## **Book Review of** *Nature's Choice:*

What Science Reveals about the Biological Origins of Sexual Orientation

by Neil Whitehead<sup>11</sup>

<sup>&</sup>lt;sup>11</sup> Neil E. Whitehead earned his PhD in biochemistry in 1971 at Victoria University of Wellington, New Zealand, and was employed as a scientist with the New Zealand government for 24 years and with the United Nations for 4 years. More recently he was a scientific research consultant. He has authored more than 100 professional papers while living and working in New Zealand, India, the United States, France, Japan, and Afghanistan.

Nature's Choice: What Science Reveals About the Biological Origins of Sexual Orientation by Cheryl Weill (New York: Routledge, 2009) is a book intended to offer support and encouragement to parents and others whose loved ones are living—or wish to live—openly as gays and lesbians. It seems particularly directed at parents, many of whom are members of Parents and Friends of Lesbians and Gays (PFLAG), a progay organization that encourages support of gays and lesbians and parents who want to support their children and loved ones in living an openly homosexual lifestyle.

It is hardly surprising that a book like this is directed at parents, because parents easily blame themselves for the sexual orientation of their children. The line of comfort this book takes, as suggested by its title, is basically, "Your children were born this way and it is necessary to learn to live with this."

According to the biographical details in *Nature's Choice*, author Cheryl Weill was an assistant professor in the hard sciences at the University of Colorado; after retirement from the university she became a licensed social worker in Boulder, Colorado. She is self-identified as a lesbian, but the book is most refreshingly nonstrident in tone. Her definition of *sexual orientation* includes the delightful phrase, "charmed and bewitched by another person."

Weill's book offers a good compilation of much of the basic science that surrounds the whole subject of homosexuality. Readers who are looking for information about *potential* biological influences would get most of that pertinent information from this text.

Weill mentions that there is no inextricably associated mental disorder related to homosexuality and that homosexuality does not interfere with any vital function. But that prompts the question: Isn't one of mankind's vital functions to continue the human race? In spite of a very small group of lesbians or gays who conceive and bring up children in a technically assisted way, the basic ideal of homosexuality is sex with someone of the same sex—a reproductively empty act.

Weill is also an enthusiastic fan of the "neurohormonal hypothesis," a theory stating that sexual orientation is fixed in a critical period before birth and remains unchangeable and hidden until near puberty. This theory is more usually called the "organizational-activational hypothesis," and it really goes back to research published in 1959 (Phoenix, Goy, Gerall, & Young, 1959). Most of Weill's book surveys findings that are at least consistent with that idea. But that hypothesis is not currently popular. Today's researchers maintain that there are other periods of hormonal exposure near birth and at puberty that are generally more important and that there is also a lot of environmental influence on the development of sexual orientation (Whitehead & Whitehead, 2010).

My Genes (Whitehead & Whitehead, 2010) is a book that is also directed at parents, but it is intended as a support to parents of those who wish to exit a homosexual lifestyle. Unlike Nature's Choice, My Genes argues that sexual orientation changes. Weill's book does provide more detail in some areas than is given in My Genes. One that deserves special praise is dermatoglyphics, the theory that sexual orientation is connected to fingerprint type. Is this saying gays/lesbians leave special identifiable fingerprints behind? Weill says only that the data are "consistent with the theory," whereas My Genes maintain that there is usually an estimate of effect-magnitude—in other words, there is a very large overlap in the fingerprint type between homosexuals and heterosexuals.

My *bête noire* is Weill's use of the word *determined*, which she uses with a range of meanings from "slightly influenced" to "totally predestined." Scientists favor the former; activists like the latter. Like so many others, Weill uses the word without giving it even a semi-quantitative meaning. (Surely the word *determined* should have its meaning clearly determined!) She mostly neglects estimating how strong the biological influences she surveys may be, and I believe she might be a little surprised at the low results if she did. Her use of twin data only examines the older (pre-2000) surveys in detail. These accidentally used biased samples, and twin studies scholars would want to assert a much lower genetic influence than she quotes.

According to Weill, there is no survey of cultural differences or psychological development factors that might produce same-sex attraction (SSA). She says that if credible social causes for homosexuality had been published she would have surveyed them, but "there are no data" (p. 187). This is a remarkable statement. She does not accept that accounts of personal change constitute valid data, but instead apparently prefers sociological surveys, which are usually the worst possible tool to show individual reactions. However, even in the sociological literature, many papers show unassisted or assisted change of sexual orientation in the population with time (Spitzer, 2003; Whitehead & Whitehead, 2010). Her reaction is typical of many and is quite mistaken. The critical query must rather be: How far can the most striking individual cases be applied generally? This has always been the attitude in psychotherapy.

Her overall conclusion is:

"We must remain open to what the future will reveal to us about ourselves and the world in which we live. What is revealed is nature's truth. None of us gets to choose who we are, when and where we are born, and the circumstances into which we were born. Similarly none of us gets to choose whether we are male or female, naturally left- or right-handed, gay or straight. Perhaps in a way, we are all here to only discover and live nature's truth as it is expressed in each of us the best we can ..." (p. 194).

There are certainly a lot of things that none of us can choose, but as we grow and become self-aware, we become able to choose whether we want to stay the way we are, or whether we want to try to make changes.

Weill's conclusion is just another example of the naturalistic fallacy that claims, "What is, is right." No; to decide what should be, one must either use other criteria or must consciously say, "I take as a starting point that the way I am is the ideal which no other ideal can surpass. I will not strive to change." Following that statement, one would

also need to think about Scott Peck's assertion that refusal to consider change is the ultimate evil (Peck, 1983).

I would assert that another truth of nature is that constant change is the norm. The important question remains: How far can we tap that change?

## References

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Editor's Note: Dr. Cheryl L. Weill, author of Nature's Choice, received a BS degree from the College of Chemistry at the University of California at Berkeley in 1969 and a PhD degree in chemistry from the University of California at Santa Barbara in 1974. After additional postdoctoral training in molecular neuroscience, she embarked on an independent research and teaching career in the Departments of Neurology and Anatomy and the Neuroscience Center at Louisiana State University Health Science Center in New Orleans, Louisiana. Her research concerned the survival of neurons during development and the identification of the genes and the molecular signals used by neurons for their survival. In 1993, she presented a lecture on the biology of sexual orientation at the PFLAG National Convention; she has presented updated material on which Nature's Choice is based numerous times to PFLAG chapters, medical and graduate school classes, and groups of laypersons and mental health professionals. She retired from academic science in 1999, obtained a MSW degree from the University of Denver in 2001. She is licensed as an LSW, and is in private clinical practice in Denver, CO.