Genetics versus Hard Work and The Implications on Parental Physical Condition at the Time of Procreation

James Smith
International Sport and Military Consultant
GlobalSportConcepts.net

Many high achieving individuals in the training and sports communities miseducate others by proliferating the idea that genetics are secondary to hard work.

Genetic material is analogous to the quality of cooking ingredients or building materials and, by association, hard work is analogous to the knowledge and skill set of the chef or builder.

Hypothetical #1:
The ingredients/materials are low grade; and so are the knowledge and skill sets of the chef and builder. What is possible?

Hypothetical #2:
The ingredients/materials are low grade; yet the the chef and builder are highly knowledgeable and skilled. What is possible?

Hypothetical #3:
The ingredients/materials are high grade; yet the chef and builder are incompetent. What is possible?

Hypothetical #4:
The ingredients/materials are high grade and the chef and builder are highly knowledgeable and skilled. What is possible?

While this is a comprehensive subject, the hypotheticals should provoke consideration as to the relationship between genetics and hard work and what is ultimately possible.

Every physical or athletic endeavor/sport discipline is based upon a defined structure (psychological/neurological-technical/biomotor-tactical-physiological). Neurophysiological/neuro-coordinative qualities as well as biomotor abilities to the left of the force: time curve are the most heavily linked to genetically inherited material, are most plastic to development early in life, and these elements also possess a smaller scope of trainability in comparison to, for example, the potential to build lean muscle and qualities to the right of the force: time curve. For this reason, a slow and obese child will not develop into a 100m sprint champion; however, that same child has every possibility of developing into a world class powerlifter.

While all genetically inherited traits are subject to development, some possess greater trainability then others. It is therefore in the interest of progenitors to develop an awareness of such matters due to the magnitude in which the state of their physical condition during the time of conception will impact the athletic possibilities of their offspring.

Who you are when you procreate is not completely limited by who you were in the past and who you were in the past does not completely limit who you can be when you procreate. In either case, regarding the physical potential of progeny, progenitors are able to influence what they pass on to their offspring resultant of the state of their physical condition during the time of conception.

Training adaptations generate changes at the level of the DNA. In the year 2000, Honored Bulgarian Olympic Weightlifting coach Ivan Abadjiev spoke about this in some detail in his symposium at the Sports Institute of Vierumäki Finland. Those who are not already familiar with this presentation will appreciate that it has been made available by Janne Riekkinen here: http://www.youtube.com/playlist?list=PL4sVx38NJHDUVZ_qigPrd6Ye-JFuVBZWJ

As specific proteins are created via changes in genetic sequences, resultant of training adaptations, we may acknowledge that that a parent has the ability to influence what they pass on to their offspring beyond what that parent received from their progenitor alone.

One viewpoint is that those who seek to spawn owe it to their species, and more specifically their progeny, to pass on the most genetically malleable material.

This involves looking back in time as well in terms of what genetic material, resultant of training/work/life/environmental adaptations, exists in their and their mate's ancestry (namely recent ancestry).

In this way, regardless whether or not the offspring possesses the motivation to capitalize upon what they inherited from their parents- they absolutely possess the potential to develop what they inherited from them. As a consequence, exactly

what is inherited deserves special attention.

In the context of physical or athletic possibilities (as the discussion of the implications of genetically passed on material is a mammoth subject that extends far beyond physical potential) the structure and workability of the inherited genetic material is relative to the adaptive changes sustained by the progenitors, as well as their immediate ancestry; during the time of conception.

Those who seek to procreate are wise to consider what they and their mate, as well as more recent ancestors, will pass on to their progeny. Regarding what is subject to training related influence, knowledge of the adaptation rates of various training forms may allow a set of progenitors to plan and peak for a time of conception not unlike from how a track and field athlete may do the same for a major competition.

A set of parents who become obese not as a function of congenital defect but due to poor nutritional habits and an absence of physical trainings would be responsible to delay procreation in favor of rectifying their non-genetically influenced physical condition such that what is passed on to the offspring is of higher biological quality.

While the state of a parent's physical condition during the time of procreation is not the sole factor relating to what will be possible for their offspring to achieve, physically, during the life cycle- it is one of the major factors that are changeable in favor of enhancing the athletic possibilities of their offspring. Likewise, while the ceiling of potential bestowed upon the offspring is not solely limited to their progenitor's physical condition at the time of conception or the genetically passed on material they received, it is also not boundless in the hands of hard work.

Insurmountable competitors are recipients of superior genetic material, determined to put it to work with consistency, and fortunate to be guided by a knowledgeable coach.