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Aggressiveness can be psychobiologically milded: 1. Biology does not condemn humanity to violence

by

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ABSTRACT

A brief history on the preparation of the Seville Statement on Violence (SSV) and a short exposition of its propositions are provided. The SSV was originated by an ISRA (International Society for Research on Aggression) launched UN-Committee in the late seventies of the past century. Which were the main reasons which urged us to elaborate the Statement, which difficulties were found on the way and how finally that first 'scientific' step towards peace was achieved? Its final product, elaborated by more than twenty scholars from different scientific disciplines and from all continents, was presented in Seville in 1986, at the VI Coloquio Internacional sobre Cerebro y Agresión (CICA). Three years later, it was endorsed by the 25th General Conference of UNESCO, in Paris. Its main message is that violence and war are not genetically unavoidable, that human nature does not obly us to behave violently.

It is an honour and privilege for me to be invited to participate in this International Conference on Nuclear Threats and Security, held at the Inter University Centre of Dubrovnik, among this selection of distinguished politicians and scholars from so many countries of four continents. I would like to gratefully acknowledge the support of the World Academy of Art and Science, the European Leadership Network, and the Dag Hammarskjöld University College of International Relations and Diplomacy. Special thanks for inviting me to take part in it go to its main convener, Prof. Ivo Šlaus, President of the World Academy of Art and Science, for his efforts in making possible this project of letting know that scientists have a very important role in the achievement of the world peace, process through the analysis of nuclear threats and security.

Within this context, it seems quite adequate to remember that during the Cold War some politicians on both sides used their belief that war was highly likely to justify the manufacture and deployment of more and more nuclear weapons. Although the Cold War is now over, war continues to be pervasive throughout the world, and there are those who see war as an inevitable consequence of human nature. And, in a wider context, many children, adolescents and young adults are currently exposed to different degrees of violent behaviour from postnatal violent experiences, violent social models and violent forms of entertainment. This devastating form of structural violence is becoming more and more integrated in our daily life because of scientific ignorance and poor level of citizenship.

This “politically correct” culture of violence has survived in different forms because it is very appealing for both the public and authorities. It relieves, in fact, the public from the responsibility of changing their own life style and the authorities from changing an old, contradictory way of dealing with crime. This belief is so strong to allow the commercial-media system to promote essays, documentaries and fiction that support it and to ignore

the information confuting it on the basis of theories accepted by natural and human sciences. No wonder the public is uninformed and still accepts violence as an inevitable human trait.

We may feel collectively responsible for this continue accepting of the current culture of violence and war in society as something unavoidable. In fact, some people say that war and violence cannot be ended because they are part of our biology, in the same way that they used to justify slavery and racial or sexist domination by claiming that they were biological and inevitable. In the same way that they were wrong in these latter justifications, it is also scientifically incorrect that peace is not possible.

This feeling was what drove us, scholars from all the world and from many different disciplines dedicated to research on aggression, to think that it was our responsibility as scientists to speak out on the basis of the latest information, although aware that conclusions in science are never final, -science is a human cultural product which cannot be definitive or all-encompassing-. An increased understanding of the relations between genes and environment allowed us to acquire a deeper understanding of the bases of aggression, and led us to elaborating the Seville Statement on Violence, in 1986. Its main message stated that peace is possible and that wars and violence can be ended, making clear that there is nothing in biology that stands in the way of making a world without war.

My present task, as its covener, will be to dedicate the core of my intervention to make a short historical comment on its genesis, which were the main reasons which urged us to elaborate the Statement, which difficulties we found on the way, how we finally achieved that first 'scientific step' towards peace, and to explain what is its main message: even if we accept that humans may have a psychobiological propensity for aggressiveness, it does not indicate that the acts of aggression, violence, or war, are inevitable.

For the psychobiologist who studies brain mechanisms supposed to be involved in aggressive behavior, conceptual as well as ethical problems arise from the fact that research dealing with brain-behaviour relationships is both a research endeavour like any other and one that clearly differs from many others. It differs in that the data obtained, the interpretation given and the generalized conception of brain-behaviour relationships that is derived from them, contribute to shape our vision of man, his 'nature', his being and his evolution. Conversely, this vision of ourselves, of our supposed 'nature', is bound to somehow orient -unconsciously, or more deliberately- the way in which we construct the conceptual framework within which we elaborate our working hypotheses and how we interpret the results obtained when verifying them. It matters all the more to be fully aware of these reciprocal relationships between personal convictions and actual scientific endeavour since our basic interest lies in a deeper understanding of the biological determinants of our own personality and behaviour, even though our experimental analysis is carried out -for obvious ethical reasons- on the brain of some animal species. The true weight and the real influence of our personal convictions clearly appear when, on the basis of one and the same array of available facts, but, admittedly, with selective emphasis put on some of them, some feel entitled to deliver, with regard to human aggression and violence, a 'message' of necessity and fate, while others are led to deliver one of freedom, responsibility, and hope (for more precise questions related to this topic as well as many relevant individual features fruitfully subjected to psychobiological investigation see: Karli, 1996).

The elaboration of a document stating the scientific state of art on the field of human aggression and violence would give a needed message of hope to humankind, as opposed to the myth that it was something naturally inevitable. But the obstacles found in our attempts, however, illustrate the extent to which

ideological preconceptions often interfere with an actual scientific endeavour. I want to mention briefly some events objectively revealing (see: Ramirez, 1997).

In the late seventies of the last century, the International Society for Research on Aggression (ISRA) decided to launch a UN-Committee that, among other goals, would aim at organizing a series of symposia under the auspices of UNESCO. It was hoped that these symposia would eventually lead towards a UNESCO statement on human violence, following the example of what had previously been achieved by UNESCO with regard to the notion of 'human race'. A provisional programme was drafted and submitted to UNESCO. Both, our Swiss colleague Pierre de Sénarclens and Mr. M Bow, at that time head of the Division for Human Rights and Peace and director-general of UNESCO, respectively, responded in a most favourable and encouraging way. But then, highly polemical discussions took place within UNESCO concerning our proposal, to the extent that Pierre de Sénarclens resigned from his UNESCO position (he went back to Lausanne to resume his teaching of political sciences) and M Bow sent a second letter telling our President that the proposed topic was too 'touchy' to be dealt with under the auspices of UNESCO.

Some time later, Carlos Chagas, at that time President of the Pontifical Academy of Sciences, invited us to draft a motivated proposal for a Symposium devoted to "the biological and sociocultural determinants of human violence". We soon heard from him that the Pope had read the proposal, that he fully approved of both its structure and general spirit, and that he encouraged us to proceed. But then, after a long silence, we learned that the Pontifical Academy had come to the same conclusion that the UNESCO: it was not timely to deal with the determinants of violence.

However, instead of giving up, we -scientists from very different disciplines- kept discussing freely, openly about it. A working group was appointed in 1982, at the ISRA biennial Conference on Aggression in Mexico City. The main question we wanted to answer was whether modern natural and social sciences knew of any

biological factors that were an insurmountable or serious obstacle to the goal of world peace... We exchanged the latest information about animal behavior, psychology, brain research, genetics, anthropology, and other related sciences. Finally, after several years -at that time the mail connections were not easy at all among people geographically scattered throughout all the continents, when fax, e-mail or internet were not existent yet-, a draft was elaborated and sent to all of us for its study. Then, around twenty of us met in Seville and La Rabida. And after one week of practical seclusion –we were in a monastery, just from where Columbus started his discovering trip to the New World-, the final Statement on Violence was born. It was May of 1986, the International Year of Peace. Afterwards it has been successfully endorsed and published by many scientific organizations around the world. The very UNESCO, by decision of its General Conference at its 25th session (Paris, 16/11/1989), endorsed it and ordered its dissemination. It was followed by the creation of the UNESCO's Culture for Peace Programme, in 1994, as well as a Decade of Science for Peace.

In plain words, the Seville Statement on Violence says that peace is possible and that wars and violence can be ended, making clear that there is nothing in biology that stands in the way of making a world without war. War is not in our genes, as stated very expressively by Eibl-Eibesfeldt (1979), and we need not accept human aggression as a fate; as his mentor, the Nobel Price winner Lorenz pointed out, “we shall not improve our chances of counteracting [intra-specific aggression] if we accept it as something metaphysical and inevitable, but on the other hand, we shall perhaps succeed in finding remedies if we investigate the chain of its natural causation” (1963). Far from condemning humanity to war, thus, biology makes it possible to end violence and the suffering it causes and, consequently, to achieve peace (see: Adams, 1991; Ramirez, 1994, 1996, 2003).

Even if we were aware that there were many other issues that could also be

fruitfully addressed from the standpoint of our disciplines, the Statement was specifically focused on individual violence, as well as on social violence, with special consideration of the war.

Related to individual violence, several propositions are stated:

1. *Violence is not in our genes.* It is not genetically programmed into our human nature. While genes are involved at all levels of nervous system function, they provide a developmental potential that can be actualized only in conjunction with the ecological and social environment. While individuals vary in their predispositions to be affected by their experience, it is the mutual interaction between their genetic endowment and conditions of nurturance that determines their personalities and their behavior. Virtually all data on the control of aggression show that the genetic contribution to aggression is strongly modulated by environmental factors. Except for rare pathologies, the genes do not produce individuals necessarily predisposed to violence. Neither do they determine the opposite. While genes are co-involved in establishing our behavioral capacities, they do not by themselves specify the outcome. Propensity and predisposition do not necessarily lead to a specific behavior. In our case, feeling aggressiveness does not necessarily mean behaving aggressively.
2. *Violence is not in our evolutionary legacy.* Aggressiveness is not a necessary consequence of human nature. In the course of human evolution there has not been a selection for aggression more than for other kinds of behavior, such as altruism or pro-social behavior. All humans have a propensity to be kind, helpful, cooperative and loving ("prosocial"), and all humans have a propensity to be selfishly assertive and even aggressive to their fellows as well: neither inevitably results in behaviour. For instance,

"dominance" involves social bondings and affiliations; it is not simply a matter of the possession and use of superior physical power, although it does involve aggressive behaviors.

3. Although both prosociality and aggressiveness are influenced to some extent by constitutional factors, experience and moral rules and conventions of the culture are the main factors. In this direction, the theory of kin selection developed by Bill Hamilton in the 1960s says that insects such as ants evolved to become altruists because co-operating with their kin helped individuals promote their own genes. It doesn't matter if you give up the opportunity to reproduce yourself, goes the theory, so long as close relatives spread your genes instead. Kin selection thus was invoked to help explain social and cooperative behavior across the animal kingdom, even in humans. And according to the more recent theory of social evolution proposed by Ed Wilson and his collaborators Martin Nowak and Corina Tarnita, generosity, as mandated by group selection, is humanity's secret ingredient, continually warring in each one of us with our more selfish instincts. This robust defence of kin selection, or inclusive fitness, suggest that humans are at least a "eusocial" species (the technical term for displaying altruistic behaviour), like ants and termites. But people are more complicated than ants: human selflessness and cooperation, however, is of a different sort, also involving the interaction of culture and sentience, not just genetics and environment (Wilson, 2012). In all well-studied species, status within the group is achieved by the ability to cooperate and to fulfill social functions relevant to the structure of that group.
4. *Humans do not have a "violent brain."* While we do have the neural apparatus to act violently, it is not automatically activated by internal or external stimuli. Like higher primates and unlike other animals, our higher neural processes filter such stimuli before they can be acted upon. How we act is shaped by how we have been conditioned and socialized. There

is nothing in our neurophysiology that compels us to react violently. As our title states, aggressiveness can be tamed.

A special focus on the war (see: Hinde, Nelson & Wrangham, 2010; Ramirez, 1995), as a specific kind of violence, leads us to state that:

1. *We have not inherited a tendency to make war from our animal ancestors.* Although fighting occurs widely throughout animal species, only a few cases of destructive intra-species fighting between organized groups have ever been reported among naturally living species, and none of these involve the use of tools designed to be weapons. Normal predatory feeding upon other species cannot be equated with intraspecies violence. Warfare does not occur in other animals. It is a peculiarly human phenomenon.
2. *War is not a necessary consequence of the human condition either.* The fact that warfare has changed so radically overtime indicates that *it is a product of culture*. Its biological connection is primarily through language which makes possible the coordination of groups, the transmission of technology, and the use of tools. War is biologically possible, but it is not inevitable, as evidenced by its variation in occurrence and nature over time and space. There are cultures which have not engaged in war for centuries, and there are cultures which have engaged in war frequently at some times and not at others. According to some anthropologists, for instance, structural violence emerged in fact only in the Late Neolithic period, as a purely cultural innovation due to the socially stratified human settlements of food producing cultures, having been mostly unknown in previous Palaeolithic hunter-gathering cultures (Fry, 2007).

3. Even more, humans have used wars as a means to obtain resources or satisfy their ambitions, but we are fully capable of finding other *better ways to settle disputes*. Conflicts of interest between peoples or nations have been, and should be, resolved by peaceful negotiation. This is precisely one of the main reasons why the United Nations were set up: to maintain international peace and security, to develop friendly relations among nations and to achieve international cooperation in order to “save succeeding generations from the scourge of war”.

4. Far from being something "instinctive" or caused by any single motivation, usually *war is a multifactorial product*, with a primacy of cognitive factors. Modern war involves institutional use of personal characteristics such as obedience, suggestibility, and idealism; social skills such as language; and rational considerations such as cost calculation, planning, and information processing. The technology of modern war has exaggerated traits associated with violence both in the training of actual combatants and in the preparation of support for war in the general population. As a result of this exaggeration, such traits are often mistaken to be the causes rather than the consequences of the process.

5. *War is an institution*, with numerous constituent roles, each associated with specific rights and duties. These roles include the politicians, the commanders, munitions workers, transport workers, health workers, and many others as well as combatants. Influences from many directions may cause politicians to believe that it is their duty to lead their country into war and in doing so they create duties for the generals, who create duties for the combatants, and so on. Each does what (s)he does primarily, though not entirely, because it is his/her duty in the role that (s)he occupies in the institution of war. The institution of war is supported by the military-industrial-scientific complex, whose power even politicians may not be able to resist.

This is the first step and most important of our tasks: concluding that biology does not condemn humanity to violence and war, and that humanity can be freed from the bondage of biological pessimism and empowered with confidence to undertake the transformative tasks needed now and in the years to come.

Of course, we could also consider other important points, such as the boundaries between “us and them” (Pittinsky, 2012), stressing the *genetic uniformity of the human species*. The increased connectedness of peoples around the world inspires a vision of a future in which the common humanity of all peoples will be globally recognised, following the final message of the Russell-Einstein Manifesto (1955): “Remember your humanity, and forget the rest!”

Once we are aware that violence is avoidable, a second important step has to come: the analysis of how to achieve the culture of peace we scientists are looking for. It is not an easy task at all, but we should never forget that peace is possible and that, in order to influence our surroundings positively, we must learn to develop inner peace within our minds. Yes, finishing with the same consideration which ended the *SSV*, *we may remember that* just as “wars begin in the minds of men,” peace also begins in our minds. The same species who invented war is capable of inventing peace. The responsibility lies with each of us.

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