



Color, Healthcare and Bioethics

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5. Color and Bioethics

5.1 Introduction

The world as experienced by human beings is colored. Contrary to the majority of mammals, human beings are able to see colors (as do fish, reptiles, birds and some insects). Colors make life beautiful and agreeable; they make the surrounding world pleasant and interesting. This aesthetic dimension is emphasized by Johann Wolfgang von Goethe when he states: “People experience a great delight in colour, generally. The eye requires it as much as it requires light. We have only to remember the refreshing sensation we experience, if on a cloudy day the sun illuminates a single portion of the scene before us and displays its colours” (Goethe 1970, § 759). Our delightful fascination with colors is noticeable, for example, in the sharing on social media of snapshots of skies of different colors, or in the use of impressive photos of sunrises or sunsets in television weather forecasts. Imagine what it means to live in a world without color; such a world would be dull, unappealing, uninteresting and dark. Dictionaries equate “colorless” not only with an absence of color, but with a lack of excitement or interest. In a metaphorical sense, colorless refers to a life that is sad and depressing, or to an average person without distinctive qualities. Without colors, our perception of the world would be drastically altered. As long as we are not blind, we can still see the outside world; we cannot differentiate between some colors, and in worst cases, we see only black, white and grey hues.

John Dalton (1766–1844), one of the founders of modern chemistry, discovered that his perception of colors was different from other people; he was unable to tell the difference between red and green. When studying botany, he could not distinguish flowers with certain colors, and when he bought clothes for himself and his mother which he thought were

rather dark they turned out to be red (Emery 1988). His brother had the same anomaly, so Dalton concluded that it must be a hereditary disorder. He was the first to describe this condition in a presentation to the Manchester Literary and Philosophical Society in 1794. His self-diagnosed colorblindness became known as Daltonism. The inability to distinguish red and green is the most common deficiency of color vision. The most extreme, and rarest, condition is achromatopsia, i.e. a complete lack of the perception of color. Sacks and Wasserman (1987) describe the case of a painter who suddenly lost color vision after a car accident. He could only see black, white and shades of grey, and became depressed and fearful. His world changed significantly: “It was not just that colors were missing, but that what he did see had a distasteful, ‘dirty’ look, the whites glaring, yet discolored and off-white, the blacks cavernous—everything wrong, unnatural, stained, and impure” (Sacks and Wasserman 1987, 27). For him, the appearance of people and food was disturbing and abhorrent, and faces were difficult to identify. The world has become alien, dead and grey. In the end, he only found himself at home during the night.

The perception of color, as well as its absence, illustrates that colors have aesthetic and emotional dimensions, and a functional role in shaping our feelings. Earlier, we discussed how colors can be experienced as warm or cold. They influence our mood; when they are bright and multifarious they can make us happy; when they are absent or greyish, bleak and gloomy feelings are generated. During the Covid-19 pandemic, the best-selling paint colors were neutral, blue and green. In times of uncertainty, as one of the explanations suggests, people seek stability, comfort, healing and hope (Challener 2021). Another example of how colors may induce emotions is the recent turmoil around weather charts. Meteorologists customarily present different temperatures using colors, generally varying from blue (cold) to red (warm). Conspiracy theorists accuse meteorologists of using darker red hues to cover large expanses in order to frighten viewers and create a sense of impending doom, due to rising temperatures. According to these theories, we are not dealing with climate change but chromatic change, due to manipulation of weather maps (Nicholson 2022). This has forced weather forecast services to explain the colors of their maps (BBC 2023). On the other hand, colors are used to convey emotions. They are a means of expressing oneself, of sending visual messages through colored clothing or adornment of the body, cosmetics, tattooing and dyeing of facial

hair. In Roman times, blue was regarded as a barbaric color since those living north of the Hadrian wall dyed their bodies blue (with woad) to appear more redoubtable in combat; they were called Picts: painted men. Since the eighteenth century, much of the indigo imported from colonial plantations was used to dye the uniforms of the police and army in Europe, while in the 1960s blue jeans became a symbol of rebellion (Balfour-Paul 1998). Displaying colors is therefore a means of communication. Depending on the circumstances and context it can be appropriate, nonconformist or wrong, indicating that using colors also may have a normative aspect, on which this chapter focuses.

Colors furthermore have a functional role. They contribute to the perception of forms and shapes; they identify boundaries between different objects and thus help to recognize objects. According to Pastoureau (2010), the first function of color is to distinguish, classify, associate, oppose and prioritize. It accentuates significant elements in the life-world of living beings. Particularly, ecological theories of color, as discussed in Chapter 2, emphasize that color vision is not simply the observation of the outside world but an instrument to identify relevant aspects of the environment which supports organisms to explore their surroundings and to survive. For many species, colors help to identify objects that are edible or toxic. They also allow organisms to adapt to their environment and make themselves relatively undetectable. The common cuttlefish, for example, is a master of camouflage; its skin has millions of chromatophores (pigment cells) enabling the animal to engage an enormous variety of skin patterns to escape detection (Woo et al. 2023). Chameleons living in the desert regulate body temperature by adapting their skin color to the weather conditions; the warmer, the whiter its skin. Chinese researchers have used this mechanism to develop a coating for buildings that changes its color depending on the outside temperature. They argue that such temperature adaptive coatings may significantly reduce energy consumption (Dong et al. 2023). Furthermore, in the animal world, colors are mechanisms of communication; they are signals to influence the behavior of other beings, as the example of the desert locusts, discussed in Chapter 2, illustrates (Cullen et al. 2022).

As argued earlier in this book, colors play similar functional roles in human societies. One function is epistemological: “colours are signs used to indicate the presence of objects of interest” (Maund 1995, 45). They

enable us to identify an object, distinguish it from its background and reidentify it as the same object or an object belonging to the same class of objects. This discriminatory and identifying role of color helps a person to orientate himself in the world, and to approach some objects or persons, and to avoid others. While this role of color is apparently similar across the entire animal kingdom, human beings are unusual in using color with a normative function. It is used to articulate social divisions and to indicate social status, for example imposing yellow to stigmatize heretics, prostitutes and jews. For humans, color is not just a visual property but it is associated with a range of meanings. Yellow is a symbol of treason, deception and dishonesty, and is therefore applied to label some persons. Colors are not merely beautiful and pleasant to perceive, but at the same time function critically as symbols of good or bad.

5.2 Colors and Normativity

In Ancient Rome, purple was difficult to fabricate (made from large numbers of rare seashells) and expensive (imported from Lebanon). As a luxury color, it was reserved for high-ranking people such as magistrates and generals, and later only for the emperor (Pastoureau and Simonnet 2005). The same is true for the color yellow in ancient China. Roman writers often distinguished between somber and bright colors. The first group, *colores austeri*, are fabricated from common earth pigments (yellow, black, red and green). They are more natural and traditional. The second, *colores floridi*, are modern and exotic, commonly of oriental origin (Egyptian blue and cinnabar or scarlet). For Plinius, the first category represented the Roman ideal of *austeritas*, or severity, austerity and simplicity. The second category, by contrast, represented softness and decadence. This division was accompanied by a concern that the extravagance of bright colors would lead to an over-ornamental style, compromising the ancient ideals (Gage 2013). Roman writers such as Cicero and Seneca use the term “color” in a pejorative sense, as a figure of speech to embellish arguments. Facts are “colored” to create falsehoods and illusions (Gage 2013).

In medieval times, colors were strongly associated with symbolic meanings. Since the thirteenth century, according to Christian moral theology, the seven deadly sins have been associated with colors: envy (yellow), pride and lust (red), anger and avarice (black), sloth (white),

and gluttony (green) (Pastoureau 2009, 50). Ethics therefore should not be associated with one of these colors. There are also controversies around the proper color of the religious habit (Pastoureau 2010). In the oldest monastic order, the Benedictines, the color of their clothing was initially not relevant; having a simple and inexpensive habit was most important. But over the centuries, the belief emerged that black was the most appropriate color for monks. Since the tenth century, Benedictines have been known as the black monks. For them, black is associated with humility, austerity and penitence. The order of Cistercians, separated from the Benedictines in 1098 as a movement to return to the original roots of inspiration, initially adopted grey, and later, white habits with black scapulars, arguing that white was an “angelic” color representing innocence, purity and virtue, whereas black is the color of death and sin (Pastoureau 1989).



Fig. 5.1 Cistercian monks. Bernard of Clairvaux invests Gerwig with the robes of the Cistercian order. Fresco from 1695–1698 by Johann Jakob Steinfels in Abbey church Waldsassen. Photo by Wolfgang Sauber (2018), Wikimedia, https://commons.wikimedia.org/wiki/File:Waldsassen_Stiftsbasilika_-_Fresko_3c_Gr%C3%BCndungslegende.jpg#/media/File:Waldsassen_Stiftsbasilika_-_Fresko_3c_Gr%C3%BCndungslegende.jpg, CC BY-SA 4.0.

In many societies, implicit and explicit rules commonly determine what kind of clothing people are supposed to wear (Ford 2021). There is a long tradition of so-called sumptuary laws to regulate consumption and to prevent extravagant display of luxury. An example, already mentioned, is the restricted use of purple in Ancient Rome. Such dress codes express cultural and societal norms regarding what is appropriate behavior. They also are an instrument of social control, attempting to construct social relations between people and to conserve the existing class and power structure of society. The use of colors is regulated particularly since they indicate social class and clarify the status of various groups of citizens. The Elizabethan Sumptuary Laws promulgated in England in 1574 illustrate this purpose. They state that nobody shall wear in his apparel “Any silk of the color purple, cloth of gold tissue, nor fur of sables, but only the King, Queen, King’s mother, children, brethren, and sisters, uncles and aunts; and except dukes, marquises, and earls, who may wear the same in doublets, jerkins, linings of cloaks, gowns and hose; and those of the Garter, purple in mantles only” (Elizabethan Sumptuary Statutes 2001). Also the ancient regime in France used sumptuary laws to ensure the correct ordering of society through preventing lower social classes to wear certain cloths. For a long time bright colors are only reserved for the wealthy. Since black dyes are cheap, and do not adhere much to textiles, black clothes are usually worn by the lowest social classes (Pastoureau 2009). Color codes are furthermore aimed at reflecting a distinction among male and female, young and old citizens (Ford 2021). Specific colors are used to distinguish categories of people (for example, lepers, criminals and outcasts), marking them as excluded from society. Since the sixteenth century, uniforms were introduced to identify various groups of citizens and to create a sense of identity among them, such as police officers, military forces, healthcare workers, school children, lawyers and university professors.

After the Black Death in the fourteenth century, black became a fashionable color. It not only referred to death and misfortune, and the need of redemption and penance, but it also was regarded as austere and virtuous, appropriate for a particular social and professional status and a symbol of public authority. The trend towards black is already noticeable before the plague as a response to sumptuary laws introduced in 1300 (Pastoureau 2009). But the plague amplified moral concerns with

color: the aspiration to restrict extravagance and to return to the tradition of temperance and virtue. This moralizing context which started in the late Middle Ages was reinforced in the fifteenth and sixteenth centuries by two developments. First, the invention of the printing press. The application of black for ink and white for paper created a “black-and-white universe” (Pastoureau 2009, 117). The second development was the Protestant Reformation, which sought to expel colors from public life, making a moral distinction between worthy and unworthy colors. The first group (white, black, brown, grey and blue) were seen as the expression of certain values such as soberness, discreteness and dignity. The second group should be avoided as disgraceful and improper. Colors like yellow and green almost disappeared from public life in some areas in Europe (Pastoureau 2019).

5.3 Color and Rationality

Moral debates about the proper use of color reflect, according to some authors, a general tendency in European culture to be suspicious of color (Batchelor 2000; Gage 1999). Already in classical Antiquity, certain colors were regarded as transgressive and morally inappropriate. They attract the eye, and capture attention, directing our mind to the surface of things rather than their essence. According to this tradition of chromophobia, colors are suspicious for multiple reasons, but an important one is that they obfuscate what is most typical for human beings. Humans are uniquely different from other living beings because they are rational animals. Rationality is characterized by discursive thinking, explanation, argument and judgment. It enables humans to distinguish what is true or false, real or questionable, good or bad. In this perspective, colors are risky since they are beautiful and appeal to the senses. They belong to the domain of emotions and subjective impressions which can vary from person to person, and from culture to culture, and therefore hinder rational analysis and objective understanding. Colors are also deceptive. It is true that everything that exists in the surrounding world used to be perceived as colored, but this hides a more fundamental reality that can only be discovered and analyzed by the mind. In fact, colors should be regarded as makeup, an envelope around objects and entities; they are merely ornamental and decorative, and should therefore be distrusted

since they misguide and deceive the rational human. An illustrious debate in the history of arts focused on the question of what is more important: coloration or drawing, color or form. Opponents of color argued that design (form or line) should have priority because it is a creation of the mind; it is an expression of an idea or a concept that ultimately results in a painting, and is thus a manifestation of human intellect. Design implies a conception of the mind that is rational, structured, reliable and also honest and a sign of moral rectitude. Color, on the other hand, is emotional, rhapsodic and formless. It is not as important as the composition, subject, outline or perspective of the painting. Color may be beautiful, but it is deceitful, seducing and diverting attention from what is true and good, and even dangerous since it and its effects are not controllable (Riley 1995; Pastoureau 2010). Because coloration is dependent on the quality of pigments and materials, colors were viewed as less noble since they did not reflect the rationality characteristic to human beings.

While in the tradition of chromophobia, colors were regarded as a threat to human rationality, a normative assessment was implied as well. In medieval theology, once debate centered on whether color is matter or light (Pastoureau 2009). If color is primarily a material substance that envelopes objects, it is an artifice, a mask that conceals what is essential. This is evident from the derivation of the word 'color' from the Latin verb *celare*, which means "to hide/conceal." This is the argument of Saint Bernard of Clairvaux (1090–1153): color is opaque; it makes things dense and obscure, and does not illuminate and elucidate them. As embellishment, it is waste, a useless luxury and vanity; moreover, it is immoral in preventing humans from coming closer to God as divine light (Pastoureau 1989). The same negative attitude towards colors is noticeable in the dispute between black and white monks in the twelfth century, a disagreement which disregarded all other colors. Moral codes of color became especially endorsed and enforced by Protestant reformers in the sixteenth century, who argued, in line with the tradition of chromophobia, that color is makeup, luxury, affectation and illusion. It should be expelled from churches because the sensations of beauty and the colorful rituals and interiors distract and corrupt the sincerity of the worship of God. In painting, color ascetism should be practiced, avoiding bright colors and mainly applying black and dark tones.



Fig. 5.2 Rembrandt, *The Anatomy Lesson of Dr. Nicolaes Tulp* (1632). Mauritshuis, The Hague. Wikimedia, https://commons.wikimedia.org/wiki/File:Rembrandt_-_The_Anatomy_Lesson_of_Dr_Nicolaes_Tulp.jpg#/media/File:Rembrandt_-_The_Anatomy_Lesson_of_Dr_Nicolaes_Tulp.jpg, public domain.

In public life, chromophobic attitudes held that people should not wear intense and brilliant colored clothing. Such moral interpretation of colors has changed human sensibilities, and also influenced the outlook of human societies at large, at least in Europe. Through advocating black and dark colors as signs of dignity, humility, austerity and simplicity “... black became the most popular color in men’s clothing in Europe between the fifteenth and nineteenth centuries” (Pastoureau 2009, 132). At the same time, it became the color of mourning. The overall effect is that black and white are separated from the world of colors, and no longer considered as colors themselves. This separation is consummated in the discoveries of Isaac Newton: the chromatic sequence of the spectrum does not include black, and white is the container of all spectral colors.

The value judgments about colors in the tradition of chromophobia are regularly connected to another normative viewpoint: colors are extravagant and decadent. For a long time, numerous pigments have been imported from abroad, and this inspired the idea, already current

in Roman times, that many colors have an exotic and foreign origin. This origin was used to explain why using a wide variety of colors, especially bright ones, should not be interpreted as reflecting refined taste and civilization. On the contrary, the use of bright and varied colors was thought to indicate the decline of moral values of a society, showing that traditional values such as simplicity, integrity and honesty were no longer cherished. Therefore, color was viewed as something to be purged from society because it is a property of 'foreign' bodies, a sign of otherness: oriental, primitive, infantile, female, vulgar and pathological (Batchelor 2000). It is a permanent threat because it cannot be ignored or dismissed but we have to be aware of the dangers. "People of refinement have a disinclination to colours", as Goethe writes in his *Theory of Colors* (Goethe 1970, § 841), adding that "Men in a state of nature, uncivilised nations, children, have a great fondness for colours in their utmost brightness..." (Goethe 1970, § 835). Similar ideas are expressed by the architect Le Corbusier: color is suited to simple races, peasants and savages (Batchelor 2000). For him, there is only one color: white.

5.4 Moral Associations of Black and White

That colors have a moral value is clear in the hierarchy which many societies apply to colors. Batchelor (2000) argues that cultures often oppose colors with white and black, regarded as colorless. White is associated with innocence and purity (Pastoureau and Simonnet 2005). It is a guarantee of cleanliness and hygiene. Today, many studies show that white is more highly valued than black (Adams and Osgood 1973; Kaya and Epps 2004). White relates to goodness and what is morally preferable (Yin and Ye 2014). Black on the other hand is usually the least preferred color. It evokes negative emotions such as depression, sadness, fear and anger; it is associated with death, darkness, nighttime, mourning and tragedy; it is related to evil and immorality (Kaya and Epps 2004). Preference for white and aversion to black is found not only in Western but also Asian countries. The Chinese character for white is associated with pureness, clearness and unselfishness. In Japan, white is connected to everything clean, pure, harmonious, refreshing, beautiful, clear, gentle and natural; in Indonesia, it is associated with being clean, chaste, neutral and light, while dark tone colors are unpopular (Saito

1996). From their experiments, Sherman and Clore (2009) conclude that words with moral or immoral meanings are associated with colors. When subjects are presented with words with different moral connotations, they immediately and automatically associate immoral words (e.g. abusive, cruel, greed, hate and revenge) with the color black. Moral words such as duty, freedom, honesty and justice, on the other hand, activate the color white. But why is black connected to evil and immorality? Sherman and Clore explain the connection with the thesis that physical purity is a symbol for moral purity. If moral goodness is associated with physical cleanliness, and thus white, the implications are particularly negative for black. It is not just the opposite of white, but it may contaminate and pollute white, make it dirty and impure. If white represents morality and virtue, black stains and perverts it and introduces immorality (Sherman and Clore 2009).

The idea that blackness has polluting powers and is associated with sin and moral evil is derived from anthropological theories about the notions of purity and pollution. Most human societies are concerned with preserving things in an original and uncompounded state, and have rituals and practices of cleanliness and purification. Systems of classification separate practices and activities that are considered valuable from those that are dirty and impure, and should be averted (Forth 2018). It is interesting that in Ancient Rome, writers arguing that basic colors should express traditional simplicity also articulate that they should not be mixed since that produces change, putrefaction and conflict. In the early nineteenth century, it was commonly thought that classical Greek marble sculpture and architecture was, by design, pure white; research showing that statues and temples were traditionally colored came as a shock to Victorian culture (Gage 2013). Around the same time, concerns about contamination increased with the production of artificial dyes. The use of natural pigments and dyes commonly delivered a product that was not completely reliable, stable and durable since they often contained other impure materials. Production of such dyes also led to significant pollution of rivers and environments. Chemical fabrication, however, aims at a constant and predictable color, so it entails a vast effort at purification, eliminating dirt and traces of natural pigments (Brusatin 1986). This reflects the contemporary ideals of hygiene and cleanliness. The nineteenth century was the age of the

Industrial Revolution, causing a blackening of the environment with smoke, coal, tar and soot, but also through social repercussions like overcrowding of cities, poverty, child labor and epidemic diseases such as cholera (Harvey 2013). The sanitary movement initiated a struggle against dirtiness, trying to control communicable diseases that ravaged, in particular, urban areas, through programs to remove waste, reduce water and air pollution, improve sewage systems and generally clean up the environment. Filth was regarded as the cause of disease, and as the mode of disease transmission. From a hygienic perspective, all things black should be avoided since they were thought to be harmful, dangerous and contaminating. Around this time, physicians, who used to dress in black, started to wear the modern white coat (Seeman 2017).

Anthropological theories of purity and pollution do not fully explain why black and white are associated respectively with negative and positive emotions, and thus regarded as impure or pure. Another perspective emphasizes the importance of experiences. Already early in life, human beings go through the alternation of day and night, light and dark. Since humans are typically diurnal, we tend to be active during daytime: for activities, we need light, and when light is diminishing or absent, we become less active, and rest or sleep. This circadian rhythm explains the preference for light over darkness. It may also clarify why preschool children have an aversion to darkness, and may experience disorientation, fear and deprivation in the dark (Boswell and Williams 1975). At the same time, there is also a history of cultural experiences. Black is regarded as a primordial color, because it is one of the oldest pigments used in paintings (for example, in Paleolithic caves), but also because of its role in mythological and religious creation stories that generally assume initial darkness and blackness. In Western Antiquity, colors are connected to the four basic elements of the physical world. Galen, for example, relates black to earth. In many cultures, black is the color of death. In Ancient Egypt, Anubis, the god of death is represented as a black jackal. In Ancient Greek times, the subterranean world ruled by the black god Hades is all black. In Christianity, hell and the devil are imagined as black (Pastoureau and Simonnet 2005). Darkness is furthermore equated with sin. While sin is traditionally conceived as red (as the color of blood), it is regarded as a stain upon the soul, darkening the light of God, making black into a sign of evil (Harvey 2013).

These cultural connotations of black refer to another interpretation of the negative associations of this color (Kareklas, Brunel and Coulter 2014). Growing up and learning to adapt to a cultural setting means internalizing and comprehending the color symbolism of that setting. Nearly all cultures attribute negative qualities to black: it refers to death, depression, tragedy, misfortune, terror and negation, and also to evil and wickedness. But even so, black has an ambivalent meaning, since it additionally has positive attributes such as humility and penitence (as shown in the discussion of the monk's habit), and authority, professional expertise, seriousness and distinction. Apparently, cultural contexts first of all articulate the pejorative associations of black, as is reflected in numerous negative expressions in everyday language (e.g. black day, black market, blackmail, blackout, black hole and black sheep) (Frank and Gilovich 1988). As humans are educated and acculturated, they learn to develop automatically preferences for white and aversions to black. Anthropological, biological and cultural theories provide different explanations of why the color black has negative associations, but they all lead to the same result: it is a symbol of evilness.

5.5 Color and Race

As discussed earlier, one of the major functions of color is to make distinctions: to identify objects and entities and to differentiate among them, connect or oppose them with each other, and classify them. This functional role is linked to emotions and normative associations, interpreting some colors as good or desirable and others as bad or unwelcome. The moral value attributed to color is evident in its use to articulate social divisions and distinctions. For example, social classes have historically been indicated by the colors that they are allowed to use for their clothing. These functions and associations of color become problematic and disputable when color is connected to race.

In the seventeenth century, the concept of race begins to emerge as a way to divide the human species into distinct groups on the basis of biological differences. These differences are manifested in physical phenotypes, and skin color is one of the most visible characteristics. The French physician Francois Bernier (1625–1688) was one of the first to present a racial classification in 1684 (Stuurman 2000).



Fig. 5.3 Jean-Auguste-Dominique Ingres, *Portrait of Francois Bernier* (1800). Wikimedia, <https://commons.wikimedia.org/wiki/File:Bernier-Ingres-1800.jpg#/media/File:Bernier-Ingres-1800.jpg>, public domain.

He argued that rather than classifying human beings on the basis of geography, physical characteristics as objective criteria should be used, such as skin color, facial type and bodily shape. Bernier distinguished four species or races. The “first race” was defined by whiteness, and included Europe, North Africa, the Middle East and India as well as the native population of the Americas and some parts of South-East Asia. The “second race” consisted of sub-Saharan Africans, with blackness deemed an essential trait by Bernier, who also associated the grouping with “savagery.”

The emergence of racial classification in the late seventeenth century can be variously explained with references to the prevailing context. Due to colonial expansion, interest in travel literature and ethnographic descriptions such as those provided by Bernier, who lived in India for many years, intensified (Stuurman 2000). Exploration of new areas of the world, of different cultures and societies engendered confrontation with what was “foreign” and “other.” At the same time, it produced

a deluge of new knowledge of objects, ideas, customs and languages that needed to be understood and explained. The rising influence of empiricist philosophy (e.g. John Locke and Pierre Gassendi) encouraged the interest in natural history and taxonomy (Hannaford 1996). It also stimulated empirical approaches in describing and analyzing differences and inequalities, as well as efforts to reduce the multitude of particulars to general categories.

Initially, the status of color in classifying human beings was unclear and muddled. This is evidenced in the work of Bernier, whose “first race” covers not only Europe. Native Americans, for example, are included in his grouping, although they are “olive-colored.” Bernier also viewed Chinese and Japanese people as “really white,” but based on other physical characteristics he assigned them to a separate class (Stuurman 2000). Bernier’s concept of race is thus a curious construct; nonetheless, his classification importantly introduced categorization of humans according to physical characteristics, taking whiteness as a point of comparison and opposition for “others.” In the eighteenth century, more systematic schemes were produced in which color is attributed a decisive role. In 1735, Carolus Linnaeus classified thousands of species of animals and plants. He divided the human species (*homo sapiens* in his terminology) into four “varieties”: *americanus* (reddish), *europaeus* (whitish), *asiaticus* (tawny) and *africanus* (blackish). His observation of different colors aligned with racist judgments of character traits: Europeans were not only white but also serious, strong, active, smart and inventive, while Africans were black, impassive, lazy, slow and foolish. Linnaeus’ taxonomy is considered the prototype of scientific classification and it inspired numerous racial classifications through introducing a polarity between white Europeans and black Africans (Stuurman 2017). Major contributions to the theory of human diversity were made by George-Louis Leclerc, Comte de Buffon and Johann Friedrich Blumenbach. For Buffon (1707–1788), skin color was the main feature and marker of the four human “varieties,” although the varieties all ultimately represented the same human species (Eze 1997). Different colors, in his view, were the result of ecological factors, especially climate (exposure to sunlight), food and way of life: “Man, white in Europe,

black in Africa, yellow in Asia, and red in America, is always the same man, taking his color from the climate" (Buffon, in Stuurman 2017, 303). However, for Buffon, white is the true color, the global standard; nonwhites are degenerated from this original, and thus inferior. The German physician and anthropologist Blumenbach (1752–1840) distinguished five varieties of the human species ("races") according to skin color: Ethiopian (black), Caucasian (white), Mongolian (yellow), Malaysian (brown) and Amerindian (red) (Eze 1997).



Fig. 5.4 Johann Friedrich Blumenbach, *De generis humani varietate* (1795). Sequence of human skulls showing the diversity of the main types. Wellcome Collection. Wikimedia, https://commons.wikimedia.org/wiki/File:J.F._Blumenbach,_De_generis_humani_varietate_Wellcome_L0032295.jpg#/media/File:J.F._Blumenbach,_De_generis_humani_varietate_Wellcome_L0032295.jpg, CC BY 4.0.

He argues that the differences between these varieties are so small and gradual that it is almost impossible to make sharp distinctions. At the same time, he strongly opposes any hierarchy among the varieties, rejecting the ideas that some are superior and others inferior (Pastoureau 2019). Nonetheless, he views skin color as "the most constant of all bodily differences between races" and "white is the natural complexion of humanity" (Stuurman 2017, 310, 311). Buffon and Blumenbach point out that "races" are not natural kinds but the product of environmental circumstances and that the boundaries between "races" are not fixed but dynamic and arbitrary. Assuming the reality of racial categories in their taxonomies, however, they inspired the development of racial theories (Malik 2023).

5.6 Skin Color

Examining the origins of racial classifications demonstrates how color comes to be associated with race. The application of the term “race” to human being is relatively new: contrary to what modern racist theories have suggested, the term was not used in ancient and medieval times. In Western languages, it came only into general use in the middle of the sixteenth century (Hannaford 1996). Human differences were recognized and described but not conceptualized in terms of race. They were commonly attributed to place and geography, and explained with references to climate which was thought to produce different constitutions, temperaments and characters. A distinction was made not between colored and non-colored but rather between “civilized” and “barbaric” people (Painter 2010). The latter category was considered primitive, savage and alien; their perceived inferior nature was used to justify enslaving “savage” people. In Antiquity, slavery was a widespread practice and most enslaved people were white (in Ancient Greece, they came from the Black Sea region; in Ancient Rome, they were Gauls, Germani and Celts).

The focus on skin color as determinative of race is also new. For a long time, the concept of “skin color” had no useful meaning (Painter 2010). That does not imply that no distinctions between people were made, but they were based on other criteria such as rationality and civilization. In ancient thought, color itself was regarded as a kind of skin, as a surface rather than substance, susceptible to change and movement. Within the humoral framework of Hippocrates and Galen, the colors of the skin reflected the balance or imbalance of the bodily fluids, and were thus helpful in diagnosing health or disease. In this theoretical framework, calling a person ‘white’ meant that he or she was anemic or even moribund. A particular coloration of the skin therefore was not a marker of a specific human species. The change in meaning of ‘skin color’ only became possible when humoral theories gave way to new physiological and pathological theories. Nevertheless, some elements of the old framework persisted in eighteenth-century classifications. Linnaeus characterized the American as choleric, the European as sanguine, the Asian as melancholic and the African as phlegmatic (Eze 1997). This reflects the ancient idea that the humors

were associated with different temperaments or personalities, though it does not apply the traditional theoretical ordering of colors (for example, black bile used to be associated with a melancholic temperament, and a phlegmatic temperament with white). The question remains why the new idea of “race” came to be connected with color. Why is skin color regarded as the “keystone trait” to classify people? (Jablonski 2021). An obvious explanation assumes that color is a directly and publicly visible quality, making race into an evident visual experience that is “objectively” observable. Since it is inherent in the human body, it can be taken as a natural phenomenon that is independent from the context of the observer. Color is a physical attribute that immediately signifies human difference. However, it is remarkable that classifications commonly distinguish only four colors. In Western culture, since the Middle Ages a chromatic system with six colors has prevailed (Pastoureau 2001). Before this, four basic colors were identified (black, white, red and yellow), as in Galen’s system that dominated medical thinking since Antiquity, relating the macrocosmos to the micro-cosmos (earth and black bile/black; water and phlegm/white; fire and yellow bile/yellow, and air and blood/red) (Hoeppel 2007). For a long time, these colors were used to distinguish the four stages of alchemy. Although the cultural color system has changed, and Newton even identified seven spectral colors, racial classifications continue to use the classical system. Green and blue were not selected in association with race; perhaps these colors evidently indicated morbid conditions. The four-color scheme furthermore ignored existing diversity. Bernier included native Americans in his “first race” although they were not white, while Buffon noticed that Africa is “remarkable for the variety of men it contains” (Buffon, in Eze 1997, 20). He also makes a distinction between two kinds of black people: “Negroes,” the blackest men in the western territories, and “Caffres,” men of less deep blackness on the eastern coasts (Eze 1997, 22). Blumenbach acknowledged that the boundaries between his five “varieties” were not clearly demarcated. As skin color is the result of ecological factors it varies according to the heat of the climate, allowing for gradual variation of skin colors. Even in Europe, White people are not or not all white, as Buffon remarks—the burning sun “makes the Spaniards browner than the French” (Buffon, in Stuurman 2017, 304).

Another sign that race is not equivalent to actual skin color is that people are included in racial categories who evidently do not have the color of that category. A well-known example are Irish immigrants in the United States. In the nineteenth century, they were judged as racially different from Anglo-Saxon Americans, and put in the same category as Black people. Discrimination and marginalization were aimed at two inferior races (Celt and African) (Painter 2010). That the notion of race has a political and social function without references to skin color is Theodore Allen's thesis (2021). He argues that "race" and the privileges attached to whiteness have been used by ruling classes to maintain social control and to justify oppression and slavery, comparing Irish and United States history and identifying analogous mechanisms of racial control and exploitation (Allen 2021). These examples illustrate that what is determinative for a specific race is not the actual color of the skin but rather its associated normative connotations, the idea of color. It provides another explanation of the use of skin color in racial classifications: color functions as a code for moral worth and character. The idea of whiteness became representative of rationality, freedom, morality, and beauty, whereas the idea of blackness came to evoke irrationality, primitivism, ugliness and a slavish nature. Nell Irvin Painter (2010) clarifies this point by demonstrating the enlargement of the concept of whiteness in United States history. Initially, only Anglo-Saxon males counted as "American"; later the Irish and Germans were included, then the Southern and Eastern Europeans, and still later Asians and Latinos (for instance, in the 1930s, federal and Texas state law defined Mexicans as white). What persisted was the dichotomy between black and white; black continued to be connected to evil and negativity, while "white" people were believed to be superior (Jablonski 2012).

5.7 Color-Based Hierarchies

The seventeenth-century taxonomies of Linnaeus, Buffon and Blumenbach used skin color as the primary criterion to classify people into different groups. For describing and understanding the natural world, this is considered as a self-evident criterion. Taking color as classificatory criterion, however, transforms it from an accidental

observation into a signifier of human difference. For Bernier, for example, Egyptians and Indians were very black or copper-colored, but that color is only accidental (due to exposure to the sun) whereas the blackness of sub-Saharan Africans was not caused by the sun but due to “the peculiar texture of their bodies, or... the seed, or --- the blood” (Bernier, in Bernasconi and Lott 2000, 2). While previously, skin color was merely related to geographical origin and location (where it could vary according to temperature and climate), it now became a marker of “real” differences between human beings (Jablonski 2021). As a natural phenomenon and physical trait, it was no longer regarded as the effect of external conditions in which people lived but interpreted as the reflection of an inner state, as an inherent characteristic of the body (as in the view of Bernier) and perhaps also of the mind or personality. Linnaeus connected colored races to specific characters: Whites were gentle and inventive, and governed by laws, whereas Blacks were indolent, negligent and governed by caprice (Eze 1997, 13). Immanuel Kant posits that the difference between Black and White races “appears to be as great in regard to mental capacities as in color” (Kant, in Eze 1997, 55). In his opinion, “Humanity is at its greatest perfection in the race of the whites” (Kant, in Eze 1997, 63): White people excel because they have a beautiful body, work harder, control their passions, and are more intelligent than other races. That Black and White people differ not only physically but also psychologically was, furthermore, argued by Thomas Jefferson, who thought that the existence of the first group was more determined by sensation than reflection. In his view, the distinctions between the two races were produced by nature, not by the conditions of life (Eze 1997, 98–99).

These judgments about the physical and mental qualities of races make clear that classifying humans on the basis of color implies a ranking and hierarchy of races; at the same time, the suggestion is that the division of humankind is based on scientific, “objective” criteria. Using only physical traits for their classifications, Blumenbach and Buffon regarded white as the standard from which other colors have “degenerated.” For Blumenbach, White is the most beautiful race; for Buffon, it is the genuine color of mankind. When races are also connected to mental characteristics, the ranking becomes even more prejudiced: some races were viewed as clearly superior, and others inferior. Non-

White races have innate inferiority, according to David Hume, and for Jefferson, Black people are “inferior to the whites in the endowments both of body and mind” (Jefferson, in Eze 1997, 102). The normative associations of colors that have existed since Antiquity before the concept of race was invented, especially those related to black and white, were projected on human beings themselves. In the new idea of races, white, with its mainly positive connotations, was taken as the primary point of departure to produce contrasts with other skin colors with mostly negative associations. This projection can be aesthetically motivated, as when Blumenbach emphasizes the beauty of the White race. This is in accordance with the ideas of Johann Winckelmann (1717–1768), the influential art historian, who argued that white Ancient Greek and Roman sculptures represented perfect human beauty; color in statues meant barbarism (Painter 2010). For many others, the projection of colors implies a moral difference which is, in fact, reminiscent of much older ideas that color is not rational, not a manifestation of the human intellect, as well as at the same time being foreign and primitive.

5.8 Racial Science

The creation of races on the basis of color has set the tone for subsequent racial science in the nineteenth and twentieth centuries. Skin color continues to be a marker of racial difference, and is sometimes used as synonym of race, but in the words of Jablonski (2021, 442), “it no longer took center stage.” Other markers of race classification that had the allure of objectivity became important, and were assumed to be measurable and quantifiable, such as cranial shape and size, genetic constitution and intelligence testing. The development of racial science has been extensively examined and criticized, and it will not be elaborated here (Hannaford 1996; Valls 2005; Painter 2010; Saini 2019; Zack 2023; Smedley et al. 2024). Nevertheless, in the context of bioethics, two observations are important. The first is that medical doctors significantly contributed to this development. Blumenbach (in Göttingen) had a large collection of skulls, and promoted craniometry as an objective, measurable parameter of race. Samuel Morton (1799–1851; in Philadelphia) was an authority in the physical measurement of skulls, using the volume of the cranium to determine brain size. From his “empirical” data, he

concluded that races could be ranked according to the average sizes of their brains, and that innate differences in intellectual capacity could be measured. Later re-examination of his data showed that there are no significant differences among races, and that in fact a prior racial prejudice had determined the ranking and interpretation of empirical findings. Morton obtained the results that he expected (Gould 1996). A similar conclusion is drawn for the work of Paul Broca (1824–1880; in Paris) who concluded that his study of brains and skulls demonstrated that the development of intelligence related to the volume of the brain, and that this finding was evidence for a hierarchical ranking of races. Quantification and rigorous science led to the conclusion that the brain is larger in superior races with a white skin. But critical review of his work reveals that quantification was used to illustrate a priori conclusions (Gould 1996, 114 ff). An influential promotor of scientific racism was Louis Agassiz (1807–1873) at Harvard. He underlines that races are separate species with different innate value; they do not have the same abilities, dispositions and powers. Because of these natural inequalities, races should be treated differently and they should be strictly separated (Gould 1996, 74 ff). A last example of the contribution of medical doctors to race science, using comparative anatomy in particular to show the inferiority of some races, is Cesare Lombroso (1835–1909; in Turin). He identified anatomical characteristics (“stigmata”) of criminality, comparing criminals with inferior races. One of his stigmata was darker skin (Gould 1996, 159).

Another observation concerns the contribution of philosophers to the development of racial science. Immanuel Kant is regarded as the first to elaborate a theory of race (Bernasconi and Lott 2000; James and Burgos 2023): the White race and the Negro race are the basic races, and the reason according to Kant is self-evident. This is not further explained but presumably refers to color, among other traits, since the Hindustani race is characterized by olive-yellow skin color, and the Kalmuck race by red-brown color. For Kant, skin color is the most important characteristic which is hereditary, and which determines the difference of races (Sandford 2022). The four human races that Kant identifies originate from “germs” or “seeds” (*Keime*) and “natural dispositions” (*natürliche Anlagen*) which determine the development of the organism. Though this stem genus is now extinct, Kant asserted that white inhabitants of

Northern Europe were closest to this original form. Races as permanent features determine the hereditary character of peoples. In Kant's view, skin color and character are directly connected. Color is evidence of moral quality. While Europeans can progress in the perfection of human nature, and are thus able to improve themselves, other races are incapable of moral advancement. The question of how the acceptance of racial views affects and compromises Kant's philosophical and ethical theories is the subject of intense recent debate. Is his concept of personhood (with rationality and capacity for autonomy as distinctive) and his theory of moral agency regarded as a universal characteristic of humanity, or is Whiteness a condition meaning that the concept of humanity cannot be extended to other races (Mills 2005; Marwah 2022)?

That medical doctors and philosophers have contributed to the establishment and development of racial science is not a coincidence. As a modern invention, emerging in the Enlightenment, the concept of race reflects "a new ordering of things according to nature" (Hannaford, 1996, 154). It is based on the belief that rational science (particularly physical anthropology and comparative anatomy) can explain differences between humans on the basis of structural (physical and anatomical) characteristics (interpreted as observable "facts") rather than traditional references to varying political, social and religious settings of life. In the nineteenth century, medicine became dominated by biological determinism. The ecological approach of Blumenbach and Buffon was rejected and replaced with the belief that human nature is determined by intrinsic and unalterable physical, chemical and biological constituents which can be measured and quantified. Emphasis shifted from nurture to nature, first by studying the phenotype (with craniometry and biometrics), followed by increasing insistence on genetic determinants and genotype, but still assuming race to be a natural attribute of human beings. Scientific research on these biological and genetic determinants pretended to offer an objective approach, but in fact implied a subjective ranking of human beings. Racial examination and classification always entails a hierarchical ordering (Stuurman 2017, 344). Identification of separate races leads to the conclusion that they are unequal. Since inequality is considered as a biological fact, and white skin is regarded as the standard, distinction of races has particular consequences. First used to justify discrimination, segregation, slavery and colonialism,

it is later used to advocate restrictions on immigration, intermarriage and compulsory sterilization in order to counter racial mixing, and to criticize social programs and services because biology was understood as unchangeable. Gould (1996) blames Blumenbach for initiating this shift in perspective; he is the first to introduce a change from a geographic ordering of human diversity towards a hierarchical one. Color no longer refers to environment and geographic location but to biological, cultural and behavioral differences (Jablonski 2021). Taxonomies therefore are a specific manifestation of one of the traditional functions of color: the urge to classify, distinguish and separate (Saini 2019). Using the color of the skin as a hallmark of human races serves to justify different treatment, particularly when physical characteristics are connected to mental capacities, morality and character, as argued by Enlightenment philosophers. The influential work of Arthur de Gobineau (1816–1882) exposes the implications of taxonomic approaches; since all civilizations derive from the White race, and races are unequal, mixing produces decadence and decline of civilization (Malik 2023; Smedley et al. 2024).

5.9 The Persistence of Race and Racism

Nowadays, the scientific consensus is that there is no evidence that the cultural classification of “race” corresponds to an underlying biological or genetic reality. Races are cultural and social inventions used for political and ideological purposes (Smedley et al. 2024). The concept of race is a fiction; it does not correspond to an objective reality in nature, and it is therefore erroneous and meaningless (Montagu 1941). However, the concept has not disappeared from public discourse. The UNESCO statement on race strongly argues that there are no differences in innate intellectual and emotional capacity between people, and that inherited differences are not a major factor in producing cultural differences and achievements, but it still assumes that races do actually exist stating that the use of the word “race” should only be limited to groups of humans that have “well-developed and primarily heritable physical differences” (UNESCO 1952, 11). An oppositional view argues that the word “race” is better eliminated from our vocabularies. As long as the word continues to be used, it will be difficult to avoid its negative connotations and discriminatory responses. Blum (2002)

proposes discarding the term “race” (and other racial words) and to use “racialized groups” instead. This allows us to retain ability to identify and criticize racism because it acknowledges that groups are treated and regarded as a race, with characteristics that are negative, inherent and immutable. It also indicates that races are not simply social constructs; they do not exist whereas racialized groups are real, as social creations.

Nonetheless, racial thinking and language have not disappeared from contemporary societies. Racist scientists, networks and journals remain active, even today (Wilson 2024). Gould (1996) and Saini (2019) give many examples of racial theory in the last few decades, leading Gould to conclude that “the same bad arguments recur every few years with a predictable and depressing regularity” (Gould 1996, 27). The concept of race, and particularly various skin colors, continues to be used to justify distinct treatment of individuals and groups (Omi and Winant 2000). Although there are differences between contemporary and classic notions of race, as argued by Blum (2002, 132), explicit racism has diminished, and racial discrimination is legally prohibited in most countries, racial thinking and racist practices are still present. In February 2021, the UN High Commissioner for Human Rights concludes that “Racism and racial discrimination occur daily to millions of people around the world” (United Nations 2021). Racism and racial incidents are reported in a wide variety of countries. For example, in Germany twenty-two percent of the population indicate that they have been victims of racism (DeZIM 2022). A recent survey in the Netherlands reveals that ten percent of government officials experienced racism in the workplace, and that eleven percent observed racism by colleagues towards citizens, despite the official policy of equal treatment, diversity and inclusion (Rijksoverheid 2024). While numerous studies of racism have been done in the United States, racial discrimination is not less of a problem in many other countries. For example, in the labor market, racial discrimination in hiring is higher in France and Sweden than in the United States (Quillian et al. 2019).

Whether or not the concept of race is applied or distinctions between races are deemed meaningful, the general consensus is that racism is morally objectionable. “Racism” is a relatively new term, used first in the beginning of the twentieth century. It articulates the deleterious consequences of the notion of race: discrimination, exploitation and denial of dignity (Blum 2002). The consensus that these consequences

are unacceptable is expressed by the international community in the *International Convention on the Elimination of All Forms of Racial Discrimination*, adopted in 1965 by the General Assembly of the United Nations (United Nations 1965) and entered into force in 1969. Its purpose is to eliminate all forms of racial discrimination, i.e. “any distinction, exclusion, restriction or preference based on race, colour, descent, or national or ethnic origin”. Although the notions of race and racism are differentiated, racism is sometimes defined in a way that is hardly distinguishable from the theory of race, for example as “the belief that humans may be divided into separate and exclusive biological entities called ‘races’” (Smedley 2024). It is evident that racism presupposes the belief that races actually exist (with all implications of separation, segregation and hierarchy, as discussed previously), but it is more than a system of beliefs, ideology or theory: it also implies behavior, attitudes and social practices towards specific race-defined groups. Racism, according to Blum is defined by “inferiorization” (as mostly implied in racial theories) and “antipathy,” i.e. disrespect and contempt, hostility and hatred, manifested in “actions, motives, attitudes, statements, symbols, images, practices, societies, and persons” (Blum 2002, 5, 8). Racism has notable consequences: it “creates or reproduces structures of domination based on essentialist categories of race” (Omi and Winant 2000, 206). It is not simply a manifestation of individual prejudices, but is also expressed in sociocultural and institutional arrangements.

5.10 Racism and Healthcare

Recently, prestigious scientific journals such as *Nature* and the *New England Journal of Medicine* have acknowledged their complicity in race theory, racism and slavery (Editorial 2020; Jones et al. 2023). They have disseminated racial views and have justified racism under the guise of scientific evidence and theory. But they also ascertain that this is not history: the scientific enterprise remains complicit in systemic racism (Nobles et al. 2022). While support for racist policies as well as explicit racism have significantly declined over the past few decades, there is substantial evidence that racist beliefs, attitudes and behaviors play a role in healthcare practices. Patients from racialized minorities report overt and covert racism in interactions with healthcare providers. They experience

lack of involvement in decision-making processes, lack of respect, rude treatment, negative stereotyping and feel that symptoms and complaints are not seriously considered (Hamed et al. 2022). Physicians describe how they encountered racist behaviors in their training and practice (Tweedy 2016; Calhoun 2021; Blackstock 2024). Studies from a range of countries show that racialized minority healthcare staff experience racist behavior from other healthcare providers, as well as patients. They are expected to tolerate such behavior from healthcare users because the latter are sick and vulnerable (Hamed et al. 2022). In the UK National Health Service, 29.8% of healthcare workers from the Black, Asian and minority ethnic community experienced bullying or abuse from patients or the public in 2018 (compared to 27.8% of White NHS staff). They were afraid to express concerns within an organizational culture which does not formally regard race as a relevant issue (Danso and Danso 2021). Numerous studies describe racist beliefs and attitudes of healthcare providers: they tend to regard patients from racialized minorities as less reliable and cooperative, more problematic, frustrating, irrational, too demanding and too emotional (Hamed et al. 2022; Ray 2023).

Evidence of racism in healthcare is frequently explained as the result of implicit bias, as produced through unconscious and involuntary processes (Hall et al. 2015; Williams and Wyatt 2015). For example, in the United States healthcare providers, like the general population, “have implicit biases against Black, Hispanic, American-Indian and dark-skinned individuals” (Maina et al. 2018). These biases, especially negative attitudes towards people of color, lead to poorer interactions with these patients as well as poor health outcomes. Empirical research shows that racial prejudice influences medical decision-making and treatment decisions (Paradies et al. 2014). An often-mentioned example is that referral rates for specialist services, and prescriptions of pain medication, are lower for Black patients compared to White patients (Hamed et al. 2022; Ray 2023). The biases of healthcare professionals often result in differential treatment; consequently, healthcare users experiencing racism not only distrust healthcare but also avoid seeking care, and have lower medication adherence. The experience of racism and discrimination furthermore is a psychosocial stressor with negative effects on health, and especially mental well-being (Williams and Mohammed 2009; Lewis et al. 2015; Paradies et al. 2015). Exposure to discrimination, for example, increases the risk of psychotic disorders in members of ethnic

minority groups (Veling et al. 2007).

Explaining racism and racial discrimination in terms of implicit bias reflects the current situation in which explicit expressions of racism and overt practices of discrimination are no longer accepted. Such expressions and practices are directly recognizable, and they have obviously decreased due to prevailing social, legal and ethical norms in most societies. However, racist beliefs, attitudes and behaviors have not dissipated but have become less visible and noticeable, and more subtle because they are often unconscious, unintentional and even involuntary. This explains why racist practices persist despite formal rejection by most people. Nevertheless, in the context of healthcare, the psychological explanation faces two difficulties. First, it is against the prevailing medical morality. Healthcare ethics emphasizes impartiality, neutrality, objectivity and thus the significance of equal and just treatment. Differential treatment generated by racist prejudice goes against the core ethical principles underlying healthcare and medicine. Most healthcare practitioners therefore tend to dismiss racism and deny that it exists in healthcare. Usually, experiences of racism are not discussed in the workplace (Hamed et al. 2022). The second difficulty is that implicit bias as psychological explanation of racism focuses on beliefs, attitudes and behaviors of individuals. Even when it is admitted that such biases exist within healthcare, they are regarded as exceptional; some individual healthcare providers obviously do not implement the generally accepted ethical principles underlying healthcare. These biases should be made conscious and explicit, and the involved persons should be retrained and better educated in healthcare ethics. The problem with this individual focus is that it presents only one level at which racism can occur. Racism is also manifested in institutional structures and policies.

In the recent literature, a distinction is made between interpersonal racism (at the level of interactions between individuals) and institutional or systemic racism (at the level of policies, practices or processes within institutions and organizations). The second level of racism is considered as the most fundamental one (Jones 2000). It offers a social and political, rather than psychological, explanation since it interprets racism as a system of social inequality: "Racism is about power and dominance; about ethnic and racial inequality, and hence about groups and institutions and more complex social arrangements of contemporary societies"

(Van Dijk 1999). This level is also the most pernicious one for health since it produces systemic and structural disadvantages for racialized groups rather than merely individuals. The disadvantages and resulting inequities are also not the outcome of individual agency. The oppressive and discriminating mechanisms are less identifiable than racial acts of individuals (Elias and Paradies 2021). Systemic racism is, for example, reflected in reduced accessibility to goods, resources and services, such as education, employment and health insurance. Because of residential segregation, racialized minorities have poorer health services, unhealthy living conditions and exposure to toxic environments (Paradies 2017).

The existence of health disparities is widely recognized today. The WHO Commission on Social Determinants of Health concludes in 2008 that human health is determined more by the conditions under which daily life is lived than by medical treatment and healthcare services (WHO 2008). Previously, the US Institute of Medicine report *Unequal Treatment* stated that race and ethnicity are significant predictors of the quality of healthcare received, even after differences in socio-economic conditions are accounted for (Institute of Medicine 2003). As argued in the discussion above, inequities in health and healthcare, and specifically racial and ethnic disparities, persist despite these reports. The question is how these disparities can be explained. A survey among doctors and nurses shows that they prefer individualistic explanations, such as the belief that Black patients have lack of compliance, are not well informed, take less control over their care, miss appointments and are hesitant to accept referrals to specialists. Provider bias is also regarded as a reason for unequal treatment. The most commonly mentioned systemic factor was lack of insurance coverage. Incidentally, half of the respondents questioned the validity of research studies documenting racial disparities (Clark-Hitt et al. 2010). Explanations of health disparities on the basis of individual characteristics of healthcare users or providers are insufficient since they cannot clarify why inequities are so pervasive, widespread and enduring except by referring to individual prejudices. Another type of explanation emphasizes the socio-economic context of health and healthcare. If the conditions under which people are born, grow, live, work and age have significant impact on health, it should be acknowledged that for racialized minorities those conditions are generally worse than for non-racialized majorities. Health disparities should therefore be explored at the structural level of the social, environmental and economic contexts in which

people are embedded. However, this type of explanation raises the question of how differences in socio-economic status can be explained. Here a third type of explanation is introduced, referring to the long history of racism and racial exploitation, at least in the United States. Racial and socio-economic status are “closely interwoven” (Feagin and Bennefield 2014, 8). Structural explanations of disparities are important because they go beyond the idea of implicit bias, but they “do not offer a sufficient explanation for persistent racial differentials” (Feagin and Bennefield 2014, 12). At the heart of health inequalities is not merely bias but systemic racism which has produced unequal socio-economic conditions due to the accumulation of resources by generations of White people who have benefitted from slavery and racial oppression and have denied such resources to people of color. The legacy of racial discrimination and exploitation which have been pervasive for a long time is still felt today.



Fig. 5.5 “Colored” water cooler in streetcar terminal in Oklahoma City (1939). Wikimedia, https://commons.wikimedia.org/wiki/File:%22Colored%22_drinking_fountain_from_mid-20th_century_with_african-american_drinking.jpg, public domain.

Without addressing health disparities from the perspective of systemic racism, historical injustices will only be perpetuated.

5.11 Racism and Bioethics

In November 2020, the American Medical Association recognized racism as an urgent and serious threat to public health, after publicly apologizing in 2008 for its own racist practices (Baker 2016; O'Reilly 2020). Scientific interest in racism is growing over the last few years: the number of scientific publications on this topic has sharply increased since 2017 (Hamed et al. 2022). In healthcare ethics discourse however, racism has been a relatively neglected topic until recently (Johnstone and Kanitsaki 2010; Elias and Paradies 2021; Ganguli-Mitra et al. 2022). A search in PubMed (with keyword Racism and Healthcare ethics) produced 492 results. The first publication in 1978 discusses the Tuskegee syphilis study (Brandt 1978), but until 2014 the annual number of publications on the topic was very low (not exceeding ten). Only from 2014 has the total grown (from 14 in 2014 to 106 in 2021). Searching with the keywords Race and Bioethics produced a lower number of publications (often the same as in the other search). The first article in this search addresses the issue of institutional ethics committees and their role in calling attention to problems such as racism (Farley 1984). Here too, publications on this topic are very scarce or altogether lacking for many years, until 2020 when 15 articles appeared, with a maximum of 62 in 2021 and 57 in 2022.

When race realities are discussed in scholarly bioethics journals, they are often not located in a contemporary context but either projected in the past or in colonial Africa (Hoberman 2016). Documentation concerning the inferior care received by racialized minorities is usually not taken into account, and neither is the existing bioethics literature of medical racism. The four editions of the *Encyclopedia of Bioethics* (from 1978 until 2014) present only limited scholarship about racism (Galarneau and Smith 2022). As a reference work that should be a resource for the current knowledge in bioethics, it falls short, not only because articles on racism are rare, but also because it does not incorporate available scholarship, does not contain critical bioethical analyses of racism, and does not highlight racism as a concern of justice (Galarneau and Smith 2022).

Why is racism a relatively neglected topic in bioethics? Johnstone and Kanitsaki (2010) mention four reasons: the failure to examine racism as an ethical issue, the illusion of non-racism in healthcare, the association

of awareness-raising of racism in healthcare with whistleblowing, and the sense that the issue is too problematic. The second reason seems the most important one, though various aspects contribute to the idea that racism does not exist in medicine and healthcare.

First, a belief persists that these domains are special and exceptional because they are governed by implicit and explicit normative principles and rules that exclude unfair treatment, disrespecting and harming patients. There has been a reluctance to accept that racist beliefs, attitudes and behaviors are as prevalent among healthcare professionals as in the general public. Second, it is not common knowledge that racist practices cause substantial harm, and even if evidence is presented, it is typically dismissed and discredited (Stone and Dula 2002). Third, even if it is true that health professionals are not explicitly and intentionally racist, the role of systemic racism is hidden and not visible. Structural and organizational racism is often explained with other mechanisms than racial injustice (Elias and Paradies 2021). This is connected to a fourth aspect: racism is explained not as an ethical issue but as a social and political one; it is beyond the scope of bioethics (Galarneau and Smith 2022; James 2022). A fifth aspect is that it is difficult for bioethicists to engage racism as an ethical issue because of the context in which they often operate. Working in a clinical setting, bioethicists are embedded in an existing power structure, making it problematic to criticize discriminatory practices and a healthcare system that sustains inequality. Those working in an academic setting are dependent on funding opportunities related mostly to biotechnologies (Ho 2016). Finally, the prevailing idea that bioethics should be colorblind impedes an ethical analysis of racism since it eliminates the experience of color as a bioethical issue (Galarneau and Snith 2022). The argument is that bioethics is constructed and practiced within an ideological context of “whiteness” (Myser 2003a). Its dominant epistemologies and normative framework, its applications and performances, as well as what is deemed relevant and worthwhile are determined by a particular origin and standpoint marked by White privilege. As long as this positioning within a specific social, and particularly racial hierarchy is not critically examined, issues of race and racism cannot be sufficiently analyzed and resolved.

5.12 The Whiteness of Bioethics

Earlier in this chapter, several aspects of the normativity of colors have been elaborated that might be relevant to the current debate on the color of bioethics. First, it is pointed out that colors usually evoke normative associations. This is true for colors such as red and yellow but especially for white and black. In numerous cultures, black is connected to negative associations, whereas white is the preferred color. These preferences are operative at a general level, regardless of whether colors are attached to specific objects or entities. It might be that implicit racial bias, which is unconscious and unreflective, is first generated by these preferences, whereupon the concomitant associations are then projected onto the person whose skin shows a particular color. This chapter furthermore discussed the history of Western suspicion towards colors, with colors viewed as eliciting emotions, pointing to foreignness, and diverting from rational thinking; as such, colors should not be trusted. The exception was whiteness, which is often not considered as a color; it is colorless and thus opposed to colors (Batchelor 2000). As the absence of color, it is viewed as the norm from which deviations can be assessed (Dyer 2017). When medical doctors and philosophers contributed to the development of racial science, they generally assumed whiteness to be the most original, perfect and beautiful color. Having a white skin is the “natural” and “ordinary” way of being human: it is a neutral, “unracialized” position, transcending embodiment, situatedness and relationality (Dyer 2017).

Against this backdrop, the argument that bioethics is characterized by the “normativity of whiteness” can be understood (Myser 2003a). It does not articulate that bioethics has the same explicit or implicit assumptions as previous racial science; racial beliefs, attitudes and behaviors are categorically rejected as incompatible with any ethical approach. However, at a more fundamental level, bioethical discourse is racialized, i.e. in the moral values and principles that it regards as foundational or universal, and in the subjects of inquiry that are considered relevant and crucial. Almost a decade after Myser’s seminal article, Russell reiterates this argument (2022), pointing out that bioethics, having emerged as a new discipline in the 1970s and becoming increasingly mainstream, is based on an underlying principle

of White supremacy, i.e. the idea that White lives are of greater value than the lives of people of color. The theoretical framework of bioethics with respect to autonomy, consent, transparency and risk assessment presupposes individual citizens who are independent and free to make decisions, ignoring mostly non-White people who are disadvantaged and vulnerable because of social, economic and environmental conditions. In bioethical analyses, white is usually not considered as a color itself so that White people become invisible as a racial group. The result is that the concept of race is only applied to non-White people (so that the word 'color' becomes equivalent to 'race' and 'non-White'), while Whites are regarded as a social group which is neutral in race relations, and which is also the norm from which deviations are assessed. Assuming that its contents and methods can be determined independently from historical and cultural origins and standpoints, bioethics discourse demonstrates what Dyer (2017) has argued in another context: White is equated with being human, and is the embodiment of universality.

Characterizing mainstream bioethics as 'White' is a serious criticism. It is disconcerting for its practitioners, the majority of whom are White, even if it is argued that the characterization does not refer to the skin color of bioethics professionals but rather to the principles and norms that are promulgated and considered relevant. Whether it is possible to abstract colors from the objects or subjects to which they are attached, depends on the philosophical theory of color one wants to defend. According to color relationism and the phenomenological perspective highlighted in this book, color is a relational experience; it emerges in the interaction between person and world, perceiver and environment. In this perspective it is difficult to imagine Whiteness as an abstract entity, operating apart from White people. Pointing out the dominance of Whiteness in bioethics, Myser (2003a) refers to the fact that its practitioners have been and still are overwhelmingly White. They are the people responsible for the development and construction of the kind of bioethics she labels as "White." They have impregnated bioethics discourse with their (White) values but have made this coloration invisible through presenting it as neutral and cross-cultural. The remedy is that mainstream bioethics is broadened and revised by incorporating the voices and visions of minority populations. It requires

that White bioethicists, in particular, recognize and critically scrutinize their own Whiteness (Myser 2003a). These comments show that it is questionable to criticize the discipline whilst letting its practitioners off the hook.

Another complication of this argument about mainstream bioethics is that Whiteness is presented as a static and homogenizing superstructure: White people are treated “as a collective order with a common cultural identity” (Hartigan 1997, 498). The diversity of Whites is not taken into account. This is first of all true for color itself. Colors present themselves in a range with varying hues and intensities. White people are not really white, unless they are very ill or moribund. The same goes for dark colors which present themselves also in a huge diversity. It is directly visible in the *Humanae* project of Angelica Dass, mentioned in Chapter 1, showing that labels like black, white, yellow or red are inadequate to cover the diversity of the color tone of faces (Dass 2024). It is even more true if the focus is on beliefs and attitudes among Whites; it is hard to identify a common core that is clearly distinct from that of non-White people. Especially from a global perspective, it is doubtful whether there is a shared sense of identity among Whites. If there is White identity, it is furthermore not static but transforming in disparate political and cultural landscapes (Hartigan 1997).

Perhaps the diagnosis of Whiteness first and foremost applies to North-American bioethics, although even that is challenged (Baker 2003). From a global perspective, the situation seems more complicated. While ideas of race and practices of racism persist in numerous other countries, it not only articulates a distinction between black and white but also involves other skin colors or is not primarily related to colors at all. For example, in the Netherlands discrimination is mostly directed against the Moroccan minority population (Veling et al. 2007). In the United Kingdom, Asian communities are the target of racism (Malik 2023). People with albinism are persecuted in some African countries (United Nations 2017). In many places across the world, anti-Asian racism and anti-Semitism have increased, especially during the Covid-19 pandemic (Zack 2023). In a global reference frame, associating bioethics with Whiteness is concurrent with identifying its American-ness. The discipline as it has emerged in the United States displays specific values and concepts which are characteristic of the ethos of this country (Myser

2003b). The problem is that this bioethics interpreted itself as a neutral and universalized discourse, not only appropriate and applicable within the US but also in the wider world. However, it has long been recognized that mainstream North-American bioethics, with its emphasis on analytic philosophy, pragmatism and liberal individualism, is different from other approaches to bioethics, notably European or African bioethics, for example (Ten Have and Gordijn 2001; Tangwa 2019). Labeling bioethics as White can therefore be seen as a call to broaden the scope of bioethics: to focus on cultural, social and economic dimensions of health and healthcare, and on the underlying mechanisms of social injustice and systemic racism (Danis et al. 2016). It is also a call to go beyond the mere analytic approach of clarifying moral issues and quandaries, presenting itself as a “thinking enterprise” whereas it should focus on social change, advocacy and activism (Dula 1991). Furthermore, identifying bioethics as monochromatic is an appeal to pluralism and diversity, including more values in its conceptual and methodological approaches (Truong and Shariff 2021). That means involving multiple disciplines, engaging community (especially minority) perspectives, and voices from various cultures and traditions around the globe. The aim is not to incorporate non-White values in mainstream bioethics so that a new mainstream can be created that is no longer White but rather colorblind (Arekapudi and Wynia 2003). Rather, it involves exploring different value systems, to take a diversity of viewpoints in ethical discourse seriously in order to find shared values.

5.13 Conclusion

In his dialogue *Phaedrus*, Plato imagines the soul as a charioteer driving a team of horses. One of the horses is noble and good, the other has the opposite character—it is crooked, hot-blooded, undisciplined and hard to control. The first horse is white, the second black (Hackforth 1972, 103; 253C-E). For Plato, the soul is the most important part of the human being and it has a tripartite structure. Reason is preeminent, which rules the whole (the charioteer). The other part includes higher emotions (the white horse), and the last part (the black horse) is the locus of desires and carnal lusts.

Plato's allegory illustrates that colors have, besides an aesthetic and emotional role, a normative function; they can be used to express notions of goodness and badness. A specific color may refer to passion and irrational behavior, and should elicit avoidance and control. It may also be used to label treacherous and unreliable people which leads to stigmatization and exclusion. An important use of color is to distinguish and classify entities in the surrounding world. In history there is continuous debate about which colors are suitable in particular circumstances, for specific people and for the expression of social status. This chapter discussed how and why colors are moralized. They are regarded as Plato's black horse, impeding rational thinking. In European culture, at times they are approached with suspicion since they are deceptive. Color is like makeup or an envelope, a second skin that hides what it is covering. It is furthermore marked as foreign and as a sign of otherness.

When the focus is primarily on black and white, it is clear that both are associated with moral views. In a variety of cultures, white evokes purity, hygiene and innocence whereas black is associated with negativity and immorality. These prevailing moral connotations show their impact when people come to be classified on the basis of skin color. The concept of race, introduced in the 17th century, expressed the idea that humans can be categorized according to biological criteria such as skin color. From the beginning, categorization is permeated with normative judgments of the nature, character and temperament of differently colored people, reflecting the moral views that were long attached to various colors, especially in Western culture. However, in racial taxonomies, color proved to be a confusing criterion since it does not clearly demarcate different races. The moral connotations of whiteness and blackness nonetheless prevailed over the actual skin color. When the "white race" was constructed in the United States for example, many European immigrants were initially not included. Differences of color first of all represent moral differences with whiteness as the apogee of rationality, morality and civilization.

The second part of the chapter examines how physicians and philosophers have contributed to the development of racial science and how contemporary societies assume that ideas of race and racism

no longer play a significant role in civil life. However, numerous experiences and studies show that racist thinking and practices have not disappeared. Often strongly rejected and morally condemned, racism persist through mostly unconscious and unintentional individual prejudices as well as structural factors that systematically disadvantage non-White people. This is noticeable in the context of healthcare when patients and care professionals report racists attitudes and behaviors. Such reports are frequently denied since the principles of healthcare ethics and the self-image of healthcare providers emphasize impartiality, objectivity and equal treatment. That systemic disadvantages can be embedded in organizational, institutional and structural arrangements of healthcare is difficult to identify and recognize, while action to transform or remediate the resulting injustices is often regarded as a social and political rather than medical and ethical responsibility.

The third and last part of this chapter points out that in the context of bioethics, race and racism are relatively neglected issues. A variety of reasons may explain this lack of attention, but an important one is that in response to the increased sensitivity to racial discrimination, and perhaps to redress its past involvement in racial science, medicine and healthcare have rigorously eliminated the experience of color as a relevant issue. Healthcare providers are outraged when the issue of racial bias and discrimination is brought up, and most bioethicists will not spend much time on it since this is evidently a morally objectionable topic. The effect is that ethical reflection on racism is limited, and that there is no critical analysis of the moral wrongness of the idea of race and racism, and their deleterious consequences for healthcare. The ideology of colorblindness is criticized with the argument that mainstream bioethics in fact is characterized by "whiteness." Its normative frameworks, value systems and epistemologies originated in and are sustained from the perspective of White privilege.

This critique highlights that in current debates about race and racism the focus of attention is shifting from black to white. Whiteness itself has become problematic with criticisms of White superiority and White privilege (Dyer 2017). Forms of human domination that were formulated in the past as White supremacy to justify the ideology of slavery, still endure. It is not recognized

that because of a long history of exploitation and injustice, benefits and advantages are accorded to Whiteness, and that health advantages are bestowed to White people because material resources and opportunities are still unequally distributed. The legacy of this history is not recognized since white is regarded as neutral and impartial. Being White itself is not taken as problematic since it assumes that no value judgments are involved. That this is changing is visible on both sides of the political spectrum. Contemporary movements such as “wokeism” are motivated by resistance to the power of White men (Weyns 2023). On the other hand, the great replacement theory, popular among conspiracy and reactionary thinkers, regards White people as an endangered species: this theory argues that White populations are systematically being replaced through mass immigration of non-Whites, and intermingling between White and non-White people (Rose 2022).

White has become a metaphor for a world that is disappearing, while for anti-racists it is a symbol of power, specialness and superiority. The focus on whiteness, however, shares the same prejudices as the pejorative connotations of blackness, attributing negative moral qualities to a specific color. They reflect anxieties and fears about a world changing through globalization, demography, immigration, wars, climate, disparities and structural violence. Both keep alive the ideology of colorism: discriminatory treatment of individuals based on skin color. They forget that it is the power of colors to condition our attitudes, behavior and ways of thinking, at the same time as colors themselves are ambiguous and can induce various associations. Furthermore, they ignore that it is the kaleidoscopic nature of colors that makes the world attractive, enjoyable, beautiful and interesting. Living in a world that is colorless, as the case discussed in the beginning of this chapter illustrates, we would only perceive black and white. Such a world would seem dark and depressing. The question is how bioethical discourse should deal with the issue of color. Should it remain colorblind, reflect a particular color—if not white than black or otherwise?—or appreciate the full range of colors that enhances human existence? That will be the subject of the next chapter.

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