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The Future Cooperative Roles of the Individual Breeder, the Breed Club and the Kennel Club

For more than 150 years now, purebred dog breeding has been based on dog shows, pedigrees and stud books, a system originally developed in Britain that has led to a spectacular universal advancement of the dog fancy. This system called for central organizing institutions, the kennel clubs (KCs), servicing the collectivity of individual breed clubs and breeders.

Nowadays national kennel clubs are also called upon to act as defenders of the canine fancy and the breeders. Environmental, legislative and social conditions render it increasingly difficult to keep dogs. It is continually becoming harder to meet their needs of free exercise, natural behaviour, socialization with congeners and sufficient interaction with their human partners. Growing fear of dog allergy, often grossly exaggerated, is an additional obstacle to dog keeping and in some countries even to showing, as allergies are generally on the rise. In addition, the non dog-keeping majority of the human population in highly industrialized countries is getting increasingly sensitive to real or assumed dangers posed by dogs. In some countries, near-prohibitive laws are enacted and exorbitant taxes levied. KCs are therefore heavily pressed to become an engaged lobby on behalf of the whole dog fancy and to provide the considerable financial and scientific means so as to act as competent, recognized and accepted negotiating partners of national and regional authorities.

Another essential role of a modern KC must be to assist in the education and training of dog owners, in order that they learn to conduct themselves such as not to arouse and increase hostility or annoyance of other people, and to teach their dogs to be socially well-adjusted animals. In this respect the role of KCs will extend far beyond safeguarding the immediate interests of the dog breeders: at specific points the KC will represent the ordinary dog owner regardless whether he or she keeps a purebred dog or a mongrel, as is already the case e.g. in Denmark. At any rate, the number of dog owners and dog fanciers determines the demand for pedigree dogs, and mongrel owners today are potential pure-bred owners of tomorrow.

Only by a united effort of all dog fanciers (though consensus is often still hard to find), whether they own small or big dogs, pure-breds or mongrels, the aspired goals can be reached. Jointly the big community of dog fanciers can constitute a powerful lobby within a democratic environment. In my opinion, only the representation of the whole dog ownership as the natural ally of breeders can offer a decisive perspective and strengthen the position of the dog fancy in the unabated confrontation with authorities.

Just in time, highly attractive new canine sports have emerged to relieve the growing problem of under-occupied pet dogs. After all, most dog breeds have partly or entirely lost their former working tasks. Not a single activity on the part of KCs to encourage and sponsor such sports will be effort wasted; the opportunities for their future expansion and development are plentiful.

Just in time, science has detected the highly therapeutic and socializing gifts of dogs. More and more hospitals and nursing homes, handicapped people and even prisons benefit from the positive psychological effects of PAT, service and guide dogs. Avalanche and rescue dogs are today indispensable helpers in human society. In short,

dogs themselves provide most valuable and usable support in pleading their cause, and this should be encouraged.

Today, canine science (cynology) is expanding enormously, but also urgently needed. Cynological academies for all domains of knowledge regarding matters canine would be a most helpful novelty for owners and breeders and especially for the planning work of the breed clubs and the KCs.

All this illustrates that the challenges for KCs have never before been as many-sided and hence as complex. This implies that in the future much more world-wide cooperation between the 'Big Three' of the KCs will be indispensable. We may even have to consider a 'World Federation of KCs', or a permanent committee to tackle efficiently the challenges all of us face (e.g. to establish a 'Cynological World Academy'). There can be no doubt that a global, intensive and permanent cooperation of dog breeders, other members of dog clubs and KCs is imperative.

Another most pressing concern is the health and even long-term survival of pedigree breeds. The conventional strategy was: mate the best to the best and fix the result by close inbreeding and line breeding. This approach yielded spectacular success, but has now led us into an impasse. Even the best dogs harbor many defective genes, imperceptible though they may be. In a closed population or line the genes of these dogs will unavoidably spread, at the expense of the necessary and protective genetic diversity, thus increasing heritable defects and phenomena of inbreeding depression. The late Professor Walter Schleger may have been, as far as I know, the first to note the new challenges. He was a veterinary, bull terrier breeder, and head of the Institute of Genetics of the Vienna Veterinary University. In the 1980s he was vice president of the Austrian Kennel Club and a board member of the FCI. He devoted himself to studying canine health aspects, so much so that he began touring Austria and Germany to inform breeders on population genetics, problems of inbreeding and genetic diversity. In the Netherlands, back in the early 1980s, Professor Bouw of Utrecht University and associated with the former Hirschfeld Foundation (forerunner of the present GGW division of the Dutch Kennel Club) repeatedly warned against the risks invited through the over-use of studs and the concomitantly rising inbreeding levels (after all, a popular sire's many progeny are all at least half-sibs). Another contemporary geneticist who warned of the consequences attending the loss of genetic diversity in dog breeds is Professor Per-Erik Sundgren, of Uppsala University, formerly associated with the Swedish Kennel Club.

Regrettably, the initial response was meager; breeders just stuck to the idea that purebred breeding is not conceivable without intensive line/inbreeding and favorite sire use. Still, successes were scored as well. In consultation with Prof. Schleger a German Landseer breed club, in a spectacular effort to free their population of heavy inbreeding depression, succeeded in restoring the health of their Landseers by decreasing inbreeding, using more sires and reducing ancestor loss. This was probably the first such project ever. Formerly, crossbreeding would have seemed the only possible solution. A similar project for the Icelandic Spitz proved successful as well. Sadly, even today population genetics is scarcely dealt with in popular dog-breeding literature, and the average dog breeder remains largely unaware of this important branch of genetics, so essential for a breed's future.

Now, twenty years after Professor Schleger sounded his call, an increasing number of KCs start canine health research services, partly owing to public and often governmental pressure and growing health problems. Examples are the GKF (Society for the Promotion of Canine Research) of VDH (German Kennel Club) and the CHF (Canine Health Fund) of the American Kennel Club. A growing number of breed clubs

realize the need to care not only for the breeding dogs but for their breed populations as well, so more and more KCs realize the urgent need to preserve genetic diversity.

A dog breed is a living organism in its own right. A breed may become endangered and even doomed if not managed properly by the collectivity of the breeders, as a common heritage handed down to us from the preceding breeder generation. Today's breeders can utilize this heritage as best they can but should never impair its future. A breed can be preserved by careful, sustaining use. It can also easily be ruined by overexploitation. Overexploitation here means: loss of genetic diversity through use of too few sires far too often, in/linebreeding and neglect of adequate selection for health. Every breeder generation is the legator of the breed to the next and ought to pass on their heritage in good genetic shape. Sadly, during the second half of the 20th century observance of this precept was too often lacking, so now we struggle with a great number of health problems. To tackle these, genetic counseling and scientific research is needed, but most breed clubs cannot afford the outlay, certainly not individually. Only a central genetic service can overcome this impediment. Picking out dangerous diseases like rotten potatoes and trying to repair the problem by finding DNA markers for carriers is an essential task to be sure, but addresses only part of the problem. It remains symptomatic therapy unless it is undergirded by proper genetic management on the breed level. To prevent problems from endlessly piling up in the future we must find ways to ensure better breeding standards, so as to safeguard enduring good health and quality of life for our pedigree dogs.

To return to the beginning: this will mean that dog shows, originally created with the sole objective of determining the best breeding dogs, will have to resume this noble task afresh. Judging should not be limited to conformation, appearance, presentation, gait, lack of disqualifying faults etc. Next to this should be introduced that exhibited dogs will be eligible only if they pass the functional and health tests that modern veterinary science offers us. In the interest of quality, stud books should reject litters with too high Coefficients of Inbreeding or overused parents, such as Finland's KC proposed in its PEVISA dog health scheme in the 1990s, unwisely rejected by the breeders at the time. High Coefficients of Inbreeding of a line or as the result of a single mating will not necessarily be detrimental to a breed's genetic diversity but does increase the health risk for the pup. So, among other issues, the Swedish Kennel Club's breeding policy encompasses, among other things, avoidance of over-use of sires and of closely related combinations in order to diminish the steady rise of the inbreeding level in dog breeds.^[1] In a press release of 14 July 1995 - seven years ago! -the Norwegian Kennel Club declared that it would address, among other issues, the retention of genetic diversity in the many dog breeds in Norway.^[2] Many less numerous breeds are at risk simply by their restricted gene pool, due to which the inbreeding level rises every generation.

Health is a foremost challenge in all dog breeding, and guarding health is not just trying to control defects and avoiding anatomical exaggeration. It also means: take up the fight against inbreeding depression and against the spread of defective genes via top sires; try to prevent that entire breed lines become extinct, for example because great numbers of carriers of genetic defects are culled. Sometimes this is necessary, sometimes it can and should be obviated, when known carriers can be mated with clear subjects. Incidentally, the strategy of combating inbreeding depression is comparatively inexpensive and doubly effective (both against risk of inherited diseases and inbreeding depression). Obviously it can never be an alternative to DNA tests, but it is an essential supplementary strategy. In addition, reopening of stud books should be possible when lost diversity must be replaced.

Healthier pedigree dogs are conducive to a better image of the purebreds and thus to an expanded market. It leads to lower veterinary bills, fewer problems with customers, animal rightists and governments and provides more income for the KC to carry out its many tasks. Most breeders rightly do not wish a "dog government" above them and want to be entirely free in their breeding decisions. Even so, we must realize that closed populations such as dog breeds simply cannot be bred indefinitely without adjustments and jointly agreed-upon rules for ensuring and preserving sufficient genetic variability. Today, a number of breeds may be just as endangered as rare wild animals like apes or cheetahs are, and some even more so. Certainly, other than wild animal species, dog breeds can be saved from extinction by crossing and back-breeding with a related breed, but this is a last resort and thus if possible better avoided via appropriate genetic management. The measures called for may appear restrictive, but this depends on the severity of the genetic situation, which varies appreciably from one breed to the next. Thoroughgoing breed and pedigree analyses and DNA tests must provide the basis for a genetic policy. Owing to a long history of gene pool shrinking, finger prints and other DNA tests of many breeds already would show very uniform genetic structures resembling the kinship of a family clan, half sibs or sibs. While it does not increase the diversity level of the breed as such, mating individuals of least genetic similarity can substantially improve the health situation of the progeny, at least in the short term.

All this certainly does not imply that the individual breeder is going to lose his or her freedom, independence and breeding ingenuity when complying with some essential rules in the interest of a healthy future of the breed. On the contrary, a genetically diverse organism is more responsive to selection measures, and makes it easier to achieve one's breeding objectives. So, prospects of success may arise that would remain unattainable for an individual breeder without the assistance of contemporary scientific insight.

Henceforth, dog breeding can only thrive via on the one hand collective effort and cooperative planning and, on the other hand, the free planning of the individual breeders. Dog breeds will not thrive in scientific labs, but only by the efforts of individual, competent breeders meeting the future challenges with the support of modern science. A cooperative way of thinking and acting will be indispensable in future, as shown by the promising signs of a new approach referred to above. Only a cooperative and democratic dog fancy open to advancement can and will face the future with confidence.

To summarize: both individual dog health and the health and future of entire dog breeds, public opinion and acceptance, high-level canine research, legal aspects, the relation between humans and dogs, and the defense of the dog fancy are all aspects of the new challenges. They are unavoidable tasks, but inspiring as well; they call for cooperation among canine organizations at all levels; they also call for a universal institution, as a "third level" of canine organization, intent on safeguarding the future of our primordial companion through the eons in a changing world.

Notes

[1] Å. Lindholm, Avelspolicyn – nu är den här! Hundsport 9/99, p. 39, A.-M. Hammarlund, Appropå Hunduppfödning, file://A:/SKKKomitee.htm.

[2] Hundesport, 9/95, Focus på hundeavl, p. 26.