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GENDER, SEX

Critique of 'the social construction of sex'

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1 Introduction

There has been a controversy on Facebook recently over whether sexual dimorphism is a conserved mamalian trait or a specific social construct in contemporary human society.

Those arguing that it is a social construct cited [Brown(2014)] as an authority. I will in what follow briefly critique the contents of the paper, but first one may ask why bother to deal with this argument at all?

Surely its basic claim is so at variance with the biological sciences that it can be ignored. That would be the case were left wing publications not taking this type of argument seriously. Misunderstandings on these issues have consequences in terms of how marxists frame long term political programmes about the future organisation of society. They also express the ideologies, social being and contemporary interests, of particular groups in in society whose social position inhibits them from being able to put forward a general programme for the progressive restructuring of family relations and family forms. So in a second section I will touch on these topics.

Another reason to deal with it though is to illustrate just how remarkably low the scientific

standards of what can now pass as marxist social theory are. The contrast between the standards of evidence that Brown adduces to back a case, and those that were used by Marx, Lenin or Kautsky is striking.

2 The critique

2.1 Brown's argument

Brown set out to critique the concept that there exists a socially constructed system of male and female gender superimposed on an underlying biological distinction between males and females. Brown wants to argue against the academic view that

Sex, on the other hand, is claimed to be innate, based on immutable biological factors. This view still upholds an essential maleness and femaleness. Males have penises, females have vaginas, females develop breasts and the ability to bear children, males do not, or so it goes, but it is acknowledged that gender expression may not be tied to these characteristics in a rigid way.

In evidence against this Brown says that of the methods used by the medical profession to determine sex : chromosomes, genitals, gonads, hormones and secondary sexual characteristics, all show some variation within each given sex. And that because of this variation, the distinction between male and female is, Brown claims, invalid and purely a social convention.

When we consider all five of these criteria, it becomes clear that a majority of humanity does not fit neatly into the male and female classifications.

2.2 Weaknesses of the case

Brown's conclusion is not backed up by any statistical evidence from epidemiological or demographic papers to support this surprising claim that the majority of the population are neither male nor female. To make a valid claim Brown should have been explicit about the calculation procedure used.

The most charitable interpretation is that the conclusion is based on an underlying misunderstanding of how sex classification works. When Brown concludes that : 'majority of humanity does not fit neatly into the male and female classifications', the assumption is being made that to be classified as female a baby would have to have XX chromosomes, a characteristically female hormonal balance, ovaries and clearly female genitalia. Let p_f be

the probability that a baby fits neatly into the female classification and let p_h be the probability that the hormonal test succeeds for femaleness, p_g the genital test, p_o the ovary test, p_c the chromosome test. Brown's hypothesis appears to be that the classification process is multiplicative thus:

$$p_f = p_h \times p_g \times p_o \times p_c$$

and that the 4 tests are statistically uncorrelated. Given the m/f sex ratio for infants is about 51/49 each of these tests would have an expected value close to $[1/2]$, so under these assumptions $p_f = [1/2]^4 = [1/16]$ and similarly for males, which would lead to the conclusion that only $[1/8]$ of the population were clearly male or female; which would be compatible with Brown's claim.

But of course the tests are not uncorrelated. The traits are highly correlated so it is adequate in the great majority of cases to simply carry out a genital examination.

Existing census and birth certificate data is based on nothing more elaborate than this. Using such data the literature shows that the incidence of infertility in women so classified is of the order of 10% and among men slightly less [Thonneau et al.(1991)Thonneau, Marchand, Tallec, Ferial, Ducot, Lansac, Lopes, Tabaste, and Spira]. Incidences of infertility vary geographically, for example areas where sexually transmitted diseases have a high prevalence can be significantly greater but in such areas availability of modern medicine is able to bring the rate down[Belsey(1976)]. Note that the incidence of infertility given is for all sources, genetic causes, effects of STDs, and cultural factors like the postponement of childbearing until later in life. So even on the most stringent definition of what it is to be a man or a woman : being able to either father or bear children, 90% are not only sexually differentiated but are reproductively competent.

The rest of Brown's argument concerns the process by which male or female identity is assigned to babies with rare genetic abnormalities. XXY and XYY abnormalities occur at less than one in a thousand births[Hamerton et al.(1972)Hamerton, Ray, Abbott, Williamson, and Ducasse,Jacobs et al.(1992)Jacobs, Browne, Gregson, Joyce, and White]. It is reasonable to accept that in this, very small, congenitally reproductively incompetent population the assignment of sex as male or female is an entirely social construct. But to generalise from this clearly unrepresentative sample to the whole population would violate all normal scientific sampling procedures.

Brown's hypothesis, that sex in humans is socially determined, although currently unsupported, is in principle testable. One could randomly select a group of neonates and perform a blinded categorisation of them as male or female. That is to say, the categoriser would be denied all knowledge of the infants' genital morphology. They could then be brought up from birth so that they were consistently treated as belonging to their blind-assigned sex. If Brown is right, on maturity about 90% of the blind assigned females would have grown up to be reproductively competent women capable of giving birth to live offspring.

The stringent isolation and control that such an experiment would require are reminiscent of that of James IV who isolated infants on Inchkeith to see what language they would naturally speak:

The king gart tak ane dum woman and pat hir in Inchekeytht and gaif hir tua zoung bairnes in companie witht hir and gart furnische them of all necessar thingis pertening to their nurischment that is to say, meit, drink, fyre and candell, claithis, witht all wther kynds of necessaris quhilk (is) requyrit to man or woman desyrand the effect hierof to come to knaw quhat langage thir bairnes walk speik quhene they come to lauchful aige. Sum sayis they spak goode hebrew bot as to myself I knaw not bot be the authoris reherse. (Robert Lindsay cited in [Campbell and Grieve(1982)])

I do however suspect that anyone attempting to test Brown's hypothesis would encounter difficulties with a modern scientific ethics committee.

3 The implications

Towards the end of the article Brown remarks

Readers may note that thus far, there has not been anything particularly Marxist about our analysis.

This is somewhat of an understatement. This reader noted not only that there was nothing Marxist about the analysis, there was nothing remotely scientific about it. If one looks at works of classical Marxism [Marx(1887),Engels and Hunt(2010),Lenin(1964),Lenin(1999),Kautsky(2014)] one sees clear testable propositions, explicit maths, extensive use of evidence, either original statistical ones or historical ones and scrupulous reference to these sources. These are all a standard part of scientific argument, but are missing from Brown's paper.

Why does this matter?

First because it makes the left look silly and credulous if it accepts extraordinary propositions without strong supporting evidence. We know that humans are placentals mammals and that all such are characterised by sexual reproduction with two sexes, internal fertilisation, and lactation in females. In all placentals the same basic genetic sex determination process occurs[Ferguson-Smith(2006)]. It would be quite surprising were this to have suddenly changed in the short evolutionary span that separates us from our closest relatives. To prove this you would need a huge mass of data or a really crucial experiment.

Secondly because in the absence of scientific investigation ideology steps in instead, in this case the ideology of the transsexual community. The substitution of ideology for science is bad enough, but the substitution of the ideology of a non-reproductive group in society for Marxist analysis of gender relations is detrimental to the development of a communist programme for the transformation of family relations.

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