## THE SENSE OF SMELL IN THE NEUROSES AND PSYCHOSES\*

BY A. A. BRILL (NEW YORK)

The sense of smell unlike the sense of sight plays a very small part in the life of civilized man. One frequently hears the expression "Yes, I see," or "I can't see," which shows the great part played by sight in our psychic operations and that seeing is equivalent to understanding; but one never hears an expression such as, "Yes, I smell it," unless the expression concretely refers to some odor. Modern man has little need of his sense of smell. The female sex, to be sure, makes use of artificial perfumes, but this procedure has apparently an entirely different purport. As a rule civilized man is not only independent of this sense, but dislikes any odors emanating from human beings. A man on the verge of proposing to a young lady was suddenly stopped by the odor of perfume which came from behind her ears. This is an extreme case, but it is well known that most people dislike any human odor and that men are especially sensitive to the so-called odeur de la femme. Indeed, most men dislike even delicate artificial perfumes in women, and the old Latin saying, "Mulier tum bene olet, ubi nihil olet," is equally true to-day. Like many other physicians I have seen many a marital disruption as a result of oezenas and halitoses. Havelock Ellis 1 who made a thorough compilation of the subject states: "Under the usual conditions of life in Europe personal odor has sunk into the background; this has been so equally under the conditions of classic, mediaeval, and modern life. odor has been generally regarded as unaesthetic."

<sup>•</sup> Read in part before the American Psychoanalytic Association at the New York Academy of Medicine, December 30, 1930.

<sup>&</sup>lt;sup>1</sup> Ellis, Havelock: Sexual Selection in Man, F. A. Davis Co., 1906, p. 76.

in 1875 Disraeli had a law passed in London which defined a bad smell as a "nuisance." 1

However, olfaction has played a great part in the life of animals, primitives, and even semi-enlightened people. Koch-Grünberg states of the South American Jungle Indians that a slight trace which would escape the nose of the European, frequently only a marred odor, gives the Indian a clue as to what path to take. Frederick O'Brien speaking of the South Sea Islanders states: "Their noses were sources of sensuous enjoyment to them beyond my capability. inhaled emanations from flowers too subtle to touch my olfactory nerves." Of the Möis of Indo-China, Captain Baudeson avers that they possess keen vision and a highly developed sense of smell, which bring to their notice objects which would remain unobserved by Europeans. And, Stefansson<sup>2</sup> says the same of the Eskimo: "For my experience is, that while in eyesight, hearing, and every other natural faculty he is about the same as the rest of us, he does seem to excel in the sense of smell."

Among semi-enlightened people like the desert Arabs the sense of smell still plays a great part. Thus, Musil<sup>3</sup> tells us that unlike Southern Europeans who fear the "evil eye," the Bedouins fear nothing as much as an "evil smell." And Doughty<sup>4</sup> in his classical work, states that the desert nomads "are very imaginative of all odours."

But even among more civilized peoples, Oriental, Southern European, and South American, the sense of smell plays an important part. The Western European is impressed by the numerous odors, in the main disagreeable, that assail his nostrils in Southern Europe and South America, where the better classes make much use of perfumes. Harry Franck<sup>5</sup>

<sup>&</sup>lt;sup>1</sup> McKenzie, Dan: Aromatics of the Soul, p. 12.

<sup>&</sup>lt;sup>2</sup> Stefansson, V.: The Friendly Arctic, p. 59.

<sup>&</sup>lt;sup>8</sup> Musil: Arabia Deserta.

Doughty, Chas. M.: Wandering in Arabia.

Franck, Harry: Vagabonding Down the Andes, p. 162.

states: "On the street the passing of the women was usually marked by an all but overwhelming scent of the cheap and pungent perfumes to which all the 'decente' class, male or female, is addicted." There is no doubt that indulgence in the use of perfumes is largely a feminine outlet; no boudoir is complete without at least some sparkling perfume bottles, odoriferous creams and scented powders. The question that obtrudes itself is this: Do women use perfumes as a direct outlet, as a gratification for their own olfactory sense, as a disguise for their own natural odors, or perhaps as a direct stimulation to the outside world?

To answer these questions, one would have to delve into the biontic (individual) and phyletic (racial) development of the senses, a task quite impossible here. It may not be amiss, however, to mention a few fragmentary facts about the sense of smell in those animals which are related to mankind. In mammals, we find that the sense of smell is used both in the struggle for existence and in mating. Naturalists tell us that these animals chiefly depend upon the olfactory sense. Their universe is a universe of odors. Let us hear, for example, what the great naturalist, W. H. Hudson, has to say about the sense of smell in horses. He tells 1 of a common phenomenon observed in the pampas, namely, the sudden migration of the horses of a district to some distant place. "A slight breeze blowing from the more favored region, which may be forty or fifty miles away, or even farther, is enough to start them off. Yet, during the scorching days of midsummer, very little moisture or smell of grass can possibly reach them from such a distance." in his most interesting work, A Hind in Richmond Park, he tells how the dog conducts himself when we take him for a walk: "Now, take him into a still wood, abounding in wild life, and make him lie down quietly at your feet and watch him. He knows that he must obey the irksome order, and

<sup>1</sup> Hudson, W. H.: The Naturalist in La Plata.

closes his eyes and pretends to be asleep; but he is awake, in a bath of emanations; you can see it in the perpetual twitching of the nose, and from the nose the suppressed excitement flies." Numerous examples can be cited to show that this keen sense of smell is observed not only in all mammalia, but also in birds, especially the vulture and crow, as well as in insects.

However, when we say that civilized man seems to make no use of his sense of smell, we naturally have in mind civilized adult persons. Children, like animals, make good use of their sense of smell. Of the numerous examples of the active sense of smell observed by me in children, I shall mention one: A little boy of about three was present when his mother received a box of candy from a friend. He displayed marked avidity for it, but his mother forbade his tasting it until after dinner, when he was to receive two pieces of chocolate. His mother and her visitor then left the room for about half an hour and on their return they found little Henry sitting on the floor surrounded by the contents of the box. When he was asked to account for his actions he avowed that he did not eat any of the candywhich was true-but that he had only smelled it. He had taken the paper off each piece, smelled it, and wrapped it up again.1 The mother observed that he had the habit of smelling everything before tasting it. All children make good use of the sense of smell in early life; some of them, as we shall learn later, retain it even in adult life; most of them, however, lose it, so to speak, as they grow older.

One of my patients told me that as far back as he could remember he was always sensitive to odors, especially his mother's odor. During his early boyhood he had the habit of rushing to occupy the chair vacated by his mother because the odor she left there attracted him. But, as this case already leads us into the abnormal, which we do not care to take up

<sup>&</sup>lt;sup>1</sup>Ferenczi reported many interesting observations of a similar nature. Cf. Chapter XIII of his Contributions to Psycho-Analysis, trans. by Ernest Jones.

yet, we shall simply repeat that whereas animals, primitives, and children still are markedly influenced and guided by the sense of smell, civilized mankind is gradually losing this sense, despite the fact that odors in the form of perfumes still continue to play a great part in the feminine life of even the most civilized people. One needs only to look at the numerous full page advertisements devoted to perfumes, odor-killing soaps, and mouth washes to become convinced of this.

Freud has taught us that the supposed wide gap between normal and abnormal manifestations hardly exists, that they gradually merge into one another, and that we must start with the abnormal manifestations in order to understand the normal ones. If we wish to follow this procedure and examine the pathological manifestations associated with olfaction we find but few references, scattered here and there. Havelock Ellis, who, as we mentioned above, collected the literature and discussed this subject at length, makes this interesting statement: "Many eminent alienists in various countries are of the opinion that there is a special tendency to the association of olfactory hallucinations with sexual manifestations", 1 and he quotes such authorities as Krafft-Ebing, Connolly Norman, G. H. Savage, Féré, and others to substantiate this. It is significant that all his authorities are of the 19th century, for if we pursue this subject to the present date, we soon discover that modern psychiatry occupies itself very little with the sense of smell. We can find abundant material relating to hysterical blindness, deafness, pains and aches, disturbances of locomotion, hallucinations of hearing, sight, and general sensations, but we look in vain for an account of psychic disturbances of olfaction. Textbooks on mental diseases give little space to disturbances of the sense of smell. Thus, Church and Peterson state: 2

<sup>&</sup>lt;sup>1</sup> Ellis, Havelock: l. c., p. 70.

<sup>&</sup>lt;sup>2</sup> Church and Peterson: Nervous and Mental Diseases, p. 66.

"Hallucinations of smell are rare," and Bleuler,1 who devotes only a few lines to hallucinations of smell, which he puts together with those of taste, states that they rarely appear alone; that one sometimes observes them in the later stages of manic paresis, in schizophrenic delusions in the form of disgusting poisonous substances like pitch and sulphur; and that smells "are very rarely hallucinated." psychoanalytic literature one finds very little that refers to the sense of smell. The works of Ferenczi<sup>2</sup> and Jones<sup>3</sup> seem to be the only exceptions. But no neurosis or neurotic disturbances revolving directly around the sense of smell have I encountered in the literature. Long ago I reported a case of compulsion neurosis in which smell played a prominent part, and in my extensive clinical experience I recall only one patient who sought treatment at the clinic because she was suffering from peculiar and disagreeable odors which appeared suddenly at regular intervals.

In his very instructive paper on compulsion neuroses,<sup>4</sup> Freud mentioned the fact that his patient was a "Riecher," a smeller, who in childhood recognized people by their odor like a dog. He stated that he had seen similar olfactory manifestations in neurotics, and that olfaction-pleasure (Riechlust), which disappears in childhood, plays a part in the genesis of the neuroses. In his unassuming manner, he ends this paragraph with the following significant remarks: "In a general way I should like to raise the question whether the inevitable stunting of the sense of smell as a result of man's turning away from the earth and the organic repression of smell-pleasure produced by it, does not largely share in his predisposition to nervous diseases. It would thus furnish an explanation for the fact, that with the advance of

<sup>&</sup>lt;sup>1</sup> Bleuler, E.: Lehrb. d. Psychiatrie, 3rd ed., p. 48.

² l. c.

<sup>&</sup>lt;sup>8</sup> Jones, Ernest: Papers on Applied Psycho-Analysis, p. 312.

<sup>&</sup>lt;sup>4</sup>Freud, S.: Bemerkungen über einen Fall von Zwangsneurose, Ges. Schr., VIII, p. 350. (1908).

civilization it is precisely the sexual life which must become the victim of repression. For we have long known what an intimate relation exists in the animal organization between the sexual impulse and the function of the olfactory organ." Freud implies here that the abandonment of smell-pleasure plays a part in the genesis of the neuroses, because of the erstwhile intimate association between the sex instinct and the sense of smell, and that with the advance of civilization when the sense of smell fell more and more into desuetude the sexual life of man, which was intimately connected with it, has perforce suffered in consequence.

A year later in 1909, we find the following footnote in the second edition of the *Three Contributions to the Theory of Sex:* "Psychoanalysis has filled up the gap in the understanding of fetichisms by showing that the selection of the fetich depends on a coprophilic smell-desire which has been lost through repression. Feet and hair are strong-smelling objects which are raised to fetiches after the sensation of smell now unpleasant, has been given up. Accordingly, only the filthy and ill-smelling foot is the sexual object in the perversion which corresponds to the foot fetichism." Twenty years later, in *Das Unbehagen in der Kultur*, Freud again speaks of the sense of smell and shows the great part it played in the evolution of the family.

A few years ago I was consulted by a blind man of 49, who showed a marked impairment of all his senses. His sense of sight was almost absent,—he could distinguish light and vague outlines of big objects; his sense of hearing was poor,—practically absent in the right ear; his sense of taste he described as "vague, sufficient to distinguish between sweet and bitter, but not strong enough to find relish in any food." His sense of smell was entirely absent, according to the neurologists, because of a congenital atrophy of the olfactory nerve. The patient maintained that as a result of these

<sup>&</sup>lt;sup>1</sup> A summary of this case was presented in my paper, The Death Instinct, before the N. Y. Psa. Society.

sensory deficiencies he never experienced any sensation of hunger even after abstaining from food completely for several days. When I questioned him about his vita sexualis he stated that the "sexual appetite never appeared in consciousness." Further investigation showed that no female ever played a part in his sex fantasies; only on two occasions did he dream of women-both were prostitutes who even in his dreams inspired him with disgust. But it soon became clear that the patient was a masochist of the flagellant type. His whole history showed that he was a pronounced passive algolagniac. He recalled, for example, that spanking by his father appealed to him as early as his third year. His sensory deficiencies, especially his poor environment (which cannot be described here), furnished a proper soil for the following fundamental trauma which occurred at five: A crowd of boys were playing court. He was selected to play the culprit, and was condemned to receive ten lashes for having stolen a diamond ring. Although he originally entered into the game voluntarily he conceived the punishment as very humiliating and never forgot the mortification which it caused him. He actually fancied himself a real culprit, and developed a feminine masochism.1 a form he has maintained ever since. Without entering into the deeper mechanisms of this case, it does not seem illogical to conclude that the deficiency or absence of the senses of hearing, sight, taste, and smell must have played a great part in the predisposition to, and the development of this perversion. For, we must agree with Magnus Hirschfeld, who in his analysis of love states: "Das geliebte Objekt bildet für alle sensorischen Reizstellen des liebenden Subjekts die Ausgangsstelle wohltuender Empfindungen. Da die ganze Körperoberfläche physiologisch ein Sinnesorgan ist, ausgestattet mit Milliarden Empfangsstationen von eigenartiger Empfindlichkeit, so gibt es kaum eine Partie unserer Peripherie, aus der nicht die sexuelle Reizung erfolgen könnte." 2 ("The beloved object is the source for

<sup>&</sup>lt;sup>1</sup> Freud, S.: Ges. Schr. V, p. 376.

<sup>&</sup>lt;sup>2</sup> Vom Wesen der Liebe, Jahrb. f. sexuelle Zwischenstufen, VIII: 7.

pleasing sensations in all the stimulable sense organs of the amorous subject. But, as the whole surface of the body is physiologically a sense organ, equipped with billions of receiving stations of peculiar sensitiveness, there is hardly a single part of our periphery from which sexual stimulation could not emanate.") It is quite obvious that normal sexual development must depend on the existence of an unimpaired sensorium. Perfect sight, hearing, taste, smell, and touch will surely be more conducive to thorough and quicker appreciation of the love object. One here recalls Freud's statement that in all sex abnormalities-perversions and inversions-there is an executive weakness of the vita sexualis to start with. In our case the patient's hearing and sight were markedly impaired; the former weakness showed itself in early childhood and increased with age, while his sense of sight was so poor from the beginning that he had to be educated in an institution for the blind. Last, but not least, his sense of taste and of smell were congenitally absent. Tactile sensation alone was intact. If anything, his sense of touch was somewhat enhanced. But if we attach much more importance to the absence of the sense of smell it is because of the assumed relationship, anatomical and physiological, between the nose and the genitals. Thus, Havelock Ellis after citing numerous authorities and cases states: "It is thus possible that defective sexual development tends to be associated with corresponding olfactory defects." 1 That such a relationship actually exists has been claimed by many observers of normal and abnormal life. Krafft-Ebing states: 2 "In beasts the influence of olfactory perception on the sexual sense is unmistakable." Among the many confirmations of his statement he mentions that Schiff extirpated the olfactory nerves in puppies, and found that as the animals grew up, the male was unable to recognize the female as such. the other hand, Mantegazza removed the eyes of rabbits and found that this defect did not in any way interfere with pro-

<sup>1</sup> l. c., p. 65.

<sup>&</sup>lt;sup>2</sup> Psychopathia Sexualis, Login, N. Y., 1908, p. 31.

creation. Many other reliable observers have pointed out the marked association between the nose and sex. Some go so far as to maintain that the kiss owes its origin to the sense of smell, rather than to taste, which explains why most peoples inhabiting this globe do not resort to kissing in the Western sense, but to the so-called "nose greeting" when they wish to express love. This mode of salutation in one form or another, that is, the application of nose to nose, or to the face or hand is practised throughout a large part of the Pacific and in the Far East. The Japanese movie censors still cut out all vehement kissing scenes from European movies. Only a few years ago the chief of police of Tokio removed a bronze production of Rodin's masterpiece, "The Kiss," from a loan exhibition sent to Tokio by the Paris Academy of Art, because as he put it, "Kissing is a loathsome habit." The intimate relation between olfaction and sex has been pointed out by Fliess and others. Fliess demonstrated the so-called "Genitalstellen" (genital spots) in the nose of women, which when cocainized controlled painful menstruation. And Hans Henning has called attention to the fact that there is a direct transition from the olfactory gyrus to the gyrus fornicatus. Without dilating further upon the relation between odor and sex, which would lead us too far afield, we repeat that it is not far-fetched to state that the need for flagellation, which expressed itself mostly in our patient's phantasies, was due to an erotization of his tactile sense, the only sense left him. There was no sense organ other than the tactile ones through which the libido could express itself in any adequate way, so his feminine masochism offered him the best or rather the only sexual outlet. the psychosexual side, there was a definite mother fixation upon which was later imposed a very shocking trauma in the form of sexual assaults by an older, insane sister.

In two cases of compulsion neurosis where the most out-

<sup>&</sup>lt;sup>1</sup> Scheuer, O. F.: Handwörterbuch der Sexualwissenschaft, Marcus and Weber, 1926, p. 423.

standing symptom was halitosis, I could directly trace the symptom to early pleasure in smell emanating from the mothers of the patients. In case A., the mother had suffered all her life from nasal and sinus disturbances from which she died when the patient was nine. This patient, a man of thirty-six, was extremely sensitive to human, especially female, odors. His sex potency depended entirely on the sense of smell,-if a woman had any odor recalling his mother the patient became impotent. After years of thought he finally developed the following scheme of sexual practise. He always carried along strong perfumes which he poured on the woman in question in order to disguise her own natural odor. But even with this ceremonial he could effect only a weak or inadequate outlet. Most of his outlet was of a peculiar autoerotic nature. He rubbed his testicles and then smelled his hands, eventually attaining an ejaculation. Here the neurosis represented the negative of the perversion; instead of becoming a renifleur, he was constantly afraid of affecting his environment through his malodorous breath, halitosis.

The other case of halitosis was in a passive homosexual, B., a man of thirty-nine, who in struggling against his inversion developed a number of schizoid-obsessive symptoms. As far back as he could recall he was able to tell people by odors, especially his cousin, a woman five years his senior, with whom he was brought up. He claimed to be able to tell her presence when she was "blocks away" by the odor she emanated. He assured me, however, that she was a perfectly normal, married woman who was not at all conspicuous in any environment through her odoriferous emanations. The only explanation for this phenomenon is the fact that he was with her throughout his early childhood. He also claimed that he could tell a menstruating woman by her odor. This patient showed a number of obsessive symptoms referable to oral, nasal and anal-sadistic impulses. Walking in the street,

<sup>&</sup>lt;sup>1</sup> This term is used here in the broad sense of partial or complete gratification through the sense of smell.

he imagined that some man walking behind him might wish to perform paederasty with him; at times this phantasy was so strong that he had to turn around and look. Usually he realized that he only imagined his halitosis, but now and then he actually could smell his own "foul breath" and then had to take measures against it. Thus, ordinarily he disliked smoking, but when his halitosis obsessed him he smoked incessantly so as to saturate his breath with the odor of tobacco: he also used various mouth washes and aromatics. His attitude to life was that of a typical anal character. He was very squeamish about physical and psychical matters, very accurate and orderly. He had a habit of correcting himself, and often the analyst, whenever there was any semblance of a rhetorical barbarism in the conversation. He constantly hurled invectives at his colleagues of the dental profession for not practising aseptic dentistry. In addition to his major vocation he was also studying vocal music, played the cello, and hoped to become an opera tenor. contrast to his outward cleanliness he very frequently used such expressions as "stench," "stink," "skunk," and "foul mouthed." When I asked him to tell me what joke appealed to him most he immediately began to laugh and recalled one on himself. A few years ago while speaking to some ladies about a young man and wishing to say "He is a smart fellow," he said instead "He is a 'fart smeller'." It was impossible to analyze him continuously, for something almost always happened to his finances and interrupted the analysis. general, his sexuality was weak-in addition to the masturbation referred to, which rarely occurred, he had had homosexual experiences, but only on three occasions.

As a symptom of psychogenic origin, disturbances of smell appear quite frequently in many types of neuroses and psychoses. To be sure, most of the smell disturbances are of secondary importance to the patients. They usually put another symptom in the foreground, as will be shown by the following case reported in 1912: J. L. had a compulsion

neurosis of about twelve years' duration. The main symptom was apparently mysophobia with the defense reaction of handwashing. But should you read this case as I reported it, you would find this significant statement: "His phobia for odors was just as marked." 1 This patient, whose nasal cavity was considered normal, constantly smelled peculiar odors which he interpreted as poisons. In the characteristic compulsive manner he always investigated these smells and always discovered their poisonous sources; e.g., that the floor of his room was cleaned with a chemical preparation containing carbolic acid. If a peculiar odor struck him on the street, he was sure to discover a paint shop or a drug store on the block, places which contained poisons. The following quotations from the history of his childhood are of special interest when considered in the light of my explanation of his neurosis: "He displayed a strong desire for coprophilic activities. He took an unusual interest in faeces and urine; he liked the odor of water-closets; and one of his favorite indulgences was to put his finger between his sweating toes and then smell them." (p. 194.) "The immediate onset of the symptoms was probably helped by the fact that for days before she died his mother's stools were of a very offensive odor." (p. 196.) Indeed from my original notes it appeared that this case might be re-written to bring out the leading part played by the sense of smell. This patient has remained well since his discharge, but soon after his discharge he changed his vocation to that of a perfumer, and has been a successful dealer in perfumes ever since.

A patient of mine, V., a young man twenty-seven years old, suffered from a mixed neurosis—anxiety and compulsions. He complained of many somato-psychic feelings in the head. He was constantly afraid that the fly of his trousers was open and went through a tic-like movement with his right arm—brushing sidewards against the fly—to make sure that this

<sup>&</sup>lt;sup>1</sup> Brill, A. A.: Psychoanalysis, Its Theories and Practical Application, ed. 3, W. B. Saunders, 1922, p. 193.

was not the case. He also occupied himself obsessively with his shoes. He imagined that one shoe was tighter than the other, which he could not endure. He repeatedly took off and put on his shoes, tied and untied them. These and other symptoms had existed for many years with greater or less severity. Among his somatic complaints there was chronic nasal catarrh which apparently did not yield to any treatment.

Investigation soon showed that from the age of about two this patient had been a shoe fetichist. At that age he was often pacified by playing with his mother's or with his nurse's shoes. It was impossible to discover how this practise arose. It surely started before the age of three, for it was demonstrated that even at this age the patient cried for shoes on being put to bed. Later, when he was older and could not obtain any at home, he usually found one in some rubbish heap. This practise ceased during the latency period to start again at puberty, and then continued until about two years before he came to me for treatment. There was a certain ceremonial or cycle about it which was definitely observed since the age of about fifteen. For months he would freely indulge in the perversion and then enter a state of mild depression during which he would give it up for a few months, to resume it again after a short interval. He recalled only one period of his life-from eighteen to twenty-during which he was quite free from this perversion. It is significant to note that during these two years he worked in a gas factory. This patient made a good recovery as far as the fetichism is concerned. He gave up the fetich and made a fair heterosexual adjustment. But, after trying a number of vocations he accidentally became interested in a rose farm and has been a successful cultivator of flowers ever since.

Prominent in this case is the fact that the hysterical and compulsive ideas were based altogether on the inability of the patient to indulge a component impulse of the sex instinct—the sense of smell which was accidentally or constitutionally brought into play in early life. The libidinal

attraction emanating from this sense was first gratified by the mother's shoes, which then were raised to the position of a fetich, and later, when this fetich had to be abandoned, as a result of conflict, the libido found its discharge through hysterical and compulsive symptoms, the latter of which represented the negative of the perversion.

Cases in which the sense of smell dominates the whole neurotic picture are surely rare, but wherever this exists other pregenital organizations are usually involved as well. Another patient of mine, a compulsive neurotic woman with schizophrenic trends, seemed to be dominated by the olfactory sense. She was in constant struggle with her family because she insisted on knowing when they defaecated, and as she had two older brothers and a younger sister she was kept quite busy. Her reason for this peculiar interest was her extreme sensitiveness to odors. She claimed that she was unable to use the bathroom until an hour after it had been used by any other member of her family. She insisted therefore on being informed whenever such an event occurred in order to know that she could enter one of the bathrooms without becoming "terribly upset by the She was also sensitive to other odors. She once refused to eat because her father came into the dining room with an odor of ointment from an injured finger; the odor of bananas was especially obnoxious to her. She could detect the faintest odor, but was particularly sensitive to the smell of faeces.1

In the psychoses we sometimes find hallucinations of odors dominating the whole picture. I saw a schizoid-manic boy of eighteen, C., whose whole psychosis revolved around the delusion that a very disagreeable odor continually emanated from his rectum, and could be detected by everyone near him. He refused to go to the class room because he was sure that his classmates were repelled by this disagreeable odor

<sup>&</sup>lt;sup>1</sup>It is of interest that her suicidal phantasies revolved exclusively on gas inhalation.

and kept away from him. This boy was burdened by heredity and his whole development was that of a pronounced schizoid personality. He had never progressed much beyond the pregenital levels, and his symptom was an outward projection of his anal-sadism. His whole "will to power" lay in his ability to influence his fellow beings through anal activities.

As I said above, very little has been written about the sense of smell in the psychoses, but whenever it is found as a symptom the patient usually conceives the odor as disagreeable, even if the odor happens to be sexually stimulating, as shown in the following case: D., a paranoid dementia praecox spinster, was annoyed by a "sensuous smoke" which came from her imaginary lover. She could smell it on the eighth floor of her apartment and perceived it as disagreeable because it excited her sexually.

A number of patients with dementia praecox who were faeces smearers, were observed by me. A young schizophrenic smeared faeces over everything. He would lock himself in the toilet and remain there for hours indulging in this disgusting activity. He explained his behavior by saying that he liked the odor of faeces, and as it was definitely established that he also masturbated while smearing in the toilet, it may be assumed that the smell of faeces acted as a direct sexual stimulant. In contrast to J. L. and V., the symptom represented here a perverse activity. By virtue of the schizophrenic process this patient was altogether indifferent to the outer world; he acted like a child before it develops the super-ego. He felt no disgust, and locked himself in the toilet simply because he knew that he would otherwise be prevented from indulging in his practises.

The rôle of the sense of smell may become particularly enhanced and sexualized, when as a result of an organic determinant the individual lacks the sense of sight, as will be shown in the following case:

I was consulted by a blind man of thirty-two, G., previously

analyzed for a short time by another physician. The patient was born almost blind and at the age of four his eyes were removed. He was brought up in an institution for the blind, and although he received only a high school education, gave the impression of a person much above the average in education and intelligence. He came for treatment because he was obsessed by the idea of killing someone in order to get a dead body. He liked very much the smells of perfumes, of grass, of flowers, and of soil, chiefly because these smells stimulated his appetite for dead bodies. This perverse craving began in early childhood, when he used to sneak away from the family and go into the cellar, where he would search for garbage, manure, and dead mice and rats. As he grew older, he preferred to play with little girls because his blindness handicapped him in his competition with boys. Early in boyhood he developed the habit of grasping little girls, kissing and hugging them. He soon knew that he wanted as much contact as possible. Hence, he selected those girls who were taller and stouter than himself, but as he frequently encountered a resistance to his advances, the thought occurred to him: "If they were dead, they could not object to my company and my behavior." He did not simply wish to kiss a girl; he followed a definite procedure,-"I would hold her tight, standing face to face. I would put my lips against hers, my nose against hers, and would breathe in when she breathed out and vice versa." At a very early age he had dreams of finding dead female bodies in the cellar. As he grew older, he had phantasies of fat tall women, either dying or dead, whom he could hug and kiss to his heart's content. His desire for hugging and kissing women became stronger and stronger in boyhood; he took every opportunity to hug his mother and sisters. They soon recognized or sensed that his behavior was abnormal. When they repulsed him he would say "If you were dead, I could kiss and hug you as much as I liked, and you could not refuse." When he matured and realized his monstrous desire for dead girls and

women, and the dangers that went with it, he displaced this desire to dead animals. His description of what a dead woman would offer him reads like a gourmet's idea of a Lucullan feast. He dilated upon all delicacies of decayed flesh, how to cure it to bring out the odor, etc.; but as the smell of a human body would attract too much attention and subsequent discovery, he finally decided to be satisfied with a dead horse. He at first knew no particular reason for selecting a horse; he thought "The bigger the animal, the more carrion; but where can one get a dead whale or elephant?" Moreover, the scream of the horse, like the scream of a woman, gives him a mixed feeling of fear and pleasure. For many years the horse played the most important part in his phantasies. His great phantasy was to have a secluded farm and a horse; he described how he would fatten the horse, give it indigestion, and finally kill it. The phantasies always revolve around a mare, which he imagines "mating with a stallion in order to get her pregnant and then kill her when she is about to foal." As the mare is a substitute for a woman, the following quotation is quite significant: "I often think what fun it would be to see a baby horse lying on the breast of the dead mare and trying to drink milk. Then the body bursts open and the foal has all it wants to drink. I have also thought the same thing of a dead woman and a baby on her breast." His dreams are full of such wishes: he shoots a mother bear after she gives birth to her cub while the latter lies on her breast drinking milk. In his waking state he has phantasies of drinking milk directly from a cow's udder, to which he vaguely associates that when about three years of age he fooled around with a cow's udders and was thrown down by the cow. One of his frequent phantasies is to get a farm, starve or kill all the animals, and then indulge himself in the manner described with the remains of dead bodies. caught, he would ask that the court punish him by confining him with a dead body until he died from the effects of the odor.

Without going any further, we can say that this patient's great need was to be able to wallow in the slimy carrion of some dead female body. He was not only coprophilic, but also coprophagic; he often devoured horse manure and on occasion his own excrements. In trying to put his phantasies in operation he thought of wallowing in a manure heap, but as this was impractical, he thought of filling up the bath tub with dough and wallowing in it; but that, too, was not feasible and besides he thought it unsatisfactory. the right kind of dirt, namely, carrion. Anything else would simply increase my desire for carrion." In his distress he once made a full confession to his mother and she decided to help him,-she proposed that he use a dead chicken and gave him one. "It was put in a box in the closet, and I hoped that it would soon decay and get the right odor. order to hurry it, I mutilated the body and enjoyed the job very much! Wherever I went and whatever I did I had a lingering impression of the odor, which, while it pleased me, made me afraid that I would be discovered."

As to his sexual activities, the patient stated that he accidentally discovered masturbation at the age of twelve and found that it relieved him from the desire for carrion. soon discovered, however, that masturbation was wrong, that it weakens, etc., and gave it up: He never had any desire for coitus; he could not grasp it at all emotionally. When his favorite sister discovered his horrible secret she got the idea that all he needed was sex and in order to cure him she offered herself to him. It was a failure. The same thing happened when both a doctor and a friend to whom he confessed his perversion induced him to try a prostitute. What he actually craved was not genitality, but gratification of the olfactory, gustatory, and tactile senses. Instead of the normal integration of the senses, through partial repression and subjugation of the rest to the primacy of the genital, the various senses here remained more or less on a childish level and functioned to a large degree independently, the sense of smell

predominating. The patient remained polymorphous perverse; he was largely dominated by his infantile sexuality. However, he did make a strong effort towards object love, as I could readily see. Clinically this patient could be designated as a case of necrophilia.<sup>1</sup>

The clinical material presented thus far, scanty as it may seem, shows that the sense of smell plays a part in neurotic disturbances. It tends to corroborate Freud's assumption that the sexual life of man, which was originally regulated largely by olfaction, became subject to deep repressions when the sense of smell fell into desuetude in consequence of man's turning away from the earth. And by studying these olfactory disturbances we may be able to explain biontically and phyletically what Freud demonstrated clinically, namely, the great rôle of sexuality in the neuroses and psychoses.

In case 1, the senses of sight, taste, and hearing were markedly impaired and the sense of smell altogether absent. One may, therefore, say that here the libido took the only path left to it and expressed itself through the primordial tactile sense, the skin. The patient developed a feminine type of masochism-his greatest wish was to be flagellated brutally. In our necrophilic, where the sense of sight was congenitally absent, the sense of smell, which functions strongly only in childhood, not only continued, but attained the same level as in animals and primitives. The sense of taste and hearing were also somewhat overdeveloped. patient was very fond of music; he would play the piano for hours at a time, and was supposed to be very proficient and gifted. His libido, however, found its greatest expression through the olfactory and gustatory senses. His greatest desire was not only to wallow in slimy carrion, but also to enjoy its odors and taste. He phantasied himself altogether encased in a dead woman or in a huge dead animal so as to feel, smell, and taste the carrion until the end of his days. Both of these cases represented perversions, or a continuation of the infantile component impulses of sex into adult life,

<sup>&</sup>lt;sup>1</sup> More specifically the patient was a renifleur and necrolagniac.

in contrast to the cases of A. and B., who suffered from neuroses, from failures of sex repression, that is, from the negatives of perversions. Here, although all the senses were seemingly intact, the sense of smell seemed to be constitutionally enhanced, the patients found it hard to repress and sublimate their olfactory sense, and subsequently there was a failure in repression with the resulting obsessive ideas centering on halitosis. In the case of C., the schizoid-manic boy, there was a constitutional enhancement of the sense of smell, subsequent repression, failure in repression, and outward projection. He imagined that all his classmates ran away from him because of the disagreeable odor which emanated from his anus. All of these cases remained more or less on pregenital levels. None of them went through the normal stages of psychosexual development, never attained object libido, and most of them suffered from compulsion neuroses.

Moreover, the manifestations of the enhanced activity of the sense of smell are not infrequently observed in less extreme cases than those described here. Its unconscious manifestations are now and then encountered as a sublimated activity. I have in mind two patients who occupied their free time with the manufacturing of perfumes. Both of them were professional writers who could not account for their interest in this activity. One of them became so proficient a perfumer that his products were pronounced excellent by his lady friends. Both of them were of the compulsive type of character, and always showed a very weak vita sexualis. Only one was accessible to a few months' analytic study. I ascertained that he was always a smeller. He began to make perfumes at the age of fifty-five, years after he abandoned all manifest sexual activity. The patient was a pronounced aesthete, a weak homosexual of the artist type. His empathic index was Oscar Wilde, but he was also a great admirer of Zola.1

<sup>&</sup>lt;sup>1</sup> Brill, A. A.: The Empathic Index in the Neuroses and Psychoses, Medical Record, Jan. 24, 1920.

It is interesting to mention in this connection that like many distinguished literateurs both Wilde and Zola were interested in perfumes and odors. Oscar Wilde in The Picture of Dorian Gray gives the following account of the influence of odors on the emotions: "And so he would now study perfumes, and the secrets of their manufacture, distilling heavily scented oils, and burning odorous gums from the East. He saw that there was no mood of the mind that had not its counterpart in the sensuous life, and set himself to discover their true relations, wondering what there was in frankincense that made one mystical, and in ambergris that stirred one's passions, and in violets that woke the memory of dead romances, and in musk that troubled the brain, and in champak that stained the imagination; and seeking often to elaborate a real psychology of perfumes, and to estimate the several influences of sweet-smelling roots, and scented pollen-laden flowers, or aromatic balms, and of dark and fragrant woods, of spikenard that sickens, of hovenia that makes men mad, and of aloes that are said to be able to expel melancholy from the soul." Of Zola, Nordau states: "His consciousness is continually pursued by representations referring to ordure, abdominal functions, and everything connected with them." 1 The sense of smell is very predominant in Zola's work. He characterizes all his personages by their smell.2 Many other celebrated writers show a similar interest in odors; Schiller, Poe, Baudelaire, Shelley, Tolstoi, and Nietzche are noted examples.

In some works odor plays no predominant rôle, but now and then it crops up significantly. In Ben Jonson's "Drink to me only with thine eyes," we find the following lines:

> "Since when it grows, and smells, I swear, Not of itself but thee."

<sup>&</sup>lt;sup>1</sup> Degeneration, p. 499.

<sup>&</sup>lt;sup>2</sup> Bernard, L.: Les odeurs dans les romans de Zola, Montpellier, 1899.

which refer to the fact that he sent Celia a rose wreath upon which she breathed, then returned.<sup>1</sup>

It is also well known that odors long buried in the unconscious may suddenly be brought to the surface by some association and in some cases may produce very disturbing effects. I recall a patient whose frequently recurring moods were often determined by odors. Thus, seeing a pink, the odor of it would come to his mind, and then recall depressing scenes of his early childhood which might then persist for hours or sometimes for days. The patient, a man of 45, was of the manic-depressive type, but his depressions were short, lasting from a few hours to a few days, and they differed materially from the typical depression of manic-depressive psychosis. The patient was not aware of the origin of his moody states until he was under analysis. The case of a woman of thirty-eight years may be mentioned whose hay-fever was entirely due to the unconscious recollection of odors.<sup>2</sup>

But the most sudden change of sexual behavior produced by odor in an otherwise normal man will be shown in the following case:

A successful lawyer became cool to his wife and as his behavior did not change she finally consulted their mutual friend, a judge, who recognized that he was dealing with a psychopathological situation. The patient was perfectly normal mentally, and had no complaints against his wife with whom he had lived well for about twenty years. Investigation showed that about two years previously while his family was in the country, he had been forced to remain in his office until late in order to finish up an important legal matter. While he was busily occupied, an elderly scrub woman entered and proceeded to clean the office. At first

<sup>1</sup> Mordell: The Erotic Motive in Literature, p. 151.

<sup>&</sup>lt;sup>2</sup> Under the heading: "Paint Fumes Remind Curtis Why He Changed His Career," the *New York Times* reported how Vice-President Curtis suddenly recalled a disagreeable episode of his early life. The New York Times, October 3, 1931.

he paid no special attention to her, but presently as he observed her squatting on the floor and scrubbing, he became very excited,-"lost my mind,"-and assaulted her sexually. He maintained that despite the repulsion which she ordinarily inspired in him, she had a morbid fascination for him, so that he was compelled to see her at least once or twice a month. He therefore felt guilty towards his wife whom he really "loved and pitied" despite the fact that she no longer appealed to him erotically. Indeed, he felt that under the circumstances he had no right to approach her. Analysis showed that the patient had lost his mother at about the age of two, and then had been brought up by a faithful housekeeper, Bridget, who was the prototype of the scrub woman in question. Bridget evidently gave him more than the ordinary share of love and attention. He was with her all the time, eating and sleeping with her until he was five or six years old, when she suddenly died. However, these childhood associations were not responsible for the erotic situation-analysis showed that odor or odors provoked this overwhelming excitement. It was the stuffy humid air, the sour odor of perspiration, the musty odor of dirty water and wet floor-all of which were intimately associated with the memory image of his foster-mother. To be sure this patient was constitutionally "a smeller".

In the nineties the Western World was aroused by the elopement of the American "Princess de Chimay" (née Clara Ward of Nebraska) with the gypsy fiddler, Rigo. According to Hagen she told a journalist that she was irresistibly attracted to this gypsy by his body odor.<sup>1</sup>

There are a number of historical characters famous for their sensitiveness to odors. According to Ludwig, Napoleon was very sensitive to odors and always masked unpleasant ones with large quantities of Cologne water. Mereschowskij quotes him as saying about Corsica: "I would recognize my

<sup>&</sup>lt;sup>1</sup> Stoll, A.: Das Geschlechtsleben in der Völkerpsychologie.

land of birth with my eyes closed, solely and alone by its odor." The great Richelieu is said to have lived in an atmosphere laden with the heaviest perfumes in order to stimulate his sex function. Henry IV of France was more or less of a renifleur, as we see from his famous message to Gabrielle d'Estrées: "J'arrive, ne vous lavez pas."

Occasionally one encounters sublimations or vocations which seem to be direct descendants of the sense of smell. The compulsive neurotics mentioned above who, after analysis, became respectively a perfumer and a florist illustrate this. I also know of an anal-erotic composer who refers to the odor of urine as the "delicious smell," who does not hesitate to break wind in the presence of friends, and who calls his compositions by such odoriferous names as violets, lilies, lilacs, roses, etc. Another patient, P., a married man of forty, treated successfully for depression with compulsions (mixed neurosis), visited me years after he was discharged, and showed me an invention he had made. The basic idea was to appeal simultaneously to the senses of smell and sight in the advertising of certain commodities. He opened what looked like an ordinary magazine containing full page advertisements and while I looked at the ad of "Sunkist Oranges" I saw not only the pictorial representation of oranges, but I also felt the scent of oranges. The patient had lost his father at the age of five and hardly remembered him, and his mother at the age of nine. The latter had been suffering for many years from some chronic disease, probably tuberculosis of the intestinal tract, during which time the environment was filled with disagreeable odors, medication, and de-This patient was not what could be called a constitutional smeller, although he was quite sensitive to odors, and in his analysis there were dreams and associations of smell connected with his mother. His invention, as well as the vocations of the patients previously mentioned, represent the final adjustment of a disturbance of mother cathexis.

It is not far-fetched to state that these, so to speak, olfac-

tory occupations of J. L., V., and P. actually represented the last links of the earliest mother cathexis in which the sense of smell played a predominant part. Thus, J. L.'s neurosis came to the surface right after his mother had died of a cancer of the liver after a prolonged illness, during which the foul odors from his mother unconsciously recalled his early interest in filthy odors for which he had been repeatedly punished by his parents. When later, he had repressed this need for coprophilic odors, the patient became cleanly to the point of squeamishness in both the physical and the moral sense. Although his adjustment to life was quite good, he continually showed moral and religious conflicts. The repression of his component impulses was not complete and they gradually emerged following his mother's death, when he began to show his mysophobic symptoms. also significant that until he became a perfumer he had been much dissatisfied with his vocation, the wholesale drug business, which he had inherited from his father. Over and over again he would leave it but he always returned in order to please his mother. Within a few months after his analysis he disposed of it for good and took up perfumes. He had no idea why he selected this particular vocation; I consider it a normal adult adjustment to his mother on the basis of a constitutionally enhanced sense of smell, which was intimately associated with her.

V.'s shoe fetichism could be traced directly to his mother. Much in his case corroborates Freud's views on fetichism.¹ Here again we find a constitutional reinforcement of accidental factors. V. was the only child of a rather obese mother, who judging by the patient's associations, either suffered from bromidrosis or evinced something very much related to it. I never discussed his selection of the vocation of florist.

In the case of the "inventor" we again find a mother who

<sup>1</sup> Freud: Fetischismus, Ges. Schr., XI, p. 395.

for years emitted unpleasant odors. We can, therefore, assume that J. L., V., and P. unconsciously endeavored either to mask or to replace the unpleasant odors of their mother-cathexis by perfumes, flowers, and pleasant scents and sights, but that they all still adhered to the odoriferous mother. Whether the resulting reniphilias had their main origin in an innate constitution or were preponderantly determined by the environment is immaterial; we are only interested in the part played by the sense of smell in the individual's adjustment.

In summary we may say that although the sense of smell has been almost completely superseded and displaced by sight and touch, it surely continues to play a part, albeit an unconscious part, in the mental life of man. Naturalists and biologists have shown that smell plays an enormous part in mammalia, especially in carnivora and ungulata. It is also known that the sense of smell functions actively among primitive and semi-enlightened races, and last but not least in children. In the latter it gradually declines with age in its conscious form. Modern man has lived so long in a protected environment that he can easily dispense with a great part of his senses and especially with the sense of smell. There is no question that although the modern city man uses all his senses to a very limited extent, the senses, including smell, do not atrophy from disuse as some think, but always function, as it were, unconsciously. That they function even consciously when needed was amply demonstrated during the world war. Soldiers from various armies told me of incidents which demonstrated conclusively that when modern city men are forced back to the level of primitives and animals, as far as self-preservation is concerned, the acuity of their senses increases correspondingly. officer of our army wanted me to explain how it was that he could tell that he was approaching a shell hole while driving without lights on pitch dark nights. He maintained that he could invariably do so. It was simple enough to explain on the basis of a change of vibration due to a break of continuity in the road, which he readily grasped, but when it first happened to him he attributed it to Providence. His sense of hearing, sharpened by necessity, enabled him to perceive the slightest change of vibration. Another officer told me that he actually could smell the enemy, even when there were not many nearby. On one occasion he told his comrades that he smelled Germans and they laughed at him, but very soon some captives were actually brought in. When we read that the French claimed to recognize the *Boches* by their odor we attributed it to war hatred, but it was true none the less. A former German officer told me that the Germans had the same feeling about the French; and this was also true. The neglected sense of smell had to be mobilized in the war and it did its bit.

Nevertheless, there is no question that the sense of smell has been subjected to deeper repression than any other sense since man assumed an erect posture and turned away from the earth millions of years ago, and although it is dangerous to venture into the phyletic aspect of smell, it will do no harm to skirt the edge of it.

It was the object of this paper to show that olfaction plays a part in psychoneurotic diseases, and this being established, we also wished to know its relation to psychosexuality. Biontically and phyletically smell was always firmly associated with sex. For example, Ernst Haeckel 1 discussing the embryology of the mind states: "When the two cells meet as a result of copulation, or when they are brought into contact through artificial fertilization (in the fishes for instance) they attract each other and become firmly attached. The main cause of this cellular attraction is a chemical sensitive action of the protoplasm, allied to smell and taste, which we call 'erotic chemicotropism'; it may also be correctly (both in the chemical and in the romantic sense) termed 'cellular

<sup>&</sup>lt;sup>1</sup> Haeckel, Ernst: The Riddle of the Universe, Harpers, 1901, p. 136.

affinity' or 'sexual cell-love'." Similar views were expressed by other observers. Iwan Bloch 1 quotes Steffens as saying that smell is the principal sense of the higher animals, and Kröner, that smell is the most essential element in the sex life of animals. Bloch, himself, maintains that the sense of smell is the most primordial elementary psychic phenomenon of love. Similar views are held by many other observers, and even a superficial glance at the love life of animals, primitive people, and Southern races will confirm these views. According to McKenzie the macrosmatic mammals whose vision is more or less restricted and whose muzzle is near the ground, are the most highly gifted. The dog, whose hunger and love instincts are altogether guided by smell, is a good example of this kind. Dan McKenzie, speaking of dogs, states: "He has the fondness for wallowing in the abominable until his coat is thoroughly impregnated, in order to give his human friends the olfactory pleasure he enjoys." 2 I have repeatedly observed this mode of behavior on the part of my own dog in the country. G., a perfectly intelligent blind man, felt the same about abominable odors, but unlike our Veda, who on such occasions acted as if intoxicated, wagging her tail, frisking, jumping, and barking, G. could only confess this feeling to his mother and the analyst. It does show, however, that a normal human being of today deprived of vision can regress to the level of macrosmatic animals and show a need for odoriferous gratifications in both hunger and sex. G.'s imagination of a wonderful meal was well decayed carrion, and whenever he had the opportunity for intimate contact with women he cared only for olfactory outlets. five when his grandmother was in her last illness this little blind grandson,-her favorite, probably because he was so helpless,-expressed the wish to have her dead body after she died. Like vultures and other macrosmatic animals he undoubtedly perceived the odor mortis and like them was

Bloch, Iwan: Das Sexualleben unserer Zeit.

<sup>&</sup>lt;sup>2</sup> l. c., p. 80.

attracted by it before death actually came.¹ On the other hand, the other blind patient, who lacked in addition also the senses of smell and taste, claimed never to have developed any "sex sense"; his libido followed the elementary path of the original indifferent epidermal cells, the tactile sense.

Nevertheless, as revolting as our necrophiliac's phantasies and behavior seem, we must not forget that our sportsmen prefer their game only after it begins to decay, when the feathers, so to speak, begin to fall out; and that the essentials of the most valuable perfumes are of very humble, one might even say, of disagreeable origin. Ambergris consists of undigested remnants of squids and octopuses found in the whale, others come from the sexual glands of the civet cat, musk-ox, musk-deer and beaver, and as Havelock Ellis has pointed out, even those perfumes which are made from flowers also have a sexual origin. Flowers represent, as it were, the mating period of plant life. It would thus seem that there is a certain ambivalence about olfaction. The sexual smell as such is perceived as offensive, but only when contemplated in cold blood. Nothing is not nice or disagreeable in a state of sex tension, or tumescence. Of the numerous complaints I have heard from men about disagreeable odors of women (wives and sweethearts) none came during the flush of love, when there was every reason to perceive odors. Moreover, one of my patients told me that any tumescence in him was always accompanied by bromidrosis, and another patient tells me that whenever he becomes emotional about any woman regardless of sex tension he perspires with a definite odor. Neither of these men experienced any difficulties with women. It is also noteworthy that no one dislikes his own aroma; it is only those of others that offend. The same capryl odors are thus now pleasant, or at least not offensive, judging by the amount of time cultured people spend in bath

<sup>&</sup>lt;sup>1</sup>There is no question that the ubiquitons superstitions about death following the advent of some bird or animal are based entirely on the *odor mortis* which attracts these animals.

rooms, and now unpleasant. Odors have always been used to please and appease gods, as well as to drive away evil spirits. Jehovah was particularly fond of the sweet savours of burnt offerings-an odor which one would hardly relish nowadays. Last but not least, cultured humanity has a greater capacity to repress sexual smells than any other feelings. They are absolutely oblivious to them at the height of their existence, and they can recall them only with the greatest resistance. Odor probably unconsciously plays the same part in all love manifestations of civilized humanity as it does consciously among animals and primitives and many non-European races. Nevertheless, olfaction is endowed with greater affectivity than any of the other sensory activities despite their common origin. For all sense-organs are intimately related, in so far as they all originate from the indifferent cells of the epidermis. Slowly and gradually these cells acquired specific energy and adapted themselves to different stimuli, and became rod-cells, olfactory cells, cochlear cells, and gustatory cells. One might speculate that it is this common origin-separated of course by millions of yearswhich enables one sense organ to take over the libidinal activity of another, impaired or destroyed sense organ, as shown in our blind cases. But, despite this common origin and flexibility of the sense organs the sense of smell had been subjected to greater repression than all the other sense organs. Sight, hearing, taste, and touch must also be repressed and sublimated, but their whole development concerns the biontic (individual) rather than phyletic evolution, and, in the sense of smell both the biontic and phyletic are involved. When man assumed an erect posture and turned his nose away from the earth, smell fell more or less into disuse, which increased with the advance of primitive civilization, when the first sexual taboos were established. But, as the first taboos were primarily of an incestuous nature and smell was still an active sex function, primitive man was under special stress to curb this sense. This was especially the case during rutting, which made itself felt first through the sense of smell. Here one can fully agree with Daly, who claims "The hypnotic sex-attractive *odour* given off by the female in 'heat' must have been one of man's greatest temptations to violate the incest taboo." <sup>1</sup>

At all events the repression of pleasure in smell began at the dawn of civilization with the beginning of sex control and has continued ever since. The beginning of sanitation was another though more recent cause for the repression of smell. Daly may be perfectly correct in assuming "odours of a subtle nature operating directly in the service of the function of reproduction which are to be differentiated from the coprophilic odours," but at present no differentiation is possible. "Damnatus sumus nam inter urinas and facinas nascimur" as the monks would have it.

I have referred to a patient who was prevented from carrying out a proposal of marriage by a faint odor of perfume which came from behind the ears of his beloved. Indeed, olfactory pleasure has been subjected to such deep repression for so long, that even when the repression fails and allows the odors to appear in consciousness, they do so without any retrogression of the repression, in the form of symptoms. I once differed with H. S. Sullivan, who stated that the prognosis of schizophrenias with olfactory hallucinations is invari-

¹Daly and White: Psychic Reactions to Olfactory Stimuli, Brit. J. of Med. Psychol., X, Part 1. I do not, however, share the author's opinion that the sex-attractive smell was lost to man; I am convinced that although very deeply repressed, it is still quite active and occasionally comes to the surface. Nor do I agree with him in his attempt to discount Freud's suggestion; namely, that the repression of pleasure in smell may be due to man's turning away from the earth. Daly contends that in the earlier stages of our existence, before man's adoption of clothes, vision was in no way inhibited. Yes, I could imagine this visualization in the case of white-skinned cleanly females of to-day. But, we must not forget that at the time of Darwin's primordial man or thereabouts, the female of the species, if she did not walk on all fours, certainly looked quite differently. Vision undoubtedly played some part, but a very small part in comparison to smell. A bitch in heat attracts dogs from very far distances, as much as from ten or even more miles, I am reliably informed.

ably bad. Further investigation has taught me that Sullivan was correct. In the case of my three psychoneurotic patients, who, on recovering from their neuroses, chose odoriferous occupations, this point, the tenacity of the olfactory fixation, seems to be corroborated: they still had to occupy themselves with smells, even though their neurosis was cured. Doubtless an investigation of the psychology of those who have voluntarily selected such occupations as perfumer, florist, gas manufacturer, and the like, would disclose that these persons were either constitutional or neurotic "smellers."

Recently, in an article called Scents that Make Dollars.1 Gare Hambidge, besides discussing the industrial importance of odors, makes an interesting contribution to the psychology of smell. Thus, we learn that two chief chemists and the perfume experts of one large perfume business can remember things smelled better than things seen. One of these men can follow the trail of a fox for a considerable distance. Their reason for choosing their particular vocation cannot be in doubt. We also learn that a questionnaire, submitted to several hundred men and women with the object of ranking forty-three odors in the order of their popularity, showed that pine was given first place by men, and second place by women. The odor of pine has, of course, a marked resemblance to that of turpentine. Ferenczi 2 has shown that these odors and those of gas and asphalt belong to the special sublimation path of anal-erotism. Children are extremely fond of them and it is significant that they are popularly supposed to be "healthy." Pine pillows and pine forests are thought to exert a beneficial effect on patients with tuberculosis. It is interesting to note that the word smell is akin to the Dutch, "smeulen," to smoulder, and according to Dan McKenzie, also to the German dialect word, "smela," which means hell, and which is in turn related to the Slavic word, "smola," pitch or resin, hence, pine. It is also interesting

<sup>&</sup>lt;sup>1</sup> Hambidge, Gare: Scents that Make Dollars, World's Work, August, 1931.

<sup>&</sup>lt;sup>2</sup> Ferenczi, *l. c.*, p. 274.

that the hallucinations of smell and taste which are invariably of disagreeable content frequently refer to pitch and Pine and its odor must also have many phyletic associations to man. I am indebted to Dr. Ross McC. Chapman for a southern colloquialism which shows the distinct ambivalence connected with the odor of pine. Dr. Chapman was discussing the problems of adolescence with a southern physician of wide experience, when the latter remarked: "Many of us try out our first sexual experiences on a piece of yellow pine." Now, "yellow girls" is a common expression for mulatto women. The expression, "a piece of yellow pine," thus represents a condensation or fusion of a number of thoughts. Pine may here signify fire or heat, intimate associations of resinous wood, and refer to the sexual ardor, reputedly the attribute of yellow girls, or what is more probable, pine is here a contrast to the objectionable odeur humaine of the colored race. At all events the expression is overdetermined.

According to the questionnaire, garlic and perspiration were least popular. These two odors were ranked 42 and 43 by the men and women respectively. Garlic has indeed had a bad reputation for a very long time, even though it has been very popular with most, if not all, cooks and gourmets. It has been an article of diet from the earliest times and was highly revered by many races as a sacred vegetable. According to Pliny, garlic and onions were invoked as deities by the Egyptians at the taking of oaths.1 We thus see that there is a distinct ambivalence in respect to garlic. Perspiration was considered the most unpopular odor by both sexes and there is no doubt that the average modern person dislikes But again, it is not at all perceived during tumescence,-it is only disagreeable to refined persons when they perceive it as an emanation from others. Investigation among this class of persons shows that this odor is disliked because it has a disagreeable sour smell, but also probably because it is invariably associated with people of the lower

<sup>&</sup>lt;sup>1</sup> Bourke: Scatologic Rites of All Nations, p. 96.

Perspiration brings to the surface the distinctive strata. human odor and reminds us that we have to live in the midst of other human beings. Man is really not the social animal he is depicted to be. Above all he dislikes being reminded that he is supposed to be social and patiently tolerant of his neighbors' shortcomings. A cultured person must lower his voice, if he wishes to be polite, not stare, look, and if he accidentally pushes against someone, he must beg forgiveness. In brief, he must control all his emotions and be as unobtrusive as possible. But neither perspiration nor smell can be stifled, whether its source be a gentleman or no. When the human odors strike his nostrils, which is more likely to happen in the lower social spots, he naturally perceives it as offensive. In his own social gatherings, he is entirely oblivious to it.

That the odeur humaine is actually responsible for separating human beings is not in doubt. No less an observer than Somerset Maugham 1 is of this opinion. In a story called Democracy he tells of a very pompous and selfimportant Chinese aristocrat who came to an inn carried by coolies. Because things were not exactly to his liking he domineeringly berated the landlord and the servants, but shortly thereafter he changed completely, became friendly, chatted amicably and quietly with the coolies smoking his water-pipe, and seemed on an equal footing with them. Maugham considers this true democracy. "In the East man is man's equal in a sense you find neither in Europe nor in America. Position and wealth put a man in a relation of superiority to another that is purely adventitious, and they are no bar to sociability." Maugham speculates as to why this should be so in the despotic East, and why there is such a gap between the classes in the free democratic West. He finds the explanation in the sense of smell. It is this sense, he claims, which divides us from our fellow-beings. In the West "the working man is our master, inclined to rule us with an iron hand, but it cannot be denied that he stinks."

<sup>&</sup>lt;sup>1</sup> Maugham, Somerset: On a Chinese Screen, Doran and Co., p. 140.

This is not to be wondered at, for the working man has no time for a bath, before going to the factory, and heavy work does not tend to sweetness. He does not change his linen more than he can help so as not to burden his wife with washing. Hence, he cannot be blamed for his odor. "The matutinal tub divides the classes more effectively than birth. wealth, or education." Maugham thinks it significant that those writers who have risen from the ranks of labor are apt to make the morning tub a symbol of class prejudice, "and one of the most distinguished writers of our day always marks the rascals of his entertaining stories by the fact that they take a bath every morning. Now, the Chinese live all their lives in the proximity of very nasty smells. They do not notice them. Their nostrils are blunted to the odors that assail the Europeans and so they can move on an equal footing with the tiller of the soil, the coolie and the artisan. I venture to think that the cesspool is more necessary to democracy than parliamentary institutions. The invention of the 'sanitary convenience' has destroyed the sense of equality in men. It is responsible for class hatred much more than the monopoly of capital in the hands of a few." "It is a tragic thought that the first man who pulled the plug of a water closet, with that negligent gesture rang the knell of democracy." A very keen observation which has more truth to it than fiction.

The Chinese is the only race which has been living by philosophy and true Christianity. The Chinese have had very few of our sex problems. They do not instil the European feeling of disgust into their little children through such remarks as "Oh, you dirty little boy!" or "You filthy little girl!", as is done to our little ones every time a diaper is opened. The Chinese just place the little one into a sort of bag filled with sand, which is changed from time to time, with a smile. The Chinese are surely in no way as neurotic as we are.