

Reflections on Androcentrism

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Abstract

Androcentrism, the tendency to place the male gender at the helm of society, permeates the primary dimensions in which each of us perceives, processes, and understands her/himself, other people, and groups. The present paper reflects on some of the repercussions that androcentrism provokes in the social sphere. As its origins are lost in time, the solutions to be devised to counter it are difficult and all to be found. The author dwells, with examples, on some deleterious repercussions provoked by androcentrism in the educational, social, and biomedical research fields. To attenuate its effects a higher-order pro-social behavior is suggested. It includes the shifting from the anthropo/androcentric paradigm to the biocentric one, and a cosmopolitan ethics based on solidarity all to be imagined. Plus, the creation of more bridges between humanistic and scientific cultures. This is because discrimination or prejudice based on gender is high worldwide as shown by the debates among Western philosophers, social scientists, ethicists, moral theologians, and their feminist interlocutors. In the scientific sphere the progressive inclusion of women in fields like STEMM, where they are underrepresented, is fundamental, as they are a considerable asset.

Keywords: androcentrism, social repercussions, gender equity.

Introduction

1911: Charlotte Perkins Gilman introduced the term androcentrism (from Greek *άνήρ* «man, male») in a scientific debate [1]. In short, it refers to the attitude to consider, more or less consciously, the male point of view prominent in our *Weltanschauung*, sidelining femaleness. This results in androcracy, a male dominant society, with synonyms, such as phallocracy or andrarchy. We don't know exactly when this started in our foggy past: we can only speculate. In short, according to Héritier [2] we can imagine that our ancestors, observing the human typologies with males, taller and stronger and their physiology (for example: males lose blood only when wounded, adult females with "lunar cadence"), they established categories such as weak and strong, active and passive, which language then crystallized by assigning masculine or feminine names to the surrounding things and events that amazed or frightened them. This created the basis of male primacy and has established what modern psychologists call "The Big Two" [3,4], or the primary dimensions in which each of us perceives, processes, understands not only her or himself, but other people and groups. To know more, Ananthaswamy & Douglas' short report is suggested [5]. This implies that a culturally mediated gendered cognition exists [6], and that male and female qualities are differently valued in the modern world. In the domains of power male

characteristics are historically highly appreciated because of their “agency” (or “the tendency to infuse patterns with meanings, intentions, and agency” according to Shermer’s [7, page 87] definition) towards the male in-group they belong to, so the association men/masculinity devalues women every time they want to be engaged in all those behaviors in which males become prominent [8]. Linguistics is trying to better understand how some of the seven thousand languages spoken today in the world are imparting different cognitive abilities [9] and why, for example, in many societies men and women have different ways of speaking; or if a conversational gender divide is really so strong (as men are usually focalized on competition and power, while women on connection and relative closeness)[10]. In fact, Tannen in her classic book asserted that women are more prone to “connection and intimacy”, while men are more prone to “status and independence”. Clearly, these differences appear today to be related to the relative power assigned to the genders rather than innate differences. Bailey et al. [11], using the IAT or Implicit Association Test (which measures the strength of association between concepts, such as “black people”, and connected evaluations such as bad or good, plus linked stereotypes like “athletic”), found that men are more biased than women, even in controlling the IAT responses. More interesting, concepts such as “person” are more associated with men than women, while gender-specific concepts such as “woman” are more associated with women than men. Of course, we must bear in mind that all the categories that we concoct vary worldwide and have a graded structure, and that there is a general agreement on this assumption. Clearly, in this domain stereotypes are always at work. Example: «Women speak three times more words than males every day». The number is 16,215 for women and 15,669 for men [12] and the female/male gap is not so big (it changes with age). Doubtless, brain sex differences exist, as shown by neuroscientists like Eliot et al. [13], but in their “highlight” resumé of the article they state: “Few male/female differences survive correction for brain size. When present, sex accounts for about 1% of variance in structure or laterality. Male and female brains are monomorphic, not dimorphic, in structure and function”. Therefore, it is possible to affirm that updated studies on how sex differences emerge may reduce stereotyping and permit parents and teachers to better cope with gender-related stereotypes, as most psychological sex differences are statistically small. In fact, if we consider topics such as gaps in intellectual performance, empathy or even most types of aggression, they are generally much narrower than the disparity in adult height, in which the average man is taller than 98% of women. This depends on growth, that ends before for girls, so boys have larger brains, but with few differences in brain structure and function. However, neither of the findings could reveal why boys, for example, are more active than girls and cannot furnish us with a convincing basis for most of the cognitive and emotional differences ascertained till now between the sexes. This is because they are inserted into a social milieu that causes different experiences that, in turn, modify their brain structure and function. In most societies boys and girls are raised differently, creating a blue-or pink-tinted milieu, whose effects on gender cognition are, at present, unclear [14].

Two examples of social repercussions

One of the most mind-blowing social aspects is birth control. Without entering in the myriads of composite ways to cope with it contrived during human history, according to UNFPA [15] in the world unwanted pregnancies are ~ 121 million every year (331,000 a day). This is due to several causes e.g., lack of information (in 47 countries 40% of women don't use modern contraceptive methods), or fear of social stigma, partner/family coercion or rape (in 64 countries a quarter of women is unable to say no to a sexual intercourse and during wars ~ 20% of the refugees mention rapes). More than 60% of unwanted pregnancies end with an abortion, that in 45% of the time is carried out unsafely. Therefore, ~ 7 million women end up in hospital and abortion is among the main cases of women's death. At this point, it's not even the case to enter the Aristotle's potentiality principle [16], which proposes that "embryos and fetuses should not be killed because they possess all the attributes that they will have as full persons later in life" and how it permeates the debates among Western philosophers, ethicists, moral theologians, and their feminist interlocutors. It is clear, however, that some studies have ascertained that men are interested in sharing the responsibility of birth control with their partners [17,18], even if options available are not so many (e.g. abstinence, condoms, vasectomy). The latter is invasive, expensive, and not always successful. Luckily, a team of scientists informed us recently they had developed an oral male contraceptive that is 99% effective in mice without causing side effects and could enter human trials. It is a non-hormonal drug called YCT529. When administered orally to male mice for four weeks, drastically reduced sperm counts and it showed to be 99% effective in preventing pregnancy, without any observed adverse events [19]. Question: why did we wait so long before testing males?

Another example among many others could be anorgasmia (inability to achieve orgasm), which has been considered for decades a women's problem. Of course, the desire's cocktail differs from men and women, even if similarities have been discovered by neuroscientists, overthrowing stereotypes such as the widespread one affirming that visual stimuli spur sexual stirring more in males than in females, whose use of sexual imagery is poorer than that of males, and so on [20]. Another minor example of stereotype at work: thanks to chemical cues in their sweat men can tell when women are most fertile. Recently, Zetsche et al. [21] demonstrated that men showed no preference for women who were ovulating.

Examples in the education domain

In this domain, examples are manifold. As the images of males and females can reinforce the stereotypical sex roles, recently Fuselier et al. [22] found not only that in evolution textbook images highlighted primarily the classic view of sexual selection focused on males, but that the images of non-human animals also depict a strong androcentric bias. In other disciplines men are pictured more often than women; are portrayed in more dominant or higher status position than women; are more likely depicted as being in active roles while women are pictured as being less developed, passive, and less reactive. Occupationally, they are often depicted in domestic and reproductive-related

roles, whereas males are not [23-26]. The impact on undergraduates viewing these images is unclear but given their tendency to anthropomorphize animals and to be culturally prone to androcentrism, we can suspect that it is powerful.

An example of gender stereotypes from the Far East?Giang et al. [27]examined student gender stereotypes about lecturers at a Vietnamese university by asking students to choose between male and female lecturers for different courses. The gender stereotype ‘math-male’ was well-working (30% of the students preferred a male teacher for mathematics, partly because they believed that male lecturers were more knowledgeable than those of their female counterparts). The ‘language-female’ was the consistent finding concerning gender stereotypes, as students preferred female lecturers for English, because they were convinced that women have better language teaching skills. No significant differences emerged between male and female students.

Examples in the scientific domain

In medicine the gender bias has been widely studied only recently due to the women's subordinate position and the fact that the medical industry has been dominated by men till not long ago [28-29].For example, gender biased diagnosing is the idea that medical and psychological diagnosis are influenced by the gender of the patient. But, because of unconscious prejudices, treating doctors struggle to understand that the symptoms experienced by men are different from those of women. This results, in the research case, that both female humans (and guinea pigs) and are underrepresented. This is because female research is more expensive and more time-consuming, as females are a more “intricate” model organism than males, for several reasons [30]. Adult females face changes associated to the menstrual cycle (so the way in which their body respond to an external stimulus adds a lot of complexities to the studies); some women use different types of contraception, extending variability and, around the age of fifty, they undergo menopause, adding complexity. Men and women physiology is different, not only because of their phenotype but because of genetic and epigenetic constraints [31]. Examples are many and they cover various medical fields [32-33] with new unimagined discoveries (e.g.: mice manifest differential behavioral responses following exposure to male and female experimenter scent) [34].

In recent years, it has become painfully clear that universities worldwide are not producing enough experts in STEMM fields (science, technology, engineering, mathematics, and medicine), where men are employed in these fields twice as frequently as women [35]. STEMM fields have substantial influence on global progress, innovation, and economic success, as well as the potential to ameliorate many of the world’s most urgent problems, such as poverty, environmental damage, clean water, food insecurity, renewable energy, and more [36-39]. Strategies to make STEMM disciplines more palatable to women have been proposed, for example a more interdisciplinary approach to STEMM education. For instance, it has been seen that Nobel prize winners are significantly more likely to be involved in artistic hobbies, playing musical instruments, or engage in craft than the common people [40]. They are polymaths [41]. Even if behavioral measures did not assess differences in creative or divergent thinking(the ability to diverge from established social

norms and expectations, and to imagine alternative realities), strategies between the genders were ascertained, probably connected to the female secular exclusion. And social creativity research showed that low social status induces divergent thinking [42]. Therefore, the introduction of women is indispensable because STEM routinely focuses on convergent skills whereas art traditionally focuses on divergent skills; having a workforce with a more extended visual will be for sure beneficial for global progress. Historically, the introduction of women in academia helped to smooth out sharp corners in many scientific fields, as they re-examined societal norms based on stereotypes and introduced new conceptions regarding sex, gender and most of the categories associated with them. Of course, to improve gender equity, missteps must be avoided as recently shown by Ryan [43]. They are overemphasis on quantity (clearly, it's not the case to increase the number of women if they are occupied in precarious, temporary, or low-role jobs); efforts to emphasize training for individuals (instead of overhauling systems and cultures) and over-optimism. Of course, they are not mere epistemological problems, but also practical and difficult issues to be ascertained and discussed in detail (for more insights Boivin et al.'s paper is suggested [44]). Then there are other aspects that we should consider, especially when ethnicity is coupled with androcentrism. The former can be an important negative factor, especially in countries where the scientific workforce is predominantly white, and the "top" positions are occupied by men. For example, most respondents of Nature 2021 salary and job satisfaction survey identified themselves as white (82% in the United Kingdom, 81% in Germany and 74% in the United States) [45]. The survey suggests that discrimination remains common in science. In the United Kingdom, for example, 27 of the 54 respondents who did not identify as white affirmed that they had personally experienced discrimination, bullying or harassment on the job.

Another aspect that is not sufficiently studied globally is the WEIRDness of some scientific disciplines and its impact on the worldwide academic milieu. In 2020 [46] I stated: "WEIRD is an acronym with which some cultural psychologists, ten years ago, labelled most of the studies found in the psychological domain. In fact, they realized that more than 90% of the published papers found in relevant literature in their field belonged to Western, Educated, Industrialized, Rich and Democratic societies, aka WEIRD. Even if they represent a minority in the world (probably from 20 to 30% of the human population), the influence of WEIRD people at a global level is very high, as they tend to think analytically rather than holistically, control intentions when analyzing moral judgements, and are usually more individualistic and more critical towards their group. They act in such a manner because they assume that personality traits, the sense of self and personal characteristics are prominent". Therefore, in my opinion, it is necessary to deepen the study of the liaisons WEIRDness/androcentrism.

When stereotyped attitudes converge, they can widen health problems. Another example could be the so-called weight-centric model of health care, that has been recently strongly questioned [47-51] centered as it is on weight loss and lack of consideration of ethnic differences. It is in fact assumed that poor health is connected to higher body weight, conducive to social stigma. This, in turn, could lead to poor health and could result in weight gain because

of the effect of social stress, mostly in black American women. As stated by Strings and Bacon in their exhaustive paper [52]:“Difficult life circumstances cause disease. In other words, the predominant reason black women get sick is not because they eat the wrong things but because their lives are often stressful, and their neighborhoods are often polluted” (page 23).

Studying our stereotypes and cognitive biases is extremely important. Recently, for example, neurosciences data on brain imaging from nearly 5000 children revealed that two distinct brain networks are acting on sex and gender[53]. Therefore, the terms describing each are often conflated. This suggests that to perform rigorous science we must learn how to avoid misconceptions.

In our new technologies time, another example could be the Algorithmic Bias, or the fact that the image learning and recognition systems often produce biased output, because they selectively report a subset of possible true labels. Recently, Schwemmer et al. [54] discovered in commercial image recognition systems that images of women received three times more annotations related to physical appearance. Therefore, they received a lower status stereotype: for example, whereas men are business leaders, women must look pretty.

How to cope with androcentrism?

Manel is an informal neologism blending man and panel recently coined to indicate a panel of speakers that fails to include any women. If we observe the structures of power, we can easily conclude that we live in a manel world. After studying myths, symbols, and signs based on the male and female genders, Lévi-Strauss [55] pointed out that women's power does not exist, even in a supposed original matriarchy. Males were historically the culture founders. In surprisingly similar ways in the most diverse societies, women have been tabooed and avoided, therefore excluded from power. The main problem is the obviousness with which we perceive our cultural experience. Although many thinkers and researchers have accumulated an enormous amount of material connected to androcentrism over time, they have always kept away, more or less consciously, from delving deeper into what they had under their eyes: a manel world created by androcentrism. Perhaps helped in this by a deadly bias, which we still know little about: the so-called *shifting baseline syndrome* [56]. In practice, every new generation is convinced that the “state of affairs” with which it encounters or clashes is "ordinary administration". And it adapts to what already exists. An Author who delved quite deeply into the depths of androcentrism was Deveraux [57] when, studying sorcerers and shamans, he spoke about *group pathology*. Before him Freud himself was already aware of this when he observed the rules of taboos in so-called primitive societies [58]. For him, the fact that a taboo was not considered a pathology, or the result of a collective obsession, depended on its institutionalization. For Deveraux, a shaman, full of visions, does nothing but express the latent conflicts and reflects the anomalies of his tribe. Because not only individuals can be "abnormal", but also societies in which they are inserted. Therefore, a question arises: is androcentrism a subtle, pervasive and underhanded “pathology” affecting mankind? Historians have often wondered about rulers and heads of state who were able to live their neuroses normally because the institutions covered them. Trusting

in the “potency” of the power given to them, they did not hesitate to drag their subjects into their forms of delirium. There is an original connection between virile potency and power that supports many global cultural constructions. I suspect that androcentrism caused what I call the “gynobias” or an implicit, unconscious and sneaky prejudice on women. Probably the result of a learning process that is linked to the fear of losing male primacy. This is a form of systemic racism difficult to be eradicated, as demonstrated by tons of feminist research on sexism. The fact is that we are all prejudiced because we live in cultures where certain things get associated. For example, if somebody constantly sees in life and in the media, men involved in wars and women in caring for children, her/his brain associates men to competitive behavior and women as being more empathic for the plights of others. Biases are difficult to override, because the associations we learn are difficult to shake and the solutions are not easy to find. To reduce or overcome them the “contact hypothesis” [59] was suggested. In practice, they propose to look for and favor interactions. Not an easy task, as the hypothesis has critics and fervent supporters [60-61], and because we need to get rid of the categories in which we put genders. Another suggestion is to favor awareness on this bias, the only way to diminish the threat response and allow to regulate it [62]. Unfortunately, by default we tend to categorize people by gender (and/or age and race). Perhaps the solution is to see a person as a member of another group, for example occupational. When women are engaged in traditional male occupations this can enlarge our perspective. With problems. When women come to power, the original connection between manly potency and power falls apart. Because a new model of society has not been designed, reflecting deeply on the ideas and meanings that underpin the androcentric model.

Androcentrism and power

The fundamental question - almost unsolvable - is the following. What are the links between androcentrism and power? In 1983 cultural anthropologist Ida Magli introduced the term "potency" to indicate a force that every human being introjects and projects outside her/himself[63]. It is an "external" force that s/he senses as stronger and more powerful than her/himself. It affects very wide areas, which can induce different sensations and modulate behaviors. The word, for example, whether oral or written, expresses all its potency in rites, oaths, blessings and prophecy. It is the myth's founder. Historians of religions have clarified various historical-religious aspects that can be explained using the category of potency. Because of their potency, religious systems represent their objects as powerful, so it is not difficult to identify in the concept, even if partially, the roots of myths of origin found in many cultures, and those of polytheism and pantheism. I checked different definitions of God, and I can summarize them with a sketchy definition: *a superior entity endowed with superhuman potency*. Therefore, the very idea of God could be nothing more than a historical expression of potency, as already stressed by some Authors [64-65]. Even if I suspect that the concept reflects the unconscious expression of belonging to the same species, a sort of a meta-representation of the human species. Another example could be sexuality, that has been deeply tabooed in many societies to keep its enormous potency at bay through sometimes deeply coercive norms and rituals. Or the very concept of "mana" (whose general meaning is that of "spiritual power", "supernatural force", "symbolic

efficacy"), that, according to Durkheim [66], is a sort of anonymous and impersonal force that then passed, by collective projection, from the magical field to that of power. But also in the scientific one, with the idea of energy. My apologies for the oversimplification of these slippery and complex topics, but mine are "freewheeling" reflections only. However, there is no doubt that, globally and historically, potency is associated with the dominant gender. The possession of power, called *potential*, and that of its exercise, called *actual*, are based on technical superiority, on subordination to those who control certain resources, and on coercion and manipulation. If, according to Luhmann [67] power is nothing more than a code of generalized symbols that regulates and makes possible the transmission of services from one subject to another, these symbols are mainly based on competition, and research suggests that men are more competitive than women, probably because the payoff of competition are higher for them [68]. However, according to Cassar and Rigdon [69], in their conclusions: "We propose that women are not less competitive than men but are differentially sensitive to the social aspects of the environment. Women face trade-offs associated with earned high status that men do not face. Competitiveness in women reflects those personal and societal pressures, intertwining a desire to compete for resources with concerns about the distribution of those resources. For navigating cooperation and competition in the social world, sex matters". In any case, there is no doubt that at present, the presence of women in the manly world is accepted only if they conform themselves to the dominant androcentrism. Therefore, they use gender stereotypes to describe themselves as individuals.

One of the main problems is cultural unawareness. We see the world with the lenses forged by the culture in which we live, often forgetting that those with different colored lenses can and will see things differently from us. An example? The Chinese patriarchal conception that is based on the system of the five relationships ("Wu Lun"), currently advocated by the sinic political hierarchies, which are careful not to question it. It is a rigid hierarchy between subjects such as sovereign/subject, father/son, husband/wife, older brother/younger brother and friend/friend. In the past it provoked absolute allegiance to the father, the lord/retainer and the husband (the so-called principle of the "three bonds" or *san kang*, that still today influences ethics, law and society in China). For women the results are simple: obedience of the wife to her husband, and that of the daughter to the father. It is not difficult to imagine how much confusion it can fuel in a Chinese individual who confronts the different Western patriarchal model. Especially if s/he is a "cultural unaware" subject, that "sees and doesn't see, knows and doesn't know".

Androcentrism is based on power and potency. They are domains that surround us and in which we live, act, and die without ever being able to get rid of them. The two terms are insufficient to cover the enormous range of phenomena they delimit. Even if anthropological studies have made it possible to separate power and its implicit potency, we are far from designing a new model of society, questioning the ideas and meanings that have so far supported the previous model. We are unable to create a higher-order pro-social behavior. Unfortunately, in these troubled times, we are living in a "Manel World" that is impuissant to cope with the elaboration of grieving caused by the loss of the male primacy that has sustained the world for millennia. The emergence of the female request to count in the world (at different levels, power included),

caused a worldwide resurgence of politicians who are trying to contrast the unstoppable female attraction towards freedom and a real democracy at all levels. Democracy, by definition, requires equal human and civil rights for citizens, women included. However, the world has witnessed a major wave of autocratization, which has been expanding for the past two decades. Autocrats offer their subjects the heritage based on androcentrism they have accumulated over the centuries (territory, language, religion, cultural identity, and citizenship) and have a considerable following. Patriarchal backlash is one way that autocrats attempt to undermine and prevent mass movements from effectively mobilizing. The suspicion, in any case, is that autocracies are attempts to prolong androcentrism.

Conclusions

In the Paleolithic natural selection molded individuals, their families and communities and their purposed behaviors were influenced by traditions forged by the ancestral environment, that was restricted to a few square kilometers, handful of decades, and some plant and animal species. Afterwards, in the Neolithic, communities and the newly formed societies were molded mainly by cultural selection. Concerns about global ecology started only recently and this is too short a time to achieve bio- and species-altruism, especially in those parts of the world still cloaked in androcentrism. As I recently wrote [70 pages 7-8]: "Probably" a change in our ethical perspectives is necessary. We must first pass from an anthropocentric ethics (that conceives man as master of the world) to another ethic, planetary, which allows the Earth to be habitable for man [71]. This bearing in mind E.O. Wilson's [72] "scientific humanism". He assumed that humanity, with its destructive power, is the first species in the history of life to become a geophysical force. In fact, by introducing incalculable quantities of chemical compounds and toxic waste into the environment and polluting the oceans and lands, the threat to the terrestrial ecosystem is enormous as it could be irreversible. Therefore, the anthropocentric paradigm that has so far governed the man/nature relationship must change into *biocentrism* (also called "ecocentrism" or "biospheric view"), or the recognition that man is just one of the living beings on Earth, without a supremacy. Not an easy task". And I added: "Another ethical change could be the search for a *cosmopolitan* ethics, that requires the idea of a cosmopolitan solidarity. Another difficult task, as it requires overcoming the concept of state. Cosmopolitan ethics, in fact, requires that what the Earth offers be available to all humans without discrimination, while that of the state limits its ownership within its borders. In these troubled times this goal is probably only a hope". Recently, P. Descola [73] called into question the separation between nature and culture that Westerners have inherited from the Seventeenth century. This is a fault that divides creation in two, generating opposition between society and the environment, between beings and non-beings, between nature and culture. However, these entities and living beings all participate, even if with different criteria, in the same being, the Earth. In the West, the idea of nature has its foundations in ancient Greece, which placed the accent between the opposite *physis* and *logos* and, among other things, established the conditions for creating the gap existing between the humanistic and the scientific culture.

According to the Author, it was precisely this fracture that legitimized the domination and exploitation of man over other man and other living species. Concluding, we need more and more women in the sphere of decisions for a very simple reason: they have a natural propension for transcendence (what is before, what is after, and beyond our earthly existence), whereas males are more prone to immanence, or the reality we inhabit [74]. This is because it is the woman who, by actively opening herself to the world “beyond” gives life. But historically, thanks to shamans and various religious founders, women have been deprived of their real relationship with transcendence. During time males of power have assumed the privileged relationship with transcendence, creating the religions. The founding purpose of religions is to offer solutions to the human beings’ greatest fear: their finiteness. They do this using myth, symbols and powerful words that introduce the Sacred into human existence, of which all are afraid. The Sacred, in fact, cannot be questioned, and power uses it to hide its enormous violence. Therefore, we need women to widen our perspectives. We need them to re-establish a more correct approach for getting answers to questions about the world. This is because if philosophers and theologians use logic and reason, science bases its efforts through empiricism, evidence, and experiments. Women can help most of the manly societies of the world to build bridges between the humanistic and scientific knowledge, a goal that, according to some thinkers, will require decades to be filled [75]. When we reflect on a topic such as androcentrism, we are faced with an interweaving of physical, historical, psychic and cultural data that would require long and sophisticated analyses by entire teams of scholars. Because it would be necessary to address the issue of the bio-cultural implications of every individual and collective behavior, as happened in the days of classical anthropology of the past. Unfortunately, nowadays one would not escape a fatal accusation: that of racism.

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