

# Epidemiology of Violence and War

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## ABSTRACT

*The magnitude of the threat that violence and war pose to the health, the quality of life, and the very survival of humanity is obvious. A number of scientific disciplines have provided, each through its own methodology, insights into the causation, genesis, and dynamics of violence and war. Although epidemiological and psychological methodologies received priority, the multidisciplinary approach to this problem seems to be the most appropriate. This essay attempts to approach holistically the study of epidemiology of violence and war and the ways of preventing these severe problems of the contemporary society. Conceptual models of the causative mechanisms and dynamics of violence and war, mapping the various psychic, social, and environmental factors, are presented. These models, besides advancing abstract ideas, also provide a concrete framework for determining and exploring the interactions and dynamics of the factors and processes which lead to violence and war. The types of interventions outlined for control and prevention are intended to make an impact upon »critical points« within the dynamics of the process which produces violence and war, and are conceived to be implemented on both the national and international level. The importance of family, community, and school influences is considered, but the role of international organizations, including the United Nations, and other governmental and non-governmental organizations is also stressed. Discussion is focused on the factors which favour peace and hamper aggression, on »internationalization« and global society versus xenophobia and nationalism. The conclusions state that there is sufficient knowhow to devise and implement a reasonable and effective international programme for the control and prevention of violence and war, provided there is adequate public and political willingness and support.*

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## Introduction

The purpose of this essay is to contribute to efforts aimed at alleviating the dangers that violence and war represent

to humanity. The complexity of the problem requires a multi-disciplinary approach, since the answer does not reside in any single discipline. In this essay, an epidemiological approach will be applied

to the problem in an effort to synthesize essential information on violence and war, and to explore possible approaches for their control and prevention. In the search for a solution to a problem of life and death, each discipline can, and indeed should, contribute to a joint effort. The fragmentation of science and the absence of a common language among scientists should not prevent intellectuals from speaking out against violence and war.

Terminology used in one discipline does not always correspond to terminology used in another discipline and often conveys quite a different concept. Therefore, as this essay is based on an interdisciplinary approach, whenever possible, commonly used expressions will be substituted for technical terminology. In instances where specific scientific terms are unavoidable, they will be placed within quotation marks. Terms related to psychology and epidemiology are those used in commonly accepted dictionaries<sup>2–4</sup>.

It must, however, also be noted that the meanings of many commonly used expressions have, in recent times, undergone certain distortions. This is particularly true of expressions dealing with concepts of violence and war. What was once called Ministry of War is presently named Ministry of Defence, in spite of the fact that its *function* remains unchanged. Empires became Commonwealths and Colonies became Overseas Territories. Although the Colonial Office might be renamed to Office of Cooperation, its basic function of continued exploitation did not change. It is within the media that this distortion of the basic meaning of words and concepts is most apparent. We must be wary of the notion that there is a *dual language* in existence, even if its dictionary has not yet been compiled.

## Methods

Multi-disciplinary approach implies the use of methods and knowledge from all relevant disciplines: anthropology, psychology, sociology, ecology, economics, and last, but not least, epidemiology. Other disciplines, not mentioned above, also have a role to play in the understanding of specific aspects of violence and war, but they may not be as relevant to the purpose of this study.

Methods used were adapted to the subject of the study. The genesis of violence in an individual is best studied through psychological methods centred on mental functions and dysfunctions of the individual. For the study of mass violence, involving a population at large, epidemiological models which were developed specifically for the study of mass phenomena, can greatly add to the methodology used in sociology and social psychology. Conceptual models (and mathematical modelling) used in the study of the mechanism and dynamics of epidemic processes<sup>4,8</sup> represent a method worth exploring in the area of the dynamics and evolution of violence and war. They allow for a more explicit presentation, and thus a clearer understanding of these processes.

Accordingly, they also make it easier to explore ways of effectively controlling violence and war, which is the very purpose of this essay. These conceptual models are formed on the grounds of sound scientific principles and predominating expert opinions. They are self explanatory, but in no way exhaustive. This is also true of the bibliography, which lists only the most relevant references; those which have served as cornerstones for the concepts presented, although a more extensive bibliography was consulted.

## Mechanism and Dynamics

### Mechanism

Knowledge of the basic functioning of the mechanism which generates violence in individuals and war conflicts in populations, is essential for a clear understanding of the roles played by internal and external factors in the genesis and dynamics of violence and war.

The mechanism which is responsible for the transformation of normal, healthy behaviour into violence and war is complex and differs from case to case. However, there are some general rules concerning causation and the consequences produced by causative factors.

Aggressive drives and violent impulses are present in every individual as part of the primary self-protection mechanism. They are, however, regulated and controlled by inborn factors, as well as through a learned code of socially acceptable behaviour.

The mechanism resulting in aggressive behaviour and violence in an individual is a mental process which leads from a normal to a pathogenic state of mind. This process takes a typical course and can be described in the following way.

The mental process which leads to aggressive behaviour depends on an individual's psychological make-up; on the balance between inborn and acquired aggressive drives, and the control exhibited by his/her conscience<sup>1,5,9</sup>. However, it is also impacted to an important degree by the particular social environment in which it takes place. Which one of these two factors; personality or environment, will have the preponderant role depends on a number of additional elements, but in all instances both are present and their interaction needs to be taken into consideration when determining the underlying causes of aggressive behaviour and exploring possible corrective means.

When an individual displays abnormally destructive and arbitrarily violent behaviour it is an indication of a psychopathological process which leads from the (inborn) *primitive defence mechanism* to a mental mechanism which classifies everything and everyone exclusively as »good« or »bad«, thus to a schizo-paranoic state of: »*splitting*«. This state is linked to a »denial of reality« and »projective identification«, through which all bad intentions and drives are projected onto others. Through this process a *paranoic personality* is formed, characterized by pride, mistrust, misjudgement, bipolar thinking, rigidity, unadaptability, as well as mytho- and megalomania. All of these characteristics vary from hardly perceptible in certain cases, to particularly pronounced in others. The dynamics of this process in an individual can be schematically represented as follows:



The above process is also applicable to population groups which have been »infected« by paranoid individuals. Mass (group) psychology induces individuals to react more regressively than they would if they were alone<sup>9–11</sup>. Therefore, an individual with paranoid tendencies will engage in markedly more retrograde behaviour when in a mass situation, and thus contribute to the augmentation of paranoic characteristics of that same mass. He will do this through his own behaviour, as well as through the factor of his »infectiousness«. The probability of »transmission« of paranoid attitudes from paranoic individuals to apparently normal ones is particularly high during prolonged close contacts at mass gatherings.

The notions discussed above are essential in understanding how the mecha-

nisms leading to violence and war operate, and are further developed and schematically presented in self-explanatory Figure 1 which shows some of the different paths leading to violence and war, as well as to peace. It indicates that a normal person in a non-violent social environment will not resort to violence and commit aggression. However, the same personality, when confronted with a violent environment, may resort to aggression. It further shows that a paranoid individual will readily resort to violence in a violent environment, but will not do so in non-violent surroundings. It follows that a group, or a population, dominated by paranoid individuals will readily resort to violence in a violent environment, but will not be as likely to do so in a non-violent environment. Internal psychological structures vary and respond differently to different environments. Their interactions and inter-relationships, as well as their mechanisms and patterns, have been reasonably well mapped out<sup>12</sup>.

This is a simple presentation and not very exhaustive, but the major elements of importance have been taken into consideration. There are numerous, well researched, factors and mechanisms which act in a similar manner to the ones presented in Figure 1. One of those is »cognitive dissonance«; a condition present in the paranoid personality. It is created through the process of »denial of reality« in which the paranoic, wishing to avoid a conflict between reality and his/her paranoid ideas, omits all information which might create this »cognitive dissonance«<sup>13</sup>. This is a self-protecting mechanism of the paranoid condition, aimed at ensuring undisturbed continuance of a particular mental state. On a practical level, this is of interest in relation to propaganda and indoctrination. As paranoid personalities selectively acknowledge only that information which reinforces

their xenophobia or megalomania, and discard information which is contrary to what they wish to believe, they are particularly receptive to indoctrination.

At this juncture it might be appropriate to consider introducing some epidemiological terminology<sup>4</sup> in defining normal and abnormal in relation to violence and aggression. *Normal* may be characterized as a state of health; opposite of a pathological, paranoid, disturbed personality. However, as normal, healthy personalities may be of a very stable, deeply non-violent nature and opposed to all aggression; they may also be less stable and subject to external influences which could then lead them to engage in aggression and violent behaviour. There are two types of external influences particularly likely to produce such an effect: mass gatherings and pressure from authorities (political, etc.).

When looking at the two types of *normal* personalities described above, from the point of view of epidemiology, we would consider the first type »resistant«, and the second type »susceptible«, to violence and war.

### *Dynamics*

History of mankind is full of accounts of violence<sup>11</sup>. It would appear not to be much more than a succession of wars, which are viewed as *cornerstones*, or at least *milestones*, of history. Much mythology developed around wars, and epic accounts of brave warriors, heroic victories, and the sacrifices that nations endured in conflicts with enemies who were *different, evil stock that should never be trusted*, are still deeply entrenched in national cultural identities. As soon as schoolchildren begin history classes this attitude towards »the enemy« is passed on to them: from generation to generation sustaining xenophobia, ethnocentricity, and suspicion towards those who are dif-



ferent: – primarily their closest neighbours.

Thus, the elements which contribute to the formation of the paranoid mentality through »projective identification«, continue to accumulate. It may not be an easy task, but it would certainly be a worthy effort to attempt to break this vicious cycle of:



Official history textbooks are full of distortions resulting from the »denial of reality« phenomenon<sup>9</sup> typical for paranoid thinking. These distortions are skillfully hidden by the writer's selective use of »consonant« information<sup>13</sup>. Thus self-serving aggressions are presented as defensive wars against treacherous enemies; and actual victims portrayed as villains unworthy even of pity, let alone compensation, or restoration of rights. Prejudices are implanted through national identification and pride. Demonization of the enemy and propagation of paranoid ideas conducive to war at populist mass gatherings is a throwback to the most primitive mechanism of tribal wars.

In order to counteract the currents which lead to war, it is necessary to be familiar with both their mechanism and dynamics. An intervention aimed at stopping or reversing a course of events must be directed at well defined targets which, in this case, are specific »points« in the mechanism generating violence and war. The essential elements of this mechanism are schematically presented in Figures 2 and 3. The points of intervention are areas of the regulatory system, which needs to be strengthened, and the social environment which needs to be improved.

Dynamic processes leading to violence and war, as discussed above, are sche-

matically presented in Figures 2 and 3. These conceptual models are self explanatory and locate the points of possible intervention.

*Dynamics of violence* (Figure 2) which affects individuals, or small groups, is governed by inborn factors and external, environmental ones. When these these factors form an aggressive charge, which cannot be regulated through the combination of inborn and environmental barriers, violent actions ensue. In that event, social and legal consequences can act as deterrents, but a lenient judicial system and social neglect will have the opposite effect. Two very different outcomes are possible: the perpetration of further violence, or arrival at a state of non-violent behaviour. Instead of just leaving things to a *natural course* of events, it is possible to intervene through social action targeted at control and/or prevention. A number of major factors, which play a role in determining whether the dynamic path will lead to violence or to socially acceptable behaviour, are shown on the self-explanatory Figure 2. However, for obvious reasons, this flow chart is not exhaustive.

Dynamics of war depend on the nature of a social group and its environment. The underlying mechanism governing human behaviour when the individual becomes part of a mass (including the situation of a soldier in the army), have been discussed above. When populations are highly organized and technologically equipped (with modern armament), as most countries are nowadays to some degree or other; paranoid drives can be pushed way beyond the limits of primitive man engendering mass destruction, killing of civilians, racial genocides, and »ethnic cleansing«. All this can take place in horrible proportions when individuals are manipulated to the point of losing touch with their consciences and hand over their personal responsibility to un-

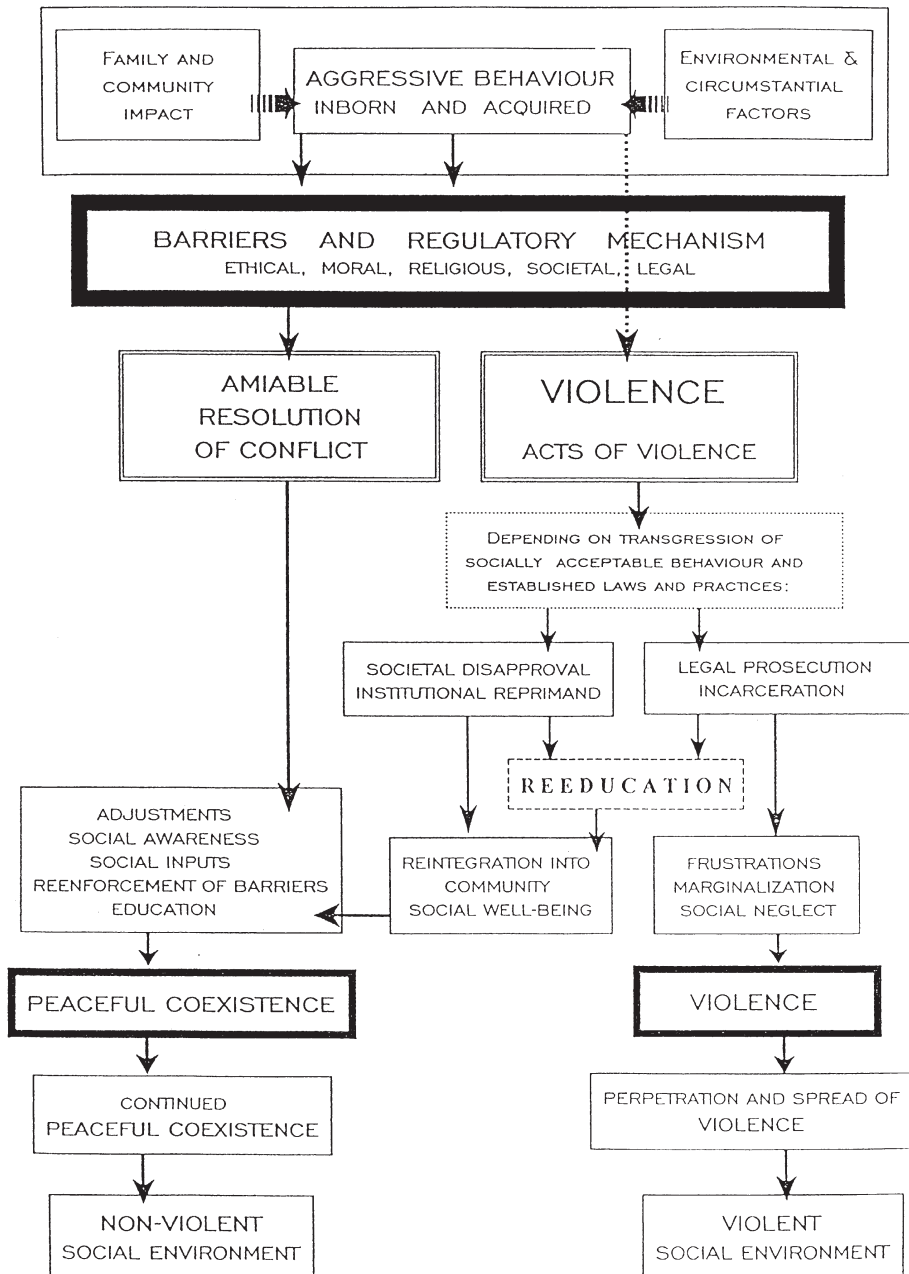


Fig. 2. Dynamics of violence (conceptual model).

scrupulous national leaders<sup>12</sup>. While all societies impose rules of conduct and enforce them through laws, national leaders are not formally bound by international laws which are difficult to enforce and are rarely respected. Therefore, odious crimes committed in the name of *national security or interest* often go by unchecked.

On Figure 3 it is shown that different outcomes of conflicts of interest are always possible. There are a variety of paths leading both to war and its perpetration, as well as to peace and continued peaceful coexistence. Individual societies and international bodies, alike, can intervene in favour of amiable resolution of conflicts and peaceful settlements. Figure 3 provides information on major factors which determine the paths leading either to a state of war or to peace, as well as showing »critical points« for possible intervention and prevention of war. It is allowed that there are additional possible outcomes besides the ones presented in this figure.

### Contributing Factors

The main causative factors of violence and war, and their dynamic relationships, have been shown in Figures 1, 2 and 3. However, there are other contributing factors which need to be considered. These are of (a) – psychological, mental origin, and of (b) – environmental nature.

#### *Mental*

Psychological factors are of crucial importance. They are determined by the genetic code and are thus inborn, hereditary, and not subject to change in the way that environmental factors which undergo rapid physical and social changes are. Mental mechanisms related to violence and war, and described earlier, can be affected by psychopathological processes which are not readily recognizable. Many leaders launching wars have been affected

by mental disorders; mostly paranoia. These psycho pathogenic factors play a role which needs to be taken into account. Such leaders may trigger a psycho pathogenic process in the population; an epidemic of mental disorders. Of course, for this to occur certain conditions must be met. A sufficient percentage of the population must be »susceptible«, and the conditions for the transmission and spread of paranoid ideas must be favourable.

Whether the conditions for transmission are favourable or unfavourable, is determined by a number of *contributing* factors. These factors, although not direct, *causative* ones, nonetheless play an extremely important role. People who have suffered serious frustrations in the course of having been exposed to social, economic, or moral stress; such as perhaps finding themselves jobless, can become mentally destabilized and prone to accepting ideas which would normally be foreign to them. In addition, exposure to mass situations tends to intensify this mechanism.

Once on the »*warpath*«, it is difficult to disengage. In the event of de-solidarization with the mass, or disobedience to superiors, the individual has to face ostracism; perhaps even prosecution. Additionally, a certain comfort can be found in belonging to a large group, particularly when personal responsibility is replaced with »obedience to authority«<sup>6</sup>. Thus, the mental functions of a normal person are replaced by a depersonalized automat; an executioner. The interaction of mental, somatic, and social factors must therefore be duly considered<sup>14</sup>.

#### *Environmental*

Human environment, whether it is physical, biological, or social, has a definitive impact on man's mental development and influences his perception of this very environment, as well as the way he reasons, and acts. In contemporary his-



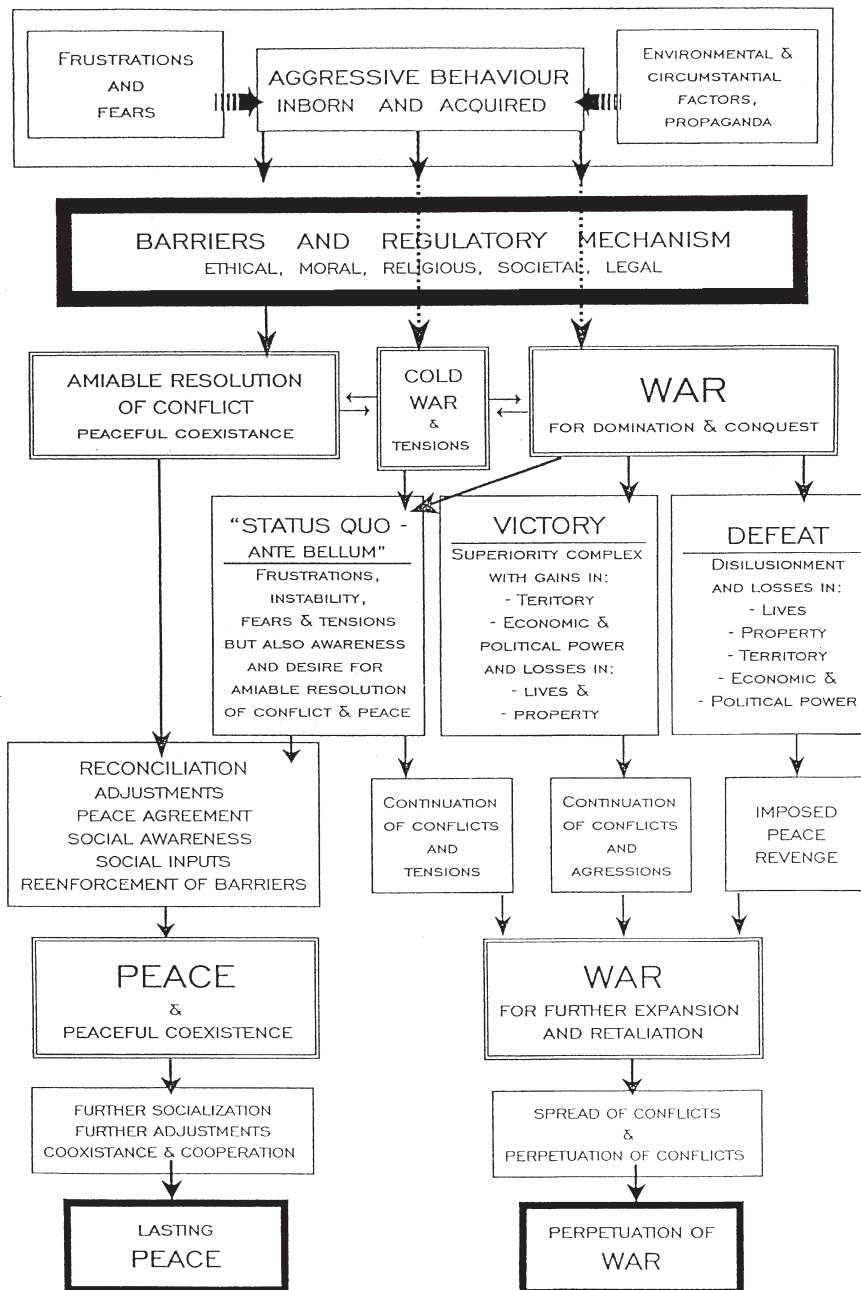


Fig. 3. Dynamics of war (conceptual model).

tory this environment is subject to increasingly more rapid changes; sometimes for human benefit, but often to its detriment. These rapid changes introduce an additional element of instability which can affect mental health. For an example, nuclear energy plants can cause feelings of insecurity, fear, and sometimes even phobia and paranoia<sup>15</sup>. Frustrations in an unfriendly environment lead to aggression<sup>16</sup>. In this manner the human mental condition can become weakened and prone (or »susceptible«) to violence, and ultimately to war.

Most of the causative environmental factors are man made (family, home, school, workplace) and linked with organized social living. Contact with nature is becoming ever less frequent and human contacts are also getting more superficial and mechanized. There is a trend of over organization and specialization leading to a further alienation. A person is reduced to a number, to being nothing more than an infinitely small wheel within a tremendous machine without a soul; a depersonalized, frightening structure. The army is just such a machine in which a soldier is nothing more than a small wheel. It may be that the civilized man of today, living in a modern, highly technological world, is perhaps more prone to becoming involved in war operations, as they can now be conducted in a detached manner. What attachment can a man who has been alienated from his own environment feel for the inhabitants of some far away city which can, so easily and impersonally, be destroyed by simply *pressing a »button«*? As there is no predetermined course for the enfoldment of man's »future history«, the danger which wars have always represented is just as present today, but it now carries with it a threat of much graver consequences and much greater devastation that ever before<sup>17</sup>.

## Interventions

Every country, in its socialization process, strove to establish barriers against violence, in order to enable community living. Behavioural, moral, and ethical rules and regulations were established; condemning and prosecuting acts of aggression upon people and property. These legal codes became the basis upon which modern societies and democracies were built.

While individual governments are undertaking measures to combat violence, organized crime, and terrorism within their territories, little progress is made by international bodies in »war prevention«. *Human Rights* implies the right to live without violence. However, it would seem that where governments are concerned it is war that they consider as their right.

The pace at which modern armament for killing and destruction is being developed, together with »total war« strategies, by far exceeds the delayed pace at which international instruments for war control and prevention are instituted.

It is obvious that measures for both prevention; before the actual outbreak of war, and control; after the outbreak, are desirable. The question which imposes itself is: which of these two measures has a greater chance of being effective?

## Control

Control in the context of this essay means an action taken *post festum*; after the aggression has already taken place. United Nations, by their constitution, are obliged to act. Namely, the Security Council should meet in order to examine the situation. Then, in keeping with the provisions of the U.N. Charter, it should make a decision regarding the measures to be undertaken. Typically, what happens is that a resolution is passed calling upon the belligerent nation to stop war

operations. Subsequently, mediators are dispatched with the task of forging a cease fire agreement which, if obtained, is followed by U.N. peace keeping troops which are supposed to maintain peace. The U.N. Charter provides for the option of using force against the aggressor, but this is rarely decided upon, as the international community is divided through divergent national interests. Instead, it is economic and military supply sanctions which are imposed and, most often violated by the very signatories of the U.N. Charter.

There is therefore not a lack of legal international instruments, but there is a lack of determination to actually stop aggression. Besides, the U.N. does not have the power to execute the resolutions by force, if this becomes necessary. When the interests of the *super powers* (permanent members of the Security Council with veto privilege) are not affected often the U.N. does not go beyond lip service. Historically, the U.N. is a product of the desire of the *super powers* to maintain a *status quo* after their post World War II division of the world into their own spheres of interest. As such, the U.N. has continued to function, more or less successfully, for the benefit of major powers and their vested interests, for half a century now. There have been resolutions passed on human rights, on decolonization, on a »new world economic order«, etc., but in actuality little was done to carry out these resolutions. Colonies were simply renamed »Overseas Territories«, »Commonwealths«, »Federal States«, etc., and those countries which actually gained their independence fell into the grip of large powers and economic giants. And so the status quo continued in spite of »local« wars, some of which were just how the *status quo* was maintained. In the meantime the super powers became atomic powers, passing yet another U.N. resolution on »no proliferation of nuclear

weapons«, for the obvious benefit of their own »big powers club«. Thus, there are many problems which have not yet been solved by the United Nations, although there has been some progress in controlling the spread and the consequences of *local wars* and managing to avoid another *world war*. Both international and national agencies and organizations have contributed towards the reduction of violence and war. Still, more could have been done, and should be done, by the United Nations.

At this point it might be appropriate to quote S. Freud's letter to A. Einstein<sup>1</sup>: »Wars will only be prevented with certainty if mankind unites in setting up a control authority to which the right of giving judgement upon all conflicts of interest shall be handed over. There are clearly two separate requirements involved in this: the creation of a supreme agency and its endowment with the necessary power. One without the other would be useless.«

U.N. agencies provided humanitarian aid to refugees: war victims were fed, but often were also left at the mercy of their aggressors. Rather than an act of true assistance, this may be considered more of a way to alleviate guilt for not performing what, according to the charter of the U.N., should be an obligation: the protection of the victims of aggression.

In opposition to the slow moving official (governmental) international organizations, it is rewarding to note the increasing involvement of voluntary (non governmental) international bodies such as; Amnesty International, Helsinki Watch, and many other humanitarian, professional, religious, and social organizations. Being free from narrow, selfish interests of national politicians and governmental bureaucracies, their concepts and actions are considerably ahead of the official governmental and inter-governmental agencies, including the United

Nations. Unfortunately, the means of these voluntary organizations are limited.

There are no legal provisions at the international (U.N.) level which define and declare war as a criminal act for which the responsible governments may be held accountable. Thus, war crimes, torture, rape, etc., are proscribed and punishable, whereas the act of war itself is not. Society, it seems, accepts war and allows it to go unpunished when it is done on behalf of a government, unlike violence committed on a personal basis. This is a double standard which needs to be confronted by non-governmental bodies, as the official governments, by the generals behind them will never do so.

National governments, which are actually the ones responsible for war, do not end up by answering to international courts for wars, as they are also the ones who decide on international laws and international courts. Therefore the role of non-governmental institutions, voluntary organizations, and other bodies which are not part of government bureaucracies, is crucial in the effort to bring greater accountability for acts committed by governments. Although political leaders are in most cases the major culprits in the advent of war, it is nonetheless important not to throw the entire blame to them, for it is obvious that they neither act alone, nor without complicity.

It is possible to greatly improve control measures, but for this a strong political will is needed which, obviously not being in existence within the official government agencies, must be induced through pressure from all circles of voluntary, professional, non-governmental organizations, and the public at large.

### *Prevention*

Prevention, rather than control, is a more appropriate and more logical way of dealing with problems which arise through a gradual accumulation, and interaction,

of a number of factors. We attempted to elucidate the underlying mechanism and the dynamics of violence and war, and to indicate the points (psychological and environmental) at which specific interventions could produce favourable effects and modify the process leading to war.

While the central point of control (from a practical point of view) should be *rapid international action*, in matters of prevention it is *continuing national action* (of national institutions, family, and schools) which is most important.

There are methods available which can detect and assist in diagnosing, both in individuals and in groups, psychological disturbances<sup>18,19</sup> and environmental factors which are conducive to violence and war. There are also a number of specific activities in education and training, especially of children, which can promote non-violent behaviour<sup>20</sup>. Additionally, the above information can assist in devising a monitoring system<sup>18</sup> which can provide guidance as to when certain preventative measures may be needed in order to render »susceptible« individuals »resistant«, and thus decrease the probability of war breaking out.

### **Discussion**

The underlying causes and the genesis of violence and war are sufficiently understood to permit the undertaking to free mankind of these scourges. However there is still much to be done to resolve the problems imposed by states of maladapted interpersonal and international behaviour. Nevertheless, there is a sound basis for devising measures of prevention and control for violence and war.

The problem has been discussed in many instances. The authors departing from the concepts and methods specific of his/her own discipline. Psychologists used to view war primarily as a result of maladaptive international behaviour of

masses within which individuals often become psychically abnormal. Psychiatrists and epidemiologists tend to consider war as a psychosocial epidemic; a process typical for »mass phenomena« in which the pathological condition present in the mass is transmitted from an affected individual to another one who is »susceptible«. Professional in other disciplines would make analogies between the mechanisms inherent in violence and war and the theories advanced by their discipline. However, it is rewarding to note that, regardless of the professional affiliations of the investigators and therefore the methods employed, all come to essentially the same conclusions.

Contemporary societies are burdened with psychological deviations from what is considered normal (and rational) behaviour, due to a lack of intra-personal, interpersonal, and international adaptability in the face of a relatively rapid socialization and internationalization process, which is in contrast with man's slow genetic evolution<sup>5,17</sup>. The prevailing opinion is that man is capable of making progress in his ability to adapt and to eventually adopt non-violent behaviour. However, there are those who disagree, and the predictions cannot be made as there is no finality in either man's past or in his future<sup>17</sup>. Especially because nowadays social and environmental changes are both very rapid and unpredictable. Besides, their interrelations are very complex. The logical (and emotional) conclusion drawn by most students of this problem is that war is such a danger for humanity that no efforts to curb it should be spared. There are chances of this endeavour succeeding, but it should be kept in mind that along with war there are other perils for mankind; such as man's aggression on his own environment.

The conceptual models presented here would benefit from being developed further, for it would be essential to firmly es-

tablish, as precisely as possible, the »natural history«<sup>4,8</sup> of war, and to eventually translate these models into mathematical ones.

It might not be easy to quantify the various factors involved in the mechanism and dynamics of the war related processes, however it is not impossible. Information relating to the quantity of arms, manpower, and expenditures may not be readily available, but other data is. Propaganda for or against war, as it is published and televised, can be accounted for; public opinion can be thoroughly analysed and documented; and it is possible to analyse attitudes and behaviours by various techniques<sup>18</sup>. Other indicators of causative and contributing factors can, for the most part, be measured: quantified and qualified, and last, but not least, mental diseases and behavioural abnormalities have been classified and can be assessed<sup>19</sup>. Anthropologists, sociologists, psychologist, physicians, and others can contribute much that can help measure and quantify relevant characteristics, actions, trends, etc.

It is crucial for the future of mankind to understand that in order to change human behaviour it is necessary to concentrate on new generations; on children and their moral judgment<sup>20</sup>. Unfortunately, modern technology, which offers a wonderful opportunity for child education (television, computers, etc.), is actually being misused<sup>21</sup> and is contributing to violence among children, instead. This is an example of the mental aggression which is being perpetrated upon children and which have grave consequences upon both individuals and society. There are other examples of non armed aggression and the misuse of technology to the detriment of humanity. For example, the modern lumber industry of one of the most highly developed countries is »peacefully« destroying the very habitat of the people who have lived for millennia in the tropi-

cal forests<sup>22</sup>. Worst of all, this is all done legally, sanctioned by the governments of the countries involved. There is no end to such examples. While the civilized world is protesting (verbally, yet doing little), one of the major powers is committing genocide over a small nation (in the Caucasus). For such »peaceful« aggressions and genocides there is little, if any, official verbal protest. As the »civilized« world becomes more and more technologically developed, it continues to invent new means of »peaceful«, »developmental«, »economic«, and »cultural« aggression upon man's fragile ecological habitat and the human cultural heritage often fully supported by legal instruments and pecuniary interests of the governmental authorities concerned.

The question arises whether the word »war« has become archaic and needs to be redefined in the context of present realities? Perhaps this should be a first step, not as a linguistic exercise which will change the definition in the dictionary, but rather as a way to increase awareness of the gravity of the situation, and to open people's minds to the idea that it is possible, and essential to confine, control, and ultimately prevent violence and war.

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## Conclusions

Knowledge about the contributing and causative factors of violence and war allows for the implementation of activities and long term programmes aimed at control and prevention of war, relieving the world of its horrors. However, neither the available knowledge nor the minds are being put in the service of war control and prevention, but rather used to further propagate war and violence. This state of social psychopathology needs to be healed in order for humanity to live in safety and security. This is essential for normal social functioning and for the promotion of quality of life, as well as for the very survival of the human race.

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## EPIDEMIOLOGIJA NASILJA I RATA

### SAŽETAK

Opasnost koju predstavlja nasilje i rat za zdravlje i život ljudi je očita. Znanstvene discipline su pružile, svaka sebi svojstvenim metodama, uvid u uzroke, nastanak i dinamiku nasilja i rata. Premda su epidemiološka i psihološka istraživanja prevladavala, ipak je čini se najprikladniji pristup ovom problemu multidisciplinarno istraživanje. Ovaj esej je pokušaj da se holistički pristupi studiju epidemiologije nasilja i rata, te načina kojima bi se suzbile ove pošasti suvremenog društva. Konceptualni modeli uzročnog mehanizma i dinamike nasilja i rata, uloge raznih psihičkih, socijalnih i okolišnih faktora su prikazani. Ti modeli, osim iznošenja apstraktnih ideja, također daju stvarni okvir za istraživanje interakcije i dinamike čimbenika i procesa koji dovode do nasilja i rata. Modeli omogućuju utvrđivanje »kritične točke« za primjenu preventivnih intervencija. Vrste intervencija iznesene za suzbijanje i sprječavanje su usmjerene na »kritične točke« u dinamici i procesima koji vode k nasilju i ratu i na primjenu na međunarodnom i nacionalnom polju. Važnost se pridaje utjecaju obitelji, zajednice i škole, ali je također naglašena uloga međunarodnih organizacija, uključujući Ujedinjene Narode i druge vladine i ne-vladine organizacije. Diskusija je usredotočena na čimbenike koji pogoduju miru i sprječavanju agresije, na »internalizaciju« i globalno društvo nasuprot ksenofobiji i nacionalizmu. U zaključku se iznosi da već postoji dovoljno saznanja i sredstava za primjenu razumnog i djelotvornog međunarodnog programa suzbijanja i sprječavanja nasilja i rata ukoliko mu se pruži odgovarajuća javna i politička podrška.