

## **Super Dog Program/Bio Sensor exercises**

Five benefits have been observed in canines that were exposed to the Bio Sensor stimulation exercises. The benefits noted were:

1.Improved cardiovascular performance (heart rate)

2.Stronger heart beats

3.Stronger adrenal glands

4.More tolerance to stress and

5.Greater resistance to disease.

Socialization

As each animal grows and develops three kinds of stimulation have been identified that impact and influence how it will develop and be shaped as an individual. The first stage is called early neurological stimulation, and the second stage is called socialization. The first two (early neurological stimulation and socialization) have in common a window of limited time. When Lorenz, (1935) first wrote about the importance of the stimulation process he wrote about imprinting during early life and its influence on the later development of the individual. He states that it was different from conditioning in that it

occurred early in life and took place very rapidly producing results which seemed to be permanent. One of the first and perhaps the most noted research efforts involving the larger animals was achieved by Kellogg & Kellogg (1933). As a student of Dr. Kellogg's I found him and his wife to have an uncanny interest in children and young animals and the changes and the differences that occurred during early development. Their history making study involved raising their own new born child with a new born primate. Both infants were raised together as if they were twins. This study like others that would follow attempted to demonstrate that among the mammals there are great differences in their speed of physical and mental development. Some are born relatively mature and quickly capable of motion and locomotion, while others are very immature, immobile and slow to develop. For example, the Rhesus monkey shows rapid and precocious development at birth, while the chimpanzee and the other "great apes" take much longer. Last and slowest is the human infant.

One of the earliest efforts to investigate and look for the existence of socialization in canines was undertaken by Scott-Fuller (1965). In their early studies they were able to demonstrate that the basic technique for testing the existence of socialization was to show how readily adult animals would foster young animals, or accept one from another species. They observed that with the higher level animals it is easiest done by hand rearing. When the foster animal transfers its social relationships to the new species, researchers conclude that socialization has taken place. Most researchers agree that among all species, a lack of adequate socialization generally results in unacceptable behavior and often times produces undesirable aggression, excessiveness, fearfulness, sexual inadequacy, and indifference toward partners.

Socialization studies confirm that the critical periods for humans (infant) to be stimulated are generally between three weeks and twelve months of age. For canines the period is shorter, between the fourth and sixteenth week of age. During these critical time periods two things can go wrong. First, insufficient social contact can interfere with proper emotional development which can adversely affected the development of the human bond. The lack of adequate social stimulation, such as handling, mothering and contact with others, adversely affects social and psychological development.

Second, over mothering can prevent sufficient exposure to other individuals, and situations that have an important influence on growth and development. The literature shows that humans and animals respond in similar ways when denied minimal amounts of stimulation. In humans, the absence of love and cuddling increases the risk of an aloof, distant, asocial or sociopathic individual. Over mothering can also have its detrimental effects. It occurs when a parent insulates the child from outside contacts, or keeps the apron strings tight, thus limiting opportunities to explore and interact. In the end, over mothering generally produces a dependent, socially maladjusted and sometimes emotionally disturbed individual.

The absence of outside social interactions for both children and pups usually results in a lack of adequate learning and social adjustment. Protected youngsters who grow up in an insulated environment often times become sickly, despondent, lacking in flexibility and unable to make simple social adjustments. Generally, they are unable to function productively or to interact successfully when they become adults.

Owners who have busy life styles with long and tiring work and social schedules often times cause pets to be neglected. Left to themselves with only an occasional trip out of the house or off of the property they seldom see other canines or strangers and generally suffer from poor stimulation and socialization. For many, the side effects of loneliness and boredom set-in. The resulting behavior manifests itself in the form of chewing, digging, and hard to control behavior (Battaglia).

It seems clear that small amounts of stress followed by early socialization can produce beneficial results. The danger seems to be in not knowing where the thresholds are for over and under stimulation. Many improperly socialized youngsters develop into older individuals unprepared for adult life, unable to cope with its challenges, and interactions. Attempts to re-socialize them when adults have only produced small gains. These failures confirm the notion that the window of time open for early neurological and social stimulation only comes once. After it passes, little or nothing can be done to overcome the negative effects of too much or too little stimulation.

The third and final stage in the process of growth and development is called enrichment. Unlike the first two stages it has no time limit and by comparison covers a very long period of time. Enrichment is a term which has come to mean the positive sum of experiences, which have a cumulative effect upon the individual. Enrichment experiences typically involve exposure to a wide variety of interesting, novel, and exciting experiences with regular opportunities to freely investigate, manipulate, and interact with them. When measured in later life, the results show that those reared in an enriched environment tend to be more inquisitive and are more able to perform difficult tasks. The educational TV program called Sesame Street is perhaps the best known example of a children's enrichment program. The results show that when tested, children who regularly watched this program performed better than playmates who did not. Follow up studies show that those who regularly watched Sesame tend to seek a college education and when enrolled, performed better than playmates who were not regular watchers of the Sesame Street Program.

There are numerous children studies that show the benefits of enrichment techniques and programs. Most focus on improving self-esteem and self-talk. Follow up studies show that the enriched Sesame Street students when later tested were brighter and scored above average and most often were found to be the products of environments that contributed to their superior test scores. On the other hand, those whose test scores were generally below average, (labeled as dull) and the products of underprivileged or non-enriched environments often times had little or only small amounts of stimulation during early childhood and only minimal amounts of enrichment during their developmental and formative years. Many were characterized as children who grew up with little interaction with others, poor parenting, few toys, no books and a steady diet of TV soap operas.

A similar analogy can be found among canines. All the time they are growing they are learning because their nervous systems are developing and storing information that may be of inestimable use at a later date. Studies by Scott and Fuller confirm that non-enriched pups when given free choice preferred to stay in their kennels. Other litter mates who were given only small amounts of outside stimulation between five and eight weeks of age were found to be very inquisitive and very active. When kennel doors were left open, the enriched pups would come bounding out while littermates who

were not exposed to enrichment would remain behind. The non-stimulated pups would typically be fearful of unfamiliar objects and generally preferred to withdraw rather than investigate. Even well bred pups of superior pedigrees would not explore or leave their kennels and many were found difficult to train as adults. These pups in many respects were similar to the deprived children. They acted as if they had become institutionalized, preferring the routine and safe environment of their kennel to the stimulating world outside their immediate place of residence.

Regular trips to the park, shopping centers and obedience and agility classes serve as good examples of enrichment activities. Chasing and retrieving a ball on the surface seems to be enriching because it provides exercise and includes rewards. While repeated attempts to retrieve a ball provide much physical activity, it should not be confused with enrichment exercises. Such playful activities should be used for exercise and play or as a reward after returning from a trip or training session. Road work and chasing balls are not substitutes for trips to the shopping mall, outings or obedience classes most of which provide many opportunities for interaction and investigation.

Finally it seems clear that stress early in life can produce beneficial results. The danger seems to be in not knowing where the thresholds are for over and under stimulation. However, the absence or the lack of adequate amounts of stimulation generally will produce negative and undesirable results. Based on the above it is fair to say that the performance of most individuals can be improved including the techniques described above. Each contributes in a cumulative way and supports the next stage of development.

## Conclusion

Breeders can now take advantage of the information available to improve and enhance performance. Generally, genetics account of about 35% of the performance but the remaining 65% (management, training, nutrition) can make the difference. In the management category it has been shown that breeders should be guided by the rule that it is generally considered prudent to guard against under and over stimulation. Short of ignoring pups during their first two months of life, a conservative approach would be to expose them to children, people, toys and other animals on a regular

basis. Handling and touching all parts of their anatomy is also necessary to learn as early as the third day of life. Pups that are handled early and on a regular basis, generally do not become hand shy as adults.

Because of the risks involved in under stimulation a conservative approach to using the benefits of the three stages has been suggested based primarily on the works of Arskeusky, Kellogg, Yearkes and the "Bio Sensor" program (later known as the "Super Dog Program").

Both experience and research have dominated the beneficial effects that can be achieved via early neurological stimulation, socialization and enrichment experiences. Each has been used to improve performance and to explain the differences that occur between individuals, their trainability, health and potential. The cumulative effects of the three stages have been well documented. They best serve the interests of owners who seek high levels of performance when properly used. Each has a cumulative effect and contributes to the development and the potential for individual performance.

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