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Behaviour Therapy for Transvestism

A Comparison of Pharmacological and Electrical Aversion Techniques*

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Transvestism is characterized by a repetitive morbid predilection to dress in the attire of the opposite sex. It is distinguishable from fetishism on the one hand and trans-sexualism on the other.

1. In *fetishism* there is a pathological sexual attachment to an object or objects other than the normal sexual objective. In practice the fetish object is frequently a garment, and sexual excitation occurs when it is contemplated, handled or observed. Clothes made of leather, rubber, plastic, fur, nylon, etc., are commonly encountered fetish objects. They are frequently identified with or worn by a member of the opposite sex. This is not invariably the case, however, for items of the person's own dress may take on erotic qualities, or the fetish object need not be a garment at all.

2. In *trans-sexualism* the male patient both desires to be a woman and believes that he is one. To this end he may masquerade more or less continually as a female. In this case the process of dressing in female costume does not in itself provoke sexual excitation, but merely facilitates feminine disguise. Frequently this type of patient makes repeated demands for castration and for surgical conversion of his anatomic sex.

It would appear that transvestism and fetishism are more closely related to each other than to trans-sexualism. Hitherto there seems to have been some confusion over the application of the correct terminology to these three conditions (Barker, 1963; Raymond, 1964).

The treatment of transvestism has hitherto been unsatisfactory. Psychotherapy (superficial and dynamic) has been widely advocated, with little effect upon the basic symptom, although it may enable the patient to learn to accept his abnormality. Physical methods, such as electroplexy, directed towards the underlying condition, have successfully alleviated transvestite behaviour which has occurred in conjunction with a schizo-affective psychosis (Liebman, 1944) and depression (Eyres, 1960). Fetishism occurring in association with temporal lobe epilepsy has been abolished by temporal lobectomy (Mitchell *et al.*, 1954). Other methods of treatment which may be justified in some cases of trans-sexualism are contraindicated in transvestism and in married patients. These include castration and suppression of the libido by oestrogen administration.

Following the report by Raymond (1956) of a fetishist successfully treated by aversion therapy, it was decided to treat transvestism symptomatically on a behavioural level. This was the first time that this form of treatment had been applied to transvestism (Barker *et al.*, 1961; Lavin *et al.*, 1961). Subsequently this technique has been employed to treat other transvestists (Glynn and Harper, 1961; Clark, 1963, etc.) with varying degrees of success.

Behaviour therapy is based upon the hypothesis that the abnormal behaviour has been learned and must therefore be eliminated according to the laws of learning theory. It is now one of the most frequently used methods of treatment for sexual deviations such as transvestism and fetishism.

The principal indications for the application of this form of treatment are:

1. The patient should have a good personality, and
2. He should be co-operative.

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3. He should be well motivated for cure, and
4. He should have average or above average intelligence.

These four criteria were all satisfied in the two patients to be described.

Case 1

This patient was treated by the author and his colleagues at Banstead Hospital, Sutton, Surrey, in October, 1960. His case history and treatment are fully described by Lavin *et al.*, 1961, but the salient features are given here. He consulted his G.P. because of transvestism and was referred to the writer from Fulham Hospital Out-patient Clinic where he was seen once. Prior to aversion therapy he had not received any form of psychiatric treatment.

He was aged 22. Height 6 feet. Weight 12 stone. Leptosomatic build. Physical examination was normal showing normal genitalia and secondary sexual characteristics. He had had no previous illnesses of note and there was no mental illness in his family. Relationships with his parents and siblings had always been good. He was a lorry driver. His I.Q. was 107 (Matrices) and 97 (Mill Hill). His EEG was normal and his chromosomal sex male.

Transvestite behaviour commenced at the age of 8 when he put on his sister's dress and admired the effect before a mirror. He did this repeatedly in secret, but never obtained erotic satisfaction from the perversion until aged 15. After puberty masturbation occurred infrequently, but was invariably accompanied by transvestite phantasies. Whilst serving abroad with the R.A.F. he purchased female clothing to practise transvestism. He married at 21, and sexual relationships with his wife were frequent and apparently satisfactory and occurred without the need for clothes or phantasies. Although physically attracted to his wife, he felt guilty that he had entered marriage partly in the hope that his perversion would disappear, but soon afterwards he resumed dressing in her clothes, using her cosmetics, perfume and accessories, and twice appeared in public in female disguise. Fear of the consequences of this and anxiety to save his recent marriage, coupled with his wife's extreme distress at returning home and finding him dressed in her attire, forced him to seek psychiatric assistance, and acted as powerful incentives towards recovery.

Treatment. It was decided to treat this patient by a technique involving the use of emetic drugs (apomorphine and emetine hydrochloride) and the method advocated by Raymond (1956) was closely followed.

The object was to establish an aversive response towards the sexual perversion (conditioned stimulus) by associating it with nausea and vomiting (unconditioned response) following the administration of the emetic drug (unconditioned stimulus).

When this method is used in practice it is not possible to utilize the actual process of dressing up in female clothing for the following reasons:

1. The patient must remain in bed if he is receiving repeated doses of emetic drugs and therefore cannot dress up.
2. It is usually essential for a transvestist to be able to view himself before a full length mirror in female attire, and this is impossible while he is lying in bed.
3. The cumulative central depressant properties of apomorphine would tend to preclude repeated dressing up throughout the treatment procedure, and
4. Possible vomiting over the clothes themselves could destroy their erotic stimulant propensities, and reduce their value as a conditioned stimulus.

These difficulties were surmounted by preparing a conditioned stimulus which resembled the actual symptomatic behaviour as closely as possible, and which could be coupled with the unconditioned stimulus to produce a conditioned response from which the aversion is developed.

(a) *Preparation of the conditioned stimulus.* This consisted of two parts involving the visual and auditory senses. Prior to treatment 12 35 mm. coloured transparencies were taken of the patient in female clothing, ranging from undergarments only to full attire; 6 were full face and 6 profile. It was considered that presentation of still photographs would enhance the accuracy in timing the introduction and cessation of the conditioned stimulus as opposed to a film which Raymond had used in the boosting treatment of his fetishist. A tape recording was also made of the patient describing the process of dressing up. This was intended to reinforce the visual conditioned stimulus, facilitate stimulus generalization and maintain the presence of a stimulus even when the patient's eyes were closed during vomiting.

Preparation of the conditioned stimulus is an elaborate process which requires extreme care, for it is a highly individual and personal affair, differing from one transvestist to another, and must not incorporate material which is unassociated with the patient's perversion.

(b) *Technique.* The patient was treated in bed in a darkened room. A projector was mounted behind the head of his bed and a 48-inch screen erected at the foot. His physical condition was repeatedly checked and liberal fluids and daily injections of parentrovite were administered. A psychiatrist/psychologist team was in constant attendance and a special nurse provided working eight-hour shifts. Aversion therapy was continued 2-hourly for 6 days and 6 nights, the principal agent being apomorphine. As soon as the injection took effect—the patient usually reporting a headache followed by nausea—a slide was projected on to the screen and the tape recording switched on. Both were continued until he either vomited or became intensely nauseated. He was encouraged to scrutinize the screen during the presentation of the conditioned stimulus.

Following 2 injections of sterile water to introduce him to the procedure and to exclude pseudoconditioning, he received a total of 66 emetic trials, one every 2 hours, which consisted of:

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53 intramuscular injections of apomorphine,

1 intramuscular injection of emetine hydrochloride,

5 oral doses of emetine hydrochloride in a glass of saline,

1 dose of two dessertspoonfuls of mustard in a tumbler of warm water,

3 doses of two tablespoonfuls of salt in a tumbler of warm water, and

3 intramuscular injections of sterile water.

The last three were introduced to test for the establishment of classical Pavlovian conditioning. No response attended the first and third of these test injections, but after the second he complained of gastric discomfort and retched after the presentation of the conditioned stimuli, implying that a conditioned response had occurred.

The dose of apomorphine ranged between gr. 1/40 and gr. 1/8. Copious emesis lasting for 95 minutes followed the first injection of gr. 1/10, which produced a more satisfactory response in half this dosage for the next few trials until marked apomorphine tolerance developed. Even doses of gr. 1/8 then failed to produce vomiting, although nausea, headache and dizziness invariably occurred after each injection. Similar tolerance developed to emetine hydrochloride given orally in doses of gr. 1/2 to gr. 1 in saline, and subsequently intramuscularly (gr. 1/2). Mustard in water, used once after successive failures with apomorphine, caused prolonged retching and epigastric pain, and was consequently abandoned. Dexamphetamine sulphate (5 mg.) was given frequently to facilitate conditioning through its stimulant properties, and to counteract the cumulative sedative effects of apomorphine and sleep deprivation.

Vomiting invariably occurred in the earlier trials, but owing to drug tolerance it was either absent or replaced by headache, nausea and giddiness in the later ones. Up to trial 37 the conditioned stimulus was introduced at the last possible moment before vomiting occurred, but afterwards, because of the absence of vomiting, it was presented as soon as the patient detected any unpleasant effects from the drugs. The stimulus was terminated as soon as the patient vomited or reported relief. Up to trial 38 the same slide (underwear) was always shown to build up a conditioned response, but subsequently the others were introduced at random to generalize the response to all aspects of dressing up.

The patient's physical condition remained excellent during the greater part of the treatment. He did not become dehydrated through repeated vomiting and insisted upon occupying himself as much as possible. His wife encouraged him on several visits during treatment, and he took part in animated discussions with his attendants between injections. After the 68th trial, however, he exhibited rigors, a temperature of 99 degrees and an elevated blood pressure. He became hostile towards his attendants, appeared confused and was unable to maintain a normal conversation, and his co-ordination was impaired. It was considered that the cumulative effects of dexamphetamine were largely responsible for this rapid deterioration. He was given amylobarbitone sodium gr. 6 and all these symptoms disappeared completely after a few hours sleep.

Progress

Quite early during treatment and afterwards he expressed revulsion at the pictures and at the idea of dressing up in female clothing. At interview on three occasions during the next three months both the patient and his wife confirmed that recovery had been complete and that he was now indifferent to wearing the garments which had previously excited him. For instance, on one occasion at his wife's request, he put on her green skirt which had formerly been a highly stimulating garment to him, but it produced no effects whatever.

The patient is now abroad and as far as is known has remained symptom free for 18 months after the treatment. The prediction of symptom substitution implied by Freudian psychoanalytic theory has not so far been substantiated.

Despite its apparent therapeutic effectiveness, the method used has several disadvantages:

1. It is time consuming.

2. The patient must be admitted to hospital for it to be undertaken.

3. It is expensive in terms of man-power, necessitating a round the clock vigil by a psychiatrist/psychologist team together with the continued presence of a special nurse to cope with vomiting, etc.

4. It is contraindicated if the patient is not in optimal physical condition. Repeated injections of apomorphine may cause dehydration, sodium depletion and even gastro-intestinal haemorrhage. Fatal idiosyncrasy to this drug has also been reported (Allen, 1964). Emetine can cause severe cardiovascular disturbances (Cooper, 1963).

5. Apomorphine is uncertain in its action. After the earlier trials it failed to produce vomiting, for tolerance appears to develop rapidly to this drug, which has to be administered in increasing doses to produce any effects. In addition it has central depressant properties which reduce the value of the conditioned

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stimulus at the time of presentation. Emetine is, by contrast, non-sedative in its effects, but this patient acquired tolerance to it also and its continued intramuscular administration would not appear to be without risk.

6. The treatment is extremely unpleasant for the patient. It is difficult if not impossible to justify a therapy which may result in the complete breakdown of a patient's health, even though this may be temporary, irrespective of its apparent therapeutic benefits.

7. There are formidable obstacles in timing the intervals between the conditioned stimulus and the unconditioned response. There was marked variation between the onset of the conditioned stimulus and the response (vomiting) which should have ranged between 0·5 and 2·5 seconds for optimal conditioning to develop. Frequently vomiting did not occur at all, and when it did it was often impossible to terminate the conditioned stimulus immediately afterwards. In the absence of vomiting there was sometimes no indication at all as to when a response had occurred. In view of these difficulties over timing, and also because of marked fluctuations in the degree of nausea which were reported by the patient, it was possible that in some trials at least the stimulus preceded pleasant rather than unpleasant effects of the drugs. This indicates that in these trials an association between the conditioned stimulus and relief from nausea was being reinforced. This suggests that factors other than classical Pavlovian conditioning may have been responsible for alleviating symptoms in this patient.

8. These practical disadvantages make it virtually impossible to examine the various learning processes that are associated with a satisfactory therapeutic response, so that under these circumstances the method remains blind and empirical in its approach.

This technique was similarly criticized by Eysenck (1960) and Rachman (1961), who suggested replacing the chemical agent by electrical stimulation in order to surmount some of the timing difficulties involved. This greatly simplifies and introduces much more flexibility into the treatment procedure. The patient's actual symptomatic behaviour may be utilized, which thereby renders unnecessary the preparation of an elaborate artificial conditioned stimulus resembling the perversion which is required when the chemical aversion method is used.

In the following case aversive conditioning was attempted by pairing the cross dressing procedure itself with the unpleasant experience occasioned by repeated faradic stimulation. The technique was also designed to ascertain whether any other laws of learning, apart from the classical conditioning paradigm, were operative in its efficacy.

Case 2

This patient was treated by the author and his colleagues at Banstead Hospital in 1961. His case history and treatment are fully described by Blakemore *et al.* (1963a), but the salient features are given here. Prior to aversion therapy he had received psychotherapy at the Westminster Hospital and St. Mary Abbots Hospital since 1955, and had been under the care of the writer since 1957. He had not been prepared to submit to behaviour therapy until the electrical technique had been developed in 1961.

He was aged 33. Height 6 feet. Weight 10 stone 5 pounds. Leptosomatic build. He somewhat resembled Case 1 in appearance. He was a Civil Servant. Physical examination: external genitalia and secondary sex characteristics were all normal. He described his father as neurotic and his sister as highly strung and blamed them for a turbulent childhood. He developed a duodenal ulcer shortly after he was 18 which perforated at the age of 20 at the end of his National Service. His intelligence was high (Wechsler F.S. I.Q. 127). He obtained a high neuroticism score on the Maudsley Personality Inventory. His chromosomal sex was male.

Transvestism appeared to develop at the age of 4 when he recalled that wearing his grandmother's shoes was pleasurable; thereafter he frequently dressed in private in his mother's and sister's clothes, and his first emission occurred at the age of 12 whilst wearing a corset. Thereafter he was accustomed to cross dress at approximately fortnightly intervals, and this was usually associated with masturbation. He derived much pleasure from visualizing his mirror image in female attire and from feeling the clothes next to his skin (this latter feature was absent in Case 1). He was indifferent to handling clothes, however, but observed that wearing black court shoes and black stockings caused greater sexual excitement than any of the other garments. He developed the compulsion to appear in public in female disguise, complete with make-up and wig, particularly at night, and observed that this and indulging his perversion generally allayed anxiety and conferred a sense of relief.

A deep sense of shame, occasionally leading to suicidal preoccupation, forced him to destroy all his female clothing on several occasions, but he invariably purchased

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more. He deliberately postponed marriage until he was 29 on account of transvestism. Initially he preferred sexual intercourse with his wife while dressed in her clothes, although normal sexual relations were always possible, and became more frequent as his marriage continued largely because of his wife's revulsion at his perversion. Transvestite behaviour, however, was readily resumed as his only form of sexual outlet when intercourse was precluded during his wife's pregnancy.

He had powerful motives for seeking treatment, which included:

1. A fear that his young son would discover him dressed up,
2. Consideration for his wife (although her tolerance and understanding were quite remarkable under the circumstances),
3. Possible litigation if discovered in public dressed in female clothes, and
4. The desire to escape from the perpetual anxiety which his perversion engendered.

Like the patient reported by Cooper (1963) he also acted as his own control, since he had previously received 6 years of intensive psychotherapy which had completely failed to modify his basic symptoms. He had become addicted to amylobarbitone sodium which had been prescribed for years to relieve tension.

Treatment. This was conducted in a quiet sideroom divided into two parts by a mobile screen. A chair, a full length mirror and the electric grid occupied one half, and the other contained the generator for the grid and an electric buzzer.

(a) *Apparatus.* The electric grid was made from a 4 feet by 3 feet rubber mat with a corrugated upper aspect. Tinned copper wire, one-tenth of an inch thick, was stapled lengthwise in the grooves of this mat at approximately half-inch intervals. Alternate wires were connected to the two terminals of the electric current generator. This was a manually operated G.P.O. type generator, which produced a current of approximately 100 volts a.c. when resistances of 10,000 ohms and upwards were introduced on to the grid surface. Two rapid turns of the generator handle were sufficient to give a sharp and unpleasant electric shock to the feet and ankles of persons standing on the grid.

(b) *Technique.* The patient attended for treatment daily and returned home each night. The procedure was interrupted by a two-day weekend break. Treatment sessions were administered every half hour, each session consisting of 5 trials with one minute's rest between each trial. A total of 400 trials was given over 6 days (average 65 to 75 per day). Initially it had not been intended to give the patient more than about 200 trials. He insisted on continuing to 400 trials when he felt that the treatment was doing him good. (It is, of course, difficult to exclude a masochistic element here!)

The patient utilized his own clothing, which was not interfered with in any way, except that slits were cut into the feet of his nylon hose to enable a metal conductor to be inserted into the soles of his black court shoes. He commenced dressing up at the beginning of each trial and continued until he received a signal to undress irrespective of the number of garments he was wearing at the time. This signal was either a shock from the electric grid or the sound of the buzzer which was introduced at random into half the 400 trials. The shock or buzzer recurred at regular intervals until he had completely undressed. To enable the aversion to be generalized to the entire process of dressing up the intervals between the onset of dressing and the first shock or the sound of the buzzer were randomized between 1 and 3 minutes between trials, thereby ensuring that the number of garments worn would not always be the same. Similarly the interval between successive shocks or the buzzer tone, whilst remaining constant within a trial, was randomly varied between 5, 10 and 15 seconds between trials so that the mode of undressing would not become stereotyped.

The patient received no previous intimation of this, and when beginning each trial did not know:

1. When the signal to undress would occur,
2. Whether it would be a shock or the buzzer tone, and
3. How frequently these would recur during undressing.

It had been anticipated that towards the end of the treatment period he might undress more rapidly following the shock as compared with the buzzer. This prediction was not, however, substantiated. During the last 75 trials given on the last day of treatment, undressing behaviour following these two stimuli was essentially the same throughout, and no significant difference between the rates of undressing following repeated presentation of these separate stimuli was observed.

Progress

During the first 4 days of treatment the patient tended to complain bitterly about the procedure. It was felt that his motivation was declining and that he would probably not return to complete the course. During his weekend at home, however, he experienced no desire to cross-dress, and when in situations which had formerly evoked this symptom he felt, instead, a dull testicular pain. He was overjoyed and returned to hospital to complete treatment convinced that it would now succeed.

During the next six months he experienced no inclination whatever to indulge in transvestism. His tension decreased and his consumption of amylobarbitone became less than at any time during the preceding six years. Heterosexual drive increased, and relationships with his wife occurred more frequently and were more satisfying. He alleged that his "misdirected sex urge was now boosted in the right channel". Six months after treatment his wife

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conceived, and further intercourse was contra-indicated in view of her history of repeated spontaneous abortions. This was very unfortunate for him, for although he experienced no compulsion to cross-dress, masturbation failed to provide sexual relief. He became progressively more irritable and his barbiturate consumption increased. He suffered a relapse (Blakemore *et al.*, 1963b) on the day before his second child was born, and approximately one year after treatment. He became drunk at an office party and telephoned a prostitute catering for transvestists. He kept this appointment and cross-dressed once, although sexual satisfaction was incomplete. During the next two months he did not practise transvestism and was deeply concerned about his apparent relapse, which seemed quite inexplicable to him in view of the continued presence of strong heterosexual feelings towards his wife and other females.

It is possible that "booster" courses of treatment, which were indicated in Raymond's fetishist, will also be necessary for this patient at intervals, although the reasons underlying his temporary return to transvestite behaviour are not far to seek in this instance. Also, although transvestite behaviour may be successfully suppressed by behaviour therapy, the orientation of the patient towards his perversion may not be modified by this form of treatment alone. Under these circumstances, relapse after a variable interval of time would not be altogether unexpected.

Discussion

The advantages of faradic aversion conditioning over the conventional pharmacological type of behaviour therapy may be summarized thus:

1. *At the Practical Level*

(*a*) It is far simpler to operate and yet at the same time it appears to have the same order of therapeutic effectiveness. In Case 2 this form of behaviour therapy completely suppressed transvestite behaviour in only 6 days, which had not been achieved by 6 years of psychotherapy.

(*b*) It can be administered by one person only and does not require the continuous attendance of specially trained nursing personnel.

(*c*) It can be given during the daytime and the patient can spend the evenings, nights and even weekends at home.

(*d*) It is far less unpleasant for the patient, and its administration does not cause the same degree of personal degradation and humiliation as pharmacological aversion therapy (Allchin, 1964).

(*e*) It is safe and does not induce repeated vomiting or directly undermine the patient's health. For this reason it does not demand the same high standards of physical fitness as pharmacological aversion, which would, for instance, have been contraindicated for Case 2 who had previously suffered from a peptic ulcer.

(*f*) There are no difficulties involved with timing, since an aversive response may be directly obtained by utilizing the processes of dressing and undressing themselves.

(*g*) There is therefore no necessity to prepare elaborate stimuli resembling the symptom (conditioned stimuli) to suit each patient, which is an important saving in time and trouble.

(*h*) It is far less expensive to operate than the apomorphine/emetine procedure. Once the electric grid and its components have been assembled, no further outlay is involved, and the apparatus may be used over and over again to treat other transvestists or other conditions amenable to behaviour therapy.

Its principal disadvantages are repetitiveness, monotony and boredom, but these may be associated with its therapeutic efficacy (see massed practice under 2(*c*) below). Tolerance to electric shocks is a possible disadvantage which was not encountered in this patient. A tensed patient is often more resistant to electrical stimulation than one who is relaxed. In addition, anxiety may cause pronounced sweating of the soles in some patients which might reduce the effects of shocks administered to the feet from the grid.

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2. *Theoretical Considerations*

The use of the electrical technique enabled some of the possible learning mechanisms underlying conditioned aversion to be studied in some detail. These included:

(*a*) Aversion associated with classical Pavlovian conditioning. This involved the act of *dressing*. The patient received an unpleasant electric shock during the process of putting on female clothes. The aversion was generalized so as to incorporate all the garments usually worn by the patient while indulging his perversion by varying the time interval allowed for dressing up between trials. However, the inclusion of the buzzer into the design of the experiment ensured that the total number of trials was only partly reinforced by actual aversion (shock) trials. It is known that a learned response which has been established by a process of intermittent reinforcement is more resistant to extinction than one which has been built up on a continuous reinforcement schedule. At the same time it is known to be difficult, if not impossible, for a classical Pavlovian response to become established by means of partial reinforcement alone (Kimble, 1961) This suggests that learning factors other than Pavlovian conditioning have contributed to the success of the treatment.

(*b*) Aversion associated with instrumental conditioning. This involved the act of *undressing*. The patient received repeated electric shocks whilst undressing and was therefore positively reinforced by the association of the shocks for behaviour which included the escape from and avoidance of female clothing. Unlike classical conditioning, instrumental conditioning may readily be established in a schedule of partial reinforcement, such as the juxtaposition of shock and non-shock (buzzer) trials.

The incorporation of the buzzer into the treatment regime enabled learning factors associated with instrumental conditioning to be demonstrated. It had previously been expected that the patient might take longer to undress following the sounding of the buzzer than when subjected to repeated electric shocks. Under these conditions, anxiety associated with frequent electrical stimulation might reasonably have been expected to accelerate the process of undressing and escape from female clothing, so as to bring about the cessation of electric shocks as soon as possible. This prediction was not substantiated, for in the last day's 75 trials there was no significant difference in the time interval taken to undress during shock and buzzer trials, and therefore no evidence of any discrimination in his undressing behaviour to either of these two stimuli. These observations support the contention that instrumental conditioning may have played an important part in the relief of symptoms reported by Case 2.

(*c*) Aversion associated with massed practice. The temporary inhibition of certain learned responses is known to follow their repeated performance. Dressing and undressing in female clothes 400 times in 6 days may in itself be sufficient to eliminate the habit albeit for the time being.

Future research should be directed towards:

1. Determining the relative importance of these three and possibly other learning mechanisms associated with a satisfactory response using this type of behaviour therapy. Reciprocal inhibition (Wolpe) may play an important part in alleviating symptoms by strengthening incompatible responses. This was observed in the case reported by Cooper (1963) who was introduced to his wife in the sexual situation for progressively longer periods to encourage the development of normal heterosexual behaviour.

2. Ascertaining the optimum number of aversive trials necessary to establish a satisfactory and permanent conditioned aversion to transvestite behaviour in any particular patient.

3. Refining and modifying the technique still further so that its application will cause the minimal possible discomfort and suffering to the patient. In this context, the apparatus recently described by McGuire and Vallance (1964) represents a notable advance. It is cheap and easy to operate and can be used in out-patients, or the patient may use it to treat himself at home. Electric shocks are administered through electrodes applied to the forearm. It was apparently not necessary for the fetishist described by these writers to dress up in female

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clothing during treatment. Mere indulgence in fetishistic and masochistic phantasies coupled with electrical stimulation was apparently sufficient to produce a satisfactory response. The use of phantasies as opposed to actual dressing up undoubtedly simplifies the deconditioning procedure. The value of phantasies alone as a conditioned stimulus would depend on their relationship with and importance to the perversion in everyday life, and also on the ability of the patient to relax while undergoing electrical aversion therapy. Theoretically, in the treatment of transvestism, using perverse phantasies alone instead of cross-dressing would on the face of it seem to make the deconditioning process more difficult to control, particularly from the point of view of timing. Furthermore, the patient might "allow his phantasies to wander whilst submitting himself to electric shocks and thereby spread the conditioning process to include material that is unrelated to his sexual perversion" (Barker, 1964).

4. The possible performance of controlled trials to compare the effects of behaviour therapy against other methods of treatment used for transvestism. So far published reports have dealt with the results of behaviour therapy in individual cases of transvestism. The treatment is time consuming and it is possible that the effects of such a concentrated and prolonged patient/therapist relationship may have played a significant part in the removal of symptoms in the patients reported here, possibly through reinforcement of the learning processes involved.

Also the personal attachment which may develop towards the therapist during this intensive treatment is an important factor which cannot be ignored. On the other hand, because of the comparative rarity of these conditions, it might prove very difficult to find a sufficient number of transvestists or fetishists presenting themselves for treatment and who are well motivated for cure, to make a worthwhile controlled study practicable.

Summary

Two transvestists have been successfully treated by behaviour therapy.

The first patient was subjected to the classical apomorphine/emetine procedure, whereas the second was treated by the application of faradic aversion conditioning.

The advantages of the latter method over the former have been enumerated. It is far less unpleasant for the patient and its employment enables some of the learning mechanisms associated with its therapeutic effectiveness to be exposed and critically examined.

Possible avenues for future research are intimated.

It is suggested that electrical aversion should in future replace chemical methods of deconditioning in the treatment of those sexual perversions and other conditions considered suitable for behaviour therapy.

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