



COMMENTARY

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## Galileo All Over Again: The Sexual Revolution

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### ARTICLE HISTORY

Received Date: 20 Apr 2023

Accepted Date: 28 May 2023

Published Date: 02 June 2023

The Scientific Revolution—only a professional historian could appreciate how it upset Renaissance Christendom! Yet today's Sexual Revolution and our own "culture wars" have us experiencing a similar impact of massive social change.

In the United States, the Biden administration's liberal stance on LGBTQ issues has again unleashed an unrelenting conservative backlash. Legislatures in some 30 states have passed some hundreds of bills to limit transgender rights although a majority of Americans oppose such laws. Conflicts over gay and trans people are disrupting school board meetings and restrooms around the country. Outstanding for its protection of LGBTQ rights, even Canada sees instances of homophobia, often related to religious beliefs. Opposing sexual diversity and suppressing gay Pride events, Poland and Hungary are bucking the European Union. Controversy thrives even in the Catholic Church. The Vatican has forbidden the blessing of same-sex couples, so some half-dozen dioceses and a document from the Conference of Catholic Bishops in the USA have forbidden treatment of trans persons in Catholic hospitals and virtually banned LGBT students from participation in Catholic programs, including schools. On the other hand, German theologians, Austrian priests, American theologians, and even Cardinal Jean-Claude Hollerich, president of the Commission of the Bishops Conference of the European Union, challenge such teaching. In the midst of a deadly pandemic and catastrophic global warming, sex still makes big news.

The parallels between the Renaissance and today are striking. Yet they are more than parallels. We are experiencing today the same phenomenon that occurred back then: science on the move. It can be reassuring and empowering to know some details of that story.

### The Social Upheaval of the Scientific Revolution

Most of us are at least somewhat aware of the Galileo case—his Vatican-imposed house arrest for insisting absolutely, characteristically bullheadedly, that the sun, not the earth, was the center of the universe. He had accepted the hypothesis of Copernicus. Few actually did so at the time. It took more than a century and a half for scientists to be comfortable with this idea. Still later, finally after 359 years, Pope John Paul II apologized for the "mutual incomprehension" of the Church and Galileo.

Weighty counter-arguments were raised against Galileo: "It goes against common sense: the earth is stable." "Why don't we feel a wind if the earth is rotating?" The Bible offered an explicit argument in Ecclesiastes 1:5: "The sun rises, and the sun goes down, and hurries to the place where it rises." Joshua 10:13-14 offers another argument, saying that the sun stood still in the sky for almost a whole day and implying that the sun, not the earth, moves. Psalm 96:10 says, "The world is firmly established; it shall never be moved." First Chronicles 16:30, Job 9:6-7, Psalms 93:1 and 104:5, and Isaiah 38:8 all make the same assertion. Like arguments about sexual diversity today, the Scientific Revolution was a challenge to both common sense and the Bible.

Later Johannes Kepler showed that the planets move in elliptical, not circular, orbits. Another affront! The supposed perfection of the circle had always been attributed to the heavenly orbs. Still later, Isaac Newton struck another blow to the traditional understanding. He showed that the laws of nature—regarding falling bodies, gravity—apply in the heavens just as on earth. But the heavens were supposed to be unique, made of the mythical fifth element, ether, so they were perfect and unchanging, whereas our world was made of ever shifting and inconsistent earth, air, fire, and water.

### The Religious Challenge of the Scientific Revolution

Modern science abolished the long-believed difference between heaven and earth: they are made of the same stuff, and the same laws of physics apply. Modern science turned the ancient worldview inside-out: the sun is at the center, and the earth revolves around it.

On every front the heavens were not what they used to be. But the heavens were the realm of God—literally, in the common understanding. That ancient worldview was accepted theology as well as astronomy, so religion is inextricably entangled in this story. For the next couple centuries theologians struggled to accommodate this change. It challenged a millennia-long understanding of God's creation. A whole other worldview had to be absorbed.

The same applies to the later discovery of germ theory, which explained disease as a natural phenomenon, not some

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punishment from God. Lightning, too, thought to be God's weapon of retribution, was also cast in a new light. So, too for crop failure, plague, or sudden death.

### **Making Peace with Natural Science**

We now have an acceptable explanation of this massive, this disruptive, cultural shift from the ancient and medieval to the modern world. We realize that through modern science we are, bit by bit more accurately, coming to understand the universe. Comfortably, then, believers continue to praise the Creator—focused on the Bible's primary lesson of justice and love, not distracted by the Bible's flat earth, the mere seven days of creation, the world's age calculated at 6,000 years, or unchanging species formed once and for all. Controversy continues to this day, of course. Strong emotions skew these debates. Some still reject the theory of evolution and insist on select norms of ancient biblical society. Science itself remains under attack. But most people now simply recognize a historical difference in cultures. Without having to adhere to ancient speculation, the "science" of that day, most accept the modern scientific understanding, and believers stand firm in their faith in creation. Despite massive cultural upheaval, Western society has digested the revolution in the natural sciences.

### **The Challenge of the Human Sciences**

Not so, however, when it comes to the social, or human, sciences! They lie too close to home: they are about our very selves. So again, we are living through a passionate struggle to accommodate new ideas. Sexuality is the glaring example.

In fact, we have learned more about sex in the past century or so than was known in all prior human history! Some, for example, have said that Sigmund Freud was preoccupied with sex—but nothing of the kind! In his day, the late 1800's, sex was only then becoming a topic of investigation.

In 1875, only in 1915 in the human case, conception was recognized as the union of the female egg and one male sperm—whereas common belief for millennia saw male semen as the source of new life and the womb and menses as somehow support for its growth. For millennia people did not even know how conception occurs. The invention of "the pill" in 1960 gave women control over conception and advanced women's liberation whereas for millennia—even today in many places—women, a supposed inferior breed, were under men's control and were their property and servants. While same-sex unions and even marriage are now legal in about 30 countries, religions continue to condemn such relationships—the misunderstood "abomination" of Leviticus 18:22 and the misread story of Sodom and Gomorrah in Genesis 18 and 19—and homosexuality is repressed and still punished by death in some societies. While transgender people are celebrated in our popular media, religious teaching continues to insist on a restrictive biblical account: "Male and female [God] created them" (Genesis 1:27). The struggle is fierce. In recent years, it has focused on transgender folk. A Statistics Canada study from 2018 found that LGBTQ people are nearly three times more likely than heterosexuals to be sexually or physically assaulted. Reports of transphobic hate crimes have quadrupled over the

last six year in the U.K. In 2019 worldwide, 331 trans people were reported murdered; in 2020, 350, and in 2021, 375.

Differences over sexuality are a major theme in today's culture wars. The U. S. Supreme Court's de-legalization of abortion has prompted renewed opposition to gay marriage and even contraception, which used to be primarily only a Catholic concern. Just as in the days of Copernicus and Galileo, powerful social forces resist any change in beliefs held sacrosanct for millennia.

### **The Scientific Evidence**

Yet solid science lies behind changing sexual mores. We now know that the genitals are formed in the womb by the 12<sup>th</sup> week, but the brain is "wired" only in the late-2<sup>nd</sup> and 3<sup>rd</sup> trimesters. So biologically based discrepancies between the body and the mind are not only possible but are also real in different degrees in different cases. Repeated animal studies have shown that one injection of a sex hormone at a critical point in fetal development will change the adult sexual behavior of males to female, and vice versa. Similar hormonal effects apply to humans. When exposed to sexual stimuli, the scanned brains of lesbian women "light up" in the same areas as those of straight men, and, again, vice versa for gay men.

Clearly, sexual orientation—hetero-, homo-, bi-, and asexual—and gender identity are natural variations. Not to mention fully biological intersexuality, whereby infants are born with both female and male sexual organs. These variations depend on chromosomal, hormonal, and environmental differences in the womb. Said religiously, they are part of God's creation.

This science is as robust as that behind the early Scientific Revolution, and even more so. Indeed, the Sexual Revolution is the ongoing Scientific Revolution. The social disruption is not surprising. This upset in long revered mores is shaking the foundations of civilization.

### **Sexual Understanding Turned Upside Down**

The traditional belief, inherited from ancient Stoic philosophy, has viewed procreation as the essential or even the only purpose of human sexuality. This notion is now widely disputed. It would certainly be true in the case of most other species, but humans are more than biological organisms. Here is where modern psychology comes in. Humans are persons. So the expression and strengthening of emotional bonds is a major aspect of sexual sharing. Even further, sex plays a central role as people enjoy one another, as they weave dreams and make promises, as they conceive a life together, as they contribute to a noble human society. Sharing dreams and promises, making a praiseworthy life together—these are spiritual concerns, quintessentially human, matters of meaning and value, ideas and ideals, transcendent realities beyond the material here and now. They are hardly mere biology or emotion. Compared to sex between brute animals, human sexuality is above all a matter of interpersonal communion.

The psychological and spiritual nature of humans uses biological functions for higher purposes. Just as eating and

drinking, for more than nutrition, can serve a social purpose among humans—and in religious rituals even convey union with God—so, too, human sexual sharing moves beyond the merely biological. No wonder we speak of having sex as “making love.” No wonder sex was always allowed for sterile or aged couples.

Just as natural science turned the universe inside-out, today’s human science turns sexuality up-side down. Interpersonal communion in humans, a spiritual reality, is the essential; it holds priority over biology. Then sexual sharing would seem to be legitimate in all its natural variations. The ethical criterion would be that, in a way appropriate to each occasion, sexual sharing respects and expresses interpersonal communion. This spiritual criterion is more stringent than traditional ethical guidelines based on the biology of male-female procreative sex. To perform the sex act “properly” would hardly be a concern. Caring, love, enjoyment, and human bonding would be paramount.

### **Toward a New Consensus**

When natural science determined that the earth revolves around the sun, it disrupted centuries of human beliefs and practices. Today, human-science research is disrupting centuries of human beliefs and practices about sexuality. The Sexual Revolution is the ongoing Scientific Revolution. It

is transforming our understanding of basic human realities. Humans are not only male or female. Procreation is not the only legitimate purpose of sex. Relationships between women and between men may naturally include a sexual dimension. In fact, many cultures around the world traditionally accepted these realities.

As the Sexual Revolution goes on, the turmoil of the Scientific Revolution continues to disrupt society and the religions. We can only hope that, with honesty and good will, we will eventually all come to respect the science—and one another. Science reveals, if you will, the complex, varied, and often unexpected configuration of God’s good creation. Would that this realization takes hold more quickly than in Galileo’s case.

**NOTE:** Documentation for this theme is available for free download at <https://doi.org/10.18848/2154-8633/CGP/v09i04/9-19>. Regarding its psychology of spirituality, see Helminiak, D. A., *Sex and the Sacred: Gay Identity and Spiritual Growth* (Harrington Park Press, 2006); *Brain, Consciousness, and God: A Lonerganian Integration* (State University of New York [SUNY] Press, 2015); *The Human Core of Spirituality: Mind as Psyche and Spirit* (SUNY Press, 1996); *Religion and the Human Sciences: An Approach via Spirituality* (SUNY Press, 1998); *Spirituality for Our Global Community* (Rowman & Littlefield Pubs., Inc., 2008); and *Spiritual Development: An Interdisciplinary Study* (Loyola University Press, 1987).