CONTEMPORARY THEMES

Treatment of Wrongly Assigned Sex

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The purpose of this paper is to rebut the assertion that reassignment or change of sex necessarily constitutes an extreme psychological hazard for individuals who have been assigned to the wrong sex at birth. Some doubt will also be thrown on the claim that psychological sex—normal or abnormal—develops entirely as a consequence of environmental psychological experience, like learning a language, and is neither innate nor influenced by hormones.

Money (1955, 1963), Hampson (1955), Money *et al.* (1957), and Hampson and Hampson (1961), who carried out investigations on cases of intersexuality, are responsible for comparing the "gender role"—that is, the psychological sex—to the learning of one's native language and asserting that the gender role is in agreement with the sex of rearing and not instinctively determined by chromosomes, gonads, or hormones. They concluded that reassignment of the sex of rearing was without doubt psychologically injurious and constituted an extreme psychological hazard. There is no doubt that the conclusions of Money and the Hampsons have profoundly influenced the treatment of wrongly assigned sex, particularly in North America, where the attitude is more rigid and where change of sex would cause greater social reactions than in Europe. Although Dennison (1965) agrees with Money, it has not been the experience of Cappon *et al.* (1959) or of mine (Armstrong, 1964). I find it difficult to accept that in man the psychological sex, or the gender role, is solely dependent upon psychological environmental factors, such as the sex of rearing, and independent of hormones. Herbert and Michael (1965) and Michael *et al.* (1966) have shown that in rhesus monkeys the sexual performance of the males depends on the endocrine status of their female partners. Sexual variety of the male varied with the phases of the female menstrual cycle, and bilateral ovariectomy of the female suppressed or greatly reduced the sexual activity of the male; this was readily restored after administration of oestradiol to the ovariectomized female. The administration of progesterone to females already receiving oestrogen resulted in a notable reduction in the ejaculatory capacity of their male partners.

The types of cases which in my opinion can—and should—be reassigned without psychological hazard are particularly cases of hypospadias in boys assigned and reared as girls and cases of congenital adrenal hyperplasia in girls assigned and reared as boys. The former can be corrected by surgery and the latter by hormone therapy, and if normality can be achieved it is obviously preferable that the patients should be treated rather than that they should be allowed to continue their lives as a pathological abnormality. It has always been my practice to treat cases of congenital adrenal hyperplasia with hydrocortisone and reassignment of sex, if necessary, and I have never encountered any difficulties.

Hypospadias and cryptorchidism in a boy assigned and reared as a girl is not such a difficult problem, because this is due to an endocrine defect in foetal life which does not persist after birth except for the defect of female micturition, which can be corrected by surgery. In my experience these patients are,

in spite of their rearing, psychologically male and experience no psychological effects if their sex is reassigned to male. To illustrate this point I include the life history of one of my patients written by himself. It is a case of hypospadias and undescended testes in a boy reared as a girl until the age of 13 years. After surgery he resumed life as a boy without suffering any psychological upset and is now, aged 27, living happily as a married man.

Case History

This is retold in the patient's own words.

I was born on 8 April 1938, the eldest of three children. My life as a girl up to the age of about 13 years was perfectly ordinary and normal. I was a tomboy, and queried at least once a week, "Why wasn't I born a boy?"

My physical development was very much behind that of the other children at school but was explained away because I was "so tall and thin." I was very athletic. I had few friends (I still do not make friends easily) and preferred my own company.

In 1950 my mother decided that I ought to see a doctor. "You are looking rather 'big' below and it doesn't look right." The doctor agreed, and arranged that I see a gynaecologist. He examined me and agreed that my "clitoris" (as it was then thought) was enlarged. These visits continued monthly for about nine months to a year, and then I was sent to Newcastle to see you. Although no one had said anything to me, I sensed that something fairly serious was wrong.

About 1951 I was admitted to the Royal Victoria Infirmary for biopsy of (R) gonad. After my operation someone left my notes at the bottom of my bed and I read them. Then I knew for certain. I was elated. A boy at last!

After the operation I went to Wylam Convalescent Home for a short stay, where my father visited me and told me officially.

A couple of weeks later I went home, where the whole thing was almost ignored. I spent nine months at home and had a series of bi-weekly injections called Pregnyl.

I then went into the Royal Victoria Infirmary again for the first real "change" operation. It was painful, but I supposed all this was necessary.

The barber came in and I had my hair cut. Then my mother brought me my first boy's clothes. They really felt strange. The nurses on the ward were marvellous, kind, and very tolerant.

I was allowed to go to town, and had my first shop haircut. I was horrified that I should give something away, but everything went off all right. I was then aged 14 years.

Again I went in September 1952 to Wylam, this time to the men's ward. I stayed there for about four weeks and then went to live with my aunt at Darlington and back to school for my last seven to nine months.

The school, a boy's school, I think was good for me; the company of boys of my own age. I tried to model myself on them. The only unfortunate experience I had was during gym lessons. I was of course excused showers. Naturally the boys wanted to know why. I think they finally decided that I was not properly developed and I came in for a fair bit of ragging—not being able to use the urinal didn't help matters.

During this time I was attending the Department of Psychological Medicine. I hated going. It was my problem and I resented any intrusion into my personal thoughts and actions.

While I was in Darlington I took on a paper round in the morning and a job after school sweeping and clearing up in a shop. I enrolled at night school and did plastic work, woodwork, and a bit

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of metal work. I also attended a local church youth club and met my first girl friend.

When I left school I went back home, and three weeks later started my first job as a van boy with a bakery. It lasted four months. I didn't like it. Nevertheless, it did give me an opportunity to meet people and overcome some selfconsciousness that still prevailed.

People who had known me before my operation accepted me as though nothing had happened and I slipped back into the community.

My next job was at a tennis club, which I didn't like, so I left and became "general office boy" at the local hospital. It was marvellous, increased my intention of joining a hospital, and in February 1954 at the age of 15½ I started as a cadet nurse in a hospital for the mentally subnormal. I loved it.

I met my next girl friend. This girl knew of my past history. This didn't seem to matter and we went around for about 18 months. I was very grateful to her, as she never made any references to my past and just let me be myself.

About three months later I met the girl who is now my wife. She knew nothing of my past and accepted me as an ordinary young man. We got engaged. She still did not know about me. Anyway, for one reason or another we broke off the engagement.

We decided to have one last week-end at my home, and during this week-end we told her everything. It didn't help then, but later we did make it up—only to split up again in September 1958.

In October 1958 I decided to make a clean break and go to another part of the country to work. No one apart from my family doctor knows anything at all about me, and I have settled quite well into our community here.

In 1959 my ex-fiancée followed me and we were married.

I qualified in nursing. Naturally at times things get a bit strained, but taken overall we get on remarkably well.

We have now been married six years and have two adopted children. Naturally we would have preferred to have conceived our own children and I would love to experience the joy of actual intercourse, but this obviously cannot be.

So far I have had a very full and, for the most part, happy life. I rarely think of my childhood days as a girl, but as a boy.

Emotionally I feel rather inadequate and have an inferiority complex a mile high but feel sure that with maturity both of these will be overcome.

Between my first operation and to date I was in hospital about five times for further surgery. I think that I may be finished now, although my left testis still gives me some bad moments occasionally.

My further visits to hospital helped tremendously, as the nurses always accepted me for what they could see—not what they knew.

I dread becoming ill and having to go into a local hospital—or having an accident. Not for myself, but the possible consequences to my home life. I couldn't live where someone might tell my children—or embarrass my wife.

I get on fairly well with people of both sexes.

I've never regretted the course taken by my doctors and myself and realize the odd life I might have led if none of this had come about.

Summary

To summarize, I submit:

1. Psychological sex and sexual behaviour are not solely dependent upon environmental psychological factors such as the sex of rearing but also upon physical aetiological factors, and both physical and environmental conditions play a part.
2. Reassignment or "change of sex" is not necessarily an extreme psychological hazard and psychologically injurious.
3. The correct treatment of congenital adrenal hyperplasia is hormone therapy, plastic surgery if necessary, and the assumption of the correct sex if this has been wrongly assigned.
4. Cases of boys with hypospadias assigned as girls should be treated by plastic surgery and the patient assume his correct sex of a boy.

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CONFERENCES AND MEETINGS

Cancer Congress at Tokyo

[FROM A SPECIAL CORRESPONDENT]

Fifty-one years ago the late Professor KATSUSABURO YAMAGIWA (1863–1930) and his assistant KOICHI ICHIKAWA first demonstrated that cancer could be induced in animals by chemical substances. By smearing coal tar on the ears of rabbits for more than eight months they succeeded in inducing skin cancers. Much of modern cancer research stemmed from this demonstration, and on the evening of the first day of the Ninth International Cancer Congress, held in Tokyo from 23 to 29 October, the event was suitably commemorated in two Yamagiwa Memorial Lectures delivered by Dr. FOLKE HENSCHEN, of Sweden, and Dr. MURRAY SHEAR, of the United States.

The pioneer work of Yamagiwa and Ichikawa posed a question which, despite 51 years of work, remains largely unanswered

today—namely, to what extent is human cancer caused by exposure to chemical and other agents in the environment? Different communities have quite different expectations of developing cancer at particular sites in the gastrointestinal tract. Thus, cancer of the oesophagus is especially common in certain parts of Africa, cancer of the stomach in Japan and Iceland, and cancer of the colon and rectum in certain Westernized countries. The extent of these differences strongly suggests, as pointed out by Dr. HAROLD STEWART in the closing lecture of the Congress, that a number of different environmental factors are concerned. This view becomes compelling in cases where it has been shown that people who migrate from a community where the risk of developing a particular type of cancer is low to a com-

munity where the risk is high experience an increased expectation of developing the disease.

The need to take account of actual and potential environmental cancer hazards was emphasized at the Congress. At a discussion of the cancer hazard from exposure to asbestos Dr. G. RUDALI (Paris) referred to an area around an asbestos mine in the north of Corsica where cancer of the lung or pleura was even today being mistaken for tuberculosis; Dr. L. O. MEURMAN described a high incidence of thickening of the pleura, which may be precancerous, due to casual exposure to asbestos in Finland; and Dr. J. S. HARRINGTON, Dr. F. J. C. ROE, and Dr. J. C. WAGNER described experiments in rats and mice in which cancer of the pleura and peritoneum had been induced by injection of