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On Aggression

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What Aggression is Good For

society may derive a beneficial firmness of structure from the state of tension arising inside the community from the aggression drive and its result, ranking order. In jackdaws, and in many other very social birds, ranking order leads directly to protection of the weaker ones. All social animals are 'status seekers', hence there is always particularly high tension between individuals who hold immediately adjoining positions in the ranking order; conversely, this tension diminishes the farther apart the two animals are in rank. Since high-ranking jackdaws, particularly males, interfere in every quarrel between two inferiors, this gradation of social tension has the desirable effect that the higher ranking birds always intervene in favour of the losing party.

In jackdaws, another form of 'authority' is already linked with the ranking position which the individual has acquired by its aggressive drive. The expression movements of a high-ranking jackdaw, particularly of an old male, are paid much more attention to by the colony members than those of a lower ranking, young bird. For example, if a young bird shows fright at some meaningless stimulus, the others, especially the older ones, pay almost no attention to his expressions of fear. But if the same sort of alarm proceeds from one of the old males all the jackdaws within sight and earshot immediately take flight. Since, in jackdaws, recognition of predatory enemies is not innate but is learned by every individual from the behaviour of experienced old birds, it is probably of considerable importance that great store is set by the 'opinion' of old, high-ranking and experienced birds.

With the higher evolution of an animal species, the significance of the role played by individual experience and learning generally increases, while innate behaviour, though not losing importance, becomes reduced to simpler though not less numerous elements. With this general trend in evolution, the significance attached to the experienced old animal becomes greater all the time, and it may even be said that the social co-existence of intelligent mammals has achieved a new survival value by the use it makes of the handing down of individually acquired information. Conversely, it may be said that social

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co-existence exerts selection pressure in the direction of better learning capacity, because in social animals this faculty benefits not only the individual but also the community. Thus longevity far beyond the age of reproductive capacity has considerable species-preserving value. We know from Fraser Darling and Margaret Altmann that in many species of deer the herd is led by an aged female, no longer hampered in her social duties by the obligations of motherhood.

All other conditions being equal, the age of an animal is, very consistently, in direct proportion to the position it holds in the ranking order of its society. It is thus advantageous if the 'constructors' of behaviour rely upon this consistency and if the members of the community - who cannot read the age of the experienced leader animal in its birth certificate - rate its reliability by its rank. Some time ago collaborators of Robert M. Yerkes made the extraordinarily interesting observation that chimpanzees, animals well known to be capable of learning by imitation, copy only higher ranking members of their species. From a group of these apes, a low ranking individual was removed and taught to take bananas from a specially constructed feeding apparatus by very complicated manipulations. When this ape, together with his feeding apparatus, was brought back to the group, the higher ranking animals tried to take away the bananas which he had acquired for himself but none of them thought of watching their inferior at work and learning something from him. Then the highest ranking chimpanzee was removed and taught to use the apparatus in the same way, and when he was put back in the group the other members watched him with great interest and soon learned to imitate him.

S. L. Washburn and Irven de Vore observed that among free-living baboons the band was led not by a single animal but by a 'senate' of several old males who maintained their superiority over the younger and physically stronger members by firmly sticking together and proving, as a united force, stronger than any single young male. In a more exactly observed case, one of the three 'senators' was seen to be an almost toothless old creature while the other two were well past their prime. On one occasion when the band was in a treeless area and in danger of

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encountering a lion, the animals stopped and the young, strong males formed a defensive circle round the weaker animals. But the oldest male went forward alone, performed the dangerous task of finding out exactly where the lion was lying, without being seen by him, and then returned to the horde and led them, by a wide detour round the lion, to the safety of their sleeping trees. All followed him blindly, no one doubting his authority.

Let us look back on all that we have learned in this chapter from the objective observation of animals, and consider in what ways intra-specific aggression assists the preservation of an animal species. The environment is divided between the members of the species in such a way that, within the potentialities offered, everyone can exist. The best father, the best mother are chosen for the benefit of the progeny. The children are protected. The community is so organized that a few wise males, the 'senate', acquire the authority essential for making and carrying out decisions for the good of the community. Though occasionally, in territorial or rival fights, by some mishap a horn may penetrate an eye or a tooth an artery, we have never found that the aim of aggression was the extermination of fellow-members of the species concerned. This of course does not negate the fact that under unnatural circumstances, for example confinement, unforeseen by the 'constructors' of evolution, aggressive behaviour may have a destructive effect.

Let us now examine ourselves and try, without self-conceit but also without regarding ourselves as miserable sinners, to find out what we would like to do, in a state of highest violent aggressive feeling, to the person who elicited that emotion. I do not think I am claiming to be better than I am when I say that the final, drive-assuaging act, Wallace Craig's consummatory act, is not the killing of my enemy. The satisfying experience consists, in such cases, in administering a good beating, but certainly not in shooting or disembowelling; and the desired objective is not that my opponent should lie dead but that he should be soundly thrashed and humbly accept my physical, and, if I am to be considered as good as a baboon, my mental superiority. And since on principle I only wish to thrash such fellows as deserve these humiliations, I cannot entirely condemn

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my instincts in this connection. However, it must be admitted that a slight deviation from nature, a coincidence that put a knife into one's hand at the critical moment, might turn an intended thrashing into manslaughter.

Summing up what has been said in this chapter, we find that aggression, far from being the diabolical, destructive principle that classical psychoanalysis makes it out to be, is really an essential part of the life-preserving organization of instincts. Though by accident it may function in the wrong way and cause destruction, the same is true of practically any functional part of any system. Moreover, we have not yet considered an all-important fact which we shall hear about in Chapter X. Mutation and selection, the great 'constructors' which make genealogical trees grow upwards, have chosen, of all unlikely things, the rough and spiny shoot of intra-specific aggression to bear the blossoms of personal friendship and love.

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factors that build up the ever-increasing danger of human society's becoming completely disintegrated by the malfunctioning of social behaviour patterns.

There is less hazard of my meeting with disbelief than of incurring the reproach of banality when I now proceed to summarize the most important inferences from what has been said in this book by formulating simple precepts for preventive measures against that danger. I am aware that these measures must appear feeble and ineffective after all I have said in the last chapter about the present situation of mankind. This, however, does not argue against the correctness of my inferences. In medicine, too, all therapeutic measures appear slight and ineffectual when compared with the amount of physiological and pathological knowledge and insight that had to be gained before any reasonable therapy at all could be planned. Science seldom effects dramatic changes in the course of history, except, of course, in the sense of destruction, for it is all too easy to misuse the power afforded by causal insight. To use that knowledge gained by scientific research in a creative and beneficial fashion demands no less perspicacity and meticulous application to detail than were necessary to gain it.

The first, the most obvious and the most important precept is the old *γνῶθι σεαυτόν*, 'know thyself': we must deepen our insight into the causal concatenations governing our own behaviour. The lines along which an applied science of human behaviour will probably develop are just beginning to appear. One line is the objective, ethological investigation of all the possibilities of discharging aggression in its primal form on substitute objects, and we already know that there are better ones than kicking empty canide tins. The second is the psycho-analytical study of so-called sublimation. We may anticipate that a deeper knowledge of this specifically human form of catharsis will do much towards the relief of undischarged aggressive drives. The third way of avoiding aggression, though an obvious one, is still worth mentioning: it is the promotion of personal acquaintance and, if possible, friendship between individual members of the different ideologies or nations. The fourth and perhaps the most important measure to be taken immediately is the intelli-

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gent and responsible channelling of militant enthusiasm, in other words helping a younger generation which, on the one hand, is highly critical and even suspicious and on the other emotionally starved, to find genuine causes that are worth serving in the modern world. I shall now proceed to discuss all these precepts one by one.

Even at its present modest stage, our knowledge of the nature of aggression is sufficient to tell us what measures against its damaging effects have no hope of success whatever, and this in itself is of value. To anybody who is unaware of the essential spontaneity of instinctive drives and who is wont to think of behaviour exclusively in the terms of conditioned and unconditioned responses, it must seem a hopeful undertaking to diminish or even eliminate aggression by shielding mankind from all stimulus situations eliciting aggressive behaviour. The results of this experiment have already been discussed in Chapter IV. Another hopeless attempt is to control aggression by putting a moral veto on it. The practical application of both these methods would be about as judicious as trying to counteract the increasing pressure in a continuously heated boiler by screwing down the safety valve more tightly.

A further, theoretically possible but in my opinion highly inadvisable measure would be to attempt to breed out the aggressive drive by eugenic planning. We know from the preceding chapters that there is intra-specific aggression in the human reaction of enthusiasm and this, though dangerous, is nevertheless indispensable for the achievement of the highest human goals. We know from the chapter, 'The Bond', that aggression in very many animals and probably also in man is an essential component of personal friendship. Finally, in the chapter on the great parliament of instincts, we have learned how complex is the interaction of different drives. It would have quite unpredictable consequences if one of them – and one of the strongest – were to disappear entirely. We do not know how many important behaviour patterns of man include aggression as a motivating factor, but I believe it occurs in a great many. What is certain, is that with the elimination of aggression, the *aggressi* in the original and widest sense, the tackling of a task or problem,

the self-respect without which everything that a man does from morning till evening, from the morning shave to the sublimest artistic or scientific creations, would lose all impetus; everything associated with ambition, ranking order, and countless other equally indispensable behaviour patterns would probably also disappear from human life. In the same way, a very important and specifically human faculty would probably disappear too: laughter.

The most promising means we can apply in our attempt to cope with the miscarriage of aggression – and that of other patterns of social behaviour – are those which have proved their efficiency in the course of phylogenetical and cultural evolution.

A simple and effective way of discharging aggression in an innocuous manner is to redirect it at a substitute object. As explained in Chapter XI, this method has been employed extensively by the great constructors of evolution to prevent combat between members of a group. It is sound reason for optimism that aggression, more easily than most other instincts, can find complete satisfaction with substitute objects. Even without insight into the consequences of damned-up drives, the choice of object is directed by reasonable considerations. I have found that even highly irascible people who, in a rage, seem to lose all control of their actions, still refrain from smashing really valuable objects, preferring cheaper crockery. Yet it would be a complete error to suspect that they could, if they only tried hard enough, keep from smashing things altogether! Insight into the physiology of damned-up drive and its redirected discharge is, of course, a great help in governing aggression. It was certainly thanks to this insight that, in the incident related in Chapter IV, I did not hit my friend but jumped on an empty carbide tin; conversely, the reason that my old aunt, described in the same chapter, was so completely convinced of the depravity of her unfortunate housemaid, was simply that she knew nothing of these phenomena. My dear old aunt was emphatically not my inferior in respect to moral self-control. Thus the differences in our behaviour furnish a striking illustration of the fact that insight into the causality of our actions may endow our

moral responsibility with the power to control them, even where the categorical imperative is doomed to fail miserably without that knowledge.

Redirection as a means of controlling the functions of aggression and other undischarged drives has been known to humanity for a long time. The ancient Greeks were familiar with the conception of catharsis, of purifying discharge, and psychoanalysis has shown very convincingly that many patterns of altogether laudable behaviour derive their impulses from the 'sublimation' of aggressive or sexual drives. Sublimation, however, must not be confounded with simple redirection of an instinctive activity towards a substitute object. There is a substantial difference between the man who bangs the table instead of hitting his antagonist, and the man who discharges the aggression aroused by an irritating family life by writing an enthusiastic pamphlet serving an altogether unconnected cause.

One of the many instances in which phylogenetic and cultural ritualization have hit on very similar solutions of the same problem, concerns the method by which both have achieved the difficult task of avoiding killing without destroying the important functions performed by fighting in the interest of the species. All the culturally evolved norms of 'fair fighting', from primitive chivalry to the Geneva Convention, are functionally analogous to phylogenetically ritualized combat in animals.

Sport probably originated from highly ritualized, but still serious hostile fighting. It can be defined as a specifically human form of non-hostile combat, governed by the strictest of culturally developed rules. Sport is not directly comparable to the fighting play of the higher vertebrates. The latter is never competitive, being essentially free from any appetitive or purposive tension. The enjoyable play of two dogs, however different in size and strength, is made possible only by the strict exclusion of all competitive elements. In sport, on the other hand, even in those kinds in which the enjoyment of skilled movements for their own sake predominates, as in skiing or skating, there is always a certain pride in doing it well and there is no sport in which contests are not held. In this respect human sport is more

akin to serious fighting than animal play is; also, sport indubitably contains aggressive motivation, demonstrably absent in most animal play.

While some early forms of sport, like the jousting of medieval knights, may have had an appreciable influence on sexual selection, the main function of sport today lies in the cathartic discharge of aggressive urge; besides that, of course, it is of the greatest importance in keeping people healthy.

The value of sport, however, is much greater than that of a simple outlet of aggression in its coarser and more individualistic behaviour patterns, like pummelling a punch-ball. It educates man to a conscious and responsible control of his own fighting behaviour. Few lapses of self-control are punished as immediately and severely as loss of temper during a boxing bout. More valuable still is the educational value of the restrictions imposed by the demands for fairness and chivalry which must be respected even in the face of the strongest aggression-eliciting stimuli.

The most important function of sport lies in furnishing a healthy safety valve for that most indispensable and, at the same time, most dangerous form of aggression that I have described in the preceding chapter as collective militant enthusiasm. The Olympic Games are virtually the only occasion when the anthem of one nation can be played without arousing any hostility against another. This is so because the sportman's dedication to the international social norms of his sport, to the ideals of chivalry and fair play, are equal to any national enthusiasm. The team spirit inherent in all international sport gives scope to a number of truly valuable patterns of social behaviour which are essentially motivated by aggression and which, in all probability, have evolved under the selection pressure of tribal warfare at the very dawn of culture. The noble warrior's typical virtues, such as his readiness to sacrifice himself in the service of a common cause, disciplined submission to the rank order of the group, mutual aid in the face of deadly danger, and above all, a superlatively strong bond of friendship between men, were obviously indispensable if a small tribe of the type we have to assume for early man was to survive in

competition with others. All these virtues are still desirable in modern man and still command our instinctive respect. It is undeniable that there is no situation in which all these virtues shine so brilliantly as they do in war, a fact which is dangerously liable to convince quite excellent but naïve people that war, after all, cannot be the absolutely abhorrent thing it really is.

Fortunately there are other ways in which the above-mentioned, admittedly valuable, virtues can be cultivated. The harder and more dangerous forms of sport, particularly those demanding the working together of larger groups, such as mountain climbing, diving, off-shore and ocean sailing, but also other dangerous undertakings, like polar expeditions and, above all, the exploration of space, all give scope for militant enthusiasm, allowing nations to fight each other in hard and dangerous competition without engendering national or political hatred. On the contrary, I am convinced that of all the people on the two sides of the great curtain the space pilots are the least likely to hate each other. Like the late Erich von Holst, I believe that the tremendous and otherwise not quite explicable public interest in space flight arises from the subconscious realization that it helps to preserve peace. May it continue to do so!

Sporting contests between nations are beneficial not only because they provide an outlet for the collective militant enthusiasm of nations, but also because they have two other effects that counter the danger of war: they promote personal acquaintance between people of different nations or parties and they unite, in enthusiasm for a common cause, people who otherwise would have little in common. We must now discuss how these two measures against aggression work, and by what means they can be exploited to serve our purpose.

I have already said that we can learn much from demagogues who pursue the opposite purpose, namely to make peoples fight. They know very well that personal acquaintance, indeed every kind of brotherly feeling for the people to be attacked, constitutes a strong obstacle to aggression. Every militant ideology in history has propagated the belief that the members of the other

party are not quite human and every strategist is intent on preventing any 'fraternization' between the soldiers in confronting trenches. Anonymity of the person to be attacked greatly facilitates the releasing of aggressive behaviour. It is an observation familiar to anybody who has travelled in trains that well-bred people behave atrociously towards strangers in the territorial defence of their compartment. When they discover that the intruder is an acquaintance, however casual, there is an amazing and ridiculous switch in their behaviour from extreme rudeness to exaggerated and shamefaced politeness. Similarly, a naïve person can feel quite genuine hatred for an anonymous group, against 'the' Germans, 'the' catholic foreigners, etc., etc., and may rail against them in public, but he will never dream of being so much as impolite when he comes face to face with an individual member. On closer acquaintance with one or more members of the abhorred group such a person will rarely revise his judgement on it as a whole, but will explain his sympathy for individuals by the assumption that they are exceptions to the rule.

If mere acquaintance has this remarkable and altogether desirable effect, it is not surprising that real friendship between individuals of different nationality or ideology are even more beneficial. No one is able to hate, wholeheartedly, a nation amongst whose numbers he has several friends. Being friends with a few 'samples' of another people is enough to awaken a healthy mistrust of all those generalizations which brand 'the' Russians, English, Germans, etc., etc., with typical and usually hateful national characteristics. To the best of my belief, my friend Walter Robert Corti was the first to put into practice the method of subduing international hatred by promoting international friendships. In his famous children's village in Trogen in Switzerland, children and young people of all kinds of nations are living together in a friendly community. May this attempt find imitators on a grand scale!

What is needed is the arousal of enthusiasm for causes which are commonly recognized as values of the highest order by all human beings, irrespective of their national, cultural or political allegiances. I have already called attention to the danger of

defining a value by begging the question. A value is emphatically not just the object to which the instinctive response of militant enthusiasm becomes fixated by imprinting and early conditioning, even if, conversely, militant enthusiasm can become fixated on practically any institutionalized social norm or rite and make it appear as a value. Emotional loyalty to an institutionalized norm does not make it a value, otherwise war, even modern technical war, would be one. J. Marmor has quite recently called attention to the fact that even today, 'the history books of every nation justify its wars as brave, righteous and honourable. This glorification is charged with overtones of patriotism and love of country. Virtues such as heroism and courage are regarded as being "manly" and are traditionally associated with waging war. Conversely, the avoidance of war or the pursuit of peace are generally regarded as "effeminate", passive, cowardly, weak, dishonourable or subversive. The brutal realities, even of traditional war, are glamorized and obscured by countless tales of heroism and glory, and the warnings of an occasional General Sherman that "war is hell (and) its glory all moonshine" are disregarded.' I could not agree more with Dr Marmor when he discusses the psychological obstacles to the elimination of war as a social institution and counts among them the insidious effect of military toys and war games which all prepare the soil for a psychological acceptance of war and violence. I agree with Dr Marmor's assertion that modern war has become an institution and I share his optimism in believing that, being an institution, war can be abolished.

However, I think we must face the fact that militant enthusiasm has evolved from the hackle-raising and chin-protruding communal defence instinct of our pre-human ancestors and that the key stimulus situations which release it still bear all the earmarks of this origin. Among them, the existence of an enemy, against whom to defend cultural values, is still one of the most effective. Militant enthusiasm, in one particular respect, is dangerously akin to the triumph ceremony of geese and to analogous instinctive behaviour patterns of other animals. The social bond embracing a group is closely connected with aggression

directed against outsiders. In human beings, too, the feeling of togetherness which is so essential to the serving of a common cause is greatly enhanced by the presence of a definite, threatening enemy whom it is possible to hate. Also, it is much easier to make people identify with a simple and concrete common cause than with an abstract idea. For all these reasons, the teachers of militant ideologies have an enviably easy job in converting young people. We must face the fact that in Russia as well as in China the younger generation knows perfectly well what it is fighting for, while in our culture it is casting about in vain for causes worth embracing. The way in which huge numbers of young Americans have recently identified themselves with the rights of the American Negro is a glorious exception, though the fervour with which they have done so tends to accentuate the prevalent lack of militant enthusiasm for other equally just and equally important causes – such as the prevention of war in general. The actual warmonger, of course, has the best chances of arousing militant enthusiasm because he can always work his dummy or fiction of an enemy for all it is worth.

In all these respects the defender of peace is at a decided disadvantage. Everything he lives and works for, all the high goals at which he aims are, or should be, determined by moral responsibility which presupposes quite a lot of knowledge and real insight. Nobody can get really enthusiastic about them without considerable erudition. The one and only unquestionable value that can be appreciated independently of rational morality or education is the bond of human love and friendship from which all kindness and charity springs, and which represents the great antithesis to aggression. In fact, love and friendship come far nearer to typifying all that is good, than aggression, which is only mistakenly identified with a destructive death drive, comes to exemplifying all that is evil.

The champion of peace is debarred from inventing a sort of dummy figure of evil for the purpose of arousing the militant enthusiasm or strengthening the bond between the fighters for the good cause. To attack just 'evil' is a questionable procedure, even with intelligent people. Evil, by definition, is that which

endangers the good, and the good is that which we perceive as of value. Since for the scientist knowledge represents the highest of all values, he sees the lowest of all negative values in everything that impedes its progress. In my own case the dangerous whispering of my aggression drive would probably persuade me to see the personification of evil in some philosophers who despise natural science, particularly in those who, for purely ideological reasons, refuse to believe in evolution. If I did not know all that I do about aggression and the compulsion of militant enthusiasm, I should perhaps be in danger of letting myself be inveigled into a religious war against anti-evolutionists. In other words, we had better dispense with the personification of evil, because it leads, all too easily, to the most dangerous kind of war: religious war.

If I have just said that considerable erudition is necessary for anyone to grasp the real values of humanity which are worthy of being served and defended, I certainly did not mean that it was a hopeless task to raise the education of average humanity to that level, I only wanted to emphasize that it was necessary to do so. Indeed, in our age of enlightenment, human beings of average intelligence are not so very far from appreciating real cultural and ethical values. There are at least three great human enterprises, collective in the truest sense of the word, whose ultimate and unconditional value no normal human being can doubt: Art, the pursuit of beauty; Science, the pursuit of truth; and, as an independent third which is neither art nor science, though it makes use of both, Medicine, the attempt to mitigate human suffering.

Not even the most ruthlessly daring demagogues have ever undertaken to proclaim the whole art of an enemy nation or political party as entirely worthless. No normal educated human being can help appreciating the art of another culture however much he finds abhorrent in it in other respects. In addition, painting and music are unhindered by language barriers and are thus able to tell people on one side of a cultural barrier that on its other side, too, there are human beings serving the good and the beautiful. The universal appreciation of Negro music is perhaps an important step towards the solution of the burning