RACIST BEAUTY CANON, NATURAL BEAUTY AND CRITICAL MATHEMATICAL EDUCATION

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This work is characterized by a claim from a perspective of critical mathematics education, to address a problematic situation that is deteriorating, because what has been conceived as Natural Beauty possibly leads men and women to a strong inability to see their natural essence. Therefore, it is important to generate proposals that allow humans to learn to value and appreciate their selves and their environment. All this with the aim that through the review of mathematical education, it will contribute to society, in a revolutionary way, to set up a language that gives meaning to the creation of the natural elements that make up the universe.

RACIST BEAUTY CANON

A problem that has boomed since the late fifties and has been exacerbated in the last ten years, both in Venezuela and Latin America, has been the promotion of a female image that attaches too much importance to physical appearance, evidenced visibly in the Latin American obsession to fulfill their dreams of reaching the (90-69-90) body measurements, according to a report prepared by Hare (2009) in Montevideo. Finally, the idea of selling human beauty and all that it represents, enables the birth of a new culture, which leads to see the man and woman like industrial products, as evidenced by the mobilization of millions of dollars used by women, for body changes through cosmetic surgery, a practice which, according to Hare (2009), increased over 200% in the region over the past ten years, which has generated great concern, since it goes against Latin American multiracial reality, it states that "the model of beauty that prevails in the region that comes to mind is the North: white skin, light eyes and blond hair(phenotypic characteristics totally alien to our Venezuelan and Latin American reality).

CRITICISM OF MATHEMATICAL EDUCATION

The problem described above, which is a first approach to the proposed theme, shows the importance of reflecting on the contributions that mathematics and science educators can develop in achieving Latin American and cultural welfare. But, referring to education as useful to

society, requires educational proposals, which according to Moschen (1975) are not exclusive to these, as the problem of the incorporation of the person(s) in a particular organization, but rather prioritize the realization of being. Therefore a fundamental educational proposal may be to foster a critical and emancipatory comprehensive training for all citizens, whose primary purpose is "to achieve personal development in everything that improves their social dimension". It is thus important that mathematical education explains, understands and transforms the social facts, such as the case of the racist standards of beauty among others, taking into account the students as individuals and the historical and social context associated with the individuals' world, whose role should be oriented towards the total emancipation of the people. Because of this I discuss an example of how to enter criticism from mathematical education to the problem of a racist beauty canon.

THE CIPHERED NATURE OF RECONCILIATION: THE NATURAL BEAUTY AND A FIGURE OF RECONCILIATION

The study of nature and all beauty that it implies, leads to the search for patterns, which can be developed from mathematics. That is why the golden number is considered (or the number phi), which serves as a standard in this case, to narrow the gaps between women, men and nature to which they belong, rediscovering the existence of the harmony and balance of power in order to be valued as human beings and to value everything that surrounds them. That is why I show an example of three tasks done about this, which seek to recognise the link between natural beauty, symmetry and proportion. Having inserted the photo of the student at the computer, with the assistance of Cabri Geometry, we proceeded to calculate the distance from the foot (point I) to the head (point G), $GI = 10,45$ and the distance from the navel (point H) to the head (point G), $HG = 6,43$. Following the principle of Euclid (larger segment / lower segment), finding the ratio between these lengths we obtain: $\frac{GI}{HG} = 1,625194....$ this result approaches the golden number ($\ddot{o} = 1,6180339887.....$).

Similarly we proceeded to find the ratio for the distance between the tip of the middle finger of either of your hands, in this case the left hand (B) and left shoulder (A), the result was, $BA = 4,27$ and the distance from the tip of the same middle finger (B) to the respective elbow (C), we have $BC = 2,63$.
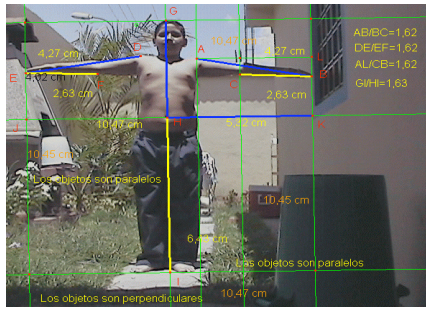
Figure 1. Obtaining the golden number through the medium proportion and the extreme proportion in the human body

The reault of finding the ratios between these lengths was: $\frac{BA}{BC} = 1,623574...$ noting that this result also approximates the golden ratio ($\ddot{o} = 1,6180339887.....$). When carrying out the same procedure with the other arm we found similar results, fulfilling the mathematical parameters of symmetry and proportionality. It is funny but important to note, that the participant is inscribed in a rectangle whose side lengths are determined by its height and distance from the tips of his fingers (arms outstretched), which are approximately the same. In other studies, we examined the human body (basic education student), in order to obtain the balance and harmony through the relationship between the parts in all, starting with the body position that was intended by the student, and using similar procedures as Leonardo da Vinci did in the Renaissance age, who considered the man as the measure of all things and represented the human body with the five-pointed star (symbol of the Geometric man of Vitruvio). This work with the human body and the mathematical elements, allowed a glimpse of the presence of phi in the expressions of nature. Finally, for purposes of this work, phi becomes the pattern that gives meaning to the creation of the natural elements that make up the universe, making it clear that men and women are naturally beautiful.

CONCLUSIONS

From the universe around us (to which we belong) and the study of mathematics, a language emerges and gives meaning to the creation of the elements that compose it, prevailing characteristics of men and women who make up, promoting, the rescue of human beauty. The release of the peoples of the southern hemisphere should be the primary point of departure in education and the goal to which mathematical education can contribute. Mathematical education is to counteract the series of events that operate against the essence of being human and social construction. Men and women must learn to value themselves as natural beings in order to assess their environment, not wanting to deform it in the way mercantilist prescriptions suggest. We have to move away

from the natural beauty canons and assume the standards that are typical in nature, to which men and women belong, linked to symmetry and proportion, and contribute to the care of these, considering them as beautiful reservoirs. An important aspect, according to Moya (2008), is that teachers see the interdisciplinary nature of mathematical education and its relation to different areas of knowledge and that these are linked to different aspects of knowledge, such as ontological-epistemological, technological and sociological, which allows them to improve learning and then obtain a product in different areas in which mathematical education takes place, such as information technology and communication, education and health, among others.

In conclusion, education in mathematics is to serve society in a revolutionary sense, develop critical thinking and foster democratic dialogue with all citizens who are members of that society, which requires the cooperative and collaborative work of other sciences.

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