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Writing Assignment #4

 When we think about science in the world today, what comes to mind most often are the ways in which humans create science and the ways in which the results of science affect our lives. For example, we may talk about the groundbreaking discoveries made by recent Nobel prize recipients or the development of new drugs that treat diseases that affect ourselves and our loved ones. However, some of the more subtle aspects of science also impact our lives in important ways. The methods and implicit messages of science are nearly as influential as the tangible products and results published in papers. The works of Taussig, Rapp, Heath, Oudshoorn, Thompson, and many other anthropologists explain how science shapes our identities, responsibilities, and relationships to the people around us in interesting ways.

Biosociality is the way in which people produce new social groups based on common biological features. A great example of this is the Little People of America (LPA) which is an organization of people throughout the country who have heritable dwarfism or some other biological trait that significantly limits their height. Recently, there has been a surge in research surrounding genetic diseases such as dwarfism. The success of these projects has been revolutionary, but also problematic, especially for the people living with dwarfism. The discovery of specific mutations that cause these conditions has opened the possibility for prenatal genetic screenings which has generated fear and unease among many of the so-called “Little People”. Having access to this knowledge prior to birth would likely influence people’s reproductive decisions and lead to what the is known as “flexible eugenics,” the process by which certain types of people are accepted in society and encouraged to reproduce while others are not. A declining dwarf population due to flexible eugenics is unsettling to many Little People on a theoretical and practical basis. Although disadvantaged by their genetics, Little People still find their lives to be worth living and meaningful. The idea that it would be better for someone with this mutation to never live is a deeply insulting and upsetting attack on a central aspect of their identity. Also, the Little People find strength in numbers, as seen in the workings of the LPA. A decreased population would lead to even less visibility in society and access to accommodations which help them to live more comfortably.

Another new scientific development which addresses dwarfism is limb lengthening surgery. While some are thrilled by the opportunity to become more “normal”, many Little People view the surgery as an unnatural and unnecessary hassle. The effort and enthusiasm of scientists that have worked to develop preventative measures and treatments for dwarfism have framed the condition as something that should be avoided if possible or actively combatted if it is already too late. These social biases towards atypical bodies and the science that reinforces these biases have a great impact on the identity and self-image of Little People who are forced to live in a world which does not fully understand or accept them.

In addition to shaping our identities, scientific practices can also incur certain responsibilities onto certain groups of people and not others. For example, reproduction requires contributions from both a man and a woman, but contraceptives are almost exclusively developed and marketed for women. This is not because male contraceptives cannot exist, but rather because scientists have not tried nearly as hard to develop effective ones. Many scientists have defended the prevalence of female contraceptives over male equivalents based on the idea that it is more natural and simpler to interfere in the woman’s reproductive system. However, others have said, “There is no evidence that it is more difficult to prevent ‘billions’ of sperm from being produced, or acting, than one egg.” The current disproportion of contraceptive options is not grounded in scientific differences between male and female bodies, but rather in the culture that has constructed the norm and continually reinforced it. The lack of research and motivation to develop male contraceptives has given men less opportunities to take control or ownership over reproductive health in their relationships, leaving women as the primary bearers of what should be a joint responsibility.

Scientific practices have also shaped reproductive relationships in other ways, especially with the emergence of Alternative Reproductive Technologies (ART). In fertility clinics, concepts of biology and nature are applied inconsistently to define kinship in whatever way produces the desired relationships between all the parties involved in the reproductive process. There is no consensus on what defines relatedness between individuals. Mothers can choose to point to common genetics or to shared biological materials through gestation or to cultural roles as the basis for their relatedness to a child. This flexibility allows appropriate relationships to be maintained and inappropriate ones, such as incest, to be avoided in almost any scenario. These new technologies are amazing in that they provide an opportunity for couples that face reproductive struggles to start a family, but they also have raised questions about what defines kinship. These issues have largely been resolved or avoided by keeping the definitions open to individual interpretations.

The way science is pursued, what science is pursued, and the language that surrounds it greatly influences our conceptions of ourselves and our relationship with nature and others. It is not only an academic field, or a way of accumulating facts about the world, but it is also the fundamental basis of how we understand ourselves and our place in the world. In this age of rapid scientific and technological advancements, we increasingly see ourselves as the sum of our biology, and these physical and genetic qualities identify us as members of certain social groups, as bearers of certain responsibilities, and as related to certain people.