

Explanation of the "days of violence" (and the calls for violence) via a conflict between modern democracy and the intellectual overstress

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Objective: To analyze the causes for the "days of violence" in the borders of the hypothesis that the cruelty of masses can appear as necessity in simplification of a complicated psychological situation caused by improper informational feeding. On the biological side, this is a problem of *unbalanced* asymmetric development of the brain hemispheres, that is, cruelty prevents further development of the right hemisphere responsible for our creativity, while the associated hooligan physical actions develop the left hemisphere responsible for our movements, which together improves the balance. **Method:** "System" argumentation extending the analysis from a recent conference presentation regarding the role of complexity of our mind, attention to the opinions of ancient philosophers, and careful consideration of the relevant (needed) terminology. **Results:** The hypothesis put forward explains the "necessity" in violence, and it is found that some biological investigations support a connection between aggressive behavior with asymmetry in the brain activity. It is noted, additionally, that since committing suicide is violence against oneself, the suggested improvement of the delivery of information also can help re this problem. Some recommendation for correct measures are formulated. **Conclusions:** The means of public information have to choose well and work out the information to be delivered so that simple people will not be hurt or psychologically damaged. The hooliganism of the "days of violence" is distinct from the well-known "soccer/football hooliganism", and the given argument must be considered in courts. Though well-contributing to social welfare, democracy develops a conflict with *intellect*, because the public means of information (radio, TV, Internet) ignore the psychological problem that the simple people (i.e. those who want to live with a clear mind and be thus respected) have. However paradoxically it is, -- the effective ("powerful") use of democratic freedoms by the means of information, causes intellect to become a kind of dictator, disliked or even hated by many. This can gradually cause a conflict between simple people and intellectuals, at the world scale.

Keywords: aggressive behavior, competitiveness, violence, information, difficulties of learning, conflict between democracy and intellectualism.

1. Introduction

1.1. *A hypothesis re the days of violence*

In the *informational sense*, the means (tools) of public information, such as radio, TV and Internet, have made our world united and absolutely democratic, even though dictatorial regimes are still easily found. While whether or not we can vote for our government is an important question, we are never offered to vote for the nature of the information to be delivered to us, and the informational tools are *absolutely free to feed the whole world* with the same information that today is, as a rule, highly intellectual, even if it is for many just some redundant gossip.

The associated presentation of intellectualism (genuine, or not) *as the main social ideal* appears to be a real problem that will strongly occupy us here, because we argue that the intensive "feeding" of the population by some "bright" information can be associated with the development of violence. This position is supported by psychological, biological and philosophical arguments.

Since the problem in focus relates to many countries or nations, it is sufficient, in principle, to consider only one (any) country where people are able to organize a "day of violence" [1] accompanied by the insistences that they, the whole society around, and even the whole of humanity, *need violence*.

Our decisive position (see also [2-4]) is that contrary to the common opinion, the fact that the defined hooligans think that this world needs violence is *not* because of some problems of social welfare. Indeed, such problems are always temporary and perhaps "triggering", but not more than that. *The main cause is that violence makes the difficult psychological (intellectual) situation simpler which lets one resting from the permanent intellectual overburden, and protest against it.*

This position shows that in the modern world, democracy and intellect are in a deep (even if not immediately seen) conflict, and rephrasing the known words by Maria von Ebner-Eschenbach re the education of children, we can say that the days of violence represent not something which "can happen", but something *which is developing*.

1.2. *Democracy and intellect in view of the days of violence – the painful philosophy*

Democracy won, in the sense of delivering information, the battle for advancing intellectualism everywhere overall the world, but how good is this victory for humanity in unclear. Figuratively speaking, intellect appears in the modern world as a strong unbridled horse on which the dismayed (though proud of itself, -- but this is just the root of the problem) humanity is galloping. *The very dangerous idea that all of us need intellectual challenges as the main society ideal*, sits inside this horse, and the "days of violence" show the danger. Observe that while *food and democracy* are good friends, *intellect and democracy* have problematic mutual relations.

Maxwell [5] said that one should read only original works. This advice appears to be most relevant today, because the actually existing cynicism of the modern reality is that the humanity that seemingly has "polished" the democracy up to the official announcement that all people are equal (this basically means that no one of us should be hungry), forgot that the ancient Greek philosophers, the fathers of democracy, had

been seeing in democracy an opposite to dictatorship, and *not* equality of the groups of people having different intellect. The group formed according to the high level of good education of its members was seen by Aristotle (e.g. [6,7]) as the necessarily influential one.

Remark: It is traditional for sociology to use the concept of *equality*, which is, originally, a mathematical concept. In physical applications, the quantities to be compared (equal) must be of the same physical dimensions, i.e. must have similar *qualitative* properties, which is not always easy to apply to humans. The democratic right of voting is a clear part of the "equality", but in our problem, the actual acting forces do not include voting, and are not seen by many. The democracy exists on the side of the microphone, but not on the side of the loud-speaker, as if the radio belongs to intellect appearing as a dictator, because simple people never voted for making intellect the official society ideal, i.e. a dictator. However, the concept of equality is usually applied only to free people, i.e. it is in contradiction to any dictatorship, even the intellectual and hidden one. In fact, the usual associating democracy with the equality of people is justified only when we traditionally require equal rights for different races and nations. However, the cause for both racism and anti-intellectualism can be a need in cruelty, and it can occur in future, on the world scale, that those of low intellect can become united against those of high intellect. Certainly, this must be prevented.

The point of the mentioned cynicism is that despite the official announcement of some general "equality", the *intellectual inequality* is the actual situation, and a tremendous, unfair, power is given to the intellectuals by the means of information, -- much more than what the intellectuals really ask for (i.e. the guilt is not of the intellectuals). Certainly, the ancient philosophers could not imagine that the talented humans could be given such huge power that their intellect would become a cruel dictator bringing troubles to many.

The euphoria of intellectual narcissism, -- stupefying not only the real intellectuals, but also those who have the possibility to touch the great things turning them to into informational gossips, -- is not good for humanity. The wish to demonstrate to ourselves the humans' intellectual power causes a growing problem for the simple people wishing to quietly live with a clear mind.

The present sympathy to the simple people, including those defined (but not understood) by the society as "hooligans" is not an expression of any kindness of heart. This sympathy follows from the very definition of life as it is given below in Sections 2 and 3, and in [2,3], based on the *system-theoretic* requirements of *stability*. This definition suggests that the simple people are right in this confrontation, and while not accepting violence as a solution for anything, one must to correctly see its roots.

However, it is also not only some deductive (axiomatic) thought that defines our position. The "days of violence", the anti-Semitism being noticeably enhanced [4], and the present opinion that what once happened to Jews can happen in future to all of the intellectuals, -- causes us to speak about these things openly, suggesting that the work of the means of information has to be drastically improved by making the delivered information appropriate to the absolute majority.

Fig. 1 illustrates the problem of "informational feeding".

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"I neither understand, nor need all this information (knowledge). I was not given perception and memory for this.

The relation to me of the means of information (radio, TV, Internet) is just a hooligan one! (They feed me with nonsense.)

All this redundant gossip causes me to be depressed and to protest.

I am afraid of the society, and attack it in order to feel more confidence in myself.

They define me as 'hooligan', but something bad and frightening occurs inside me, because of them.

I want to remain simple!"

This simple and nice guy stops to understand himself, but we have to understand him and help:



"Scream" [fragment] by Edvard Munch (1893)

The '**Days of violence**' :

"I want to remain simple and be thus respected. I have to generate my SOS-signal in this terrible noise!

Violence makes all simpler!"

Fig.1: A slide from [2], with the possible interpretation of the "Scream" as: *this poor guy could be like the nice nightingale, if not for the informational stress imposed on him.* According to the terminology of Section 2.1, this guy cannot keep the structure (or sufficiently low entropy) of his thinking/mind, and *this is killing him via the informational stress.*

Though we all are similarly *morally good*, there are, in every country or nation, more intellectual and less intellectual people, those who tend to learn more and those who tend to learn less. Those who are less intellectual may say (possibly, unperceivably) to themselves:

"We are fed (actually, by force) by the means of information with the intellectualism that cannot be treated ('digested') by our thought process as is needed for us to remain with a clear mind necessary for having a good, stable life. This 'feeding' by the untreatable information is a kind of hooliganism of the means of information against us, which means that society is dangerous for us. In a decisive manner, this harmful complicated situation can be simplified only by violence and hooliganism, and the violent actions will also show our protest against the situation."

and though one can find this my thought a bit fanciful, their leaders *can* add:

"We should be especially cruel with respect to Jews, who gave some important prophets, letting them see that they will be beaten until they produce somebody able to help everyone to understand our problem, and thus to solve it".

In order to simply see the trouble, one can also compare this whole world to a huge "class of students", -- in which those who cannot understand the lesson, and are thus deeply hurt in their honor and human dignity, -- *cannot leave the room*. It is not just a worldwide democracy allowing one to learn something, but also a worldwide

dictatorship of intensive informational feeding, and it is not a miracle that some "students" think that this world needs violence in order for them to *intellectually rest*.

2. Some terminology *ad hoc*

Let us give some *narrowing definitions* of the concepts that usually have some very wide meaning, thus making any development (e.g. in Section 3) of the argument more straightforward. This vocabulary is also useful for considering works [2-4].

The following terminological formalization *ad hoc* is justified not only by the wish to constructively advance the line of thought, but also by the fact that brochure [8] by Erwin Schrödinger, which strongly motivated us, is very intuitive in its terminology and ideas.

The order of the following terms is not alphabetical but logical.

2.1. The vocabulary

Structure – a set of connected elements representing (reflecting, when using a model) the operational essence of either a physiological (when related to conventional digestion) or a logical (when related to mind) system. The point is not the structural details, but the *survival* of the given structure. Since, in fact, biological structures (as any other structures) tend to become more complex, preservation of structure automatically means the preserving of some initially given *simplicity*, i.e. some low *entropy*.

Life -- the ability of a living object (human) to maintain its (his) inherent structure(s). This ability is associated with some relevant internal (organic or psychological) *necessity*, which constitutes the difference between a growing baby or a plant compared to a crystal growing from a concentrated solution. Though we often associate life with the appearance of something new, as is expressed e.g. in dancing, *basically*, life is keeping (preserving) some initially defined structures, -- the structures that know how to maintain themselves but do not always succeed in doing this. (The dancer should not be decomposed by the dancing.) Regarding the terminology, observe that according to the given definitions, in such an expression as: *life is the ability of a living object to ...*, there is no logical contradiction between "life" and "living", because "living" is associated just with some biological or zoological *existence*, while the given narrow meaning of "life" is some *system ordering* related to either a physiological-digestion system, or a human mind.

Death – the inability of a *still alive* body to sufficiently well maintain its structures. For physiology, this leads to death in the usual sense. However, we relate the concept of "death" also to intellectual life/death, and then the present definition means that *killing of life* is making (by feeding one, with however "good intentions", with information that one cannot "digest") the basic structures of one's mind more complex. In the informational field, "death" is expressed *as some mental disorder, or coming to so high a spiritual "pressure" in conducting one's everyday life, that one cannot feel himself happy, and has to protest*. (We do not mean, of course, the basic knowledge that any child has to receive to *properly develop* his mind.) In these terms, if the personal intellect starts to become more complex, it starts to die.

Entropy -- a degree of complexity or disorder. Boltzman's formula for statistical entropy, i.e. [2], can be used, though the concept of probability should be replaced by the concept of *possibility*, meaning different possibilities (e.g. of the order of connecting the elements) in the creation of a prescribed structure. The use here of the concept of entropy is motivated by Erwin Schrödinger whose approach [8] to physiology is extended by [2,3] to psychology. However, the simpler concepts of complexity or disorder may be decisively preferred, because [8] does not define any "structural entropy" which would be relevant to the topics of [8] and [2,3], and often speaks about thermodynamic entropy whose relevance here is very problematic. Thus, for instance, the obviously "adopted" from thermodynamics statement in [8] that "*maximal entropy means death*", may cause the impression that life is some tendency to death, as a tendency to equilibrium in a statistical system, which is associated with decaying of some dynamic processes, -- an incorrect picture as re the biological reality. A problem with the statement "*maximal entropy means death*" also is that that dead body can (should) be described only structurally, and not thermodynamically. Thus, in fact, Schrödinger "jumps" here from the thermodynamic (or statistical) to some *undefined* structural entropy, which just supports the said in [2] re the necessity to define such entropy and use it in biology.

The R+ problem – the state of the brain when the right-hand hemisphere is overdeveloped with respect to the left-hand one. Despite the fact that the overdevelopment of the right hemisphere can be a result of the respectable ideals of teaching science or engineering, this unbalance is *dangerous*; it may be expressed as a mental decease associated with *violence helping to restore the balance*. The biological mechanism of the organic necessity of this restoration is unclear; probably, one feels in some way the distinction in the electrical activities in the hemispheres. In any case, by giving different functions to the hemispheres, the Nature also took care of giving us the possibility to get some information about the uniformity of our spiritual and physical (more motor) developments and activities. It has to be noted that relevant biological works, as [9-11], use the term "asymmetry" instead of "unbalance", and one should consider that earlier biological works spoke about "asymmetry" only in the sense of the difference in the basic functions of the hemispheres, as they relate to the healthy normal situation without any overburden. The latter "asymmetry" is *not* the *unbalance* (just a necessary condition for development of the unbalance) caused by the intellectual overburden of the right hemisphere, which interests us and results in violence. One should always check whether or not "asymmetry" is used in the sense of unbalance. In general, we touch here a very interesting case when a not-just-geometric symmetry plays important role in biology. This problem/situation should be considered in general education matters, because symmetry and symmetry-breaking are (see, e.g. [12]) the main features of many processes in nature.

Cruelty – a "cure" for the internal human *R+* problem, which can cause violence or hooliganism. The essence of the treatment is that cruelty stops further development of the right hemisphere, and thus reduces the unbalance in the brain's activity. It is important to note that since when committing *suicide*, one applies violence to himself, the reduction of the social-scale *R+* problem by the here suggested improvement of the "information feeding", should also help in this very serious social problem. Though being mutually connected via *R+*, cruelty and hooliganism (or violence)

should not be confused: while cruelty *stops* development of the *right* hemisphere, -- in their immediate sense hooliganism and violence are some *physical* (muscle) actions that *develop* the *left* hemisphere. Note that we do not say that cruelty is the only possible cure for *R+*, but this cure, historically proven to be just terrible [13], is most simply found by a non-educated ruler able to correctly see (feel) the problem, but not to correctly solve it.

3. Back to the "speaking model" of the defined hooligan

3.1 *Two versions of improper information feeding – the sociology problem*

The *improper* informational feeding that is understood here as the cause for the wide-scale violence, has two versions, both clearly seen via the physiological analogy [2]. These two different cases, (a) and (b) can exist separately or together:

(a) The food (information) is given in a *form* that cannot be digested (treated); i.e. the information is not well prepared for most of the listeners, or it cannot be, in principle, understood by them. (At least *not really understood, i.e. not properly classified and placed in the memory*; compare with the physiological model-process considered in [2].)

(b) The information is given in an excessive (too large) amount, and thus also cannot be treated, even when it is properly selected and prepared.

In each of the cases, the opinion, -- without which the feeding analogy would not work, -- is that we have, in average, some prescribed by Nature limitations of our thinking ability, which basically means that our thinking ability will be never changed, just as it is with any our physiological ability, e.g. that of the usual food digestion. Incidentally, already this simple observations and logic contradict the idea that humanity should be unlimitedly fascinated by its thinking ability.

The slide shown in Fig. 2 relates to both of the troubles (a) and (b).

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I became afraid of myself. With all these intellectual overburdens, I get some mental problem, and many of my friends have got it already.

I do not want to become cruel, to kill people and be killed myself, but cruelty is the most simple and sure way to stop this too difficult for me creative thinking process.

Why did this good friendly society become a society of geniuses, forcing all the others to form (become) a kind of **tiger**^(*)?

This guy starts to be afraid of himself:



(*) This "tiger" is $R+$

Remark: Science is beautiful and challenging, but when to stop and start with maintenance of the simple mind? (Recall the entropy oscillations in Fig.1.)

Fig. 2: Another slide from [2]. The situation, as compared to Fig. 1, becomes worse. The word "**tiger**" is motivated by the known words by Winston Churchill that *Hitler is just a man, but one who saddled a tiger*. Churchill could not explain the appearance of the tiger, but he had been clearly seeing the tiger before him. ["Fig.1" mentioned in the bottom line of the slide relates to a graph of entropy in [2].]

3.2 A comment on the violence of Holocaust and the danger of rulers seeking power

The situation of Fig. 2 is close to work [13] which was written before the development of the point of "informational feeding" introduced in [2,3], i.e. before acquaintance with [1] and [8]. Thus, the topic of the "days of violence" and the "defined hooligans" is missed in [13].

Work [13] was directly motivated by the belief that the usual "common sense" could *not* lead the Germans possessing high morality to become so cruel, as was the case during the Holocaust. If this were to be possible, -- then the whole history of Germany and of humanity as a whole (we are all similar, [13] says) would be much more horrible than it actually was, and the very concept of morality would be almost useless.

Both immediately and in agreement with this general argument, many of the cruel actions at Holocaust are seen in [13] as done in a *strange* manner, much closer to mental deace than to normal human hate. (Again, all this has no relation to the Germans of any other period.) In the sense of the mental problem, this historically important, never really explained before, extreme case of hooliganism *correlates* with the strange announcements by the "defined hooligans" that this world *needs violence*.

According to the position of [13], Hitler came to an already existing problem among the masses of $R+$, and by suggesting cruelty as the medicine quickly became a "national doctor". This high popularity was because he was hitting the point, -- as

only an uneducated man can *intuitively* do this, -- and this popularity created a close loop in which the output enhances the input. The opinion that it even was not his ambitious intention to become what we now mean by "Hitler", -- i.e. a powerful monster who led to the death some 40 million people, including 13 millions Germans, and 6 millions Jews who were distinct and thus easily definable as the object for cruelty -- might be accepted here. Quickly becoming uncontrollable, such a situation is the great danger against which we warn. This is like a snow avalanche on a big mountain, and even if Hitler had at some stage the idea to stop, -- this would have been impossible.

All this relates to the past. However, there can be a ruler (surely also insufficiently educated) who does not yet have his nation as "the tiger", but can create the "tiger" by defining technical development as the main society ideal, and thus gradually creating intellectual overburden and $R+$ in many of the citizens. Thus, the question re real danger is, first of all, not what kind of weapon the country already has, but whether or not the population has the organic necessity (because of $R+$) of cruelty, i.e. whether or not such a ruler has created the "tiger", which will inspire him to do terrible things, exhibiting his power.

Regrettably, one can readily find applications of this warning argument to the modern world. However, we do not define anyone as "good" or "bad" in this scientific consideration, because it may be that even a ruler who wants to be a new Hitler, does not understand the true causes of things, and thus even such a person has to have an explanation of the real reasons and the scientific meaning of these things. Even more reasonably, the religion authorities of the country have to be explained the point of spiritual health of the society. Unfortunately, nothing such occurs, and diplomatic communications with such a leader are done according to the rules of some force-game which just increases the tension. Hopefully, the present analysis may be helpful for politicians.

4. Recommendations and final comments

Study and respect the basic limitations and requirements of human thinking abilities. Remember that these limitations and requirements, observed in many, are given to us by Nature, and will remain forever.

Since life is preservation of the given structures, including those logical, associated with the intellectual life, -- and thus by destroying these structures we kill ourselves, - *respect intellectual simplicity* that gives robustness (stability) to life.

Never put intellectual challenges before any nation. Let any human himself find such challenges according to his abilities. Avoiding thus $R+$, we may avoid numerous appearance of hooliganism (different forms of cruel and Nazi behavior), simply because humans will not *need* cruelty as the medicine solving the problem of $R+$ by stopping the internal intellectual activity. Thus, reject any "development for development's sake" and any special demonstrations of the "power" of "human wisdom".

Give the human mind (just as you give your stomach) only what it can normally "digest".

Since we need the science *only for ourselves* (indeed, Nature/God does not need it at all, for instance, electrons knew what to do before Schrödinger's equation was written), do not use your studies to depress the population.

Do not believe that human hooliganism is a result of only bad social welfare, -- it is, first of all, a mental disturbance, originally caused by the hooliganism of the scornful attitude of the "educated" society to the simple individual, as regards the informational feeding.

Remember that simple people can be against a too "technical" culture, and their resistance can be accompanied by killings, if this culture does not respect them. Think well how to popularize science. Do not let intellect become a dictator over the world, or a country.

Consider that since simple structures survive better which is the essence of life [2], - if the educated society has chances to destroy itself, then the way we go is not that of life, but of some unhealthy euphoria. Simple people can understand all this better than the educated ones, and they can and will express their opinion very sharply and painfully. (Remember that there were cases in wars when a bad/stupid commander was killed by his own soldiers, and consider that the war for *good spiritual existence and health of mankind* cannot be an easy war.)

When defining in court punishment for a defined hooligan, consider our argument. Not agreeing, of course, to accept any violent actions, you must understand the causes: it can be that one fights for his ability to support his family, *for which he should have clear mind*. The causes for the (very popular in sociology, see WEB) "soccer (football) hooliganism" are incomparably simpler for making decisions.

Do not assume that academic biology will soon (or ever) explain the human mind and morality, using physical laws and microscopes, thus making our psychology not some "*Ding an sich*" ("*Thing in itself*", I. Kant). Continue seeing the reality in which you live as a combination of the *two* worlds given to us: that of physical nature and that of human psychology. This will be much healthier and will help you: to keep your "I", to respect the others, and to see the simple people as the "nature" of the psychological world, -- the nature that has to be well maintained, just like the green plants. Moreover, when seeing the world of human psychology as an independent one, you will have the possibility of understanding it not via physics equations explaining the action of each of the brain molecules, but via simple *direct analogies* with the physical world, as is done here using the analogy of the usual and informational "digestions."

Periodically make statistical tests of the brain activity of the population (see in [4]), and properly limit the intellectual stresses on the society.

Consider the social dangers together with religious authorities, seeking their help, because they can often influence or even replace stubborn uneducated rulers.

Consider, whether or not the ideology of Anders Breivik who recently killed in Norway 76 foreigners (Swedish children) who "were changing his culture", is based on the fear of a possible intellectual overstress.

As a scientist, never accept that a strange situation or striking event remains not understood. Before [2,3] and the present work, there was no explanation of the days of violence, which would be adequate to the specificity and the impression made by these days. Before [13], there were only *very unconvincing* explanations of the

Holocaust in terms of common sense and interests. In terms of logic and motivation, what Anders Breivik did is poorly understood, if at all. Accepting the methodological position that we live in two worlds, the one of physical nature and the one of human psychology, one can compare the modern role of sociology to the role of physics in nature studies. The explanation of the Michelson - Morley experiment (of 1887) re light velocity led to the theory of relativity (1905) that gave us $E = mc^2$, some other useful formulae, and opened the way to developing (1916) the theory of gravitation suitable for large scales, -- a theory that still "represents", basically in the form that was given it by Einstein, humanity in the cosmic space. One, respecting sociology, should accept that *unexplained "days of violence" are like the unexplained Michelson - Morley experiment.*

While being against making intellect a kind of dictator, vote only for well-educated rulers.

Find a method, placed on the border of biology and sociology, to stop the development of the right hemisphere, if the problem of $R+$ appears in a society, while *not associating this method with any cruelty.*

It has to be finally stressed that the present work is not against intellectualism per se; it just explains the days of violence as a problem that we have with the intellectualism in the modern and in some sense too democratic world. The traditional use of intellectualism as a tool for changing our life should obtain a more delicate form, -- it is not only the matter of talents or advance in communication electronics. The education of "technical specialists" should provide them with the "double vision" allowing them to watch the psychological situation and to correctly put their intellectual discoveries into the society's life.

Contrary to the present work with its starting philosophical position re *intellect and democracy*, in the manuscripts [4] the stress and the recommendations are in the direction of a *humanistic attitude* to the defined hooligans. The second Ms of [4] ("*The second Project, ...*") suggests some simple but important experiments that, hopefully, may interest empirical researchers and students.

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References

- [1] L. Parle, "The English Riots: The Autopsy Is Well Underway", *Slaw*, December 12, 2011.
- [2] <http://vixra.org/pdf/1207.0082v1.pdf> : Slides for E. Gluskin, "Electrical ANN Circuits (1-ports) and Schrödinger's "What is Life?", Proceedings of the Int. Conference: *Nonlinear Dynamics of Electronic Systems* (NDES 2012, 11-13 July 2012, Wolfenbuttel, Germany, pp. 210-213; to appear in IEEE XPlore).
- [3] E. Gluskin, "An argument regarding the nature of hooligan behavior", DIAL PHIL MENT NEURO SCI 2012; 5(2): xx-xx. In press, see at: <http://www.crossingdialogues.com/Ms-C12-01.pdf>.
- [4] E. Gluskin, Manuscripts: <http://vixra.org/pdf/1207.0117v3.pdf> (2011), <http://vixra.org/pdf/1208.0233v2.pdf> (2012), and <http://vixra.org/pdf/1210.0055v4.pdf> (2012).
- [5] I. Tolstoy, "*James Clerk Maxwell: A Biography*", University of Chicago Press. 1982.
- [6] Aristotle, "*Politics*" (Translated by Benjamin Jowett), Batoche books, Kitchener, 1999.
- [7] F. Miller, "*Aristotle's Political Theory*", (*The Stanford Encyclopedia of Philosophy*) 2012.
- [8] E. Schrödinger, "*What is life?*", First published 1944., (Complete text is available at: http://whatislife.stanford.edu/LoCo_files/What-is-Life.pdf .) See Chapter 6.
- [9] D. Hofman, D.J.L.G. Schutter, "Inside the wire: Aggression and functional interhemispheric connectivity in the human brain", *Psychophysiology*, 46 (2009), 1054-1058.
- [10] P.M. Keune, Michael Schöenberg, S. Wyckoff, K. Mayer, S. Riemann, M. Hautzinger, U. Strehl, "Frontal alpha-asymmetry in adults with attention deficit hyperactivity disorder: Replication and specification", *Biological Psychology* 87 (2011) 306–310.
- [11] P.M. Keune, L. van der Heiden, B. Varkuti, L. Konicar, R. Veit, N. Birbaumer, "Prefrontal brain asymmetry and aggression in imprisoned violent offenders", *Neuroscience Letters*, 515 (2012) 191-195.
- [12] R.P. Feynman, R.B. Leighton, M. Sands, "*The Feynman Lectures on Physics*", Addison-Wesley, Reading, Massachusetts, 1970.

[13] E. Gluskin, "Cruelty as the 'medicine' treating an unbalance in the development of the brain's hemispheres," *International Journal of Neuroscience*, 119:1150–1154, 2009.