AMNIOCENTESIS FOR SEX SELECTION

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In amniocentesis, a needle is inserted into the uterus of a pregnant woman and a sample of amniotic fluid (which surrounds the fetus) is withdrawn. This fluid contains cells sloughed off from the fetus which are then cultured to detect any chromosomal or metabolic defects. An ever-expanding number of diseases of the fetus may be detected, including such conditions as Tay-Sachs disease (in which the infant suffers from blindness, convulsions, progressive muscular dystrophy, and mental deterioration, and inevitably dies within the first few years of life) and Down's syndrome (commonly known as mongolism). The amniotic fluid is presently removed at around sixteen weeks (gestational), the cells cultured for several weeks, and if the fetus is found to suffer from some defect, the parents may opt for an abortion, which would then be done at about twenty weeks.

The fetus's sex is one of the characteristics which may be ascertained by this technique. This fact has importance, because some defects, such as hemophilia (bleeding), are not directly detectable, but are sex-linked. Thus certain parents know that half of their male offspring would inherit this disease, and may choose to abort any male fetus to avoid children who suffer from the defect.

However, some parents care about the sex of their children for non-medically related reasons. In a few cases, such parents have approached genetic counselors requesting amniocentesis in order to determine the sex of their child and abort it if it is not of the preferred sex. Thus amniocentesis may potentially be used to determine the sex
that the children in one's family will have.

The possibility of using this technique for this purpose raises a whole cluster of moral questions. If a woman (or both parents) are concerned about the sex of the child, and amniocentesis is available, is it morally legitimate for her (or them) to use this procedure in order to select the sex of the child? If an existing prenatal diagnostic unit receives a request to perform amniocentesis for this purpose, ought the unit to accede to it? If such a unit is willing to provide this service, but an individual physician who works in the unit feels such a use of the procedure to be morally objectionable, must he or she nevertheless comply with such a request? In my remarks, I shall address myself to a single question: is it morally permissible for the state to establish public institutions which will provide amniocentesis for sex selection purposes? I shall focus on this question because it seems to go to the heart of the issue as most people think about it. Most prenatal diagnostic units are presently financed, directly or indirectly, by public funds; and publically funded institutions present a different moral question than privately funded ones, which presumably have greater freedom to use their resources as they find appropriate. If we were to ask whether or not currently existing prenatal units may perform amniocentesis for sex selection purposes, we might get into difficult questions about the present mandates of those institutions. Thus to keep clear of such problems, I phrase the question in terms of what the public may establish institutions to do. I shall proceed by examining a number of the arguments which have been, or might be, urged against the public provision of amniocentesis for sex selection purposes, and attempt to ascertain their merits.

1. It is frequently argued that use of amniocentesis for sex selection purposes represents an unjustifiable allocation of scarce resources; that is, the facilities and personnel presently capable of performing amniocentesis are too few even to handle the current demand from families where the fetus is at risk for some serious defect, and hence that it would be wrong to use these facilities to satisfy families who are concerned about the sex of their child, a concern which must be seen as less grave.

We must distinguish here between the current actual demand on prenatal diagnostic units from families whose offspring are at risk for serious defects, and current potential demand from such families. The large numbers of families who might profitably use amniocentesis to prevent seriously defective children, but who do not now request this service, are irrelevant to our concern, since we are speaking about the distribution of currently existing resources. There would be no point in denying amniocentesis to families for sex selection, and thereby allowing resources to go unused, just because there are many families who might make better use of these resources, but in fact would not. But if the actual demand on these resources from families in great need is presently greater than can be handled, then of course they must be denied to families whose concern to determine the sex of their child is of lesser significance. Comparing the needs of the families in these various groups is not a simple matter, but I will defer comment on it until later. For the time being we can grant that the need of at least some families who wish to select the sex of their child is less than the need of some families who wish to prevent the birth of a seriously defective child. If not everyone can be served, clearly those with greater need have priority.

It should be emphasized, however, that this sort of argument at best has temporary import, since its cogency will diminish as more and more facilities capable of performing amniocentesis spring up. Those who feel that their objection to using amniocentesis for sex selection will not diminish under these circumstances must find their case elsewhere.

2. It is sometimes argued that amniocentesis is dangerous to the mother, and consequently ought not to be undertaken for anything less than serious reasons, more serious than the desire to select the sex of one's child.

There are two reasons why this argument is infelicitous. First, the danger to the mother is extremely slight. A study completed in 1975 by the National Institute of Child Health and Development showed that of the 1040 women in the study who had undergone amniocentesis a few suffered minor complications; for example, eleven suffered some vaginal bleeding. But there were no deaths, and there were no significant differences in the complications of pregnancy or delivery (Fowledge, 1976). An extensive British study, completed more recently, found no ad-
verse effects to the mother that could be traced to amnio-
centesis itself, aside from occasional sensitization of
Rhesus D-negative patients, a sensitization which apparently
can be avoided by giving the mother an appropriate serum at
the time of amniocentesis (British Journal of Obstetrics and

But second, refusal to perform amniocentesis for sex
selection because of alleged danger to the mother is pure
unjustified paternalism. Even if the mother's life and
health were moderately threatened by the procedure, still
it is her life and health, and therefore the choice of whether
or not to so endanger them must be hers, unless such a choice
can be shown to be irrational, which cannot be presumed in
this case. The medical establishment has no qualms about
allowing people to subject themselves to more dangerous
procedures (e.g., breast augmentation surgery, and tubal
ligation) for reasons which are equally a matter of pre-
ferred life-style, and it should have no qualms on this
score in the case of amniocentesis either.

3. It might be argued that performing amniocentesis
for sex selection is objectionable because it is unjust;
it involves sacrificing the interests of a group of fetuses
for the sake of enhancing the interests of other persons.
There are two variants on this. The first version points
out that those fetuses of the non-preferred sex who are
subsequently aborted have had their interests sacrificed
to improve the lot of others, namely their parents. The
second version of this argument focuses on the fetuses
which are found to be of the preferred sex. They are not
(voluntarily) aborted, but it is alleged that some of them
will nevertheless suffer harm as a result of the procedure
of withdrawing amniotic fluid, and of course they do not
benefit from this procedure. The interests of these
damaged fetuses will have been sacrificed to procure a
benefit for their parents.

In the American study cited above, there was no statisti-

cally significant difference between the number of women
having amniocentesis and those in the control group who
subsequently suffered spontaneous abortions. The same study
found no difference in the rates of prematurity in the two
groups, and there were no cases where the infant was
brought to term and showed direct or indirect injury from
the amniocentesis (Powledge, 1976). However, in the more
recent British study, the fetuses subjected to amniocentesi
experienced an increased incidence in mortality of between
1.0 and 1.5 per cent. They also suffered slight increases
in respiratory diseases after birth, and major orthopedic
postural defects, such as club feet and congenitally dis-
located hips (British Journal of Obstetrics and Gynaecology
1978). The difference in findings between the two studies
may be explicable by the fact that the procedures in Britai
were performed in a greater range of institutions, and by
practitioners exhibiting a greater range of expertise and
experience. In any event, the later study appears to show
that a small percentage of the fetuses who were subjected to
amniocentesis for sex selection purposes, and found to be of
the preferred sex, would suffer somewhat both in mortality
and morbidity as a result of the amniocenteses.

We can conclude that there are two classes of fetuses
whose interests would be sacrificed to promote the welfare
of others if amniocentesis for sex selection purposes were
permitted: the fetuses found to be of the non-preferred
sex, and subsequently voluntarily aborted, and those found
to be of the preferred sex who were then spontaneously abor-
ted, or suffered harm to their health. But does it follow
that performing amniocentesis for sex selection results
in unjust treatment of these fetuses, and hence is morally
unacceptable? It is true that we are in general reluctant
to harm one group of children or adults by treatment which
they cannot benefit from, merely in order to improve the
lot of a distinct class of persons. The practice of slavery
is objectionable on these grounds, and so is the practice
of conducting hazardous medical experiments on unconsenting
subjects who do not stand to benefit from any knowledge
gained thereby. However, this reluctance does not seem to
carry over so strongly to our treatment of fetuses. For
example, aborting a fetus found to have a chromosomal de-
fect often involves sacrificing its interests to those of
its parents. For unless the disease it would suffer is
severe enough that we can literally say "It would be better
off if it never lived" (and this is far from true in every
case), then it is not the fetus's interests, but rather
those of the parents or of society, which dictate that the
abortion be performed. Similarly, when male fetuses are
aborted to avoid the birth of a child who would suffer from
hemophilia, half of these fetuses are found to be normal.
The abortions thus benefit the parents, and possibly the
fetuses who would have suffered from the disease, but they
harm the fetuses who would not have suffered from the disease. Thus we are not completely unwilling to sacrifice the lives of some fetuses in order to enhance the welfare of other fetuses or adults. Amniocentesis for sex selection purposes would not be unique in this regard.

It might be argued that we are only willing to risk the lives of fetuses in this manner because we do not regard fetuses as genuinely having interests, and hence do not regard those who are aborted as having been harmed by their deaths. But even if we grant this point of view, it is nevertheless true that infants and children do have interests, and that these interests are jeopardized by subjecting them as fetuses to amniocentesis. Any amniocentesis, whether undertaken to detect the sex of the fetus or a suspected genetic or metabolic abnormality, exposes the infant to the slight risk of respiratory distress and orthopedic difficulty described above. Although these problems appear to be remediable (British Journal of Obstetrics and Gynaecology, 1978), nevertheless they may impede our use of restraint in employing amniocentesis for the detection of fetal abnormalities. But no one has advocated complete abandonment of amniocentesis in these cases on the grounds that some infants and children are having their interests sacrificed to the welfare of others. It is unclear what we should conclude about the use of amniocentesis for sex selection purposes. It might be thought that infants harmed by the procedure would have their interests sacrificed for a less significant good, namely their parents’ more preference about family structure, and hence that the sacrifice is less acceptable. But it appears we cannot derive an absolute bar to amniocentesis for this purpose from the mere fact that some will thereby have their interests sacrificed to others; at best we must weight the harms against the goods to be obtained in order to derive any stricture against use of the procedure for this purpose.

4. It has been argued that we have no right to choose the sex of our children, and hence that it is wrong to employ amniocentesis to secure this end.

I mention this argument chiefly to dismiss it: it is an example of the generally discredited view that it is morally wrong for us to do anything which controverts the order of nature. But since many of our most useful and admirable achievements (such as the eradication of smallpox, the discovery of penicillin, the building of dams to avert fatal floods, and the growing of corn to feed ourselves) involve contending against the order of nature, few are willing to maintain this position on even superficial reflection. Those who are attracted by this particular application of this view should consider whether they are equally opposed to pre-conceptive techniques for selecting the sex of one’s children which are currently being developed (Science News, 1979). I suspect many will not be; this suggests that the heart of their objection to amniocentesis for sex selection lies elsewhere.

5. It is frequently argued that amniocentesis for sex selection purposes should not be made available because widespread use of it would lead to socially undesirable consequences. The central worry is that many more female fetuses than male fetuses would be aborted, with a resultant imbalance in the population’s sex ratio.

Whether or not this is likely to happen depends on the attitude towards males and females in the society in question. In China, this sort of fear seems well-grounded: when an experimental non-invasive procedure was made available for determining the sex of a fetus, 100 screenings resulted in 90 abortions, 89 of which were female fetuses (Medical World News, 1975). Any widespread extension of this practice would obviously lead to noticeable changes in the population balance and all the attendant disruption.

Evidence suggests, however, that the problem is not likely to be so grave in the United States. A National Fertility Study has shown that American families are not biased towards male children per se, but rather towards a family consisting of two children, the first-born being male and the second-born being female (Medical World News, 1975). Thus any widespread employment of sex selection techniques in this country would apparently only lead to a small imbalance in the sex ratio over the short term. However, society in which most families conformed to this preferred structure would have other, potentially serious, problems: it would be more homogeneous, there would consequently be less opportunity for individuals to develop their different potentials, and it would undoubtedly be characterized by even more deeply entrenched sexual stereotypes. Research has shown that first-born children show more “male” character traits, e.g. they are more competitive and have higher achievement drives (Hetherington and Parke, 1975). If all
or most first-born children were male, whereas all or most females were second-born, it would become increasingly difficult for women to establish themselves as competent at the skills standardly associated with masculinity. This would be a serious social cost.

It is unclear how widespread the practice of using amniocentesis for sex selection would become if it were made widely available. At present, both amniocentesis itself and any subsequent abortion are relatively expensive and so only available in practice to a small number; both procedures, especially the late abortion (which cannot be done earlier than at 20 weeks), are psychologically difficult for the mother to undergo; and the late abortion carries significant risks to the mother’s health. On the whole, then, it seems unlikely that the availability of amniocentesis for sex selection purposes would have a significant effect on the sex ratio or family structure of the population of the United States. Thus this argument against the practice has only marginal impact. However, this issue is one which will have to be confronted directly as simple pre-conceptive measures for selecting the sex of one’s child are developed.

One thing seems clear: if governmental provision of a non-essential service, such as amniocentesis for sex selection, results in a pattern of activity which is highly detrimental to the fabric of society, then the government may legitimately halt the provision of this service. In doing so, the government would merely be withdrawing a benefit which it is not obliged to provide, and so could not be described as thereby harming the citizens (just as it could not be seen as harming the citizens if it ceased publication of consumers’ information pamphlets). The moral issue would become much more difficult if social disruption could only be avoided by restricting the liberties of citizens by making provision of this service through private agencies illegal. But there are a number of intermediate policies which might be deployed before this harsh a step need be taken.

We may conclude tentatively that governmental provision of amniocentesis for sex selection is unlikely to have a significant effect on the fabric of society, although other technology that will become available in the near future may well. If this is a genuine danger, the state has no obligation to provide these services through its agencies.

6. Many people who object to amniocentesis for sex selection do so on the grounds that aborting a fetus in order to avoid a child of the non-preferred sex is wrong, and hence that any act, such as amniocentesis, which leads to such an abortion is wrong as well.

We need to distinguish several issues here. First, this objection assumes that if abortion for sex selection is wrong, it would also be wrong for the practitioner to perform the amniocentesis which leads to this abortion. But this is not an easy question to resolve. Expanded into a general principle, it implies that, for example, a doctor who originally gave fertility assistance to this couple which enabled them to become pregnant, also acted wrongly (although perhaps unknowingly), since his or her act also led to the later wrongful abortion. This may not be so plausible a judgment. Questions of this sort are problematic in the law as well: what counts as acting as an accessory to a crime before the fact? Is it illegal to sell heavy-duty chain cutters which are known to you to be used for virtually no other purpose than the theft of bicycles? In many jurisdictions, the agent does not count as an accessory before the fact unless he not only knows the crime will be committed, but also has the purpose of procuring that crime through his contributing action. On this model, a doctor who performs amniocentesis for patients who wish to determine the sex of their child is not morally reprehensible unless he both knows and approves of their purpose.

Second, let us look at the issue of abortion itself, and the question of whether or not abortion for sex selection is wrongful. Clearly this issue is a large and complex one, which cannot be resolved satisfactorily here. But it is worthwhile to point out a range of possibilities. Someone who feels that a fetus is not a moral person, and has no independent right to life, clearly cannot object to abortion for sex selection on the grounds that such abortions violate the fetus’s right to life. Someone who feels on the other hand that the fetus is a moral person who possesses a right to life (of greater or lesser strength) must ask whether its right to life can be outweighed by its mother’s right to control her body and life. Some will feel that the fetus’s right can never be outweighed, and hence that every abortion for sex selection is wrong. Many people who believe that the fetus has a right to life nevertheless also concede that this right must take second place to that
of the mother when the effect on her life or health of the pregnancy or of having a child would be severe. The question for them in this case is whether or not the effect on the mother's life or having a child of a non-preferred sex can be sufficiently severe to warrant aborting the child. In many cases they might well feel that the effect would not be severe enough. But there are other cases where this is less clear: where there is a strong cultural bias in favor of having at least one child of a certain sex, or where the family stands to gain a significant inheritance if they have a child of a given sex, or where there seems to be a substantial possibility of child - or wife - abuse unless the child is of the desired sex. In some cases, the effect on a family of having a child of the non-preferred sex might be just as grave as the effect of having a child with Down's syndrome.

But if it is admitted that in some cases having a child of the non-preferred sex might be such a burden to the family that it would be legitimate for them to have an abortion, then we face the public policy problem of having to determine on a case-by-case basis whether or not the family at hand is one for which this would be true. Rather than invade people's privacy in order to determine this, it may be better policy simply to allow all abortions for sex which the parents desire, without attempting to investigate which ones are genuinely acceptable and which ones are not. If society adopts this stance towards abortions for sex selection, then two choices with regard to amniocentesis for sex selection would seem to be morally available to it: either it may choose to provide prenatal diagnostic units where amniocentesis for this purpose may be obtained, on the ground that this is a legitimate service for those who genuinely need it; or it may refuse to provide units where amniocentesis for this purpose may be obtained, on the ground that it is not required to perform such services, especially when the provision will in some cases lead to wrongful abortions (even though the wrongful abortions are ones which it chooses for policy reasons not to prohibit). Either course would seem to be equally acceptable.

The connection, then, between the moral status of abortion and that of amniocentesis for sex selection is extremely complex; it would be misleading to draw any simplistic conclusions in this area.

7. The final argument against amniocentesis for sex selection focuses on the possibility that if the procedure were made widely available for this purpose, the fetuses subsequently aborted would primarily be female. The argument alleges that this pattern of activity would constitute an injury to the self-respect of female members of society and that it would consequently be wrong for society to provide a service which has this undesirable effect.

The idea here can be grasped by thinking of the parallel case of the first child in a family who is born with some serious genetic defect. When the mother becomes pregnant for a second time, she may undergo amniocentesis to determine if the fetus suffers from the same defect, and if it does, she may then elect an abortion. Occasionally the first-born child in this situation finds out about the abortion and the reason for it. He is then placed in an extremely difficult position, for it becomes irresistible for him to ask whether or not his parents would have aborted him, too, if only they had known of his defect, and to surmise that his parents would prefer in some sense that he had never been born. This sort of speculation must undoubtedly produce a severe psychological cost for any child who undertakes it.

Similarly it may be maintained that if there is wide spread abortion of female fetuses, just because they are females, then women who survive, or who are already members of society, will experience degradation in their sense of self-respect. They will perceive that in the minds of some families, mere feminality is an adequate reason for abort a child -- for the mother to undergo the danger and expense and for the child's life to be terminated by what many regard as straightforwardly killing it. Such abortions seem to reflect a strongly discriminatory attitude, in the more pejorative sense. It may well be wrong for the state to provide a service which enables families to express such attitude through these abortions, since the provision of the service creates at least the appearance that the state tolerates and even condones this discriminatory attitude. By the same token it would be wrong for the state to appe to condone racially discriminatory attitudes by funding organizations such as the Klu Klux Klan which result in a substantial insult to the self-respect of a large group of citizens.

As a nation we believe it is permissible to legally bar activities which humiliate groups, such as discrimina
tion in housing, even though no one may suffer worse housing as a result of these activities. We have hesitated, however, to extend this ban into more intimate situations. For example, in many jurisdictions, housing regulations are not applied to two-unit owner occupied dwellings, because it is not felt that the state should have the power to interfere in this manner with the private lives of citizens.* It might be concluded that it would be wrong for the state to legally bar amniocentesis for sex selection, since the composition of one's family is one of the most intimate aspects of private life. And this might be correct. However, once again we must note that we are not discussing whether or not to make amniocentesis for this purpose illegal, but rather whether or not the state may establish prenatal diagnostic units which perform amniocentesis for this purpose. And it may be acceptable for the state to refuse to do this (since it constitutes a non-essential service), even though the state may not make such amniocenteses illegal—just as many people in this country feel that the government may not make abortion illegal, it may refuse to finance abortions for those who cannot pay themselves. Thus we may conclude that it would be morally acceptable for the state to refuse to provide this service in state-owned prenatal diagnostic units—if it is true that female fetuses would be in the large majority of those aborted (and we have already seen reason to suspect this would be false), and if it is true that the practice would be widespread enough to damage the self-respect of surviving women. Both of these are difficult empirical questions.

After surveying a range of arguments which might be adduced to show that the state should not establish prenatal diagnostic units which perform amniocentesis for sex selection, we have found four which show some promise of being successful. (1) All amniocenteses threaten the health of those fetuses who are not subsequently voluntarily aborted, and it might be shown that the good to be gained from allowing families to determine the sex of their children is not sufficient to outweigh this harm. This is a difficult question of weighing goods and harms, but it should at least be noted that the harms in question are rare and typically not too severe. (2) If widespread availability of amniocentesis for sex selection significantly upset the sex ratio within society, or otherwise damaged

*I owe this example to Allan Gibbard.

the fabric of society, then it would be permissible for the government to refuse to establish centers where amniocenteses for this purpose were obtainable. However, it seems dubious that this would actually occur. (3) On some views about the permissibility of abortion, and about the permissibility of acts which lead to further wrongful acts on the parts of other persons, it would be wrong to provide information to couples who would then obtain wrongful abortions for sex selection. But the moral issues here are extremely complex, and cannot readily be resolved. (4) Finally, if widespread availability of the procedure resulted in many more abortions of female fetuses than of male fetuses, and this in turn resulted in damage to the self-respect of women it would be open to the government to refuse to provide this non-essential service. Once again the empirical questions here are critical, and it is not clear that the facts necessary to the success of this argument would be found true.

*I am indebted to Deborah Heyner for psychological information relevant to the fifth argument.