

## On the cause for the hooligan behavior

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**Abstract:** The hypothesis is put forward that hooligan behavior is based on some unperceived protest of an individual, or a group, *against intellectual overstress*, or, equivalently, it is based on the individuals' intuitive fear of such overstress that the society imposes (or "threatens" to impose) on them. The violent actions of the hooligans combine the quick movements that develop (activate) the left hemisphere of the brain, and the cruelty that *prevents* development (activity) of the right hemisphere, which improves the balance in the development of the hemispheres. Hooliganism indicates an important alarm informing one about the increasing intellectual stress in the society, which indeed is unhealthy for many. The hooligans need help, which, as the recent "days of violence" show, is rather urgent. However, the things to be changed are traditional, not well controlled, and thus hardly can be changed quickly. Some constructive suggestions are formulated.

### 1. A point of view on the hooliganism

The present communication is motivated by the omission in [1] of the important topic of hooliganism, which becomes most obvious in view of the not really understood "days of violence" [2] that recently have shocked some civilized societies, including, e.g., that of Great Britain. The latter events, showing a new aspect of hooligan behavior, which seems to be "hooliganism for hooliganism" or violence without any simply visible profit, seem to strongly support the hypothesis of [1] that is applied now to the "simple" hooliganism.

Let us recall that [1] considers a unique, but exceptionally important case of cruelty (the holocaust) and argues that it was caused by an intellectual overstress of a significant part of the German population, which had been expressed via neurological reasons, by a *very unusual* mental decease/disorder. Any attempt of explaining the holocaust by the usual arguments/reasons, associated with common human needs and reasonable behavior or logic, does not provide any convincing explanation, especially on the background of the traditionally high morality of Germans.

Work [1] observes that the terrible cruelty of the holocaust was *strangely expressed* (not as the psychically normal human hate), and it is written there:

*"Hitler was a strong leader with an intuitive ability to understand the crowd, but was very poorly educated in any sense, which was, obviously, absolutely not appropriate for a man who had gained such power, and Hitler in power is seen here as an unperceived rebellion of Germans against the intellectual overstress."*

Our opinion is that the reasons for hooligan behavior are of the same *basic nature* as the Nazis' behavior, even if the scales of the problems being touched are very different. In both cases, cruelty is *aimed [1] to restore the balance between the*

*creativity and simple-physical-activity of the brain.* The first belongs to the right, and the second to the left hemispheres.

The opinion that the situation with the holocaust is, despite the distinction in the scales, the extreme case of hooligan behavior, is supported by the obvious fact that *Neo-Nazism* is a version of hooliganism.

We assume that a hooligan resists the intellectual overstress imposed on him by modern society, and has an intuitive, or even organic, necessity in maintaining (this is important for any human) the *balance* in the development of the brain hemispheres, for conserving his spiritual health. In other words, the hooligan protests against the reality that makes him (or threatens to make him) "unbalanced". He tries to destroy this reality, expressing a strong unperceivable worry about his spiritual state. In this expression, he demonstrates that the activeness of the *left hemisphere* is more important for him, as if he even tries to "save" this hemisphere. More precisely, he combines in his violent actions, the intensive quick movements that develop the left hemisphere, with the cruelty that prevents any activity of the "too developed" right hemisphere. That is, he realizes "in small" what Nazis realized in large (the war-activity for the development of the left hemisphere, and the cruelty of the holocaust for stopping the activity and development of the too strongly developed, -- the latter is the resulting physiological meaning of the "intellectual overstress", -- right hemisphere).

However, the stages of this mental illness are very different, and what was already impossible to do with the Nazis in 1939, is still possible to do with the hooligans. Contrary to Nazis, the hooligan is (still) *afraid* of all of this. He is not yet so seriously ill, not yet lost. He is not our enemy, rather a human in trouble to whom we (the society) can help, on behalf of both sides, if we understand his problem.

We have not a lot of time. The reorganizations should be done quickly, otherwise, there will be only brutal force to control the hooligans, which will show a shameful helplessness of society in the important field of its spiritual health.

The following is supported by [3-5]

The structure of the work is as follows.

Section 2 defines the line of thought (or its boundaries) via some clearly required actions to treat the problem of hooliganism, *as it is formulated in the above* (police actions are even not mentioned).

Section 3 is completely analytical; it adjusts the hypothesis of [1] to the case of "simple" hooliganism. The main point is our organic necessity to *treat* the information that we receive. Improperly selected or improperly prepared information is compared to food that we cannot normally digest. Motivated by an argument of [6], we associate this with the role of the entropy of the "structure" of our thinking. It is argued that the problem in focus is very interesting for academic research.

Section 4 unites the descriptive and analytical approaches, finally formulating our position.

## **2. Some constructive suggestions**

The following items **A-H** *outline correct attitude to the hooligan behavior, in the sense of the attempts to prevent this behavior, and not in the sense of its physical acceptance, since the surrounding population always has to be well defended against any hooliganism.*

These items expose the main "degrees of freedom" of the problem and its possible treatment.

A. Hooligans constitute alarm about (warn against) the intellectual overstress being continuously increased in society. Since such a stress indeed is not healthy for many, the very alarm or warning (but not the way it is expressed!) has to be respected, or at least taken with much wider seriousness than that needed for police measures.

B. Communication and negotiations with hooligans are necessary in order to well understand their internal problem, and be able to predict and prevent it. The difficulty is that we have to understand the hooligan better than he understands himself. "*Negotiations with hooligans*" should be an academically developed topic, and hooligans should know that though they will be physically controlled, they are not hated, nor ignored by the society, and that their problem can be solved in a good spirit.

C. When seriously approaching the "alarming" nature of the hooligan behavior, the educators and rulers should try to prevent intellectual overstress in large groups of population. Technical progress should not be a monster growing up and living near us according to its own genetic and behavioral rules (including the informational means rules) that ignore our basic physiology and neurology, and thus ***hooliganically challenge*** our psychology, giving some of us a very bad example. Nobody, including those defined as hooligans, should be sacrificed for the technical progress. This progress should *correctly* serve us, which in particular means that *our basic psychology and thinking should not be disturbed/damaged*, just as it actually is with our physiology, e.g. the digestion. Such topics as "*Spiritual health and technical progress*" should be developed in academia, with clear instructions finally formulated.

D. A simple-language, printed in large letters, special newspaper of 4-8 pages, appearing twice per week, devoted to the main events and educational topics, is necessary even for a developed society, and, perhaps, especially for such society. Such a newspaper has to interestingly describe the actual things in a way that prevents hooliganism on the streets. High intellectual level, deep knowledge, *artistic feeling and thinking*, good will, pedagogical tact, and high responsibility are necessary for the Editors. Hooligans and potential hooligans will appreciate such a newspaper as a move of the country (state) towards them. The known fact that people with low *communication ability* have an increased chances to develop violence or criminal behavior (see the references in [3]) supports this position. Such problematic people have to be seen today, first of all, as *indicators* of a deep neurological social problem breaking the boundaries of an individual problem. Communication with such people needs to be better established than is done at present.

E. That *Neo-Nazis* are specifically oriented against Jews is associated with the relatively intensive *intellectual activity* of this small nation that gave the world many generally important Prophets, both Jewish and Christian, as well as some other famous thinkers. Perhaps unexpectedly for the Reader, I see here some unperceived request, via the threat and violence, of the Neo-Nazis addressed to Jews, -- that a Jewish thinker to arose who will, perhaps, once be more helpful in solving the Neo-Nazis (hooliganism's) problem, than all that they try now to do by violence.

**F.** When *humans* are characterized by informational means, the absence of a good spirit is dangerous, and this spirit has to be introduced directly or indirectly. "*Say to one that he is good, and he will indeed become good; say to him that he is bad, and he will indeed become bad*" – my father used to say, and it is *important* to speak about the hooligans in objective, not hostile, even respectful, terms. Of course, a really effective compliment need not be absolute truth, but the expression of *love to people* is more important and always understood, and over large time scale improves the people. It is not easy to involve the religious aspect, but it can be useful to recall one that we all are created by God, and thus must tolerate each other.

**G.** Hooligans should have explained to them the basic point of the unbalance in the development of the brain hemispheres. This could develop in them some self-control (both in the sense of their interests and behavior), so that they can become more open and give helpful ideas on how to improve the situation. In our opinion, watching TV is, generally, very bad for the (potential) hooligans, while reading some good classical (e.g. religious) books should be recommended.

**H.** As is argued in Section 3, experience with usual teaching in schools and academy, when the teacher has the advantage of immediate feedback, has to be considered as instructive for the radio and TV broadcasting.

With this general line of thought, we pass on to the analytical side.

### **3. On the "input" criterion for the intellectual overstress**

How are we to scientifically characterize the intellectual overstress, understood not as the *resulting* (the output) disharmony in the development of the hemispheres, but also as an *input* of our intellectual (thinking) system? Where is the mechanism of the danger contained in this input?

In order to see the point as simply as possible, let us compare for a moment our intellectual "food", i.e. *the information given to us*, with the usual food, and note the opinion of the half-popular, but very good and useful, book [6], written by an outstanding scientist, that the important feature/role of the physiological digestion (eating) is that it *decreases the body's entropy* (whose maximization, according to [6], means death).

Comment 1: See, e.g., [7] for the concept of entropy, belonging both to physics and information theory, but the replacement of "entropy" by "microscopic disorder" or "complexity" may suffice in the present analogy. The complexity of a (technical or mathematical) logical scheme can be rigorously defined as the excess of the number of its vortices over the number of its inputs. (See [8] and especially [9] for a more complete mathematical approach.) It has to be seen that in both the physiological [6] and intellectual (informational) senses we have to be fed by negative entropy in order to survive. The distinction is that in the information case, we speak not about a hardware (physical) structure, but about the number of the brain neurons *involved in the processing*, or the area/volume of the brain *activated*, in the process. Obviously, a large activated volume means a high complexity of the logical system, or high entropy of the "structure" of the processing system. The question of how the complexity of the logical system (the number of its vortices) depends *on the number of the inputs* (i.e. of the complexity of the information being received) is one of the central issues here. According to the citations in [10] of some known painters and academic teachers of painting, the painting of a composition of objects is strongly different

from the painting of a single object. While for a single object, the *precision* in the painting is of great value, *for a composition (more inputs!) the creativity element is required* [10] for one to be considered a good painter. Since this means that the ways of treatment of the visual information are expected to be different in the two cases, the complexity of the system and its entropy should be *very much increased* with the increase of the number of the inputs. Unfortunately, it is still impossible to be more constructive regarding the relevant scientific measures, and we can observe these things only phenomenologically, in the spirit of in the positivistic (*descriptive*, e.g., see [11]) philosophy that is always useful when a theory of poorly understood systems has to be developed.

This "food-analogy" means that for one be able to intellectually live, i.e. to satisfactorily coexist with the informational media, this media must be such that one not only would be able to find in it the information he needs, but this information to be presented so that one could *treat* it in his thought. Indeed, one has to order and improve the received information, and derive from it conclusions, thus *decreasing the "entropy"* of his thoughts associated with the treatment, i.e. making these thoughts clear and more ordered. This is very similar to what we need regarding the usual food that not just supplies us with the energy, also (and in the long time scale, *mainly*, [3]) allows us to keep the structure of our body and physiology, which is associated with decrease of entropy.

Just as we cannot deal with all types of food, we cannot deal with all types of information. The *treatment* of information in our mind/brain must, from time to time, decrease the activated area of the brain and the entropy of the logical scheme. The always-existing natural attempts of the brain to treat any data (that might be too massive or "untreatable") may cause an overload of the right brain's hemisphere, and here is the connection with the hypothesis of [1].

It is very important to see that it is *insufficient* to let one to roughly understand information. One has to *treat* it in order to feel that it belongs to him. This is precisely as with the distinction between our understanding of what we are eating and the healthy digestion process. Thus, what is the entropy of the *appearing text* (the information in focus) *per se* is *not* important; the question is what is the *entropy change* in the structure of our thoughts, associated with (our ability of) thinking out this text/information. Treatable information has to order human thinking, and one preparing the information delivery has to understand and respect the thinking rules. Consider again [6] and item **D** in Section 2.

The well-known fact that technical students prefer gradual and thorough development of equations on the "blackboard", instead of being shown slides by the teacher, also is a perfect support of the thesis that the information being recorded (received) has to be *treated* by the listeners/watchers. (Observe that the students often even like the teacher's error, allowing them to enthusiastically suggest improvements, receiving a teacher's compliments.) If a class includes some too weak students, then there are two legitimate ways for the teacher: **(a)** to "fight" against the class on behalf of the strong students, for giving all the material of the syllabus via the high-level logic of the presentation; **(b)** to reduce the material and spend more time on ruminations and the attempts to be friendly for raising the morale of those who can be *depressed, offended, and frightened* by the fact that the material (intellectual situation) to be "eaten", is too difficult for them. All of the listeners of the radio or TV are one huge "class" to be taught or fed. For this "class", the way **(b)** of teaching, and not **(a)**, has to be preferred.

*Easiness* in the treatment of the information, which requires a proper good presentation of the information for the wide public, is the "good cooking" of the given

"food", in terms of our analogy. Every professional teacher perfectly understands this point, but not all of the authors of the "jumping paid ads", and even science news, understand this. See also the comments regarding children watching TV, given in [3].

#### 4. Conclusions and final remarks

1. We see hooliganism, in its modern appearance, as an important topic for study, related to the basic problems of the *intellectual state* and *intellectual development* of society, and also showing the importance of the position of [1] concerned with the historically most sharp and clear case of "hooliganism" – the Nazism. Unfortunately, a WEB search on the topic of hooliganism leads to a huge number of sources related to "soccer [football] hooliganism" weakening the behavioral frames for a couple of hours, and not to the basic *scientific, psychological, and neurological causes* for hooliganism, which interest us, especially in view of the "days of violence" that are not associated with any attractions. Already the very focus of the media on the minor things shows that the present argument is necessary.

2. The principle that the best understanding of a situation of humans can be achieved starting from the most difficult extreme case, is a correct methodological point, and the importance of the hypothesis of [1] is confirmed. The miss in [1] of the hooligan "component" of the problem, is academically unforgivable, especially because of the actual urgency of the matter, and we hope that the present work completes [1] in a timely manner.

3. The thesis is that our intellectual perception has some natural limitations just as our digesting or any other physiological (biological) ability has, which is not taken into account when the informational (intellectual) stress is continuously developed (often just for one's financial profit, i.e. rather aggressively) in the society. It is dangerous to allow this stress to grow. It may be said that the *intellectual hooliganism of the informational means* of the modern society, i.e. the *taking by force of our free thought, or making it more complicated*, leads to the physical hooliganism of those people frightened and disturbed in their thoughts, which are defined by society as hooligans and become more and more dangerous for the society. Figure 1 schematically illustrates this theoretical position and actual situation.

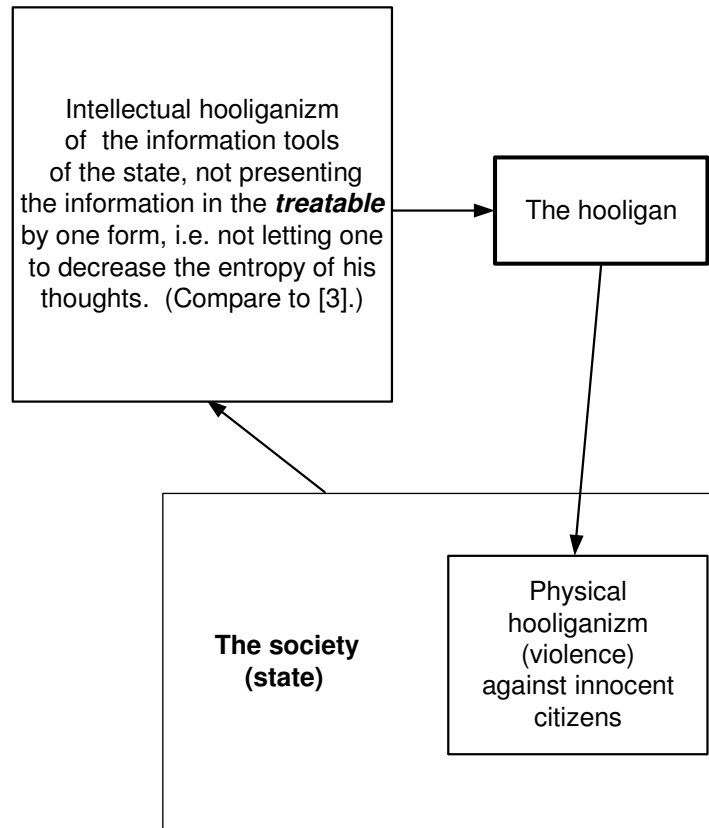


Fig.1: The schematic "transformation of the hooliganism" from the intellectual form to the physical one. The hooligan is the "transformer". He is shown placed out of the society because of his exceptional egocentrism, associated with the fact that his problem is an *internal* one.

In a very rough, but easy to memorize form, the thesis (mapping) illustrated by Fig.1 sounds as follows:

*"If, using aggressive information supply, i.e. presenting the information so that people cannot quietly treat it, you will not let people decrease the entropy of their thoughts, -- then these people will tend to increase the entropy of the physical state of the society."*

4. Speaking about the action of the right hemisphere, which makes humans distinct from animals, we can (should) note that the real needs of human nature and psychology are expressed by the fact that *science*, *religion* and *art* appeared simultaneously at a very ancient period, which shows that these fields represent the basic components of our thinking, requiring our "intellectual food" to be proper. This is what humans really need (even if according to individual abilities), and *not* the *gossips* often-found in the informational media, which is not based on these three fundamental components, and does not encourage one to activate these components in him.

"*Gossips cause hate*" is said in the ancient (central in Kaballah) "Zohar" book. These words (ascribed to Rabbi Shimon bar Yochay, 135 C.E. - 170 C.E.) seem to be

most relevant to the subject of aggressive (overwhelming) methods of delivering information, and the resulting hooligan response on the streets.

Comment 2: Of course, this world is inevitably changed by us, and, for instance, besides the classical analytical methods of science, the computer's power is now employed, which is something really new. Similarly, the information media appeared in our live in addition to *science, religion* and *art*. Of course, the information agencies and other information means/tools have a necessary job. Nevertheless, usually, the greater part of the delivered to us information is one big, never really treated by us, gossip causing unnecessary worry. The changes in our lives, already mentioned in Section 2 (item C) regarding the "monster of technical progress", more seriously influence us than one thinks. *Do can we really say that now science, religion, art, and informational media have to feed our basic, organically necessary thinking?* Are we really so drastically physiologically changed for our mind to require one more basic component? If not, then the actual "weights" given by us to these four components, are disproportionate.

5. The absolute disadvantage of hooligans, is that, while feeling the already developed, or nearing, unbalance of the hemispheres, they *think of and take care of only about themselves*. This egocentrism, making hooligans physically dangerous, is a trivial (automatic) result of the *internal* character of their problem. We must very seriously think about social therapy for the psychological overstress that can occur (and actually occurs as the "days of violence" show) in many by our own guilt. It is difficult to fight against your own light-mindedness, but we must become more serious regarding the field of our psychology, just as we must become more serious regarding damage of the ionosphere, and other troubles caused by our impetuous, poorly controlled, activity. No correct physics theory exists out of the limits defining the range of its basic parameters, and the tendency to *unboundedly* develop the information supply is an elementary logical mistake, unfortunately, very dangerous.

6. The problem of proper *presentation of the information* should be considered by sociologists, neurologists, biologists, *system specialists (as the author is)* and, finally, specialists in information theory. Academy researches must be "switched" to this problem and to a wide analysis of the hooliganism as the social violence.

7. We speak about hooliganism as it is seen by the modern hooligans, i.e. as a value by itself, -- a value that deserves, they think, organizing activity. Our opinion is, however, that most of the hooligans *do not want* to come to the dangerous mental state described in [1] (this is a part of the reason for their worry and unrest), and we must help them in this. It seems that there is not a lot of time for helping actions because the changes that should be made relate to very traditional and, in fact, never well-controlled things.

8. It is suggested to clearly distinguish between what can be respected in the alarming (warning) nature of the hooliganism, and what has to be immediately stopped by force. The state (society) should not be only a policeman for a hooligan, also his friend and teacher. The human necessity in receiving simply *treatable*, and not just *understandable*, information has to be most respected. "*Understandable, but not treatable*" means "*Making one worrying and aggressive*". Information means should not be hooliganic by themselves. As it has to be with children's education, society should not "educate" hooligans only by showing to them its irritation at the moments when they bother it.



9. Our argument is clearly *incomplete*. Thus, it is *not* explained, by the "positivistic" (description) treatment *why* the state of insufficiently ordered thoughts should cause one to worry, and it is *not* explained (also in [1]) *why* the state of the already unbalanced development of the hemispheres, makes this worry so strong that it may be expressed [1] via an unbelievable cruelty as a mental disease. (Probably, it is simply because of the different level of electrical excitation and, thus, of unusual voltage or charge distribution). It is clear, however, that the issue in focus is human health and that the hypothesis of [1], supported by the present argument, outlines a correct way for analysis. An academic scholar can be motivated for seeking scientific formalizations.

10. The most general logical point is that just as everything that one does without limitation (e.g., eats sweets, or does not pay attention to what is happening to his children in school) leads to problems, so too the unlimited, *uncontrolled by simple people* technical progress will lead the society into trouble. Hooliganism of the type of the "days of violence" seems to be a sign of an approaching trouble. We have to always remember that the aggressiveness of the informational tools (or, rather, of some humans' interests thus expressed) is per se a hooliganism, giving the defined hooligans a bad example.

Books [12-15] and references there may be recommended for introductory reading.

## References

- [1] 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.
- [2] Lewis Parle, "The English Riots: The Autopsy Is Well Underway", *Slaw*, December 12, 2011.
- [3] E. Gluskin, "An argument regarding the nature of hooligan behavior", *DIALOG PHIL MENT NEURO SCI*, 5(2): xx-xx, (Dec. 2012, In Press; see <http://www.crossingdialogues.com/Ms-C12-01.pdf>).
- [4] 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.
- [5] <http://vixra.org/abs/1207.0082> Slides for [4] (extending the content of [4]).
- [6] E. Schrodinger, "*What is life?*", First published 1944., (Complete text is available at: [http://whatislife.stanford.edu/LoCo\\_files/What-is-Life.pdf](http://whatislife.stanford.edu/LoCo_files/What-is-Life.pdf) .)
- [7] L. Brillouin, "*Science and information theory*", Academic Press, New York, 1956.
- [8] S.G. Gindikin, "*Algebraic Logic*" (Problem Books in Mathematics), New York, Springer-Verlag, 1985.
- [9] Ya.M. Barzdin, A.N. Kolmogorov, "On the realization of networks in three-dimensional space", in '*Selected Works of A.N. Kolmogorov, vol. III: Informational Theory and the Theory of Algorithms*', London, Kluwer, 1970.
- [10] V.S. Kuzin, "*Psychologiya*" ("*Psychology*", in Russian), Moscva, Agar, 1997.
- [11] E. Gluskin, "Nonlinear systems: between a law and a definition", *Reports on Progress in Physics*, 60(10), 1997 pp. 1063-1112.
- [12] G. Pearson, "*Hooligan: A History of Respectable Fears*", Palgrave, Macmillan, 1983. [ISBN 0333234006](https://www.isbn-international.org/product/0333234006).
- [13] S. Pinker, "*How the mind works*", W.W. Norton, New York, 2004.
- [14] R.F. Thomson, "*The brain, a neuroscience primer*", Worth Publishers, New York, 2000.
- [15] J. Bradshaw, "*Hemispheric specialization and psychological function*", Wiley, Chichester, 1989.