic factors are predominant. The involuntary loss of seminal fluid has even been described as a surrogate for wilful onanism. The victims of these conditions certainly entertain identical fears. There are many features that bring spermatorrhea close to onanism, at least in certain cases.

The significance of the anal region as an erotic substitute for the genital is so striking that it cannot be denied even by those who fail to recognize similar substitutions of other erotogenetic areas for the genital. Anal erotism is a rather common form of infantilistic fixation. It becomes established early in life and its persistence may lead to serious psychic complications in later life.

Anal erotism is frequently associated with constipation. There are children who purposely postpone their bowel movements because of the enhanced pleasure they experience upon passing a large quantity of hard formed fæces at one time.

The excessive use of enemas deserves mention in this connection. Anal erotism easily links itself to this habit. The presence of hemorrhoids, fissures and eczematous conditions around the parts frequently incite this highly sensitive area and flare up a dormant tendency to shift auto-erotism upon the anal sphere. The sphincter plays a very important rôle in this connection and by substitution through analogy all other bodily sphincters and constricting muscles may become involved.

CHAPTER XXXI

If we take into consideration forms of cryptic onanism independent of mechanical procedures,—psychic onanism proper—we open up a subject of endless variety. It would not be possible to treat it fully within the limits of the present volume. Moreover, the subject has not been subjected to scientific scrutiny until recently although intuitively many artists and writers have given wonderful flashes of insight into it and devotional religious literature is replete with data of highest interest; our knowledge is fragmentary and no systematization of data has yet been attempted. The time has not yet arrived for a completely rounded out statement of all the aspects which psychic onanism presents for critical scrutiny.

In view of the present state of our knowledge on the subject I shall record here only a few general observations. These will serve to indicate the subtlety and extreme complexity of the subject. Its practical importance can hardly be overestimated.

In the first place it has been known for a long time that day-dreaming, reveries and the like, lead to esstasies not unmixed with erotic coloring. Persons of both sexes are often quite clearly aware of the erotic character of their "purposeless" reflections and reveries. This habit has a strong hold upon them precisely because of the erotic indulgences which it permits so freely.

But sexual topics do not always appear frankly as such during the reveries. Regard for the dictates of consciousness leads to most elaborate distortions whereby the auto-erotic character and especially the archaic degree of the infantile fixation is hidden and suppressed.

Religious formulations furnish the widest range of substitutions and covers for auto-erotic indulgences of this type. When the pent-up impulses are extremely archaic and overwhelming they lead to ecstatic states which under religious formulations are ascribed to "saintliness" and in the absence of such formulations are frankly recognized as psychopathic.

In either case the subjects are unaware that their ecstatic preoccupations are libidinous in the infantile sense. For that reason they find it possible to indulge the pent-up erotic promptings and these break forth in symbolic manifestations.

Ecstasy is a state of suppressed consciousness; it is sharply divided from ordinary consciousness and represents a typical regression to some level of infantilistic hallucinosis; it is a break in the continuity of consciousness making possible the reënactment of

archaic states of existence,—the reëxperiencing of infantile attitudes. Ecstasy is as clearly a break in the continuity of existence and a regression as if the subject were bodily transported back to his or her infantile or intra-uterine state.

The condition completes the illusion of a transmutation back to primitive states of existence as nothing else can short of drugs, intoxication or insanity. Poetic exaltation is similar but conduces to socially valuable creations and is but a means to sublimation.

The abolition of the external world during ecstasy, that is, the dissolution of the reality sense, enhances also that sense of a "higher reality" to which religious and other mystics feel themselves irresistibly drawn.

The break in the continuity of consciousness brought on by exalted states is due in large measure to the conflict between the moral or religious scruples and the infantilistic trends in human nature. States of exaltation and ecstasies permit the staging of that conflict in symbolic form. Religious beliefs lend themselves ideally to symbolic uses. Under the traditional formulations of religion pent-up cravings are allowed appropriate expression.

Religious ecstasy, mystic exaltation and spiritualistic experiences enable the split compartments of the mind to function separately; hysterical outbreaks do the same, on a slightly different level; or

the difference may lie entirely in the symbolic formulations, and in the interpretations formally given them. In all these various cases the erotic character of the symbolism becomes apparent the moment inquiry proceeds beyond surface appearances.

Love will not be denied; it craves expression, it demands gratification, either in its attenuated or its gross forms. The coexistence of different grades, so to speak, or more properly, the apposition of various levels of love against each other within the individual, each craving supremacy, each demanding the individual's whole capacity, brings about conflicts, religious, moral and social.

If certain customary channels are dammed up by the individual's growing sense of morality and if he still remains an infant psychically, he will find in religious formulations not only a substitute but a parallel path for the illusory attainment of infantilistic cravings. Religion is an ideal soporific to consciousness and "first aid" to the unconscious. religious minded virgin, who is denied an earthly lover, the unhappily married woman who cannot bear the disappointment, the woman fittingly mated but whose cravings persist upon so archaic a level that their satisfaction is unattainable beyond the period of earliest infancy,-all such victims of emotional fixations may turn to a lover more precious than any earthly companion and with him enter into ecstatic joys unknown to those who do not "possess religion."

The erotic manifests itself under various degrees of primitivity. There are levels of erotism so infantilistic, so archaic in character, as to disregard any barriers of age, consanguinity, or other relationship. The more archaic the infantile craving the less governable it proves. But to whatever level auto-erotism becomes fixed it is equally insatiable; adult means do not fully create a sense of satisfaction so long as the love craving remains infantile. The craving, surpassing all means ordinarily available for its gratification, compels the adult to resort either overtly or through the use of the imagination to measures and means which are not permissible during ordinary relations between persons. These extraordinary means enhance the illusion of gratification (though only for a time). They are either what are called "unnatural" practices if overtly carried out, or "supernatural" experiences if formulated in phantasy under the guidance of religious doctrines and symbolisms. The former constitute the subject-matter of sexual pathology while supernatural experiences are known as spiritualism, mystic love, religious ecstasy and mysticism generally. Both classes of phenomena represent in large part aberrations of the erotic instinct.

Under the guise of religious fervor there are open to the predisposed individual avenues for infantilistic expression which would be intolerable otherwise. What is more, the respectable standing of religious mysticism protects the individual's consciousness and at the same time places him in an advantageous position with reference to society. A chaste virgin may abandon herself to the most gorgeous "love-sprees" taking her divine spouse into copartnership and, during her ecstasies, go through experiences unknown in the ordinary marital state. She attains saintliness; while her irreligious-minded sister finds society in arms against her.

Many favorite old time gospel hymns and revival songs parallel the erotic imageries of folklore and mythology. Those who are deeply moved by these songs and by similar religious formulations are unaware of the character of the deep-lying motives that stir them. Through indulgence in such symbols there are conjured up, in quasi-hallucinatory form, reveries and feelings well defined in psychopathology but which the average man or woman would find most intensely repulsive in the absence of the religious atmosphere and symbolism.

Frequently erotic preoccupations assume overtly the form of extreme aversion. This is a well-known mental process,—representation by opposites. Thwarted love turns into hatred of the unattainable objective. Persons whose infantilistic fixation assumes this guise become zealots in the prosecution of alleged offenders. They are most vociferous defenders of public morality. Their repressions so strongly sensitize them that they are able to discern

"erotic" colors where the ordinary eye fails to see anything of the kind.

But the ordinary eye is not dominated by pent-up erotic emotions quite as strongly as the purity crusader's. The latter is right. He could easily push his claim farther: to the eye so predisposed everything in nature, every act, every form, suggests at once something erotic. The purity crusader is modest: he could logically claim the whole of existence for his province and from his standpoint make out a good plea for the suppression of anything.

The extreme negative attitude roots in subjective fear and corresponds to what is ordinarily designated as "perversion." They who are unduly stirred whenever anything sexual is mentioned owe their agitation to their own subjective conflicts over the theme.

Of course sex-reformers and welfare workers generally need not be led by unconscious infantilism. Their activities may well be the result of desirable sublimations and often represent an earnest attempt to help others similarly to sublimate lower into higher emotions. Outward appearances are self-revelatory; the manner of their going about their task indicates the character of the motives prompting reformers.

True reform is educational in method, scientific in outlook, and aims to achieve its ends without playing upon the fears of mankind. But the purity crusader who deals in, promotes or deliberately invites violence, whose method is to stir up, exaggerate, prosecute, suppress, etc., betrays thereby an inner compulsion which he obeys blindly, as all victims of conflicts cannot help doing.

Obsessive preoccupation with such a topic as sex, whether on its positive or reverse aspect, under the form of extreme aversion, fulfills psychically a similar function. Excessive concern with "purity" representing, figuratively, the obverse of "sexuality," is in truth an erotic obsession.

Compulsory acts, thoughts and impulses owe their obsessive character to something within the unconscious which invests them with a higher degree of imperativeness than their own significance warrants. When traced within the individual's psyche sooner or later they are found linked to youthful indiscretions or infantile habits which the victims are anxious to get rid of, or atone for, through excessive zeal in the opposite direction. When these facts based on the psychology of unconscious processes shall be more commonly known, men and women will hesitate to make public confession of their ungovernable inner conflicts by engaging in spectacular crusades to improve or purify others.

Fear does not act as a deterrent so much as it drives its victims to adopt substitutes. The habit of masturbation is frequently abandoned through fear, so far as appearances indicate, but this invariably leads to latent neuroses which break out sooner or later upon a slight provocation.

As an educative weapon fear is worse than useless. Young people have been seriously abused and injured through the employment of methods which, in the last analysis, are but refinements of violence and fear. Leave out of current sex instruction the statements intended to inculcate fear and what is left consists of maudlin talk about the "sacredness" of marriage, the "holiness" of sex, etc. Sex education as exploited to-day is the most obscure and the least scientific subject. The first educational steps in the right direction are yet to be devised. So far as popular instruction is concerned the subject is in its pre-scientific phase,

CHAPTER XXXII

It is a fact well known to many observers that the masturbation habit when abandoned under the compulsion of fear is not really cured. Sudden abandonment of the habit may cause various nervous disturbances and may mark the beginning of a neurotic outbreak. Whenever this happens it shows that the individual concerned has been prevailed upon, or has forced himself, to give up the habit before he was prepared, and for the wrong reasons. It is always for one of the very worst reasons if the motive is fear. Ethical and hygicnic arguments of themselves do not possess the power to abolish the habit.

Indeed, a certain amount of fear only strengthens the hold that the habit has upon its victims. It enhances the sense of playing with danger. This is shown, for instance, in the fact that the relative harmless character of masturbation itself is an observation which leaves most victims incredulous. They are unwilling to accept the idea. This is so partly because they crave the sense of danger itself as something which enhances the unconscious rôle masturbation fulfills in their case.

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Masturbation is relatively innocuous only if viewed merely as a physical act. But its psychic bearings are far from harmless; these are distinctly burdensome and may prove dangerous.

This is a very important distinction for practical reasons. The victims of the habit fear the consequences of the physical act not realizing that what the habit stands for in their unconscious is the real source of danger. The consequence is that all struggle is directed against the act while the latter's psychical counterparts are neglected. In fact, the depression, fear and troubled conscience are reactions against the hidden significance of the act. The act itself could not be responsible for such grave mental states. Indeed, frequently these psychic consequences are absent in spite of excessive indulgence in masturbation.

Substitution of psychic onanism for overt masturbation creates false illusions. It does not solve the problem. On the contrary it aggravates it because, so far as the subject himself is concerned, the fight against psychic onanism is a struggle in the dark. Under that aspect onanism is capable to assume an infinite variety of masks. Endless varieties of compulsions, obsessions and morbid impulses function as erotic substitutes.

The struggle over onanism portrays in general lines the conflict between instinct and culture. This struggle owes its strength to its symbolic character.

In time onanism links itself to many necessary acts and also initiates substitutive habits otherwise meaningless.

Of the many examples suggesting themselves, the well-known erotic excitation-value of certain methods of treatment may be mentioned as a typical illustration. Not only "irregular" practices but diagnostic and therapeutic procedures of recognized value and standing are sometimes effective chiefly on account of their excitation-value. Many procedures and manipulations are temporarily effective because, in ways unknown to physician and patient alike, they amount to a kind of psychosexual palliation. Without taking into consideration the patient's unconscious attitude it is not always possible to gauge the reasons why certain therapeutic measures fail in one group of cases and meet with gratifying success in a similar group under circumstances apparently identical.

Experienced general practitioners and specialists have long known that certain necessary procedures, diagnostic as well as therapic, are capable of appealing to the patient for other than strictly professional reasons.

The physician's attitude is strictly professional in the consulting room. Probably no other profession has achieved a similar degree of objective detachment. But this objective detachment is not reciprocal. In the eyes of his patients the physician is

also a man to a greater or lesser extent. The patient's unconscious attitude towards the physician is determined by considerations which include also aspects other than the merely professional relationship.

There is a most important chapter, as yet unwritten, which belongs to medical practice: it should be entitled, approximately, "the Auto-erotic Value and Function of Diagnostic and Therapic Procedures." Such a study would have to take into consideration many of the instruments and appliances in the surgeon's armamentarium; many, if not most, of the various therapic procedures which have had their day; and a considerable number of current practices. The study would reveal that patients "use" their physician and his medicines in more than one sense; also that they receive more than the physician untrained in psychology is aware of giving.

Search for new auto-crotic excitations is largely responsible for the rise of novel curative procedures and for the resuscitation of old practices under new names. The demand exists and it is being supplied. The therapic proof is a poor test of validity. Almost anything may cure—for a while. Hydrotherapy, magnetism, Emanuelism and other procedures have had their day and may swing around again. In its day some scoffed at magnetism, for instance, as entirely outside the rank of earnest

therapic methods. They were not familiar with the history of magnetism. One of the most intelligent women of the nineteenth century, Harriet Martineau, was cured of serious invalidism through magnetism and in gratitude took up its defense. Probably any one of a number of other methods might have proved equally effective.

Let us recognize frankly that the libidinous cravings which patients unconsciously seek to gratify may seize upon any therapic procedure as a means. When the universality and power of auto-erotism as a guiding force will be properly appreciated medical practice and therapy will undergo a radical transformation.

CHAPTER XXXIII

The sense of guilt which attaches itself so obstinately to the practice of onanism is variously conditioned. As I have already mentioned elsewhere autosuggestion has a great deal to do with it; but the chief background for the disturbed conscience, the depressed feeling and the various nervous symptoms to which the habit gives rise is furnished by the unconscious.

Onanism is the prototype of all asocial longings; it becomes the symbolic language through which all self-centered, narrow, protean tendencies find vicarious expression. The strength of the habit is a measure of the strength with which infantile tendencies persist in the individual. Similarly, the degree of depression and unrest which it causes denotes the extent of the individual's conflict between the instinctive and cultural formulations of his psyche.

To treat onanism, therefore, we must look back of the habit and take into account the individual's whole psyche. The adult subject must become consciously aware of his conflicts and learn to recognize their symbolic significance. He must find out the emotional level at which he has become unconsciously anchored and dissolve the bands that tie him down to his own infantilism. In the proportion in which he succeeds in doing so the pernicious habit disappears. As he learns to give up infantile attitudes towards adult problems infantile habits cease having a tremendous hold upon him; the conflict loses its strength. Thus the logical and most effective therapic procedure is reëducation through self-knowledge.

It is not enough to explain to troubled subjects that their worry over the habit is largely self-generated. Even if they should be induced to see this, they cannot help it and it does not improve their trouble. They may feel temporary relief. But the habit persists. Sooner or later they are in as bad a condition as formerly or worse.

Onanism may be looked upon as a reservoir-habit which takes in fancies the conscious counterpart of which is remorse and self-depreciation. These fancies and vague promptings must be traced by the analysis of the subject's unconscious. Nothing short of self-mastery achieved through a knowledge of one's unconscious promptings holds out the promise of an effective and lasting cure.

There are many instances, of course, in which the practice of onanism is given up after a time without any recourse to special measures. But that happens only in cases in which the habit is not weighted down by excessive self-reproach. In the absence of a guilty

conscience generated by the accretion of numerous infantilistic promptings of most archaic character, the habit, simple and uncomplicated in itself, is easily outgrown or becomes transposed into autoerotic excitations readily tolerated.

Curative reëducation must take into consideration the basic fact that in the human species the sexual instinct, in addition to fulfilling a racial function, is also the primal instinct around which the social sense tends to achieve its highest expression. In other words the erotic impulse is the raw material out of which the individual's whole love life unfolds itself. The higher the forms under which we learn to express the instinct, that is, the farther away from its infantile type we sublimate our capacity for love, the healthier, stronger and more efficient our social relations become; old habits lose their mastery over us in the proportion that we become master of ourselves through the understanding of our psychic resources.

As with all other sensuous indulgences the trouble with onanism is that it leads to oversaturation and loses its pleasurable character. That is one reason why it breaks out in so many forms. The pleasure-craving instinct back of it seeks an enhancement of gratification through new channels. But the new channels do not represent anything really new. Increase in stimulation also offers no satisfaction after a time. More of the same kind of stimulation, under

no matter what new forms, dulls rather than satisfies and brings on unrest. That is why subjects experiment, consciously or otherwise, with new autocrotic means and are never fully satisfied. Their infantile cravings drive them to become "varietists"; but so long as the cravings are maintained upon the infantile level they remain unsatisfied because adult existence does not provide adequate means besides imposing requirements of its own. The only efficient way of dealing with cravings is to learn to transmute them into expressions which suit the adult level of existence.

Infantile onanism requires no special treatment; it disappears of itself, except in rare instances, and in such cases the appropriate prophylactic measures depend on particular circumstances,—a subject which I cannot take up at present. In ordinary cases it is only necessary to take general precautions. It is advisable, for instance, to limit the handling of the infant to what is strictly necessary for cleanliness and to avoid all excessive fondling. Immediately following weaning from the breast or milkbottle there is generally noticed a strong flaring up of the auto-erotic indulgences. There is nothing alarming about that. Weaning represents a rather serious psychic change which may amount to a trauma if the infant's whims are unduly met by an overfond mother or nurse. That must be guarded against. A child's character traits are moulded,

often for life, by the manner in which its requirements are first met during the infantile period. True mental hygiene, in the future, will concern itself very largely with the psychology and hygiene of the "nursery" stage of growth. That is the stage during which the direction of personality and the shaping of character traits is most vitally determined. The traits are already well set before the school period, when formal education begins.

The fact that what is forbidden becomes thereby enhanced and prized the more should be recognized in the nursery room as a governing principle of highest ethical and educational value. Overemphasis on the unpleasant, the ugly, the forbidden generally, is one of the greatest evils. The nursery room ethics of the future will do away with all negative teachings and will abolish fear and violence from the nursery as the worst of misdeeds against the new generation. Occasional auto-erotic indulgences, even if offensive in form to the adult mind, may be overlooked without any fear of evil consequences. The proper weapon against onanism during childhood as well as in later life is educational,—the fostering of the social sense through the means best adapted to each particular case.

CHAPTER XXXIV

The inchoate blind drive standing at the core of all sentient existence, close to the bottom of the scale of animal life splits into food and sex hunger. Thenceforth craving for food and sex hunger coexist, each blossoming into complex manifestations as we ascend the scale of life. At the same time these primal drives maintain innumerable points of identity throughout sentient existence. In the human race, sex and food hunger express themselves and are described metaphorically under similar symbolisms. The language of hunger, whether food or sex hunger, is frequently the same.

The common expressivity of sex and food hunger has a broad genetic background. The fertilization of the egg among the higher metazoa, like the splitting up of the amæba into two daughter cells, is but a highly specialized form of the nutritional process. The body of the higher animals bears the same relation to ovum and spermatozöon respectively, as the parts of plant and flower do to stamen and pistil.

Indeed, the animal body is an envelope, or rather, a series of outer layers, covering, protecting and serving the physical bearer of racial survival. The brain, the whole nervous system, as I have already had opportunity to mention, is but a highly specialized development of the ectoderm, or external embryonal layer; it is a part of the outermost layer, folded in and encased in a bony structure for its own protection, so that it may, in turn, serve more efficiently.

With the dawn of intellectual faculties and of self-consciousness the primal life urge, food and sex hunger, split up into a bewildering complexity but the two forms of craving still retain their common modes of symbolic expression. Their basic unity is at no time completely lost.

The language of Courtship and Love reflects and vicariously expresses also the nutritional craving. This is true of all forms of love, including the parental. When the emotion of love is very tense it is apt to borrow the jargon of anthropophagy. The lover who tells his sweetheart that he "could eat" her is not rare. The loving mother often playfully threatens to "eat the baby" because she loves it so much, or feels like crushing it in her arms. It is an old jargon, an old feeling,—older than the human race by many æons. Like many other reverberations from the dim past of life's history such expressions are accepted as perfectly natural. They have been indulged in and accepted all over the earth. This jargon, older than any

spoken language, finds its parallels among all peoples and races. It is part of our common heritage and belongs to the feeling-mass that stands linked to our physical structure.

The point of fusion between the nutritional libido and the sexual urge is responsible, genetically, for much of the mysticism with which love together with its irradiations is surrounded.

Love is conceived as a craving for union and idealized under that form. The craving for union, of course, has its ideal aspects, and the human race is in the process of evolving them, but the jargon often represents but a harking back to the biologic beginnings of love; only exceptionally does it express the oncoming form of love between human beings.

The typical and most universal attachment is that of the infant to the mother and, next, to the father. This attachment, the matrix of all love, is distinctly prompted by the need for food and protection, but it forms the foundation out of which later all other forms of love are evolved. The sense of satiety and the feeling of security is what the infant's love grows upon. Furthermore, the infant's relation to the parents, its feeling-attitude, is often influenced by subtle or trivial incidents; but in the long course, the latter affect its whole subsequent life history, just as a spatial difference of a few

inches when water falls upon the mountain, near its summit, makes it roll down the Eastern or Western slope and is all that determines whether in the long run that water finds its way to the Pacific or the Atlantic.

The infant's feeling-attitude towards its parents may be one of dependence, a leaning upon them. All children normally pass through such a feelingattitude; but they differ, of course, with respect to the strength, form, and manifestations of that feeling; and that difference determines a great deal of their subsequent character development. It is possible for a child to pass through the chrysalis stage of dependence, physical and nutritional, with but a minimum of corresponding emotion or subjective appreciation of this fact. Before the sense of dependence becomes aroused the infant's feelingattitude is one that, in our sophisticated, adult jargon, might be called self-fulfillment, except that, of course, there is no adumbration of self, as we understand the term, in the sensations of infantile existence; to the infant's psyche self and non-self are meaningless. The infant feeding at the breast experiences a pleasurable, blissful sensation around the lips and in the throat muscles, and gradually the sensation extends all over, melting into a general all-is-well feeling. So long as the growing child remains unaware of a split between self and nonself, it dwells in a realm of existence in which

subjective and objective are one. The moment when it becomes aware, ever so dimly, of an inner and an outer world, of self and non-self and, particularly, the manner in which this awareness blooms forth during the early stages, affects for good or evil the subsequent development of human personality.

It is usually during the third year of life that this awareness develops along with the sense of self, although that great dichotomy which is the motif of all philosophy and of all religion, may cast its shadow earlier. Along with the dawn of self comes the knowledge of other selves, particularly the feeling that mother, father, other children, cat, dog, even objects, are entities apart from self.

What is the child's feeling-attitude towards this dawning vast world of objective reality filled with other real and imaginary selves? Whatever it may be in a specific case, that feeling-attitude is determined specifically by the child's early relations to its parents. The infantile sense of all-powerfulness, necessarily present so long as the dichotomy between self and non-self is non-existent, gives way slowly, perhaps haltingly, or even protestingly, to the newer sense of dependence. On the other hand the child may adopt very readily the new feeling-attitude. Its treatment by the parents, or nurse, or educator, decides the course that the child's development takes at this critical and most important

period. The harm that may be done at this period in a short time may not be completely undone later by years of corrective efforts. It is at this period that the development of the personality of the child is largely determined and given permanent direction.

At the time of its dawning sense of self the child may preserve the feeling-attitude that the parents, food and protection, are still, somehow, part of self. Excessive tenderness, wrong and untimely display of affection, the weakness often displayed by parents towards the first, or the youngest, or the only, child, incidents, such as an illness, often turn the scales in the wrong direction. Under such circumstances, the child loves its parents, if at all, not through a sense of dependence but with the feeling that they are lesser parts of its self and later, as lesser selves. Briefly, the primal feeling of all-powerfulness tends to persist. The infantile world-outlook, so to speak, is not given up but only modified.

The love of such a child is like the love of a Jehovah for his creatures. Jehovah is a typical infantile God, just as Christ portrays the obverse infantile divinity,—the dependent type. Jehovah and Christ as types are fairly accurate portrayals of the early two infantile stages.

The illusion of omnipotence, typical of early infantilism, is enhanced by the automatic manner in which the infant's nutritional needs are satisfied. Living a parasitic existence, the infant is deprived

of all sense of effort; later its movements and outcries rouse the illusion of all-powerfulness because they lead so quickly to satisfactory response, they apparently conjure up comfort and food. Mother and the nurse are quick to interpret the child's automatisms and to anticipate its needs. An outcry means the breast, or the milk bottle, or a warm, dry change, or some other comfort. The infant associates with its outcries all these improvements in its feeling-state. It need only dimly perceive a want and it is fulfilled: God said, Let there be light; and there was light!

The genetic identity of sex craving and food hunger and the interchangeable character of their symbolic expressions in human life are in part responsible for the persistence of love upon immature levels, although, of course, other factors play an important rôle in the enchainment of love to appetite.

A being bringing into adulthood the sense of all-powerfulness reflects that feeling-attitude in his love relations as his fictive ideal. A man of such type loves his sweetheart, or wife, as he loved his mother when he was an infant,—as a reflection of self. The self-centered lover loves himself in others. His chosen beloved is to him but a means for self-enhancement, for reintegration upon the ancient, infantile level. In turning to his beloved, he

turns to himself, or rather, to his infantile ideal of self.

Both, the dependent, or Christ type, and the self-sufficient, Jehovistic type of love, are manifestations of infantilism. They are outgrowths of the parasitic phase of existence, and represent feeling-states generated by the relations chiefly nutritional and protective, between infant and parents. Once generated, these feeling-states determine the child's relations to other persons, and later generally shape its love life.

The facts of nutritional parasitism, so weighty in biology, have not received sufficient attention from psychologists. The natural history of sex and the evolution of human love is closely interwoven with that of biotic parasitism. The phylogenesis of human love as well as the manifestations of love in human society reveal at numerous points the important bearings of the nutritional libido. Every individual passes through a lengthy parasitic existence and since every phase of individual life reflects itself also upon the social plane we find extensive parasitism, social and economic; and the whole of human love life is also largely steeped in parasit-The developmental history of individual love illustrates it no less than the ramifications of human love in society.

CHAPTER XXXV

The sense of smell is the first to arise as a special means of adaptation out of the diffuse tactile sensi-It became of extreme significance in connection with the transition of animal life from aquatic to terrestrial existence. For information regarding their environment the lower vertebrates depend upon smell, which is a species of contact "at a distance," as much as upon tactile sensitivity. Touch is physical, olfactory sensibility chemical, but their function identical. Smell is "chemical touch." In the case of the snail, to mention a typical instance illustrating the phyletic history of the sense, smell seems diffused over the whole surface. The snail may be said to smell with its whole body. In other species the highly specialized antennæ, or feelers, are sensitive alike to touch and smell. Gradually the sense of smell becomes differentiated and acquires specific organs of its own.

The lower vertebrates are largely governed by the sense of smell in securing food, avoiding danger and adapting themselves generally to the environment. Their brain consists chiefly of the olfactory area, thus showing the preponderance of smell sen-

sations over the functions of the cortex. Most mammals, too, possess a highly developed olfactory area. Their cerebral activities must present a corresponding olfactory tone. The information they derive through the sense of smell is very sharp and delicate; olfaction is capable of yielding information regarding remote dangers as well as distant prospects for food. It is the sense upon which many animals depend to react in time to the objects that concern them. The primitive brain has been called primarily an appendage of the smell apparatus. Among the vertebrates below the ape all the operations of the impulses, expressed in activity, involve olfaction. At many of the lower levels life is largely governed by olfaction.

The predominance of olfaction among the vertebrates involves intimate associations between the sense of smell and the function of sex. Among most mammals sexual associations are chiefly olfactory. The stimuli which result in sexual excitement act never so unfailingly as when they are invoked by the sense of smell.

Among the higher apes the preponderance of smell is rapidly lost. Here vision assumes the position of first importance,—next to general sensitiveness. Man is distinctly visual. Nevertheless even in the human species the sense of smell is not without a certain sexual value. It has been found that

no reaction known in nature, not even chemical reaction, or spectral analysis, is as delicate as the sensitiveness to odors. Savages retain great acuity of olfaction, though they cannot, as a rule, be said to be sensitive in an esthetic sense. They are aware of subtle variations of odors which they are often capable of interpreting.

Odors, good and bad, are universally prevalent. Nearly everything in nature has its characteristic odor, either alone or in combination. Metals, when perfectly clean and free from traces of contact with skin or salt solutions, are said to be free of odor, but under the conditions of moisture that prevail in nature, even metals yield characteristic olfactory reactions. We are continually bathed in an ocean of odors, just as we are immersed in a sea of air. Perhaps, if the sense of smell were abolished altogether, human life would continue very much as it is, but at one time in the dim past this was not the case. In isolated instances the sense of smell continues to this day to play a very predominant rôle. The natives in some regions continue to display unusual keenness of smell. This is by no means characteristic exclusively of primitive peoples.

With reference to the development of the sense of smell the individual passes through various phases. The child is at first insensitive to the odors which are later perceived as unpleasant. It may even display a scatological interest in which the olfactory sense is keenly active. With the advent of adolescence, frequently before, there develops a sharp sensitiveness and an aversion to bodily odors. The adolescent boy, no less than the adolescent girl, is very careful to avoid all traces of odor about the body. A fætid breath is the bane of life and, at that age, it may mar friendship as well as love attraction. The ablutions and cleansing ceremonials are indulged in by adolescents, and others, for the purpose of avoiding bodily odors as much as for the positive virtues of cleanliness.

Persons differ as to the capacity to recall olfactory images. Some, perhaps every other person, are hardly able to recall any. Among these who are endowed with olfactory memories, the respective images may be very vivid. Usually the olfactory images are associated with visual or tactile memories. Pure olfactory representations are extremely rare.

There is much about the qualities of odors that appeals to the imagination. Odors are inconstant, irregular, apparently immaterial, vague, yet penetrating. On certain occasions they intoxicate the mind. Odors lend themselves to curious personal idiosyncrasies, on account of the intimate associations they are capable of invoking. Immersed as we live in a world of odor, the associations roused by the sense of smell contain endless possibilities.

No wonder Rousseau considered smell the sense of the imagination, and an eccentric German, Jaeger, wrote enthusiastically on smell, regarding it as the essence of the soul.

While sexual selection among other mammals is governed largely by olfaction, in man the sense of smell has lost this function. At the same time it is probably true that the rôle of olfaction in human life is under-valued. This is certainly the case with the rôle of the sense of smell in the selection and enjoyment of food. The sense of taste is credited with the perception of numerous flavors. As a matter of fact taste covers only four chief sensations of gastronomic value,—sweet, sour, bitter and saline. All other flavors are in reality odors. We appraise food chiefly, and first, by its odor though we think we tell its qualities by the taste alone.

With its appeal to imagination the sense of smell has suggested innumerable fanciful notions regarding love attraction. Chemical affinities and cosmic attraction have been speculated upon as forms of love: Shakespeare's:

Purple the sails, and so perfumed that The winds were love-sick with them,—

strikes a responsive chord. And Wordsworth's:

'T is my faith, that every flower Enjoys the air it breathes,—

is as easily understood. Such speculations are among the most typical indulgences of the adolescent mind and go back even farther, to the infantile custom of personifying the objects and forces of nature. The classical philosophic systems of Greece, from Thales to Plato, are formulations typical of the fancy-weaving mind of youth. The Empedoclean system, for instance, reduces the forces of the whole universe to the bi-polar passion of the human soul, Love and Hate. The four primordial elements, Earth, Water, Fire and Air are mingled harmoniously, under the supreme rulership of Love. According to Empedocles, Hate intervenes, bringing about separate forms. The individual. as against the cosmic harmony, is a product of Hate. First plants are formed, then animals, or rather, separate organs uniting later with one another. The result of these haphazard unions are strange combinations, human heads on the bodies of animals, or horned heads on the bodies of men, animals of double sex. These monstrosities disappear, while the harmonious combinations, more fittingly adapted to their environment tend to survive and multiply. This is the essence of the Greek, pre-Darwinian theory of evolution, based speculatively on the operation of an alleged cosmic principle of Love and Hate.

In the chapter on Love in his "Anatomy of Melancholy," Burton quotes from an Italian treatise which

appeared in the XVI Century, in Rome, under the title Dialoghi di Amore, by Judah Leo, or, as he is called upon the title page, Leone Medico, di nazione Ebreo, e di poi fatto cristiano. It is a strange medley of metaphysics, theology, astrology, classical erudition and medieval speculation, like most of the writings of the two dozen authors whom Burton quotes on the subject of Ancient and Medieval love. The speculations of this author are as typical of the ebullient adolescent age as they are characteristic of the Medieval type of mind. Like Empedocles, Leo speculates on cosmic attraction and identifies it with love. He distinguishes three degrees in the principle of love,-natural, sensible, and rational. Natural love is that which attracts objects in nature, holds the stars in their courses, makes the rivers flow to the sea, etc. "How comes a loadstone to draw iron to it . . . the ground to covet, showers, but for love?" asserts Burton, and adds: ". . . no stock, no stone, that has not some feeling of love." Sensible love is that which prevails among animals, while the highest form, rational love, is shared by God, angels and men.

The tendency to speculate and to soar into the realm of myth-building while considering the subject of love, is not the prerogative of a particular type of mind. Even so pronounced a materialist as Ludwig Büchner, author of the famous Krafft und Stoff, which attracted considerable attention

around the middle of the Nineteenth Century as a popular exposition of materialistic doctrine, did not disdain to soar into the rarefied atmosphere of speculation on this theme. "It is love," he states. "in the form of attraction, which chains stone to stone, earth to earth, star to star, and which holds together the mighty edifice on which we stand, and on the surface of which, like parasites, we carry on our existence, barely noticeable in the universe; and on which we shall continue to exist till that distant period when its component parts will again be resolved into that primal chaos from which it laboriously severed itself millions of years ago, and became a separate planet." This is a sample of "scientific" speculation less than a century ago. Chemical processes Büchner conceived as follows: "Potassium and phosphorus entertain such a violent passion for oxygen that even under water they burn, -i. e., unite themselves with the beloved object!"

Perhaps the most striking modern illustration of the power of myth-building in the artist and scientific genius is the case of Goethe, who combined in the highest degree the creative ability of the artist with the scientist's genius for interpretation. Goethe's novel, Elective Affiities, a belated outcropping of the author's fruitful passion, was written to prove that no physical obstacle can stand between two souls united by the affinity of love. It provides a quasi-mystical background for the un-

tenable contention that the children of two souls mated in love inherit the worthy characteristics of the latter. Perhaps more than any other work this novel, along with *Goethe's Sorrows of Werther*, is responsible for the persistence and popularization of the notion of "love affinity" in modern times.

Speculations of this type, involving the principle of love and embracing the whole of nature, are not uncommon among those whose sense of smell plays an important part as an incentive to the use of the imagination. *Goethe*, as is well known, was deeply sensitive to odors, especially perfumes and flowers.

A remarkable fusion of the nutritive and sexual function of odor in nature was revealed when Sprengel first discovered the process of the fertilization of flowers by insects. The insects are attracted to the flowers by their color and perfume. While Sprengel observed that the insects brush off their wings and feet some of the fertilizing pollen thus carrying it to the pistil part of the flower, it was Darwin who first clearly perceived the rôle that the insects thus play in the cross fertilization of plants. The mutual adaptation of flowers, bees, butterflies, humming-birds, etc., is one of the most fascinating chapters in biology. The operation of this principle depends largely on perfume, or smell, as well as on color and taste.

CHAPTER XXXVI

The stimulating power of odors has been recognized empirically long before it became the subject of scientific interest. Numerous aromatics containing volatile oils have been used to aid digestion and circulation as well as stimulants for the nervous system. That olfactory sensations have a strong influence upon the vaso-motor system thus reacting upon the emotions has long been popularly recognized. Certain odors are strong stimulants but in large doses produce depression through a kind of sensorial intoxication. In former times when the medicinal use of odoriferous substances was widespread it was based on their stimulating effect upon both, the involuntary and voluntary musculature.

In this, therapeutic practice has but followed popular usage,—the knowledge amassed empirically that odors, and specifically the body odors, influence the feelings. It is a widespread popular belief that the specific odors of the body, under certain circumstances, play a tonic and sexual rôle.

Not only are all men, and all women, odorous: this universal peculiarity differs among the various races according to age, habits, state of health, and other circumstances. Cleanliness may do away with offensively intrusive odors. But it is an error to assume that the body odors are due to habits of uncleanliness alone. The powerful body odor of negroes, for instance, is a characteristic which no ablutions or other hygienic measures can abolish.

It is said that members of the different colored tribes may be distinguished by their characteristic odor. The South American Indians have also an odor peculiar to that race, which may be further distinguished according to the tribes.

The odor of the Caucasians is less pungent than that of the darker races, but is not wholly absent even among the whitest people. The white people are considered, as a race, more odorous than the Japanese. An interesting study of the odor of Europeans was made twenty years ago by Adachi, a Japanese anthropologist, who described it as a sweet or bitter, pungent, penetrating smell, absent before adolescence and in the aged, and centering chiefly around the arm pits.

Strength of body odor depends on the number and size of the sweat-glands, the amount of hairiness, the degree of pigmentation, and the state of bodily activity. Thus numberless variations are possible. As a rule persons are not so sensitive to the odors characteristic of their own nationality or race as they are to the odors of others. Many observers are surprised to find that the Chinese, for instance,

can tell by smell alone whether a European has been in the room. Even some Europeans are extremely sensitive in that regard and may be able to distinguish their friends by the odor alone. The case of the Massachusetts woman who, though deaf and blind, knew her acquaintances by smell, and could sort linen by the odor alone, after it came from the laundry, is famous in psychological literature. Occasionally a person approximates this keenness of olfaction without any physical handicap and among certain races this is rather frequently the case.

It seems that, in addition to their racial characteristics, odors are individually distinctive, though most persons are insensitive to these subtle individual differences. On the other hand there are persons whose distinctive odor is rather clear to most if not all nostrils. The case of Alexander the Great who, according to *Plutarch*, exhaled an odor so sweet that his tunics smelled as if soaked with aromatic perfume, is perhaps the most famous case in history; the story may be apocryphal,—one of the legends that attach themselves to the distinguished personalities of history.

In the same way, the "odor of sanctity," of which a great deal was made in the medieval traditions, though a metaphorical expression, probably arose in connection with certain abnormal conditions of the nervous system among the pilgrims, monks and saints. Body odors are strongly influenced by nervous states so that at one time odor was considered of diagnostic significance in mental disease.

The body odor is complex. It is made up of a number of separate odors with different degrees of intensity, that blend and fuse according to activity, age, and emotional states. There is, in the first place, a general dermal odor, which is a faint and, on the whole, agreeable fragrance, noticeable particularly after washing. The hair and scalp have an odor of their own, which is characteristic. The odor of the arm pit, varying from a faint aroma to a pungent smell, and the odor of the breath are also more or less distinctive. In certain persons the odor of the feet is markedly intrusive. In both men and women, the perineal region is richly endowed with sweat glands and exhudes a strong odor. There are, in addition, the odors characteristic of the sexual parts, in the male that of the preputial smegma, in the female the combined odors of the vulvar secretions and of the vaginal mucus and, lastly, the characteristic menstrual odor. Even in cleanly persons most of these odors may be detected under normal conditions, perhaps faintly, except under excitement, when the odor is intensified.

The intimate associations between the body odor and sex is revealed further by the fact that they do not assume their characteristic quality and pungency until puberty, an observation we owe to Hip-

pocrates. The infant's body odor is wholly unlike that of the adult. It is said that certain observers are able to distinguish the age of a person, within certain limits, through the testimony of smell alone. Mothers often suspect the onset of adolescence in a girl by the appearance of a specific odor in connection with the excreta. The girls themselves sometimes notice a pungently strong smell about their body as the first warning of the approach of menstruation. The body odor, characteristic of the adult, is a persistent secondary sexual manifestation in spite of the loss of significance of olfaction as a factor in sexual selection. Emotional states, and particularly sexual excitation, strengthens some of the body odors. This is very marked, both in men and in women, during sexual intercourse. During the sexual embrace men are said to give forth at times an odor that has been variously described as of rancid butter, or resembling chloroform, and as proceeding from the breath and from the skin. Continence in the male is also said to be associated with a characteristic odor, not unlike that of animals in heat. A certain saint is credited with having been able to recognize chastity in the male by smell alone.

Just before the onset of menstruation women often exhale a characteristic odor, not unlike chloroform, or violets, sometimes described as a smell of leather, and this apart from the odor of the menstrual fluid. This odor is at times very strong.

Certain investigators maintain that, in addition to their function as lubricants, the glands around the vulvar orifice give off an odoriferous secretion, possibly as an attraction to the male. The aromatic odor given off by the vulvar secretions during sexual excitement at times may be strong and pungent enough to permeate the whole room. Ancient writers have described this peculiarity as a "goaty smell produced by venery" and they went so far as to regard it as characteristic of the newly married women or as a sign of defloration. Recent observations tend to show that nymphomania is frequently associated with keen olfactory sensitiveness.

The body odors attain their adult quality only with the onset of puberty. The odors persist and undergo variations in harmony with sexual development. The state of sexual excitation has a marked influence upon the quality and intensity of the odors. Briefly, the odors of the body behave in most respects as a secondary sexual character. It is not surprising, therefore, to find that "strongly sexed" persons show the characteristic odors while the body odors of the eunuch, for instance, are less marked than those of a man with normal testicles. Where the primary sexual characters are weak, the secondary sexual characters are also below the average. It is significant that, according to Féré, the impotent male finds sexual odors most repugnant. This was noticeably the case also in an instance of

psychic impotence which has come under the writer's observation. The man repeatedly changed his stenographers because he could not tolerate the body odors which he thought he perceived in spite of the most scrupulous cleanliness.

The sexual selection value of personal odor, a function almost extinct in the human race, nevertheless presents curious survivals in the form of customs and beliefs, as well as numerous personal idiosyncrasies.

It is well known that among a large portion of the peoples inhabiting the earth the ordinary salutation between acquaintances and friends, as well as between lovers, is by mutual smelling. There are races of people who do not say, "Give me a kiss," but "Smell me." The emotional value of personal odor is thus still widely recognized throughout the world. Indeed, the olfactory salutation is more widespread than the tactile.

A story is told that Asiatic princes have sometimes selected inmates for their Seraglio solely by the odor of the garments. That is probably a fanciful representation of the rôle of olfaction in sexual selection having no historic basis. Sexual selection based entirely on olfactory stimuli must be extremely rare "not so much because the impressions of this sense are inoperative," as *Havelock Ellis* sums up the matter, "but because agreeable personal odors are not sufficiently powerful, and the olfactory

organ is too obtuse, to enable smell to take precedence of sight. Nevertheless, in many people, it is probable that certain odors, especially those that are correlated with a healthy and sexually desirable person, tend to be agreeable; they are fortified by their association with the loved person, sometimes to an irresistible degree; and their potency is doubtless increased by the fact . . . that many odors, including some bodily odors, are nervous stimulants."

CHAPTER XXXVII

Nose and sex have been variously associated. There has always been prevalent a widespread tendency to correlate the size of the olfactory organ with the degree of sexual maturity, or with the size of the sexual organs. A large nose has always been taken to signify a large male organ, in popular thought. There is, in fact, a marked increase in the septum of the nose, normally, during puberty. Certain intimate connections between the olfactory and sexual regions have also not failed to attract popular attention.

The belief that a large nose means a large male organ was well established among the Romans and is expressed by Ovid: Noscitur e naso quanta sit hasta viro. Massinger's Emperor of the East contains a reference to this belief, specifically a reference to sexual ardor in the female, as measured by the length of the nose:

Her nose, which by its length assures me Of storms at midnight if I fail to pay her The tribute she expects.

(Act II, Scene 1)

At first glance the correlation seems physical. But the belief implies also the function of the nose as the olfactory organ. The reference is specifically to the functional rôle of the organ, the size being but a measure of functional efficiency in sexual selection. In the past, physiognomists and other "character readers," down to phrenologists, have made a great deal of the size of the nose as an index to the ardor sexualis. The belief is widespread to this day that there exists a definite correlation between nose and sex.

"The fate of innumerable girls has been decided by a slight upward or downward curve of the nose," states Schopenhauer. Pascal's remark that if Cleopatra's nose had been but a trifle larger, the whole political geography of our planet might have followed a different course is one of the historic bon mots.

Length of nose is by no means universally admired. Not only did the ancient Huns, during the age of Attila, flatten the noses of their infants with bandages, "for the sake of exaggerating a natural conformation," but, to this day, to be called Longnose is considered an insult among the Tahitians, the Malays of Sumatra, the Hottentots, the natives of Brazil and certain negro tribes. Flat noses are a physical characteristic and therefore the fashion among the Esquimaux, among Chinese, whose nose is depressed as a whole, and among the Malays, whose nose is depressed only in the lower half.

Among the negro tribes both forms of nasal depression, or flatness, are prevalent.

As seen among primitive peoples the nose, flat, irregular, with its visible nostrils upturned and the bridge rudimentary, appears truly an intermediate organ between the ape's nose and our own. Though olfaction plays a stronger rôle in sexual selection among the primitive races than among the civilized people, the size and shape of the nose evokes no corresponding visual associations.

The ancient Hebrews were probably always distinguished by a large nose as compared, for instance, with the Greek standard. Comparing a woman's nose to "the Tower of Lebanon, which looketh towards Damascus," is a compliment only in the light of the popular associations between nose length and sexual charm or prowess.

On the other hand it must be pointed out that though the Greek artists knew the shape and size of an artistically correct and pleasing nose, so-called Greek noses were rare even among the ancient Greeks. The testimony of Ruskin, in his Aratra Pentelici, about Greek features in general, is illuminating: "Will you look again at the Series of coins of the best time of Greek art which I have just set before you? Are any of these Goddesses or nymphs very beautiful? Certainly the Junos are not. Certainly the Demeters are not. The Siren

and Arethusa have well formed and regular features; but I am quite sure that if you look at them without prejudice, you will think neither reaches even the average standard of pretty English girls. The Venus Urania suggests at first the idea of a very charming person, but you will find there is no real depth nor sweetness in the contours, looked at closely. And remember, these are chosen examples; the best I can find of art current in Greece at the great time; and even if I were to take the celebrated statues, of which only two or three are extant, not one of them excels the Venus of Melos; and she, as I have already asserted in The Queen of the Air, has nothing notable in feature, except dignity and simplicity. Of Athena I do not know one authentic type of great beauty. . . . You need only look at two or three vases of the best time to assure yourselves that beauty of feature was, in popular art, not only unattained, but unattempted; and finallythis you may accept as a conclusive proof of the Greek insensitiveness to the most subtle beautythere is little evidence, even in their literature, and none in their art, of their having ever perceived any beauty in infancy or early childhood."

Nevertheless, though the ideal of Greek beauty was the masculine youth, for the divine nose the Greek artist turned to the contours of childhood; the Greek nose, so-called, is one that forms a straight line with the forehead and is also straight in itself.

No hollow at the root, where nose joins forehead, is tolerated by the Greek artist. But absence of that hollow is characteristic of early childhood. It gives the whole facies an expression of eternal vouth and perhaps that was the intent of the Greek artist. Henry T. Finck states: "the Greek's admiration of such features as are naturally associated with youthful masculine beauty no doubt led him, in choosing a wife, to give the preference to similar features, including the 'Greek' nose. Yet in the absence of opportunities for courtship, Sexual Selection could not operate very extensively; hence it is probable that ungainly noses, though not so extravagant as among the Semitic races, were common enough in Greece as in Rome. In the Dark Ages hideous noses must have prevailed everywhere, as might be inferred from the fact that Romantic Love was unknown, and physical beauty looked on as a sinful possession, even if the painted and sculptured portraits did not prove it to our eyes in most instances. . . . Regarding modern noses it may be said that the nose is such a prominent feature that more has been done for its improvement, through the agency of Love, or Sexual Selection, than for the mouth, or any other feature, excepting the eye."

Finck finds the average Englishman's nose to-day a "tolerably shapely organ," though the Saxon ancestors were admittedly far from distinguished for beauty of nose, and quotes on this point G. A. Sim-

cox, a student of portraiture, who observes that "sometimes both Danes and Saxons had their fair proportions of snub-noses and pug-noses, but when they escaped that catastrophe the Danish nose tended to be a beak (rather a hawk's beak than an eagle's), while the Saxon nose tended to be a proboscis."

In both men and women there has been definitely ascertained a remarkable relationship between the olfactory portion of the mucous membrane of the nose and the functions of sex. The two show a reciprocal sympathetic influence so that changes in the genital sphere affect the nasal mucous membrane and reversely. The exact meaning and the mechanism of this association remains conjectural. It has been called the naso-genital reflex and seems more prevalent among women.

This curious relationship sets in early; in fact it begins with the age of puberty. During the time when the sexual glands undergo the changes of maturity bleeding of the nose is a frequent occurrence and may assume annoying proportions. In the female after the onset of menstruation, the flow sometimes is displaced by a profuse epistaxis,—a vicarious menstruation. Bleeding of the nose has also been known to occur during sexual excitement, or during intercourse as well as during, or after, masturbation. For a time, it was the fashion among

gynecologists to treat pelvic disorders, particularly disorders of menstruation, by cauterization of the nasal mucous membrane on the theory that a beneficent reflex would thus be induced in the pelvic organs. Bride's "cold" is a popular expression referring to an engorgement of the nasal mucous membrane during the honeymoon. It shows that the influence of sexual excitement upon the nasal functions has been widely recognized. An attempt has been made to distinguish between the physiological and the pathological relations of nose to sex but the question is as yet vague and unsatisfactory.

The tendency to associate olfactory hallucinations with the sexual functions is very common among those suffering of nervous derangement. The hallucinations of smell are not quite as well known as those of sight and hearing and they may often pass unrecognized. Usually olfactory hallucinations are mixed with other forms. Psychiatrists, however, are well familiar with the subject of olfactory hallucinations although these deserve still greater attention. Hallucinations of this type occur more frequently among women, especially among those having pelvic troubles. Krafft-Ebing long ago recognized that olfactory hallucinations depend largely on sexual excitement and this observation has been corroborated by numerous other psychiatrists. The climacteric is a period in woman's life when olfactory

hallucinations are particularly prone to occur, due to the presence of uterine trouble, or to the flaring up of sexual craving.

Mental aberrations assuming a religious turn are very often associated with hallucinations of the chemical senses, smell and taste. A surprisingly large number of religious leaders, such as Francis of Assisi, Lazzaretti, Katherina Emmerich, and many of the chief Anabaptists, have been victims of olfactory hallucinations. This is also true of Emanuel Swedenborg.

The nasal congestion at the periods of sexual activity or excitation, as during menstruation, or during the sexual embrace, and all the associated facts which constitute the so-called naso-genital reflex, may be a reverberation in the human race of that intimate connection between smell and sex observed throughout the animal world.

There are endless variations in the olfactory sensitiveness of persons, all within the range of physiological processes. In some persons the sense of smell is so keen and the olfactory images so vivid that they may be considered a type apart, not unlike the better known visual, auditory, or psychomotor types of mind. The mental and emotional life of these persons has a strong olfactory tone. Under certain conditions of emotional stress ordinary persons likewise may become sharply sensitive to olfactory influences. Artists and writers frequently

display such peculiarities. The emotional appeal of odors has been strongly emphasized by poets of the decadent school, like *Baudelaire*, and by novelists of the naturalistic branch of the realistic school, like *Zola* and, in his earlier work, *Huysmans*.

Just as the functional ripening of the sexual organs increases olfactory acuity in the young so the waning of the sexual powers in the old is frequently associated with a flaring up of the sense of smell. Men in whom sexual desire is stronger than the virile power may find vicarious gratification in sexual odors. Olfactory fetichism is not rare. Not only the company of women but the odor of woman's garments frequently gratifies those who lack sexual vigor and may be craved with the ardor of passion. The odor of woman yields a vicarious gratification to those who are inclined towards olfactory fetichism. The fetichism of clothes and articles of wear often involves an olfactory element. Some fetichists are attracted only by worn articles such as corsets, bodices, under-garments, stockings, garters, or gloves, making a collection of these. A classical instance of this form of attraction through personal odors is Goethe's well known confession that once on leaving Weimar for an official journey of two days, he took along a bodice of Frau von Stein's so as to carry with him the scent of her body. Bodily odors play also a decisive rôle in the object fetichism of homosexuals. The exchange of personal articles of

wear between lovers, distinctly a fetichistic trend, may have an olfactory basis. Most scatological trends, interest in urine, in the fæces, etc., revolve almost wholly around the sense of smell. These trends are more widely persistent among all classes than is generally recognized. The apposition of the lips to the sexual parts, cunnilingus and fellatio, respectively, is the expression of a tactile craving for union but among those who practice this form of sexual caress the pleasure is enhanced by the excitation of the olfactory sense, though in some cases smell plays no part in the attraction.

As a sexual stimulant odor is overshadowed by the impressions aroused through the other senses, particularly vision; nevertheless it is not without its significance and in certain cases it may assume a preponderant rôle. Ordinarily in man the sense of smell is too blunt to assume anything like the significance it plays in sexual attraction among the other animal species. But that odor influences likes and dislikes, that it occasionally makes or mars relations between the sexes, is true not only of primitive peoples but of all classes of human society. Lovers among primitive peoples exchange their garments partly because they desire to be bathed in the body odors of the beloved. In the barbaric stages of society the preponderance of odors in sexual selection is clearly recognized and deliberately cultivated. Personal odors are dwelt upon in courtship and in

the poetry of the East. The erotic literature of the East praises lavishly the sexual attraction of perfumes as well as that of body odors. Krauss, the anthropologist, editor of Anthropophyteia, states that among certain Southern Slavs the sexual parts are left unwashed so that the odors, which are regarded as a sexual stimulant, may preserve their full potency. But on the whole even among the lower classes of Europe the tendency is to suppress personal odor as unesthetic. Purely natural and personal body odors may become a matter of indifference under the excitation of the most intimate of all relationships but no one, even among the olfactory fetichists, has ventured to praise the odors as universally desirable. Olfactory influences affect the sexual sphere but unobtrusively. Man's tendency is to deprecate them. Herrick's poem Love Perfumes All Parts. in which he declares that "Hands and thighs and legs are all richly aromated," would scarcely be adjudged an elegant expression, according to modern esthetic standards. The themes of some of his other lyrics, such as, On Julia's Breath, Upon Julia's Sweat, Upon Julia's Unlacing Herself, or the Songs to the Maskers, and his poem, To Mistress Anne Soame, are equally strange to modern esthetic ideals. The worship of odor is distinctly on the wane. Some of the oriental expressions on this theme sound coarse to the ears of the man of modern culture even when they seem to strike a familiar note.

CHAPTER XXXVIII

The use of artificial perfumes, which was raised to a great art among certain peoples, has arisen out of the desire to heighten or disguise the natural body odors according to the existing standards and fash-Incidentally this has led to the development of a very refined esthetic side to olfaction. While artificial perfumes are intended to enhance personal charm in general they act specifically as sexual excitants. This is largely due to the fact that the perfumes derived from natural products are mostly the sexual odors of the animal world in various degrees of refinement. They are not unlike the personal odors they are intended to heighten or disguise by subtle variations and substitutions. The perfumes produced through chemical synthesis in the laboratory for the most part duplicate the sexual odors found in nature. Musk is obtained from the preputial sebaceous glands of Moschus moschiferus. Civet is obtained from the glands of the male animal of that name and castoreum is a similar product of the male beaver. Nearly all the widely known perfumes were at one time of animal origin; a few were derived from flowers. In modern times chem-

istry displaces these sources with synthetic laboratory products. But all perfumes, whether of animal or vegetal origin, and all the synthetic products, may be said to be sexual in their appeal. The perfume of flowers is given off to attract the insects on whose visits the respective plants depend for cross-fertilization. The odors of the animal glands which yield the much-prized perfumes are distinctly secondary sexual characters. The products of the chemical laboratory imitate, or even improve upon, the odoriferous substances found in nature. These odoriferous essences pervading both the animal and the vegetal world stand distinctly in the service of sexual selection. The fundamental identity of odor links the plant world with the animal world and both with the human species. Through the realm of olfaction nature achieves a subtle functional unity. The body odors of man have much in common with the odors of the animal world and with those of the vegetal world. The realm of olfaction is one throughout nature. It links all existence. human odors, normal as well as abnormal, are constantly compared with animal and plant odors, such as chloroform, musk, or violet because they have a common quality.

It is not surprising therefore to find that perfumes play the sexual rôle primordially possessed by the body odors. "Men of strong sexual temperament," *Mantegazza* observed long ago, in his *Fisio*- logia dell' Amore, "cannot visit with impunity a laboratory of essences and perfumes." The Islamic Perfumed Garden of Sheik Nefzaoui praises the uses of perfumes by both sexes, as a stimulant to love. The custom of perfuming the body, and especially the sexual parts, has been at one time widespread among the European women and the practice still prevails among certain classes.

Perfumes may be used either to heighten or to disguise the natural body odors. Among savages who regard absence of body odor a blemish, the women have naturally tried to overcome natural deficiencies in this respect. This may have been the universal custom in ancient times and may be the reason, as Hagen remarks, why until recent times the perfumes preferred by women were generally the strongest, those most distinctly sexual, ambergris, musk, civet and castoreum. Of these, musk, the chief of the Odores ambrosaica group, which next to the capryl group of odors is sexually the most significant, has a very significant history. It is an ancient perfume. Its name is Persian, like the names of all our chief perfumes, which are either Arabic or Persian, thus showing their oriental origin, but the word is traceable to a Sanskrit root signifying Musk odors are widely distributed "testicle." throughout the animal and vegetal world. "This," Havelock Ellis holds, "is indicated by the frequency with which the word 'musk' forms part of the names

of animals and plants which are by no means always nearly related. We have the musk-ox, the muskmole, several species called musk-rat, the musk-duck, the musk-beetle; while among plants which have received their names from a real or supposed musky odor are, besides several that are called musk-plant, the musk-rose, the musk-hyacinth, the musk-mallow, the musk-orchid, the musk-melon, the musk-cherry, the musk-pear, the musk-plum, muskrat and muscatels, musk-seed, musk-tree, musk-wood, etc. musky odor is not merely widespread in Nature among plants and the lower animals, it is particularly associated with man. . . . It is regarded as characteristic of some races of men, especially the Chinese. Moreover, the smell of the Negress is said to be musky in character, and among Europeans a musky odor is said to be characteristic of blondes. . . . The Chinese poet vaunts the musky odor of his mistress's armpits, while another Oriental says, concerning the attractive woman, that 'her navel is filled with musk.' Persian literature contains many references to musk as an attractive body odor, and Firdusi speaks of a woman's hair as a "crown of musk," while the Arabian poet Motannabi says of his mistress that her 'hyacinthine hair smells sweeter than Scythian musk.' Galopin stated that he knew women whose natural odor of musk (and less frequently of ambergris) was sufficiently strong to impart to a bath in less than an hour a perfume due

entirely to the exhalations of the musky body. . . . The special significance of musk . . . lies not only in the fact that we have here a perfume, widely scattered throughout nature and often in an agreeable form, which is at the same time a very frequent personal odor in man. Musk is the odor which not only in the animals to which it has given a name, but in many others, has a specifically sexual odor, chiefly emitted during the sexual season. The sexual odors, indeed, of most animals seem to be modifications of musk. The Sphinx moth has a musky odor which is confined to the male and is doubtless sexual. Some lizards have a musky odor which is heightened at the sexual season; crocodiles during the pairing season emit from their submaxillary glands a musky odor which pervades their haunts. In the same way the elephant emits a musky odor from his facial glands during the rutting season. The odor of the musk-duck is chiefly confined to the breeding season. The musky odor of the negress is said to be heightened during sexual excitement.

"The predominance of musk as a sexual odor is associated with the fact that its actual nervous influence, apart from the presence of sexual associations, is very considerable. . . . In former times musk enjoyed a high reputation as a cardiac stimulant; it fell into disuse, but in recent years its use in asthenic states has been revived, and excellent results, it has been claimed, have followed its ad-

ministration in cases of collapse from Asiatic cholera. For sexual torpor in women it still has (like vanilla and sandal) a certain degree of reputation, though it is not often used, and some of the old Arabian physicians (especially Avicenna) recommended it, with castoreum and myrrh, for amenorrhæa. Its powerful action is indicated by the experience of Esquirol, who stated that he had seen cases in which sensory stimulation by musk in women during lactation had produced mania. It has always had the reputation, more especially in the Mohammedan East, of being a sexual stimulant to men; 'the noblest of perfumes,' it is called in El Ktab, 'and that which most provokes to venery.' . . .

"Not only is musk the most cherished perfume of the Islamic world, and the special favorite of the Prophet himself, who greatly delighted in perfumes ('I love your world,' he is reported to have said in old age, 'for its women and its perfumes'), it is the only perfume generally used by the women of a land in which the refinements of life have been carried so far as Japan, and they received it from the Chinese. . . . Moreover, musk is still the most popular of European perfumes."

Strongly associated with the love of perfume stands the attraction felt by certain persons for the odor of leather. The latter has a curiously strong sexual influence upon many men and women. Perhaps the odor of leather is intermediate between the natural body odors and the perfumes distilled from the animal glands or prepared synthetically in imitation of them. Glove and shoe fetichism, as previously mentioned, involves the olfactory sense. Restif de la Bretonne, who was a shoe fetichist, enjoyed the odor of the leather, but his fetichism was probably not wholly olfactory. It is said that Peau d'Espagne, a very famous perfume and the favorite of certain sensuous classes, consisting of wash-leather steeped in various oils and subsequently smeared with musk and civet, suggests faintly the odor of leather and at the same time resembles most closely the scent of a woman's skin. It is said that the odor of leather suggests that of the sexual organs and menstruating girls sometimes give off a scent described as "leathery."

Havelock Ellis has recorded the case of a young woman, "entirely normal in sexual and other respects, who is conscious of a considerable degree of pleasurable sexual excitement in the presence of the smell of leather objects, more especially of leather-bound ledgers and in shops where leather objects are sold. She thinks this dates from the period when, as a child of 9, she was sometimes left alone for a time on a high stool in an office. A possible explanation in this case lies in the supposition that, on one of these early occasions, sexual excitement

was produced by the contact with the stool (in a way that is not infrequent in young girls), and that the accidentally associated odor of leather permanently affected the nervous system, while the really significant contact left no permanent impression. . . . The same subject is also sexually affected by various perfumes and odorous flowers not recalling leather."

The exquisite fragrance of delicate flowers yields voluptuous sensations even when there is apparently no suggestion of personal or animal odor about them. Nevertheless the sense of pleasure produced by olfaction is a form of gratification resembling closely the expression of sexual pleasure, and long ago Mantegazza pointed this out as a proof of his contention that smell and sex are intimately linked. "I sometimes feel such pleasure in smelling flowers that I seem to be committing a sin," a lady once said to him. The odor of flowers often produces an exhilarating effect not unlike that usually associated with sex. The association is lightly expressed in the following free translation of a quatrain from a popular German song:

I prayed the flowers, Oh, tell me, What is love? Only a fragrant sigh was wafted Thro' the night. Flowers, of course, appeal also by the beauty of their color and form but never so much as when these qualities are associated with a characteristic scent. Shelley's description of the lily of the valley "whom youth makes so fair and passion so pale," is a tribute to color but a sexual connotation is distinctly implied. Indeed, the odor of lilies suggests the sexual realm to some persons and it is interesting to note in this connection that the vulvar secretion of the Padmini, or perfect woman, has been described rhapsodically in the Kama Sutra of Vatsyayana, as "perfumed like the lily that has newly burst," during sexual intercourse.

Subtle characteristics link the animal and vegetal odors affecting human beings in a distinctly sexual sense. This is true also of the delicate scents which apparently do not suggest the body odors. On the other hand, certain men and women have been known to exhale, sometimes to a very marked degree, various odors of plants and flowers; reversely as certain plant odors recall not only general body odors, but the odors specifically sexual. On this point Havelock Ellis writes: "A rare garden weed, the stinking goosefoot, Chenopodium vulvaria, it is well known, possesses a herring brine or putrid fish odor-due, it appears, to propylamin, which is also found in the flowers of the common white flower or mayflower (Cratagus oxyacantha) and many others of the Rosacem-which recalls the odor of the animal and

human sexual regions. The reason is that both plant and animal odors belong chemically to the same group of capryl odors (Linnaus's Odores hircini). so called from the goat, the most important group of odors from the sexual point of view. Caproic and capryl acid are contained not only in the odor of the goat and in human sweat, and in animal products as many cheeses, but also in various plants, such as Herb Robert (Geranium robertianum), and the Stinking St. John's worts (Hypericum hircinum), as well as the Chenopodium. Zwaardemaker considers it probable that the odor of the vagina belongs to the same group, as well as the odor of semen (which Haller calls odor aphrodisiacus), which last odor is also found, as Cloquet pointed out, in the flowers of the common barberry (Berberis vulgaris) and in the chestnut. A very remarkable and significant example of the same odor seems to occur in the case of the flowers of the henna plant, the white-flowered Lawsonia (Lawsonia inermis), so widely used in some Mahomedan lands for dyeing the nails and other parts of the body."

As to the odor characteristic of the semen it resembles that given off by certain vegetals. Newmown hay and various flowers give off a fragrance of cumarine which has a distinct sexual effect on some persons. A strong resemblance between the scent of semen and that of flowering grasses has been pointed out by a lady who wrote to *Havelock Ellis*:

"The first time I became aware of this resemblance it came on to me with a rush that here was the explanation of the very exciting effect of a field of flowering grasses and, perhaps through them, of the scents of other flowers. If I am right, I suppose flower scents should affect women more powerfully than men in a sexual way. I do not think any one would be likely to notice the odor of semen in this connection unless they had been greatly struck by the exciting effect of the pollen of the grasses. I had often noticed it and puzzled over it."

Numerous personal idiosyncrasies and peculiarities of olfaction show that the unity which runs throughout nature includes also the sense of smell.

CHAPTER XXXIX

The most obvious fact about odors is that they act as stimulants. But while they whip up the nervous functions temporarily, odors, like all excitation which is excessive or prolonged, produce fatigue and may lead to exhaustion. This has been proven experimentally. Bernardin de St. Pierre's statement that "man uses perfumes to impart energy to his passion," has been amended by $F\acute{e}r\acute{e}$, who has carried out elaborate experiments on the influences of odors, with the remark: "But perfumes cannot keep up the fires which they light."

The continuous inhalation of perfumes, as by those engaged in their manufacture, not only involves fatigue but appears to be detrimental to health. Workers in vanilla factories are exposed to a particular form of disorder known as vanillism which includes headache, sleeplessness, irritability and even skin eruptions, thus showing that odor influences the trophic processes of the body. Various experiments on rabbits and frogs tend to show that excessively used, perfumes are poisonous. The presence of musk, according to $F\acute{e}r\acute{e}$, interferes with the proper incubation of fowls' eggs, not only producing

abnormalities, but retarding the growth of the embryos that remain normal.

Perfumes and scents are still relied upon to some extent to enhance sexual charm, but even in the most primitive races of mankind, the sense of smell has declined in importance. The grosser allurements by smell belong to a remote past though they still retain latent possibilities which at times manifest themselves in certain persons.

We have inherited from our ancestors an organization capable of calling into play the sense of smell in connection with which it is ordinarily unobtrusive. Thus olfaction may play a very predominant rôle in the mental processes of certain processes and in their vita sexualis. Such persons are frequently, though not necessarily, psychopathic. Artists, poets and other sensitive nervous organizations are prone to be particularly susceptible to odors. The inverts are notoriously so. Homosexuality and coprophilia are often associated.

Odors no longer play the rôle they may have once held in the sexual selection of man. Though taste and smell are the most delicate tests known in nature, man's sense of smell is relatively blunted. Long before olfaction comes into play, vision exercises the function of sexual selection. But in the intimacy of the sexual embrace, olfaction frequently enters into play, and if not too strikingly obtrusive, may enhance the feeling of gratification.

Personal odors are capable of influencing subtle nuances of feeling, or like and dislike of others. There is no end to the possible variations in this respect. From complete indifference or light sensitiveness, personal idiosyncrasies range all the way to the distinctively olfactory type of persons. The majority of people, not belonging to the olfactory type, are swayed rarely, if at all, by their olfactory sensations in their vita sexualis.

On the whole, as has been already stated, man's life would be practically unchanged if olfaction were abolished. At the same time it cannot be denied that, small though its rôle be in human sexual selection, it is not negligible.

CHAPTER XL

Hearing, including the appreciation of music, rests on the sense of rhythm. In its turn rhythm is not only a fundamental quality of all neuro-muscular activity but in various subtle ways it is part of the harmony and order of nature. Every functional activity is rhythmical. Circulation and respiration have their cadences. Kinesthetic sensations are evolved by the ryhthmic contractions of the muscular fibres.

Rhythm is basic to the sense of hearing and in a deeper sense is intertwined with the whole of sentient existence.

Rhythm stimulates activity. The vocal, rhythmic accompaniment to work is said to be the origin of human song, though there are various other conflicting theories regarding this subject. Probably not the irregular primitive work, but the rhythmic activity of muscles in dancing, first suggested vocal accompaniment. The work of primitive races was far from systematized or regular enough to lead to a sense of periodicity and rhythm and to suggest song. Whenever work is done involving even, regular, periodic muscular motions it becomes coördinated

with vocal expression. Soldiers marching, sailors heaving and hoisting always fall into song. The influence of rhythm and song is to increase the output of labor. This has been proven experimentally. $F\acute{e}r\acute{e}$ was one of the early investigators to study experimentally this problem.

The perception of differences in pitch, tone and time-quality is a gradual development. Melody has been called by Groos a voice that dances. virtually the expression of a sensation perceived kinesthetically at first and transmuted to another realm, that of sound. Dancing appeals largely because of the rhythm and the suggestion of movement, precisely as does song. Poetry, also a matter of feeling generated by rhythm, music and dancing have a closely related origin. They are essentially one and it is not suprising that for a long time they flourished together. Among the early Greeks poetry. dance and song were inseparable. A poem is essentially a dance set in words; inversely the dance is a form of expression making use of muscular rhythm and cadence. In ancient times poems were sung rather than recited, as an accompaniment to the dance. The use of the term "foot" in technical matters pertaining to poetry is a reminder of the fact that a poem originally was meant to accompany the dance.

That rhythm and melodies are forms of motion, and therefore expressions of feeling states was well known to Aristotle. Helmholtz, the greatest authority on sound down to the period which has inaugurated the newer physics, declared "all melodies are motions." The motor stimulus of sound has been emphasized by various writers.

Just as sculpture has been called frozen music, so music, in its turn, has been described as a form of motion. Goblot states (Rev. Philosophique, 1901): "Sung or played, melody figures to the ears a successive design, a moving arabesque. We talk of ascending and descending the gamut, of high notes or low notes; the higher voice of woman is called soprano, or above, the deeper voice of man is called bass. Grave tones were so called by the Greeks because they seemed heavy and to incline downward. Sounds seem to be subject to the action of gravity; so that some rise and others fall. . . . Baudelaire, speaking of the prelude to Lohengrin, remarks: 'I felt myself delivered from the bonds of weight.' And when Wagner sought to represent, in the highest regions of celestial space, the apparition of the angels bearing the Holy Grail to earth, he uses very high notes and a kind of chorus played exclusively by the violins, divided into eight parts, in the highest notes of their register. The descent to earth of the celestial choir is rendered by lower and lower notes, the progressive disappearance of which represents the reascension to the ethereal regions.

"Sounds seem to rise and fall: that is a fact. It is difficult to explain it. Some have seen in it a habit derived from the usual notation by which the height of a note corresponds to its height in the score. But the impression is too deep and general to be explained by so superficial and recent a cause. It has been suggested also that high notes are generally produced by small and light bodies, low notes by heavy bodies. But that is not always true. has been said, again, that high notes in nature are usually produced by highly placed objects, while low notes arise from caves and low placed regions. But the thunder is heard in the sky, and the murmur of a spring or the song of a cricket arise from the earth. In the human voice, again, it is said, the low notes seem to resound in the chest, high notes in the head. All this is unsatisfactory. We cannot explain by such coarse analogies an impression which is very precise, and more sensible (this fact has its importance) for an interval of half a tone than for an interval of an octave. . . .

"Nearly all our emotions tend to produce movement. But education renders us economical of our acts. Most of these activities are repressed, especially in the adult and civilized man, as harmful, dangerous, or merely useless. Some are not completed, others are reduced to a faint incitation which externally is scarcely perceptible. Enough remains to constitute all that is expressive in our gestures, physiognomy and attitudes. Melodic intervals possess in a high degree this property of provoking impulses of movement, which, even when repressed, leave behind internal sensations and motor images. It would be possible to study these facts experimentally if we had at our disposition a human being who, while retaining his sensations and their motor reactions, was by special circumstances rendered entirely spontaneous, like a sensitive automaton, whose movements were neither intentionally produced nor intentionally repressed. In this way, melodic intervals in a hypnotized subject might be very instructive."

Experiments of the kind suggested above have been carried out repeatedly but with results too vague and varying to lead to any definite conclusions. The influence of music on muscular performance, in particular, has been studied by means of the ergograph and dynamometer. On the whole these experiments but confirmed the general observations and conclusions that had been made or arrived at empirically: slow music in a minor key depresses, quick, lively music accelerates work and even removes temporarily the feeling of fatigue; major keys are stimulating; minor keys and discords, depressing, except under fatigue when the influences of the major and minor keys seem to be reversed.

Music stimulates both the voluntary and the involuntary muscular structures; all sorts of muscular efforts are fostered in various ways by music and even the involuntary reflexes are reinforced. Heart and brain are stimulated. Numerous experiments have corroborated this universal observation. The influence of music on respiration and the heart beat are well known. Exciting music quickens the respiration, it accelerates the heart beat. Military bands are a tonic to the marching soldiers.

The influence of music upon the vital processes is profound and its effect is shown in innumerable ways. Music affects the dermal glands, increasing perspiration, and generally deepens the metabolic curve. Music is said also to sharpen the other senses, increasing particularly the acuity of vision.

The origin of the pleasurable quality of musical tones and of vocal rhythm has been a subject of considerable speculation. Darwin discussed it in his famous work on The Descent of Man and concluded that the problem was insoluble. The nearest we come to an understanding of this pleasurable quality is to conceive it as due stimulating effect of rhythm upon respiration and heart, as well as upon the neuromuscular system as a whole. Certain combinations of musical notes are capable of acting as a diffuse physiological stimulus. Music exhilarates possibly because it enhances vital activities. But such a physiologic view is not sufficiently comprehensive.

Among the lower species the appeal of music is distinctly sexual in character. This is true not only

of birds but of insects as well. Birds are said to show interest in the singing of other species. Similarly the song of the Cicada is appreciated by other genera of insects. The relation of singing to courtship among birds is more than "a relation of concomitance," as *Herbert Spencer* maintained, and his "overflow of energy" hypothesis proves unsatisfactory. Musical sounds of insects and the song of birds play a decisive part in bringing the sexes together. Usually the male is the one that charms its partner with song but among certain insects it is the female that thus attracts the male.

With regard to the higher vertebrates the facts are somewhat baffling. Nearly all animals are markedly sensitive to musical sounds and melodies, nevertheless the higher mammals show no influence of music upon their sexual life. True, the males of most species use their vocal powers chiefly during the breeding season, but "we have not as yet any good evidence," remarks Darwin, "that these organs are used by male mammals, to charm the female." (Descent of Man, p. 567.) In his Spiele des Menschen, Groos also points out that it is doubtful whether hearing plays an important rôle in the courtship of mammals.

Sexual perversions based on the sense of hearing no doubt are extremely rare, as has been pointed out long ago by Féré, in his Study of the Sexual Instinct of Man, but erotic repressions and psychic traumata of a sexual character involving music, or the

human voice, are relatively common. Falling in love with a voice, or being sexually aroused by the quality of a speaking or singing voice is an experience corroborated by numerous testimony. Alexander Dumas, Sr., relates the case of a young woman who fell in love with the voice of a friend who happened to call on him while she was in the next room. She asked to be introduced and the acquaintance quickly ripened into a lasting attachment. In discussing the sexual appeal of the voice Moll maintains that "the stimulation received through the ears is much greater than is usually believed," and he quotes with approval Mantegazza's remark that "the voices of some women cannot be heard with impunity."

The relationship of voice and sex is further shown by the changes in the larynx and vocal cords which are induced by the advent of puberty. In boys the larynx nearly doubles in size, the voice usually breaks, and becomes lower by a whole octave or more. The feminine larynx increases in the proportion of 5 to 7 only and the changes in the chords and in the voice are correspondingly smaller. The voice of eunuchs who have their testicles removed early retains its pre-pubertal qualities.

Infantile memories of the mother's voice are a potent factor influencing the choice of love objectives in later life. It is thus that men often associate their boyhood ideals of love with women singing or

playing musical instruments. Havelock Ellis contends that "in these cases it will always be found that the fascination was romantic and sentimental, and not specifically erotic," but this is a distinction that does not hold any longer in the light of genetic psychology. Music of a definitely sexual appeal is frequently so on account of its associations. Wagner's Tristan with its distinctly erotic overtone, "really produces this effect in part from the association with the story," states Havelock Ellis, "and in part from the intellectual realization of the composer's effort to translate passion into esthetic terms: the actual effect of the music is not sexual, and it can well be believed that the results of experiments as regards the sexual influence of the Tristan music on men under the influence of hypnotism have been, as reported, negative." On the other hand a considerable portion of the popular jazz music owes its popularity to its clearly erotic connotations, though it lacks any intellectual elements.

Men and women are variously influenced by music. On this point *Havelock Ellis* summarizes the facts as follows:

"I have found little evidence to show that music, except in occasional cases, exerts even the slightest specifically sexual effect on men, whether musical or unmusical. But I have ample evidence that it very frequently exerts to a slight but definite extent such an influence on women, even when quite normal.

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Judging from my own inquiries it would, indeed, seem likely that the majority of normal educated women are liable to experience some degree of definite sexual excitement from music; one states that orchestral music generally tends to produce this effect; another finds it chiefly from Wagner's music; another from military music, etc. Others simply state—what, indeed, probably expresses the experience of most persons of either sex—that it heightens one's mood. One lady mentions that some of her friends, whose erotic feelings are aroused by music, are especially affected in this way by the choral singing in Roman Catholic churches.

"In the typical cases just mentioned, all fairly normal and healthy women, the sexual effects of music though definite were usually quite slight. neuropathic subjects they may occasionally be more pronounced. Thus, a medical correspondent has communicated to me a case of a married lady with one child, a refined, very beautiful but highly neurotic, woman, married to a man with whom she has nothing in common. Her taste lies in the direction of music; she is a splendid pianist, and her highly trained voice would have made a fortune. She confesses to strong sexual feelings and does not understand why intercourse never affords her what she knows she wants. But the hearing of beautiful music, or at times the excitement of her own singing. will sometimes cause intense orgasm."

The impulse to impress the other sex with vocal accomplishments, often a temporary flare-up in adolescents, shows that the association between voice and sex tends to persist.

CHAPTER XLI

In order to illustrate the emotional background which sometimes leads to the fixation of a typical infantile attitude toward music I give this brief outline of a lengthy psycho-biographic account obtained from L. B., a very successful artist, in the course of psychoanalysis:

As a child she was neither specially talented nor precocious. She took up music probably because "the social set" to which her family belonged expected children to receive musical training. She felt no incentive to study and practice was irksome to her. The praise of her father, whom she greatly adored, was her chief compensation for the hard work of drilling when she would have preferred to play games.

Later, as the result of overwork and business worries her father became an invalid. She had just reached the adolescent stage. He required special care for a time and was staying in the house.

"It was his special delight during that period of invalidism to have me play and sing for him," states

¹This brief clinical account has appeared in The Psycho-analytic Review, Vol. IX, No. 4, 1922.

L. B., "and I loved to do it. We spent many evenings together, he lying down on a couch close by, I at the piano playing my own accompaniments while singing. Occasionally he patted my hair in approval. Once or twice he kissed me. I was surfeited with happiness. My real love for music dates from that period; I believe I owe to the emotional experiences of that stage of my life the development of whatever musical talent I may possess. I wanted to play to please father as much as I ever wanted to succeed in after years. The fact that music seemed such a comfort to him opened my eyes for the first time to the meaning of the art. . . . Before that time I played mechanically. . . .

"Once, looking up towards him, I saw tears welling up in father's eyes. This moved me beyond expression. I stopped playing and threw my arms around him. He murmured something about the charm of music. I took the compliment to refer to my playing. Suddenly I realized that mastery of the art means the power to charm. I resolved then and there that I would spare no amount of work to make father happy. I felt I must succeed—for his sake. That was the highest ecstasy of love I had experienced up to that time. It seemed to lift me out of myself.

"Another time, overcome with emotion, I blurted out: 'Father, I shall never, never leave you. Whatever happens, let me stay by you—always.'

"It was not all I felt; but it was all I could think of saying.

"He tried to make light of my sentiment, though I could see he was pleased; my happiness was complete.

"Perhaps because I was in a specially sensitive mood at the time every word and every detail of that period is deeply graven in my memory. For instance, he said to me once: 'You have your own life to live.' I did not like it; father was not like himself when he made the statement. I felt hurt; I did not want him to say or think that. Something else he said, trivial on the face of it, somehow gave me the impression that he felt lonely, or something; also, that he was unhappy. That, too, is a memorable occasion, and—oh, how I longed to put my arms around him and melt away his loneliness, his unhappiness! I do not know what made me hesitate. Just then, father spoke up again, turning to the piano:

"'Come now, play something; I am happy when I hear you play.'

"This seems a trivial incident in the telling; it seems now so even to me, in retrospect. But to these few words, coming from my father under those circumstances, I trace my artistic awakening. The incident, so simple and apparently commonplace, stands forth as one of the strongest episodes, a

turning point, in my life; for as I seated myself at the piano I did it with a solemn resolution that I must play as no mortal has ever played before—for father's sake. Of course, this was a childish fancy due to the exuberance of my emotional state at the time. But during all my subsequent career I have never felt more 'inspired'; and during my best and most successful public appearances I have but seldom approximated the elation I felt on that particular occasion. Certainly I never felt as proud, or more happy, and I fancied that no one in the world had a more appreciative listener. . . .

"Possibly I was unlike my girl friends in my attachment to father; not one of them seemed to me so much attached to her father. I took but little interest in the girls' usual talk about boys. My father was my ideal; but this I kept to myself for I did not want anyone else to love him as I did.

"I have said little of mother. . . . There is not much to say. Elsewhere I have mentioned the deep feud which seemed to exist between them, some misunderstanding reaching farther than my memory could carry me. Even as a child I caught the impression of a deep-rooted hostility between them but only for a passing moment. I was not given to indulging in serious reflections at that time.

"Mother was very much attached to me when I was a small child—this I can remember distinctly;

father was away a great deal of the time; yet, it was more often to him that my heart went out in sympathy when a quarrel arose between them in my presence. In my childish mind I contrasted mother's nagging, high-pitched, quarrelsome tone with father's deep-toned, melodious, well-cadenced voice, which, even when raised during the heat of a domestic quarrel, seemed to me lovely.

"From being mother's favorite I became father's—before I realized the change. Whether mother cooled off toward me first and I, having learned to depend on somebody's love, turned to father as the nearest person to whom I could attach myself I do not know; but I believe the path had been laid during earliest childhood." (Here follow numerous incidents and reminiscences of early emotional reactions.) . . . "By the time I had achieved proficiency in music mother turned distinctly hostile to me and even mocked my artistic ambitions.

"Intellectually I was rather slow. Possibly mother was disappointed in me partly for that reason. Looking back I now see, foolish as this thought may seem, that she must have been jealous because of father's great interest in me. Notwithstanding her antagonism toward father, I cannot help thinking now, as I reflect upon the past with more mature understanding, that she was! (I omit here the account of numerous incidents apparently corroborating this conclusion.) Yet during the whole period

of my childhood I do not recall that she ever displayed any tenderness toward him—not even later, during father's long and serious illness, although there were then many opportunities.

"Father, of course, was unhappy. I ought to be thankful, I suppose, that during the impressionable period of my early adolescence, I did not fully appreciate his mental suffering. Dearly as I loved him, this would have crushed me. Instead I was absorbed in the thought of my love for him. what I conceived to be signs of inner unrest on his part when I grew older, I saw merely the same sort of vague stirrings which assailed me, for, as a young girl, I was impressionable, dreamy, not overbright, I must admit, and, I must also confess, except for my ardent attachment to father, rather self-centered. My limited mental grasp was a merciful dispensation for, alas, I have since tossed many sleepless nights and many hours I have paced the floor kneading my hands in despair and bitterly rehearsing every minute particular of father's unfortunate life."

The details I omit, although, here and there, they have a bearing upon the rise and development of the woman's artistic consciousness.

"We always had an excellent piano in the house. Mother never touched it. I did not know until long afterward that, before marriage, she had been quite an accomplished musician. Father told me. After

the birth of the first child (it was a boy, and it died at three years of age, before I was born) she had never been known to play or sing or take any interest in music."

From her father L. B. learned also that her mother's skill as a musician had attracted him as much as her personal charm. He had to work hard as a young man and there was no chance for him to indulge in the development of his musical inclination. In fact he did not become seriously interested in music until he had secured a business footing for himself and then it was too late. For his neglect of the art he atoned vicariously by marrying a musician—and of this he seemed very proud; but after the first year of marriage music was seldom heard in the house until the daughter took it up.

The marriage turned out an unfortunate affair. As to the cause of the incompatibility between the parents the psychoanalyst is justified to form a general idea from what little has already transpired. L. B. is very explicit with her details and her memory serves her well. Even if her fancy-weaving intrudes here and there it does not change the value of the testimony as an index to the trend of her own emotional reactions toward the home life. She herself concludes her lengthy account of the paternal incompatibility as follows:

"These incidents, and I could add many others, lead hither and thither. What, at the bottom of

it all, may have been the reason for mother's curious, steady, immobile hostility toward him? Of course, I have thought of all the possibilities that suggest themselves and exhausted them one by one, but without satisfaction. For the hostility to have persisted apparently unabated throughout a lifetime it must have been generated by something deeper.

"I ask myself, why did she marry him, in the first place?

"I can account for it only on the basis of my own experience. When she married she was entranced by a dream which proved unrealizable."

From this point on the account becomes more strictly autobiographic but as it is too lengthy, I must summarize it as briefly as possible:

Curiously, L. B. has passed through a very similar marital experience. After the death of her parents she devoted herself to music, inspired chiefly by the memory of her father's love for the art. She became acquainted with her future husband at the Conservatory of Music in C. His delicate attention to her, his gentleness and unobtrusive ways impressed her as the quintessence of chivalry. During six years they met as friends, often playing together, and they grew fond of each other. Meanwhile she applied herself to her work and achieved success.

"But in spite of my busy life, teaching, public engagements, etc., I felt very lonely," she states. "I had friends and intercourse with them became the salt of life to me but often, after a round of visits and entertainments, I returned to my little corner with greater ache and loneliness in my heart. After a time this kind of living became unbearable. Life seemed 'flat and unprofitable.' . . ."

At about that time B. proposed marriage and she found herself accepting the proposal "with an alacrity that astonished me when I recovered my senses; for I thought I should never marry."

Two things of ominous significance happened soon after her marriage: first, she fussed about B., keeping at him continually with counsel and criticism, until he rebelled. ("Soon we discovered that we sacrificed a perfectly good friendship for a poor marriage.") Second, she began losing her interest in music.

After the first year of married life they quarrelled and separated three times in as many months, each time with the mutually expressed hope that they would keep away from one another for good.

L. B. rapidly developed toward the man to whom she was tied by marriage the very hostility she had witnessed under the parental roof. "The thought occasionally came to me," she says, "'I am treating B. as daddy was treated.' This shamed me a little; but I put the thought out of my mind again and again, saying to myself, 'He is not like father, he deserves it!' and I kept repeating this to myself

and saying over and over, 'He is not like father, he is not like father, he is not like father,' as if justifying to myself the hostility I felt against my husband."

The personal communications from which most of the above excerpts are taken reached me while L. B. was compelled to interrupt her psychoanalysis on account of a transcontinental journey. Upon her return the analysis of her psychobiographic account was resumed. I have given above only the briefest outline and I have touched only a few of the significant revelations so that it would be out of place to record here all the conclusions reached through the analysis. But the few data I have included in the brief outline may furnish some basis for the appreciation of the following points, bearing on music:

L. B.'s love of music arose out of her love for her father; her love preserved its infantile character, developing but little beyond that stage; therefore, her attachment to music preserved the same character.

The substitution, "music" for "father," after her father's death, was an incomplete sublimation. Because her "love" preserved a great deal of its infantile character in spite of its transference to music, the sublimation failed after a time. At that critical juncture came the offer of marriage.

At first marriage seemed a way out; the craving to be loved and admired (which was, in her case, stronger than the complementary craving to love and admire) precipitated her into the new experience ("... with an alacrity that astonished me when I recovered my senses").

But the woman was unprepared to accept this solution just as she was emotionally unable to live up to the demands for sublimation. Childhood experiences unconsciously mould and fix in our mind a number of infantile fictions which become the governing principles in our emotional life as adults. Some of the unconscious attitudes which shaped themselves and became fixed during L. B.'s infancy and early childhood may be approximately expressed, in adult terms, by means of the following equations:

Father's marriage was unhappy: It would be disloyal (or "unreal") to be happily married.

Father loved no one but me: "Mother was jealous": I must love no one but father; "he is not like father": I must not love him.

Father is not like himself: "You have your own life to live"; I must live my own life: neglect of music; "Life became . . . 'flat and unprofitable'": why should I live to please others?

This, of course, is but a partial account of the unconscious mental processes disclosed in the course of the psychoanalysis. That the results and conclusions led in the right direction is shown, among

other things, by the fact that the analysis accomplished for Mrs. L. B. all she dared to expect: neither her marriage relations nor her interest in music are hampered or seriously threatened any longer by infantile longings.

CHAPTER XLII

Vision, among the special senses, is the most important means for sexual selection, having gradually replaced in man many of the uses of all the other special senses. Its infinite range, the capacity of storing up concrete pictures, the infinite variety of its associations easily render vision the most important of the special senses, as well as the most esthetic.

The appeal of beauty early transcends the service of sexual selection. But the origins of our ideas of beauty are undoubtedly linked with the natural history of sex. Havelock Ellis states: "Practically, so far as man and his immediate ancestors are concerned, the sexual and the extra-sexual factors of beauty have been interwoven from the first. The sexually beautiful object must have appealed to fundamental physiological aptitudes of reaction; the generally beautiful object must have shared in the thrill which the specifically sexual object imparted. There has been an inevitable action and reaction throughout. Just as we have found that the sexual and the nonsexual influences of agreeable odors throughout nature are inextricably mingled,

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so it is with the motives that make an object beautiful to our eyes."

Throughout nature beauty is a utilitarian quality. "It is a matter of easy demonstration," states Ruskin, "that, setting the characters of typical beauty aside, the pleasure afforded by every organic form is in proportion to its appearance of healthy vital energy; as in the rose-bush, setting aside all considerations of gradated flushing of color and fair folding of line, which it shares with the cloud or the snow-wreath, we find in and through all this certain signs pleasant and acceptable as signs of life and enjoyment in the particular individual plant itself. Every leaf and stalk is seen to have a function, to be constantly exercising that function, and, it seems, solely for the good and enjoyment of the plant. It is true that reflection will show us that the plant is not living for itself alone, that its life is one of benefaction, that it gives as well as it receives, but no sense of this whatever mingles with our perception of physical beauty in its forms. Those forms which appear to be necessary to its health, the symmetry of its leaflets, the smoothness of its stalks, the vivid green of its shoots, are looked upon by us as signs of the plant's own happiness and perfection; they are useless to us, except as they give us pleasure . . . and if we see a leaf withered or shrunk or wormeaten, we say it is ugly, and feel it to be most painful, nct because it hurts us, but because it seems to hurt

the plant, and conveys to us an idea of pain and disease and failure of life in it."

Everywhere in the animal world, as well as in the plant world, vitality and vigor are manifested in forms that subjectively are perceived by us as the most beautiful. Beauty depends on health. The choicest females among the animals prefer to mate with the males of the species showing the greatest degree of vigor and health and that, incidentally means beauty. Sexual selection operates in the direction of a greater refinement of the means through which the perpetuation of the species is insured. It insures racial health and vigor through its dependence on beauty, which is but the visual expression of qualities indispensable for the perpetuation of the species.

In the course of its development the human race has improved in health, vigor, beauty and in the capacity for, as well as in the refinements of, love. Many among the artists and writers who display unbounded admiration for Greek beauty fail to appreciate that the fine statues which have come down to us are ideal representations and did not embody the common type of Greek beauty. Even among the Greeks of the Golden Age beauty was not as general as it has become since. True, the admiration of beauty was raised to a cult and the Greeks seemed to believe that the procreation of beautiful children could be promoted by the distribution of prizes, but

neither the beauty contests that were instituted as far back as the time of the Heraclidæ, nor the other measures recorded in Greek history and upon which the generalization is made that the Greek ideal of beauty is supreme, justify the belief that the Greeks had actually attained such standards. Quite the contrary is the case. Would the agitation in France against the limitation of offspring, for instance, justify the inference that the population of France is advancing rapidly in numbers? The mass of the Greek population was neither esthetically nor in other ways above the level of the mass of their cotemporaries.

One of the factors that have operated towards the enhancement of racial beauty since that period is the admixture of peoples through migrations, conquests, and through the increased opportunities for travel and for inter-communication. The development of industrialism and of international commerce has fostered racial cross-fertilization. The crossing of types has never been so extensive as in the modern age. Crossing depends on personal choice and this, in turn, depends largely on the attraction or appeal of beauty.

One of the chief qualities of beauty is symmetry, a quality widely prevalent throughout nature. Darwin observes: "If beautiful objects had been created solely for man's gratification, it ought to be shown that before man appeared there was less beauty on

the face of the earth than since he came on the stage. Were the beautiful volute and cone shells of the Eocene epoch, and the gracefully sculptured ammonites of the Secondary period, created that man might ages afterwards admire them in his cabinet? Few objects are more beautiful than the minute silicious cases of the diatomaceæ: were they created that they might be examined and admired under the higher powers of the microscope? The beauty in this latter case, and in many others, is apparently wholly due to symmetry of growth." (Origin of Species, ch. VI.)

The law of symmetry holds true of the animal and the vegetal, as well as of the mineral, world and man is no exception.

Beauty depends also on gradation. Regarding this law of nature Ruskin has written very impressively: "What curvature is to lines, gradation is to shades and colors. . . . For instances of the complete absence of gradation we must look to man's work, to his disease and decrepitude. Compare the gradual colors of the rainbow with the stripes of a target, and the gradual concentration of the youthful blood in the cheek with an abrupt patch of rouge, or with the sharply drawn-veining of old age.

"Gradation is so inseparable a quality of all natural shade and color that the eye refuses in art to understand anything as either which appears without it; while, on the other hand, nearly all the gradations of nature are so subtile, and between degrees of tint so slightly separated, that no human hand can in any wise equal, or do anything more than suggest the idea of them."

Next to symmetry and gradation stands curvature: "That all forms of acknowledged beauty are composed exclusively of curves will be at once allowed," states Ruskin; "but that which there will be more especially need to prove, is the subtlety and constancy of curvature in all natural forms whatso-I believe that, except in crystals, in certain mountain forms admitted for the sake of sublimity or contrast (as in the slope of debris), in rays of light, in the levels of calm water and alluvial land, and in some few organic developments, there are no lines on surfaces of nature without curvature. though as we before saw in clouds, more especially in their under lines towards the horizon, and in vast and extended plains, right lines are often suggested, which are not actual. Without these we should not be sensible of the value of contrasting curves; and, while, therefore, for the most part, the eye is fed in natural forms with a grace of curvature which no hand nor instrument can follow, other means are provided to give beauty to those surfaces which are admitted for contrast, as in water by its reflection of the gradations which it possesses not itself."

The universality of curvature as a quality of beauty is reflected also in the physical differences

between man and woman. The question, which is the more beautiful form, an Apollo or a Venus, presents no difficulty to the artistic eye. "Woman," says Prof. Kollman, "is smaller, more delicate, but also softer and more graceful in form, in her breasts. thighs, and calves. No line of her body is short and sharply angular; they all swell, or vault themselves in a gentle curve. . . . The neck and the rounded shoulders are connected by gracefully curved lines, whereas a man's neck is placed more at a right angle to the more straight and angular shoulders. . . . The hair is softer, the skin more tender and transparent. All the forms are covered over more fully with adipose tissue, and connected by those gradual transitions which produce the gently rounded outlines; whereas in a man everything—muscles, sinews, blood-vessels, bones-is more conspicuous."

The difference between the masculine and feminine types is also revealed by the greater delicacy and grace of the womanly body. Some artists go so far as to insist that the suggestion of vigor and strength is prejudicial to real beauty, while an appearance of delicacy, even of fragility, is almost essential. "Grace," says J. A. Symonds, "is a striking illustration of the union of the two principles of similarity and variety. For the secret of graceful action is that the symmetry is preserved through all the varieties of position." While Burke declares: "The beauty of women is considerably owing to their weak-

ness or delicacy, and is even enhanced by their timidity, a quality of mind analogous to it. I would not here be understood to say that weakness betraying very bad health has any share in beauty; but the ill effect of this is not because it is weakness, but because the ill state of health which produces such weakness alters the other conditions of beauty: the parts in such a case collapse, the bright color, the lumen purpureum juventæ is gone, and the fine variation is lost in wrinkles, sudden breaks and right lines."

Smoothness is a tactile quality but one easily sensed through vision. As an attribute of beauty it represents a point of fusion between touch and sight. Smoothness is "a quality so essential to beauty," says Burke, "that I do not recollect anything beautiful that is not smooth. In trees and flowers, smooth leaves are beautiful; smooth slopes of earth in gardens; smooth streams in the landscape; smooth coats of birds and beasts in animal beauties; in fine women, smooth skins; and in several sorts of ornamental furniture, smooth and polished surfaces. . . . Any ruggedness, any sudden projection, any sharp angle, is in the highest degree contrary to the idea of beauty."

Form and color are the fundamental qualities about which we are informed through the visual sense. These are also the essential qualities of beauty, so that vision is the supreme esthetic sense.

light or quenched in the gray of the shadow; and the confusion and blending of tint is altogether so great that were we left to find out what objects were by their color only, we would scarcely in place distinguish the boughs of a tree from the air beyond them or the ground beneath them. I know that people unpracticed in art will not believe this at first; but if they have accurate powers of observation, they may soon ascertain it for themselves; they will find that, while they can scarcely ever determine the exact hue of anything, except when it occurs in large masses, as in a green field, or the blue sky, the form, as told by light and shade, is always decided and evident, and the source of the chief character of every object."

But in spite of the greater precision of contour, or form, it is scarcely less appealing than color in that intimate sense which invests impressions with a feeling-value fusing subject and object and suggesting a quasi-mystical, higher world of reality. The perception of form is complex, tactile impressions, or images, also enter into the experience. The perception of color shadings is perhaps more subtle and perhaps for that reason it is a later development. The nomenclature of colors was relatively undeveloped in ancient Greece, while beauty of form had attained a high degree of appreciation. Certainly *Homer* had little to say about color. This has led to the suspicion that he was color blind.

CHAPTER XLIII

The charm of color is shown by the human flesh and complexion in all its subtle gradations. "Man is the only being that has flesh displaying all the infinities of color," says *Hegel*. Moreover, the charm and fascination of human flesh is not that of reflected light, like the loveliness of color in the rest of the animal world, as in the humming bird, or the bird of paradise. The complexion of a healthy boy or girl just passing through adolescence glows with a life of its own, the charm comes from within and not from without.

The luster and color of the complexion, like the plumage of birds, is largely an index to health. Both plumage and complexion reach their greatest brilliancy during the period of Courtship. But while the association is transient and crude in the animal world, in the human race it is much more subtle and persistent. Every gradation of pleasure and pain is reflected through the minute changes in the peripheral blood circulation.

The structure of skin is closely adapted to the prompt registration of emotional changes. The overskin, or epidermis is inert, acting merely as a

protective coating for the true skin, or cutis. It is the underskin that contains the nerve ends, fat cells, sudoriferous glands and the delicate blood vessels, all embedded in an elastic, soft network of connective tissue. On account of its transparency, the cuticle allows the color of the blood to be perceived as through a veil. The lower layer of the cells forming the cuticle contains the vellowish, brown, or black pigment cells which give the brunette, black, yellow, or red complexion, according to their number and degree of pigmental saturation. The upper, horny layer of the epidermis is colorless. On sole and palm this layer is so thick that the pigmentary layer cannot be seen through it and that is why the palm of the negro's hand, for instance, is whiter than the rest of the body.

Pigmentation of the skin is a bio-physical process. The question why the races vary so greatly in the color of their skin has given rise to a number of anthropological conjectures. It is obvious that pigmentation is a protective device. The parts of our body that are constantly exposed to sunlight—hands, face and neck,—are darker than the rest of the body. Similarly the races which inhabit the torrid regions of the earth are the ones that show the greatest pigmentation. In Europe, as we pass from the sunny South to the cloudy North the complexion, as well as hair and eyes, grow lighter. South Germans are darker than North Germans.

The Prussians have a light complexion, but the Swedes and Norwegians are still lighter. That is true also of all other parts of the earth. Even the Chinese, who are regarded indiscriminately as "the yellow race," are found to show every gradation from a light to a dark copper color, as one travels from Pekin towards Canton, and travelers through the Arabian desert down towards Yemen, meet every shade from olive color to black. The aristocratic classes of China and Japan, particularly the ladies, pride themselves on their light complexion. The laboring classes are of a darker tint.

Differences in complexion, once they have been established through bio-physical causes and climatic influences, tend to become further accentuated through the agency of sexual selection: "We know," Darwin states, ". . . that the color of skin is regarded by the men of all races as a highly important element in their beauty; so that it is a character that would be likely to have been modified through selection, as has occurred in innumerable instances with the lower animals. It seems at first sight a monstrous supposition that the jet-blackness of the negro should have been gained through sexual selection; but this view is supported by various analogies, and we know that negroes admire their own color."

Originally the skin of primitive man must have been light. There is practically no coloring matter in the skin of a negro child before birth. The color of a newborn child among the Africans is a light gray and in certain localities, in the Northern part, the characteristic dark color is fully attained only after the lapse of twenty or more months.

The yellowish, brown, and red tints may be considered as intermediate stages between white and black. The different tints are due merely to a quantitative variation in the same pigmentary substance.

Natural selection, at least in our latitude, is said to favor the survival of the lighter complexions. This is doubtful. At any rate sexual selection seems to operate in the reverse direction. The complexion most admired is not translucent white. The darker complexions are also favored. Daubing the face to give it a lighter tint is not as universal as it was. The habit is ancient and it has been practiced by the women of Greece: "Ischomachos counselled his young wife to take exercise, that she might do without rouge, which she was accustomed constantly to use."

The color of hair and eyes correspond to the complexion. Together they form, among the white peoples, the brunette and blonde types. Dark was probably the prevailing color of hair among the ancient Greeks, but blond and yellow hair was much admired. Homer does not even mention hair of a black color. The most beautiful of the gods, Apollo as well as Bacchus, the greatest heroes, even Alexander, were praised as "flaxen haired."

The same preference for light hair was shown by the Romans. At one time yellow German hair was extensively imported to adorn the heads of the Roman ladies. The invasion of the southern regions of Europe by the fair-haired Teutons undoubtedly had the effect of bringing about an over-valuation of the complexion of the conquerors. The revival of art in Italy emphasized the charm of the blond type, just as it neglected the brunette. Not a dark tress is to be seen in the art productions of the period, not a single Madonna that is not blond. There is a single dark figure of a woman, naked to the waist, in all the gallery of Titian, at the Uffizi, said to have been one of his mistresses. Yet, in most instances, the blond tint was artificial, a matter of skilful superposition of paint and powder, as is shown by the deep black of the eye. The memoirs, correspondence and treatises of the time contain numberless recipes for giving the face a light complexion.

In recent years the brunette type has come very strongly into favor. Some observers even declare that the blond type is on the decrease. Regarding the brunette, H. T. Finck, who favors this type, writes as follows: "The dark skin is more soft and velvety than the light skin, and therefore more agreeable to touch. . . . But the eye, too, is likely to be more pleased by a brunette than by a pure blond complexion. In the dark skin the pigmentary matter tones down the too vivid red of the translucent blood,

wherefore the brunette complexion appears more mellow and delicate in its tints than the Scandinavian blond, in which a blush suggests a hectic flush, and its normal whiteness the pallor of ill-health or a lack of invigorating and beautifying sunshine.

"The brunette complexion, in a word, suggests to the mind the idea of stored-up sunshine, i.e., Health; and as health is what primarily attracts Cupid, this, combined with his taste for delicate tints and veiled blushes, partly accounts for his preference of the dark type. Youthful freshness is another bait which tempts Cupid; and it is well known that the dark complexion does not, as a rule, fade as soon as the blond.

"That the brownish skin is commonly healthier than the white is also shown by its being less subject to the irregularity in the secretion of pigmentary matter which causes freckles. These blemishes, like smallpox marks, are much rarer among the dark than among blond races and individuals. . . . The skin of blonds who are exposed to a hot sun and raw weather becomes red, inflamed, and decidedly unbeautiful, while a brunette's complexion only becomes a shade darker, and possibly all the more attractive. This suggests another reason why the brunettes have an advantage over blonds in the country, where lovemaking is chiefly carried on in the Summer. . . . It would appear, indeed, as if not only the complex-

ion but the general constitution of the dark type were superior to that of the blond type. . . ."

Color, tint, smoothness, delicacy,—all the tests of beauty are favored by a uniform, mild climate.

The hair has always been valued as an ornament. Light hair is finer, and softer than dark hair but is perhaps less resistant to diseases and more difficult to keep in good shape.

The color of eyelashes and eyebrows most admired has always been black. In that regard brunettes have a great advantage over the blonds. While many women possessing hair of dark or uncertain hue are anxiously experimenting with means to give their hair a blond color, all women who paint their eyebrows at all, paint them so as to have them appear much darker than they really are. But many "natural" blonds have naturally dark lashes and eyebrows.

Black is also the eye color most admired; the iris is often a blue or violet but of so deep a hue as to be taken for black. What is called a black iris, is usually a very deep brown. An eye blue or gray appears shallow, vague, superficial and is not as expressive as a brown iris. The deeper the hue of brown the stronger the contrast between the iris and the white of the eye. The plant belladonna is so called because its poisonous cherry-like berries have the effect of changing all eyes into black eyes by

enlarging the pupil. Many a woman has aspired to become a bella donna, beautiful lady, with the aid of a concoction of these berries. "Young men are led to propose chiefly in the evening," said Finck, "because the twilight enlarges the pupil, thus not only beautifying her eyes, but enabling him to see his own divine image reflected in them. . . . A brunette's dark eyes on such an occasion appear to be all pupil: how then can you wonder that brunettes are gaining on blonds?"

Strictly speaking there are no gray, blue, brown and black eyes,—the usual popular classification, because every eye, when closely examined shows five or six different colors. The reference in popular parlance is exclusively to the iris. But the tough sclerotic coat, or white of the eye, which extends over the greater part of the eye ball, also shares in the impression made by the eye. The sclerotic coat is often tinged with blue or yellow. These tints are produced by various conditions of health and they lower the esthetic appeal of the eye. The yellowish tint, normal in the negro, is a sign of ill health, or disturbed metabolism, in the European. bloodshot eye suggests intemperance and unrestrained passions. It may be due, however, to overwork, eyestrain and other physical causes.

The iris is the portion of the eye to which the organ owes its distinctive color. Looked at from a distance the iris appears of one color. But when

closely examined it is seen to reflect a number of hues, due to the presence of small pigment granules. The granules, embedded in the interior layer of the iris, are always brown, in blue and gray as well as in brown eyes; their number and arrangement, and the thickness of the granular layer, determine the color impression. In certain eyes the thin, almost colorless membrane in front of the pigmental layer of the iris absorbs all the rays of light except blue, thus causing the transparent iris to seem of that color. There are four shades of color, brown, green, blue, and gray, each displaying five tones, very dark, dark, intermediate, light and very light.

The round opening in the center of the iris, the pupil, is always jetblack. In connection with the eye there are thus a number of distinct zones of color: the central black pupil, changing in size with the conditions of light; the iris with its shades of brown, green, gray, or blue, usually two or more shades to the eye; and the white of the eye, with its slight tint of blue, or yellow, and red, when the blood vessels are prominent. The flesh color of the eyelids and the color of the lashes and eyebrows complete the symphony of colors.

In its simplest form the sense of sight is represented by a pigment spot. In its highest form, as in the complicated eye of the mammals, pigmentation persists as one of the essential conditions of vision. That has been the effect of natural selection.

Sexual selection has undoubtedly operated in the same sense. We see signs of this to the present day, in the admiration and sexual attraction of the colorful eyes.

CHAPTER XLIV

Both sexes have always been sensitive regarding the size of their feet. Among refined people small feet, and small hands, have always been considered a mark of delicacy. Persons who cultivate personal vanity are particularly sensitive as regards the size of their hands and feet. Byron's life was made miserable by the morbid consciousness of his club foot. One of Talleyrand's witticisms that struck home and struck deeply, among the many he perpetrated against Mme. de Staël, was the statement that he always recognized her by the pied de Staël. And it was with reference to her general masculine bearing that he addressed her on one occasion with the famous remark: "They tell me, Madame, that both of us figure in your recent novel disguised as women."

"The length of a woman's skirt is directly proportional to the size of her feet," a writer remarked, somewhat facetiously, a number of years ago; and he added that "women with large feet are always shocked at the frivolity of those who have neat ankles and coquettishly allow them to be seen on occasion; nor do they see any beauty in Sir John Suckling's lines,—

"Her feet beneath her petticoat Like little mice stole in and out, As if they feared the light."

The custom of covering the foot has led to the exaggeration of two visible features in the beauty of its form,—size and arched instep. In that regard modern fashion has tempered down to a level of commonsense when compared with the medieval fashion when the Venetian ladies, for instance, according to *Marinello*, at one time wore soles and heels a foot or more in height, veritable stilts, so that on going out they were always accompanied by a retinue of servants to prevent them from falling.

In ancient Greece the feet were frequently exposed to view; hence in the descriptions of beautiful persons the feet are sometimes mentioned in words of praise.

Small feet are essentially a human characteristic. It was Schopenhauer who first drew attention to the fact, pointing out that, "in no animal are the tarsus and metatarsus together so small as in man, a peculiarity connected with his erect attitude: man is plantigrade." But size alone does not determine the charm of a foot; from the esthetic standpoint there are other equally important features, notably, the arched instep, which besides introducing the beautiful curve in place of the straight line increases the foot's capacity for carrying and maintaining the

body, through a more equable distribution of pressure; the symmetrical correspondence of the respective toes on the two feet; the symmetry of their contour; the gradation of the length of the toes from the first to the fifth, and the shape and regularity of the nails.

While no connection can definitely be established between small feet and the growth of culture, it is a fact that the primitive races possess larger as well as uglier feet. There is nothing beautiful about the foot of the negro, for instance: its flatness, the straight inner line, the projecting heel, the thick fatty cushion where the arch should be, the spreading toes, are features that clash with esthetic sense. "The character of the human foot lies mainly in its arched structure, in the predominance of the metatarsus, the shortening and equal direction of the toes, among which the great toe is remarkably long, but not, like the thumb, opposable. . . . The toes in standing leave no mark, but do so in progression. The whole middle part of the foot does not touch the ground. Persons with flat feet, in whom the middle of the sole touches ground, are bad pedestrians. . . . The negro is a decided flat foot. . . . The fat cushion on the sole not only fills up the whole cavity, but projects beyond the surface." (Finck.)

One of the reasons why too large feet appear ugly is because of the disproportion implied or suggested between organ and function. That violates a canon of beauty. Beauty is predicated upon strict economy of proportion. The feet are part of the organs of locomotion and to be graceful, every motion must display the right proportion between means and ends. Too small feet would be as unesthetic as feet that are too large. Beauty implies functional fitness, a strict and parsimonious correspondence between form and function, between tool and service.

The relative size of the first and second toes is perhaps the feature that distinguishes most strikingly the feet of men and apes. In this respect the feet of primitive peoples represent, as it were, an intermediate stage. The great toe it seems, is still in the process of undergoing evolution.

Many artists hold that the second toe should be longer than the first. This seems to be the Greek canon of beauty, perhaps copied from the Egyptian and, according to some investigators, the standard is probably derived originally from the negro. Indeed among the cultured peoples of our time it is exceptional to find the second toe the longest. The obverse is true of the feet of children before their feet are deformed by modern footgear and of course, it is also true of adults. A shorter first toe is characteristic of apes,—in fact, in all other animals the first toe is considerably shorter than the second. In following the old Greek canon artists have overlooked that a long first toe seems to be the true

human characteristic, and have departed from current observation.

It may be that the long second toe affected by many English artists was imported from Italy rather than from Greece, as a writer tried to prove some years ago (J. P. Harrison, in Jour. of the Anthropological Institute of Great Britain, vol. XIII, 1884). Among the Italians, it appears, a longer second toe is far from rare.

In walking, as well as in dancing, the lower limbs display the grace and beauty of their form. Among the ancients dancing included charming gestures and poses of all parts of the body but sedate dancing is "chiefly an affair of the lower extremities,"—an exercise of the toes.

The ball-room and dance hall have been called Cupid's modern camping ground. The rôle of dancing in courtship and sexual selection has been universally acknowledged. Darwin has given us a masterful description of the love antics and dances of birds. They "glide through the air with quivering wings, which make a rapid whirring sound, like a child's rattle;" other birds remaining on the ground, flutter, "with a fitful and fantastic motion;" others, again, "throw themselves into indescribably odd attitudes whilst courting the female."

Among savages the dance stands in the service of hunting and war as well as courtship. There is little refinement of emotion in the primitive dance. The Greeks were inclined to look down upon dancing as a trivial accomplishment. Young men and women were not allowed to meet freely and dancing was left to a special class of women, or slaves, like the flute girls. Although the Greek gods are sometimes represented as indulging in dance, this form of enjoyment came to be regarded as beneath manly dignity and especially among the Romans it was regarded as a sign of effeminacy. Cicero declared: "No man who is sober dances, unless he is out of his mind, either when alone or in decent society, for dancing is the companion of wanton conviviality, dissoluteness and luxury."

The custom of looking down upon indulgence in dance was perhaps an Egyptian influence for in ancient Egypt the upper classes were never taught dancing. Among the Chinese to this day dancing is regarded as ridiculous, a pastime incompatible with a man's dignity.

The modern craze for dancing reverses the old attitude. Even the older fashions, the Polish mazourka and polonaise, the Spanish fandango, the Parisian cancan, the Viennese waltz, had their origin in the need which was felt of evolving new and pleasurable means for more intimate contact between the sexes.

Regarding the evolution of dance music, H. T. Finck (Romantic Love and Personal Beauty, Macmillan, 1912, p. 367 passim) writes: "The earliest

dance-tunes are vocal, and were sung by the (professional) dancers themselves, in the days when the young were not yet allowed to meet, converse, and flirt and dance. Subsequently, the transference of dance-music to instruments played by others gave the dancers opportunity to perform more complicated figures, and made it possible to converse. But even as late as the eighteenth century dancing and dance-music were characterized by a stately reserve, slowness, and pompous dignity. . . . It was not the fiery, passionate youths who danced these solemnly stupid minuets, gavottes, sarabandes, and allemandes, but the older folks, whose perruques, and collars and frills, and bloated clothes would not have enabled them to execute rapid movements even if the warm blood of youth had coursed in their veins. . . . Not to speak of more primitive dance-tunes, what a difference there is between the slow and dreary monotony of Eighteenth Century dances and a Viennese waltz. . . . The vast superiority of a Strauss waltz lies in this-that it is no longer a mere rhythmicnoise calculated to guide the steps, and skips, and bows, and evolutions of the dancers, but the symphonic accompaniment to the first act in the drama of Romantic Love. It recognizes the fact that courtship is the prime object of the dance. though still bound by the inevitable dance rhythm, Strauss is ever trying to break loose from it. to secure that freedom and variety of rhythm which is

needed to give full utterance to passion. Note the slow, pathetic introduction; the signs in the score indicating an accelerated or retarded tempo when the waltz is played at a concert, where the uniformity of ball-room movement is not called for; note what subtle use he makes of all the other means of expressing amorous feeling—the wide melodic intervals, the piquant, stirring harmonies, the exquisitely melancholy flashes of instrumental coloring, alternating with cheerful moments, showing a subtle psychologic art of translating Mixed Moods of Love into the language of tones.

"In the waltzes, mazourkas and polonaises of Chopin we see still more strikingly that the true function of dance-music is amorous. Even as Dante's love for Beatrice was too super-sensual, too ethereal for this world, so Chopin's dance-pieces are too subtle, too full of delicate nuances of tempo and Love episodes, to be adapted to a ball-room with ordinary mortals. Graceful fairies alone could dance a Chopin waltz; mortals are too heavy, too clumsy. They can follow an amorous Chopin waltz with the imagination alone, which is the abode of Romantic Love. To a Strauss waltz a hundred couples may make love at once, hence he writes for the orchestra; but Chopin wrote for the parlor piano, because the feelings he utters are too deep to be realized by more than two at a time—one who plays and one who

listens, till their souls dance together in an ecstatic embrace. . . ."

It is perhaps more than a coincidence that Vienna, which at one time was said to have the most beautiful women in all Europe, was also the home of Johann Strauss, the prince of waltz; and it was a Viennese writer who wrote most interestingly on the psychology of the waltz dance: "The waltz has a creative, rejuvenative power, which no other dance possesses. The skipping polka is characterized by a certain stiffness and angularity, a rhythm rather sober and old-fashioned. The galop is a wild hurricane, which moves along rudely and threatens to blow over everything that comes in its way; it is the most brutal of all dances, an enemy of all tender and refined feelings, a bacchanalian rushing up and down.

"The waltz, therefore, remains as the only true and real dance. Waltzing is not walking, skipping, jumping, rushing, raving; it is a gentle floating and flying; from the heaviest men it seems to take away some of their materiality, to raise the most massive woman from the ground into the air. True, the Viennese alone know how to dance it, as they alone know how to play it. . . . The waltz insists on a personal monopoly, on being loved for its own sake, and permits no vapid side remarks . . . the couple glide along hardly speaking a word. . . And yet is this mute dance the most eloquent, the most ex-

pressive and emotional, the most sensuous that could be imagined; and if the dancer has anything to say to his partner, let him mutely confide it to her in the sweet whirl of a waltz, for then music is his advocate, then every bar pleads for him, every note is a billet-doux, every breath a declaration of love. Jealous husbands do not allow their wives to waltz with another man. They are right, for the waltz is the Dance of Love."

The erotic significance of dancing could not be expressed more clearly; and these remarks hold true even in stronger measure with regard to the modern craze for jazz music and dancing.

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