



V. INTERNATIONAL CAPPADOCIA SCIENTIFIC RESEARCH CONGRESS



November 5-7, 2023 / Cappadocia-Nevsehir

EDITOR

Prof. Dr. Halis BİLGİL



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QUALITY IN LIFE AND EXPLORATION

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Abstract

Most human activities are focused on science and many other types of exploration, and less effort is paid to life quality. Therefore, this work balances these two efforts and proposes such methods. The approach is based on the rules in Nature for the proper functioning of natural objects, where the rule of balance includes all the rules. Two models are proposed for life quality, the one being Platonic, which deals with internal balance and requires efficient logic (reason) to balance desire and anger, and the other is Aristotelian, coping with external balance, where actions must not be defects or excesses but follow the mid-space of the Aristotelian virtue. Both models define the virtuous person as the only one expecting quality in life. The excess effort in scientific and technological explorations has already developed monsters such as artificial intelligence and robotics and many of their applications for human extermination activities, ignoring life value and quality. Therefore, people in science and technology must understand such imbalance, start considering the consequences, and try to apply the proposed models, educating themselves and others to be virtuous, thus minimizing extermination activities.

Keywords: education, life quality, scientific exploration, ethics, human behavior, justice

INTRODUCTION

Science and technology have made tremendous progress over the last decades without considering the impacts on life quality. Most people working on the development of science and technology are interested in financial issues and how much money they will get from their jobs, and they care less about where such developments are to be used. The result of this situation is that most of such research is financed by high finance elites, who use the results for their interest. Their interest is to increase their profits (Muhammad Yunus, 2017) without caring about human values and quality of life. Therefore, science and technology could develop artificial intelligence (AI) (Greg Allen, 2020) and robotics under common-logic conditions to improve life values and quality. Instead, in the first place, it creates monsters for human extermination and, in the second place, improves human conditions to the level that serves the interests of the elite. In other words, human values and quality are not the issue for such developments, thus creating an imbalance.

Regarding balance, Nature has laws and rules (Ten Lessons on Greek Education, 2022), and the laws are mandatory; if someone decides to fall into a cliff, he/she is going to suffer immediately the consequences for not obeying the gravity law. On the other hand, rules that regulate the perfect function of objects in Nature have tolerance limits and exceptions. The word "perfect" emphasizes that Nature makes no mistakes and that tolerance limits and exceptions exist to secure diversity and evolution.

Therefore, the best rule in Nature is that of balance that includes all other rules. For example, the Earth's sustainable rotation around the Sun is due to the balance of two forces: the gravity attraction force and the centrifugal repulsion force, due to its rotation. If these two forces are in balance within tolerance limits, there is a perfect functioning of the Earth around the Sun; otherwise, the Earth collides with the Sun or gets lost in space. Balance within tolerance limits also regulates most functions of the human body, such as stomach acids, heartbeats, blood pressure, and so on. Therefore, functioning outside the tolerance limits is a sickness with undesirable and maybe catastrophic consequences.

However, the exploration and development of science and technology is out of balance compared to human values and life quality exploration and development. Therefore, exploring factors contributing to human values and quality of life is essential to establish such balance within tolerance limits. The most critical factor is the human mind, which must be educated to operate within the laws and rules of Nature. The ancient Greeks made developments in this direction independent of culture, nationality, politics, economics, and religion to support worldwide education as the therapy of the spirit, in harmony with Nature, and promote the sense of beauty. Furthermore, they provided several education systems with the same bases, such as the virtuous in their development. Such bases will be analyzed using two models (Hatzopoulos 2004, 2009, 2014): one from Plato, dealing with the person's internal balance, and one from Aristotle, for external balance. First, Plato's model considers sufficient logic to balance desire and anger. The second is Aristotle's, which defines the virtuous and considers thoughts and actions not to be excess or deficit but to follow the midspace of the Aristotelian virtue.

INTERNAL BALANCE

According to Plato: *The Republic*, the human spirit (human *mind*) is composed of three essential components, which are *desire*, *anger*, and *logic (reasoning)*. Plato also defines the ideal situation as that logic must be efficient to maintain a check and balance between the two other components, desire and anger. This situation we may call *internal balance*.

Notice that desire and anger are the uncultivated part of the human mind, and the degree of the logic efficiency to manage and cultivate them defines the person's strength. In other words, the strength of a person to work on human values and life quality depends on the ability to control the internal animal expressed by desire and anger, which happens with a constant effort to maintain an efficient logic.

Plato's model is illustrated in Figure 1, where *desire* is represented by a *blind horse*, *anger* by a *crazy horse*, *logic* by the *coachman* who tries to move the car in the correct direction, being the midspace of *virtue*, as it will explained later.

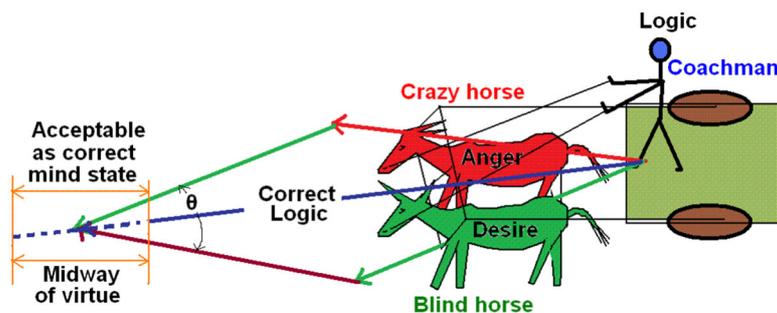


Figure 1. The absolute correct human mind state is defined by Plato, where logic balances desire and anger, and the acceptable correct human mind state is improved by the Aristotelian midspace (midway) of virtue (Hatzopoulos 2004, 2009, 2014).

However, logic is an essential part of the human mind, and the education system must work out programs to maintain and increase its efficiency. Desire, on the other hand, is equally important as long as it is associated with reasoning. Desire without reasoning is a disaster for a person and their environment. Regarding anger, it is also important to react in cases where there is no time for logic to respond, i.e., the sudden attack by a dangerous object, and in other cases where logic needs strength, anger can help that, i.e., he hit his feast on the table.

Internal balance is fundamental to achieving quality in life because all problems of misery for human beings start from such imbalance, either by irrational desires or by unmanageable anger and inefficient logic. Therefore, if someone wants to bring quality to life must design school programs at all levels to maintain such balance. On the contrary, if someone wants to enslave humanity, they would find ways to disturb such balance by creating unnecessary desires through mainstream networks, advertising the excess anger as a way to solve all problems using cowboy movies, and using defect or excess logic that creates more confusion than solving problems. Because of the importance of internal balance, whoever disturbs such balance must be considered guilty.

EXTERNAL BALANCE

Aristotle, in his book: "The Nicomachean Ethics" defines *virtue* as the midspace between two extreme positions or "badness," and virtue such as braveness (courage) for a brave person may be found in midspace between the coward and the provocative. A coward may be considered a person with an error of negative sign due to underestimating virtue. At the same time, a provocative may be regarded as a person with an error of positive sign due to overestimating virtue. Similarly, the virtue of thrifty is the midspace between the stingy and the overspending. Aristotle also defines the person of virtue as the continuous effort to be a person of virtue. That allows anybody to be educated as a virtuous (never is late). According to Aristotle, the virtuous is not the one who commits no errors but is the one who constantly tries to minimize errors. This definition of virtue completely fits within human dimensions, and under certain conditions, it may allow extreme actions to occur (exceptions), such as for self-defense (Hatzopoulos 2004, 2009, 2014).

The Aristotelian midspace of virtue establishes a balance between a person's thoughts and actions (person's behaviour) and the society, which we may call *external balance*. It is in harmony with Nature's rule of balance and has a universal validity.

The midspace of virtue can be better understood as follows (Hatzopoulos 2004, 2009, 2014): Consider someone without physical limitations walking in a flat terrain and meeting an obstacle (Figure 2); raising the foot to pass over the obstacle is necessary. If the height of the foot is lower than the obstacle, there is a false step, and the action is considered an error with a negative sign. If the height of the foot is much higher than the obstacle, there is an overthrow, and the action is considered an error with a positive sign. There is an "*optimum*" or *perfect* height to raise the foot, i.e., the average of all possible correct attempts (Platonic *absolute*). However, raising the foot a little higher or a little lower from the optimum height is considered to be *acceptably correct* because, in this range, there is no false step. The magnitude of the error varies from a temporary loss of balance and return to the right position to a severe injury. However, if human error is to be quantified, it will take values from zero to minus infinity and from zero to plus infinity. The *midspace*, defined as *correct*, is similar to the Aristotelian virtue.

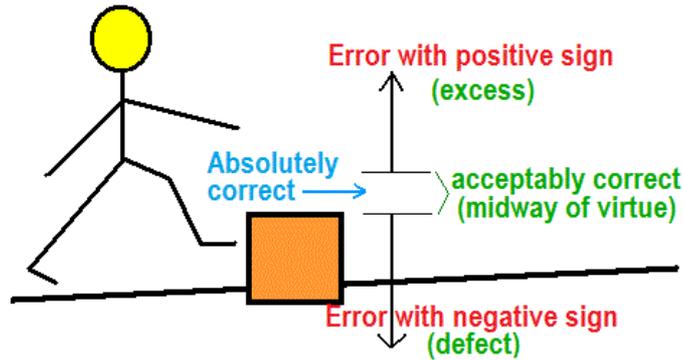


Figure 2. The midspace (midway) of virtue (Hatzopoulos 2004, 2009, 2014).

The Aristotelian virtue can be used to model human error and define terms scientifically, such as education, freedom, deception, and democracy. Regarding Figure 2 and the corresponding analysis, one may observe the following:

- (a) The boundaries of wrong and right are pretty straightforward and can be precisely defined within the midspace of virtue.
- (b) A non-educated person who passes obstacles (for example, a little kid) the first time is likely to have a false step. The next time is going to have a better performance. Continuing the effort will improve its performance at any desirable level and get educated (virtuous).
- (c) In the same action, wrong and right (error and correct) coexist, and their boundaries are located where the error value is below a threshold limit.
- (d) Correct and error are quantities inversely proportional to each other. Consider an action with an error of magnitude X ; then the same action is correct of a magnitude Y . Consequently, $Y = 1/X$, which means that in an action with a high error value, the correct value is low, and in an action with low error value the correct value is high.
- (e) Within the midspace of virtue, there are many ways (infinite) to pass the obstacle correctly and, therefore, many degrees of freedom.
- (f) Freedom may be defined as a person's alternatives to complete a correct action within well-defined error limits.
- (g) Since the magnitude of the error varies from a temporary loss of balance and return to the right position to a severe injury, then error values may be within the range from zero to minus infinity and from zero to plus infinity.
- (h) Human error could be quantized as 1σ , 2σ , and 3σ , σ being the variance of all trials.
- (i) Bias or deception is defined as the action of someone who knows how to pass an obstacle and, on purpose, has a false step.
- (j) An uneducated person is defined as someone who has no physical or other limitations and has a false step in passing the obstacle.
- (k) Regarding the boundaries of the midspace of virtue, anyone may have a different location, and therefore, they must be located by a broader consensus.
- (l) Democratic procedures are the ones used to define the limits of the midspace of virtue.

A way to model human error is using Figure 3, where an X -axis represents the human error from zero to minus infinity to describe the defect and from zero to plus infinity to represent the excess. Around zero is the midspace of virtue or the acceptably correct area, and in the distance $-\xi$ from zero is the lower virtue limit X_L , and in a distance $+\zeta$ from zero is the upper limit X_R .

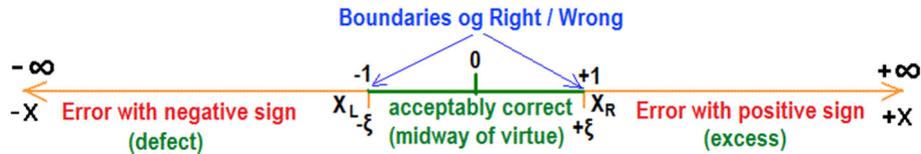


Figure 3. Human error and midspace (midway) of virtue (Hatzopoulos 2004, 2009, 2014).

If we want to define mathematically the quantities $\pm\zeta$, we consider the relation between error X and correct Y , which is $X=1/Y$ because, as earlier stated, they are inverse proportional quantities. Therefore, in the boundaries X_L and X_R , they must have the same value (Hatzopoulos 2008), and substituting $Y = X$, we have $X=1/X$, $X^2 = 1$, or $X = \pm 1$. This value at the boundaries for the X is a unit of measurement in the X -axis, and if we accept that human error follows the standard normal distribution, which must be scientifically proven but not in present work, then $X = \pm 1$ is the standard deviation (σ) and variance (σ^2) of the error which is measured in units $1\sigma, 2\sigma, 3\sigma, \dots$ etc. for more human error analysis see (Hatzopoulos 2004, 2009, 2014, 2022).

External balance results from the internal balance, to conclude the virtuous having internal and external balance. Jaeger Werner, 1945, also supports the virtuous.

THE CONCEPT OF JUSTICE

As shown in Figure 4, the ancient Greeks had Themis as the goddess of justice. Themis is blind not to recognize the judged ones. She holds the scales in one hand to identify the guilty as the one disturbing the balance of scales, and the other has the sword to punish the guilty.



Figure 4. Themis, the Goddess of justice.

The concept of justice is well known to the virtuous, simply because guilty is whoever disturbs the internal and external balance, and the virtuous is their only performer. On the other hand, the virtuous know that those who intentionally disturb the balance to increase their profits use the divide-and-rule method to keep people uneducated. Such people do not look at establishing justice and balance but try to fight each other. All wars work the same way: getting people from both sides killed and the bankers profiting from it by funding both sides.

DISCUSSION

The worst kind of globalization we live on is performed by a bunch of elites (Muhammad Yunus, 2017), making decisions without asking anybody. They control the financial system with fake money and buy and control all high-tech developments, including artificial intelligence (AI) (Greg Allen, 2020).

I refer to fake money because the banks are supposed to have a reevaluation of currency (RV) (Anna Von Reitz, 2023), except if war is going on. Twenty-two wars are ongoing, but even if this did not happen, they could finance some radical groups to create a war to avoid RV. On the other hand, the bankers are the ones that fund all parties involved in a war conflict. The elite to maintain and increase their profits must disturb all kinds of balances and have the means to do it, resulting in a non-educated public incapable of understanding that they act against Nature, and by disturbing the balances, they are guilty and must be brought to justice. A UN report discovers an extraordinary imbalance occurs as the World's richest 1% own 40% of all wealth (Muhammad Yunus, 2017, The Guardian, 2006).

A part of such wealth and money goes into manufacturing high-tech (using AI and robotics) conventional weapons to kill each other and nuclear weapons to exterminate each other. Another part goes into surveillance systems to monitor the behavior of the citizens and censor their beliefs and actions, which the elite thinks is dangerous to our democracy (Mainstream media, 2020).

There are warning voices about AI going out of control to take over humanity, and is given two such examples in this presentation. Dr. Yuval Noah Harari 2018 is an Israeli history professor who has written many books on AI. He is an advisor to the World Economic Forum (WEF) and Klaus Schwab, and he talks about using AI for surveillance and hacking the human mind, thus ending the Homo Sapiens human species. The second example is an attempt to present the views of someone anonymous (Anonymous Mr. Masked, 2023) with the title "Nobody Is Talking About This, It Is Already Happening!" It agrees with most of Harari's views and adds some terrifying things already happening and the worst to come, such as transhumanism, in the future unless we take proper actions.

However, all effort in this presentation is to introduce proper actions. The analysis found a colossal imbalance between science and technology developments and quality of life. It happens because most emphasis on funding research is given to science and technology rather than life quality. Furthermore, the elites purposefully create the imbalance to increase their profits by controlling and enslaving humanity, which does not respond appropriately because of the lack of education. In the analysis, we located the uncultivated part of the human mind as desire and anger, which are not adequately cultivated by the education system and are deteriorated by the fussy cultural environment created by the mainstream media. Therefore, as developed in this work, the best way to restore balance is to put objectives and tasks towards the virtuous based on internal and external balance. Emphasis must be given to a continuous effort for the individual to strengthen logic to be efficient and also a constant effort to manage desire and anger. Priority for such education must be given to those working with AI and high-tech so that they care about the applications of the material they develop to ensure that it is used for constructive and not destructive purposes. Furthermore, education must be provided in all scientific fields, such as engineering and informatics, where the educated must be more intelligent than the machine (Hatzopoulos, 2022).

Science exploration is what is left from all humans working through centuries and millennia, which could conclude that it is part of the human destination. On the other hand, Plato, in his book Timaeus, considers scientific truth as an entity that is forever existent but never was born. Therefore, only the human mind, through scientific exploration, can discover and reveal such truth. Furthermore, life quality is necessary to support scientific exploration, and many scientific results can improve life quality. However, it makes no sense for humans to use scientific exploration for destruction. On the contrary, they must use the balance rule to develop in harmony with Nature in scientific exploration and life quality, and they can achieve this through virtue and the virtuous.

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