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AGONISTIC VERSUS PRESTIGE COMPETITION

A possible basis for a distinction between the agonic and hedonic modes

Summary

It is suggested that two types of organisation of social competition occur in human societies. In agonistic competition, which is the usual form of competition in vertebrates, punishments are applied to one competitor by another, and the result is a rank order based on dominance/submission. In prestige competition, competitors are not allowed to reward or punish each other; instead, rewards and punishments are applied by the social group as a whole, resulting in a rank order based on differential prestige. Agonistic competition is based on intimidating a rival and prestige competition on attracting a panel of judges. The hedonic mode is said to occur when agonistic competition is proscribed by society, so that any attempt to gain power by agonistic behaviour is punished by loss of prestige.

In some societies, which might be termed ultra-hedonic, even attempts to gain influence by attracting others are punished by loss of prestige. Such societies, like the !Kung San of the Kalahari desert, are egalitarian.

"It is just because the terms of science are so well defined, and defined in a way which is closely tied down to the phenomena, that questions in science can be settled: only because this is so can scientists hope to answer definitely the questions that arise for them, by looking to see whether things actually happen in nature in the manner the theory suggests."
Stephen Toulmin

Michael Chance has given us an inspired holistic vision of two types of social organisation (ASCAP Sept. & Oct. 1994, and in press), and David Stevens has provided an excellent survey of the development and current status of the two modes concept (ASCAP August 1995). I think that two issues need further attention in order to make the two mode concept more generally useful to, and acceptable by, behavioural scientists. One is a phenomenological issue and concerns whether the modes are a categorical or a dimensional concept. The other is a reductionist issue, and concerns whether there is some fundamental process or mechanism which operates differently in two modes.

I think there is an underlying dichotomous variable which underlies the two modes, and it concerns the type of social competition which occurs. Let us ignore inter-group competition (e.g., warfare) and concentrate on within-group competition. It has been known for a long time that there are two types of competition:

1. Competition by intimidation (aggression)

2. Competition by attraction

Michael Chance's contribution was to relate these forms of competition to social structure. He recognised that in most macaque species the only form of competition was competition by intimidation. But in chimpanzees a new form of competition could be discerned, in which the individual displayed to the group as a whole, not to intimidate them but to impress and attract them. In his book Social Groups of Monkeys, Apes and Men (Chance & Jolly, 1970) he wrote:

> Reynolds and Luscombe have studied the behaviour of a group of chimpanzees in a thirty-acre enclosure at the Holloman Air Force base in the New Mexican desert, and they found that chimpanzee attention structure is based upon attention-demanding behaviour or display, practised competitively between males of the colony, and is distinct from the pattern of aggression between the same individuals. This display behaviour leads not to submission or appeasement by a subordinate, but is a form of social solicitation, as it leads on to forms of associative behaviour in which there is a continuing interaction between individuals, such as grooming, play, sexual or mothering behaviour with the displayer. (My emphasis).

This discovery of two types of competition, one by intimidation and one by attraction, seems to me to be at the basis of the "mode" distinction. The behaviour of intimidating and the behaviour of attracting are, in most situations, mutually incompatible: the more

one intimidates, the less attractive one is; and the more one sets out to attract, the less intimidating one is. Intimidating and attracting are alternative power-seeking strategies.

Human competition is enormously complex, but it is immediately clear that both types of competition occur in humans as well as in chimpanzees. Paul Gilbert (1992), Theodore Kemper (1990) and Jerome Barkow (1975) have independently drawn attention to this evolutionary change in method of competition. But the ideas have not permeated mainstream social psychology.

Intimidation can vary in subtlety from punching on the nose to damning with faint praise. Competition by attraction is enormously elaborated in man, and can take an infinite variety of forms from parading at a beauty contest to writing Paradise Lost. Also human competition is infused with paradox and deceit (Footnote 1).

It is the replacement of the intimidation by the attraction that allows the hedonic mode to occur. When "attractant" behaviour occurs, it may take many forms, even in chimpanzees, as the above quotation makes clear, so even in chimpanzees we would be on difficult ground if we defined the mode by the form of its actual manifestation. But if we define it by the underlying form of competition, everything else follows. This new type of competition could be called "polyadic" to emphasise that others, apart from the members of a competing dyad, are influential in deciding the winner; or it could be called "externally mediated" to emphasis that relative rank within a dyad is decided by individuals external to that dyad; but I think it would be more user-friendly to call it prestige competition.

Before examining the possibility of defining the modes by the type of competition which is occurring, expected to occur, or allowed to occur, I would like to say a bit more about the evolution of the two types of within-group competition.

AGONISTIC COMPETITION

Nothing could be more important than competition which is, after all, the driving force of evolution, and we have known since Darwin's time that social competition occurs alongside non-social competition in affecting fitness (reproductive success). In most vertebrates, and some invertebrates, social competition takes the form of ritual agonistic behaviour, which is a dyadic interaction in which rank (and therefore relative fitness) is decided according to criteria which are internal to the two members of the dyad. In most species no outside influence affects the outcome of an agonistic encounter; the occurrence of third party interventions in dyadic encounters does not affect the issue (Footnote 2). In the vast majority of agonistic interactions, the encounter is decided by the characteristics of the combatants, which may be maturational, genetic or to do with their relative life experience, such as how well fed they are. There are no cultural variations in the form of the agonistic encounter, nor in the criteria for success, except in man and possibly in chimpanzees (Footnote 3). In a society based on agonistic competition, the qualities of size, strength, fighting skill and alliance-formation will determine high social rank and group leadership; and, since high rank is associated with greater reproduction, these same qualities will be selected for (Betzig, 1986).

The control of agonistic behaviour

Agonistic behaviour has advantages and disadvantages for the individuals that manifest it in their behavioural repertoire. Its advantages are obvious, otherwise it would not have become so widespread in the animal kingdom. It acts as an amplifying transducer of small genetic differences, and thus accelerates the process of natural selection (Sloman, 1979). It transforms small inherited differences in strength and skill into large differences in rank and territorial occupancy. These large differences dictate which individuals in each generation shall succumb to the "reapers" of natural selection: starvation and disease. It is the homeless and low-ranking individuals who die of malnutrition and fail to reproduce. The high-ranking individuals and territory owners are well nourished and have high resistance, and it is they who beget the next generation. Thus, through the agency of agonistic behaviour, intrasexual selection has largely replaced natural selection as the engine of evolution, and the success of the vertebrate radiation is a testament to the efficiency of this process.

On the other hand, ritual agonistic behaviour has its disadvantages. It occupies the attention of individuals and prevents them pursuing other biological goals such as feeding and preparing shelters. The conspicuous displays of agonistic behaviour make the combatants vulnerable to predation (Jacobsson et al., 1995). Even worse is the agonic mode in which attention is directed to agonistic behaviour, but nothing is actually being decided (see Footnote 4); then the participants are getting all the disadvantages of agonistic behaviour and none of the advantages.

We can discern three evolutionary pathways by which the disadvantages of agonistic behaviour have been minimised:

1. Time is partitioned into agonistic and hedonic periods. This mechanism has evolved in many birds, such as the red grouse, in which fighting for status and territories is restricted to the hour or two after sunrise, and for the rest of the day the birds feed peacefully together without any disputes or fighting (Wynne-Edwards, 1965). In many lineages fighting is restricted to certain times of the year, usually co-incidental with the breeding season. Thus in wolves a rigid hierarchy is determined during about two months of the year and for the remaining ten months this hierarchy is never disputed, there is a lot of social behaviour but no fighting, and during this time the wolf pack is clearly operating in the hedonic mode.

2. Agonistic behavior is abolished by biological mechanisms. This is seen in the chimpanzee. The two mechanisms concerned are promiscuous mating and reconciliation behaviour. By mating promiscuously the chimpanzee has abolished the correlation between rank and reproductive success which exists in other primates, thus reducing the power of sexual selection. Instead of fighting each other, chimpanzees spend their energy on growing large testicles and huge sperm counts, thus ensuring that out of the panmixia it is their sperm which beget the next generation. Even if fighting occurs in the chimpanzee, their enormous (and superhuman) capacity for reconciliation ensures that "the sun never goes down on their wrath" and the hedonic mode is maintained for the vast majority of their time. In this way the chimpanzee is able to maintain co-operative groups; but the loss of sexual selection for behavioral variables probably means that, even without competition from man, this is an evolutionary dead-end.

3. Agonistic behaviour is abolished by cultural mechanisms. This is what we see in the majority of human societies. It can only occur in man because it requires language and a complex social structure to ensure the cohesion and continuity of culture required to achieve this end. It is not an evolutionary dead-end because the power of intrasexual selection has been maintained. But instead of being mediated by agonistic behaviour, it is mediated by prestige competition, in which individuals display attractive qualities to each other, giving each other pleasure, which is returned to the giver of pleasure in the form of approbation and prestige, so that it is those individuals in the group that are attractive to the majority who rise to leadership positions and amass the resources that protect them and their offspring against the depredations of starvation and disease. And in the case of men, given a polygynous society, it may give them an extra wife and so double their reproductive fitness (Perusse, 1993).

PRESTIGE COMPETITION

Evolutionary adjustment to prestige competition

The evolution of this new attractant type of competition has required several developments in social behaviour. In the competitor, a hedonic "desire to show off" or a "desire to be approved of" has come to co-exist with the agonistic "desire to intimidate". Alongside this motivational element, there is a cognitive apparatus for learning what type of display behaviour is likely to be approved of. This allows the content of the display to be culturally determined, and, indeed, human displays are very diverse.

Then, a whole new role of spectator/evaluator/judge has been developed, in which the group members evaluate one or more performers and respond to them with either approbation or disapprobation. Also, the spectator/judges must learn the criteria on which they are evaluating the performances, and the criteria of evaluation may be varied between groups and handed down from generation to generation. The role of evaluator is one that seems natural to human beings - we all enjoy watching a performance and then either clapping or booing, giving the thumbs up or the thumbs down. We enjoy discussing performance with other evaluators, and in generating the systemic variables of reputation and prestige. The signals of approbation and disapprobation given by the evaluators to the performers are newly evolved; they are designed to raise and lower self-esteem, in the way that the threat and submissive signals of agonistic competition lower and raise self-esteem. But they differ from agonistic signals in having no comparative component; whereas a threat signal says, "I am more powerful than you", and a submissive signal says, "You are more powerful than me", approbation says, "You are good" and disapprobation says "You are no good", but there is no suggestion that the performer is better or worse than the evaluator. The King can evaluate the Cat, and the Cat can evaluate the King.

Then the performers must be sensitive to approbation or disapprobation, so that these signals come to raise or lower self-esteem, and we may say that a new hedonic self-concept

(which Paul Gilbert has called social attention holding power or SAHP) has come to co-exist with the agonistic self-concept of resource-holding potential (RHP). Every group member performs simultaneously the role of performer in which he or she is evaluated by others, and of judge/spectator, in which he or she evaluates the others. There is no escape from these roles. Just as one "cannot not communicate", so, one cannot not evaluate, nor can one avoid being evaluated.

These are enormous changes, which have modified not only social interaction but also individual psychology.

Natural selection in the hedonic mode

The implications for social interaction theory and role theory are obviously great, but the implications for evolutionary theory are even greater (see my contribution to the February, 1992 ASCAP). In hedonic "competition by attraction" it is possible to select for any quality the society chooses to be attracted by. Attractive people are given prestige (a systemic correlate of SAHP) and come to occupy leadership roles and also are given more resources so their fitness increases; their children survive because they are better fed, and in many cases a man with prestige is allowed more wives than other men (he is given the resources which his agonic counterpart takes). Whatever qualities form the basis for the allocation of prestige are thus selected for. A group can select for co-operative people and weed out free-riders and any deviates who might exploit the altruism of the majority. It is a paradox that hedonic competition can lead to the selection of non-competitiveness; and when it does so, people are competing to appear non-competitive. This appears to have happened in modern immediate return hunter/gatherer societies, for instance the !Kung, in whom any display of ostentation is rewarded with group disapprobation (Lee, 1979). In some societies there appears to be an attempt to make hedonic society the very opposite of agonistic society; for instance, among the Chewong of Malaysia displays of cowardice receive approbation, and the boasting of old men tells of occasions that they have run away (Howell, 1989).

In populations practising prestige competition, the variance of culture is large, because different groups give approbation for different qualities. In a group favouring X-type behaviour, X-types will become leaders, X-genotypes will be selected for, and non-X-types will be selected against. In a systemic "runaway" effect, the more X-types are selected, the more the genetic system will favour their selection, a situation suggested by Scott (1989): "Systems theory emphasises the fact, implicit in Darwin's theory of natural selection, that differential survival not only alters genotypic systems, but that the latter, through the process of adaptation, alter the process of differential survival. Thus, the most general trend in evolutionary change is to negate natural selection." Sexual selection is a mechanism which negates natural selection, and, as I discuss in the next section, intrasexual selection by attraction negates intrasexual selection by intimidation.

It is interesting to speculate how prestige competition arose. Gilbert (1992) discusses two possibilities: first, that it is a development of the recruitment of allies; secondly, that it arose when males started to do what females in many primate species already do, to use their influence to make sure an attractive male wins the power struggle.

The proscription of agonistic competition

One liability of competing hedonic groups is the extent to which rank and therefore selection is still determined by agonistic behaviour, because this will dilute the hedonic selection for such things as co-operativeness and unselfishness. However much prestige competition is encouraged, the phylogenetically old tendency to gain power by coercion is likely to persist; after all, this primitive form of competition has been evolving for three hundred million years, and must be deeply embedded in the genome, whereas prestige competition has probably only been around for ten million years, one thirtieth of the time. So competition by intimidation is going to be hard to eliminate. But groups will try to do it, because the more the character of the group is determined by prestige competition, the more effective it will be. Therefore we can expect all groups to have social sanctions against agonistic competition, and that, in fact, is what we find in all human groups except street corner gangs, prison populations, and others that have not had time or the right conditions to develop prestige competition.

This then is the hedonic mode: it is a mode in which not only is competition by intimidation not occurring, it is a mode in which it is not allowed to occur. The members can feel free to let their attention be diverted by whatever interests them, secure in the knowledge that they do not have to attend to the whims of a dominant, and also secure in the knowledge that if anyone tried to behave like a dominant and intimidate them, he or she

will have committed a social gaffe and will receive disapprobation from the group and his or her social rank and power in the group will decline (Footnote 5). Thus the hedonic mode is not just the absence of the agonistic/agonic modes; it is a formal structuring of society which outlaws agonistic behaviour and decrees that, if any competition occurs, it is to be prestige competition.

The proscription of agonistic behaviour begins in childhood. Vaillant (1977), in his study of normal American young men, found that almost all of them had been subjected to strong childhood training against the expression of aggression. The same is true of most primitive peoples (Service, 1971). Children are allowed to compete for attention and praise, but, as far as fighting is concerned, they are subjected to propaganda like the following:

Let dogs delight to bark and bite,
  For God hath made them so;
Let bears and lions growl and fight,
  For 'tis their nature too.

But, children, you should never let
  Such angry passions rise;
Your little hands were never made
  To tear each other's eyes.

ISAAC WATTS (1674-1748) Divine songs for children, xvi, Against Quarrelling

As they get older, children are trained to restrict their non-violence to members of their own group. Intimidation of the enemy brings prestige, and the most honoured men in many tribes are those with a reputation as a good leader in war (Service, 1971). This is the one exception to the rule that intimidation and attraction are incompatible. Providing they are intimidating the enemy, intimidators are attractive.

PROPOSED DEFINITIONS

Suggested definition of two types of competition

It is well known that many useful concepts cannot be defined. And yet, the closer one gets to a definition, the more useful a concept is. Here is a preliminary attempt to define the two types of competition:

> Agonistic (or dyadic, or internally mediated) competition is said to occur when the relative social rank (and hence reproductive success) of any pair of group members is being altered by signals (information or messages) exchanged between the members of that pair

> Prestige (or polyadic, or externally mediated) competition is said to occur when the relative social rank (and hence reproductive success) of any pair of group members is being altered by signals (information or messages) exchanged between one or more other members of the group and one or both members of that pair

Note that this definition does not mention intimidation or attraction. It is based on the role of the person (or persons) who administers rewards and punishments (boosting and putting down signals) to the competitors. If the rewards and punishments are administered by a rival, the competition is agonic; if they are administered by a non-competitive evaluator, it is hedonic. This is because the only way to get a reward from a competitor is to intimidate him; and the only way to get a reward from a non-competitor is to attract him. So the fundamental distinction is not in the type of signal, but in who has the power to administer rewards and punishments.

A suggested definition of the two modes

If we can accept the above definition of the two types of competition, we then have a simple definition of the two modes:

> The agonistic mode occurs when agonistic competition is taking place or is likely to take place

> The hedonic mode occurs when agonistic competition is not taking place or likely to take place, regardless of the degree of hedonic competition which may be occurring or anticipated

Although the hedonic mode may be defined by the absence of agonistic competition, it is typified by the presence of affiliative behaviour, which occurs either for its own sake, or in the pursuit of some objective such as a group task, or courtship, or the planning of some communal display. The crucial point is that agonistic competition inhibits affiliative behaviour, whereas prestige competition, if anything, promotes it.

Consequences of the definition

Any social group in which prestige competition is sanctioned but agonistic competition is not, is bound to veer towards the left-hand pole of the various dimensions listed by David Stevens. It is bound to be a group in which most people would like to live; only the most extreme authoritarian personalities, those very high in Social Dominance Orientation (Pratto et al., 1994), are likely to prefer to live in an agonistic society.

Apart from anything else, the hedonic person has an enormous range of choice. Every individual has two concurrent roles in any hedonic group: that of performer, and that of spectator/judge. In both roles he has choice. As performer, he can get up on the stage or he can stay out of the limelight; as judge, he can decide whom he will applaud, and how vigorously, and for what kind of performance.

Nevertheless, there is still a downside to the hedonic mode. What if one's performance is not appreciated by one's peers? What if one receives disapprobation rather than approbation? Then one is receiving the hedonic equivalent of "catathetic signals" or the threats and blows that characterise agonistic competition. When this happens, the average individual will back off, lower his sights and try to play a more inconspicuous part in social interaction. There may be cases where such tactics are not possible, either because of excess of ambition or shortage of resources. In these cases the individual may continue to receive group disapprobation or even rejection, and a whole new armoury of mental mechanisms has evolved to cope with this situation. Shame occurs when the standards of the group are not met, guilt occurs when the rules are broken, and both these emotions are associated with lowering of self-concept (SAHP) and dysphoria. It seems very likely that these responses to failure in hedonic competition are evolutionary developments of the primitive anxiety and depression which evolved to manage failure in agonistic competition. Even when a group member is excluded completely, is ostracised from the group, or dies as a result of "pointing the bone", we are still seeing prestige competition and its results, and the reason is that these social activities are the result of the evaluation of the individual by the group as a whole, and are not the result of mutual evaluation as occurs in agonistic or dyadic competition. Even the interaction between an executioner and his victim may be completely hedonic, because it does not address itself to their relative rank.

We must acknowledge that, even in a hedonic group, prestige competition carries with it the implication that some people do better than others, and that some people will fail. The hedonic group imposes sanctions, which are often formalised as customs and laws; and the implication of a sanction is that someone, at some time, will break it. Therefore even in the hedonic mode people are going to be afraid of error and failure, and experience shame, guilt and humiliation, and they are going to be concerned with their self-presentation, especially their power of attraction, and their capacity to be sufficiently attractive to be included in the group, and this means they may be afraid of expulsion. Even attention and the systems-forming faculty may be impaired in the hedonic mode; as Walter Bagehot said, "A man doubtful of his dinner, or trembling at a creditor, is not much disposed to abstract meditation, or remote enquiries."

This is the downside of prestige competition. Most people would agree that it is better than the effects of agonistic competition. Nevertheless, it conflicts with the OED meaning of the word 'hedonic' (= pleasurable).

In fact, I think the term "hedonic" is appropriate to the type of competition we are talking about. The purpose of a hedonic display is to attract, to please, to give pleasure to the recipient of the display; this contrasts with the purpose of the agonistic display which is to threaten, intimidate, lower, harm and basically to cause pain to the recipient. The response to a hedonic display is usually one of approbation which gives pleasure to the displayer in return. The unfortunate but inescapable fact is that hedonic displays designed to give pleasure do not always succeed in that aim, and then the evaluators respond with disapprobation which causes pain in the displayer.

Of course, there are some occasions when no competition is occurring at all. An example is the companionable interaction described by Heard and Lake (1986). Some people have used the term hedonic mode in this sense - an interaction in which there is no competition, no status differentiation and no unpleasantness. We have argued this out in the Birmingham group. There is no disagreement about the facts - that there are:

1. Agonistic/agonic interaction
2. Prestige competition

3. Companionable interaction.

The question has been whether we use the term hedonic to cover both prestige competition and companionable interaction or restrict it to the latter only.

I think the crucial factor is the discreteness of the boundaries between the different types of interaction. There is a reasonably discrete boundary between agonistic competition and prestige competition, but the boundary between prestige competition and companionable interaction is blurred. It is very difficult to tell when prestige competition is and is not occurring (Footnote 1). Evaluation goes on all the time, whether we want it to or not. Even in companionable interaction the participants may note outstandingly good or bad performance on the part of other members. Even when we seem to be cooperating most, we may be competing to be seen as cooperative, knowing that society rewards cooperative behaviour. For this reason and others it was decided to use the term "hedonic mode" to cover all interaction in which agonistic behaviour was excluded, and to adopt the definitions given above.

We recognise that a major dimension of variation of competitiveness lies orthogonal to the hedonic/agonic distinction. Agonistic societies may be more or less competitive, and hedonic societies vary from those of avid status seekers to those in which negligible competition occurs. This general level of competitiveness is probably ultimately determined by the degree of asymmetry of payoff between those who are successful and those who are unsuccessful in competition, whatever the form of competition may be.

With agonistic behaviour relegated to the street corner, the school playground and other places where society lacks either the power or the will to intervene, individuals can flourish in the hedonic mode, secure in the knowledge that agonistic behaviour will not occur <u>because it is against the cultural norms of the society</u>. Thus, agonistic behaviour is not just absent and seen to be absent, it is known to be punished by society at large (Footnote 5). This leaves human beings free to pursue cooperative activities, and to engage in prestige competition, which, fame being the spur, has resulted in their devotion to art, science and all those manifold human activities which give pleasure to others. It also means that human beings have been selected to be co-operative, nice, loyal and devoted to the giving of pleasure to others. Our genes may be selfish, but prestige competition has seen to it that our phenotypes are very different.

Or, at least, our phenotypes have the capacity to be hedonic. The capacity for the agonistic phenotype represented by the "authoritarian personality" is probably still present in most human beings (Maslow, 1943). Given the right upbringing, the child will learn to derive self-esteem from the approbation of others; but, lacking this lesson, he or she may well revert to the primitive source of self-esteem which is the submission of others. This flexibility in development adds poignancy to the fact that so many children in the world today are being raised in families which deny them approbation and societies which teach them to divide the world into those who are to be intimidated and those who are to be flattered and/or induced to provide agonistic support.

<u>Summary of differences between prestige and agonistic competition</u>

1. In prestige competition, the display of the competitor is designed to attract; in agonistic competition it is designed to intimidate.

2. In prestige competition, the reward to the competitor comes in the form of applause from a judge or evaluator; in agonistic competition it comes in the form of submission from a rival. In prestige competition, failure to attract results in disapprobation from the judge or evaluator; in agonistic competition failure to intimidate results in defeat by a rival.

3. Submission, the reward of agonistic competition, is a comparative statement, indicating that the signaller is inferior to the recipient; applause, the reward of prestige competition, has no implication for the relative rank of competitor and judge.

<u>Category or dimension</u>

Even if there is a discrete difference in type of competition underlying the two modes, can we demonstrate categorical status, for instance by demonstrating bimodality on some measure applied to large numbers of groups? There are several problems:

1. The two mode distinction is orthogonal to other ways in which groups differ, such as competitiveness/co-operativeness, and whether behaviour is controlled mainly by rewards or punishments. The variation generated by these dimensions might dwarf the agonic/hedonic distinction.

2. We have talked of simple societies in which agonistic and prestige competition are the only ways to compete. But in modern societies there are many more ways, such as those based on money. Moreover, rank is determined to some extent by inherited social position and wealth. Also, in many human groups, people find themselves in formal hierarchies, determined "from above", and are thus in ranking relationships other than those which might have eventuated according to either agonistic or prestige competition. How do such groups and relationships develop hedonic or agonic properties?
3. I have emphasised the difficulty of knowing whether prestige competition is occurring, but there is also the problem of deciding when agonistic competition is occurring. A "put-down" can be so subtle that it may not even be recognised as such by members of the same group. An oblique reference to some undesirable or discreditable aspect of the other may cause severe put-down, and will only be recognised if others have the same information about the victim.
4. In prestige competition, the display of attraction may be to the group as a whole, or it may be to the group leader or to a particular patron. Do these two types of display differ? For instance, a parliamentary candidate displays to the electorate to seek votes, but he also displays to the party leader to seek office. Will such a difference cause inconvenient variation within the hedonic mode?
5. Perhaps the clearest examples of hedonic relationships occur in marriage, and marriage also offers clear examples of relationships which switch back and forth from one mode to the other (Price, 1992). But this is a case in which two is qualitatively different from three, because a dyad cannot satisfy our requirements for prestige competition. A dyad is either competing agonistically or co-operating, in which latter case it is in the hedonic mode because agonistic interaction is not anticipated. Should we treat dyads such as married couples separately from our treatment of groups?

I mention these problems because we must accept that to demonstrate the two modes observationally, let alone experimentally, is not going to be easy. Perhaps we need a situation in which there are a large number of homogeneous groups, such as the groups of air crew which were used to study status incongruence. But before anyone is brave enough to start field work on the two modes, it is important for us to try to get our definitions right.

Footnote 1. Competition tends to be concealed both from fellow participants and from observers. Lord Chesterton wrote to his son: "Strive for place, but seem not to do so". At Oxford in the 1950s (and probably at other places in other times) it was considered prestigious to succeed without really trying. The person who was admired was the one who got a good degree without appearing to do much work, or who got a blue without excessive training. The film Chariots of Fire portrays the social disapprobation which accompanies too much effort to succeed at sport. Those who tried too hard at work were labelled "swots" and lost prestige.

The same, or even greater, pressure to succeed without trying occurred at Princeton University in the USA, according to the report of one of its alumni. This is how Scott Fitzgerald described the situation at Princeton (Mizener, 1949):

> Football was the best means to social distinction on the [Princeton] campus, and social distinction...was the main preoccupation of an undergraduate's career. The competition was no less fierce because its most inviolable requirement was that the contestants should appear quite unconcerned with social prestige. Beneath this pretence of indifference the game of becoming a Big Man was carried on day in and day out by everyone who had, by local standards, good sense.

This sort of comment should make us wary of asserting that competition is not occurring in a society. And, if we think what success a Martian anthropologist might have in studying Princeton social life, we should be cautious about accepting the reports of anthropologists about the practices of "primitive" tribes, who may be just as subtle and concealing as Western undergraduates (cf. Chagnon, 1968).

Footnote 2. In a few very social species such as some macaques, family members act as allies and intervene in agonistic encounters to support their kin (Chapais, 1992); and some horses may intervene to support unrelated friends (Fraser, 1992); but on the whole the decision in agonistic encounters is reached by mutual interaction of the dyad alone, and in those cases in which others intervene, the intervention is entirely based on the criterion of existing kinship relations or friendship. Therefore third party interventions do not affect the criteria which decide the outcome.

Among social insects, the workers may intervene in fights between queens. "Pleometrosis" occurs when two or more queens found the same nest. Usually the queens cooperate until some workers are hatched, but after that their relations are very

variable. They may continue to cooperate, or ignore each other, or maintain separate equal territories within the nest, or form dominance hierarchies, or kill each other. The "transition from pleometrosis to monogyny" is the way an entomologist describes one of the queens killing all her rivals off (Heinze, 1993). When the workers intervene in these fights, they only kill off and remove wounded or subordinate queens; there is no species in which the workers kill off queens which fail to please them, or which make their queens undergo some form of psychological testing, and then kill off those who perform poorly.

Footnote 3. In human societies, agonistic encounters are usually proscribed. But they do occur, in two main forms. In one form, they are permitted by society in culturally ritualised varieties, such as duels, boxing matches and sports. Here, society prescribes which skills lead to victory. Also, there is a referee to perform functions which in biologically ritualised encounters are performed by psychological processes (e.g., the exercise of mercy by the winner, and the development of an "involuntary subordinate strategy (ISS)" in the loser (Price et al., 1994)). In sports, both agonistic and prestige competition are occurring at the same time. In Vanity Fair Thackeray gives a good example of a fight in which the winner benefitted in terms of agonistic competition and the loser benefitted in terms of prestige competition. The balance of the types of competition determines whether the mode of a sporting contest is agonistic or hedonic.

The second form of agonistic competition occurs where society lacks either the power or the will to intervene. In the case of street-corner gangs, prisons and the school playground, society lacks the power to proscribe; and the effect of the bullying which is seen in these places is reflected in high suicide rates. In the case of the marital bedroom, and to some extent the family home, society has neither the power nor the will to intervene. The lack of will, enshrined in aphorisms such as "never intervene between a husband and wife" is basically due to the fact that in society's eyes husband and wife are not in competition, in that, whichever wins the marital dominance struggle, the effect on society's leadership and the selection process is zero. In other words, for purposes of social competition, society treats the married couple as "one flesh". In broader terms, marital conflict is independent of sexual selection.

Footnote 4. The term agonic refers to a hierarchical group in which the dominants are aggressive to subordinates, but the aggression is not reciprocated. The tendency to retaliate is inhibited in the subordinates, but they remain physiologically aroused by the anticipation of punishment by more dominant animals - as Michael Chance observed in his long-tailed macaques. If subordinates retaliate, we should talk of the agonistic mode, which covers a) groups which are oriented to fighting but no fighting is actually occurring (agonic groups) and 2) groups and dyads in which fighting is occurring.

Footnote 5. An example of this is given in the novel The Dangerous Edge by Tim Renton (London: Hutchinson, 1994). The plot concerns the British cabinet's reaction to the taking of two hostages in Lebanon. The Prime Minister and the Foreign Secretary used to have a hedonic relationship, but recently the Foreign Secretary has come to covet his friend's position, and the Prime Minister is nervous of this ambition, and so their personal relationship has become agonistic. The Prime Minister, having won his position by prestige competition, resorts to agonistic competition (he humiliates the Foreign Secretary in a Cabinet meeting, and he sacks the latter's assistant in a punitive way). These agonistic acts are unattractive to his cabinet colleagues, of whom he soon ceases to command the support of a majority, and so he loses his place.

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