Anabolic Steroids Script- Kirles Bishay, 1198427

Scene opens viewing Kirles working out. He is performing arm curls and counting out loud. Camera is approaching from elsewhere.

KIRLES: ...998... 999.... 1000!

Kirles puts weight down and turns to the camera, just now noticing it.

KIRLES: Oh! I didn't see you come in, I was just working out. I don't know if you heard me counting, but I did a thousand. That's a lot. I know what you must be thinking- that guy must be on steroids for sure. But you would be wrong in thinking that; this is just a phenotypic marker of good underlying genome. But could you imagine if I didn't have good genetics?

Cut to scene of Mena (Kirles' skinnier stunt double) trying to work out. Eye of the Tiger is playing in the background. He does one repetition with the bar and gives up. Cut back to Kirles, who shudders at the thought.

KIRLES: Well, luckily for me, I don't need steroids. For that matter, I don't think I'd even want them if I were skinny. I mean, the list of possible side effects from them is huge!

Someone out of camera range throws Kirles a pointer as he walks to a poster of a human body on the wall. Kirles uses stick to point at the various body parts affected by steroid usage.

KIRLES: Possible side effects include liver tumours, elevated blood pressure, changes in cholesterol levels, increased risk of cardiovascular disease, acne, premature baldness, gynecomastia, reduced sexual function, infertility, and testicular atrophy. That's not even a complete list.

Kirles throws pointer away and walks away from wall and poster.

KIRLES: So I've always wondered; why would anyone take steroids for purely cosmetic purposes if they are risking all of these possible side effects? Wouldn't a rational human being prefer to be healthy and skinny rather than huge and unhealthy? So I looked into it and found that if you take an evolutionary perspective on the issue, it actually starts to make sense. First, you have to take into consideration why males want to be big in the first place. A guy by the name of Amotz Zahavi had a pretty interesting idea on this question.

Kirles shows picture of handicap symbol as he keeps talking.

KIRLES: Zahavi's claim to fame was his development of the handicap hypothesis. The basic idea behind this hypothesis is that males develop certain traits that are detrimental in terms of health, but benefit them because it allows them to demonstrate their fitness to females. So, using this line of logic, guys want to be muscular because it demonstrates to females how good their genetics are, which in turn increases the likelihood that the female will want to mate with them: the female wants to bear offspring with the best possible genes so that they have the best chance at surviving and reproducing themselves. How does musculature demonstrate good genetics? Well, we can look at it in a couple of ways. Firstly, to develop and maintain high levels of musculature, you need high testosterone levels. However, high testosterone levels have a negative impact on the immune system. The male has to have good genetics in order to counteract the handicap on his immune system. Another way we can consider it is that high musculature requires time and energy to develop and maintain. This presumably means that the male has to have superior genetics in order to make the time to work out and obtain the extra calories necessary to be muscular, on top of the rest of the challenges of day-to-day life. In this way, musculature is considered an honest signal to females; it's a phenotypic trait that under ordinary circumstances males can't really fake.

Cut to scene of someone taking measurements of Kirles' shoulders, then his waist. The person writes something down after each measurement. Kirles continues speaking throughout.

KIRLES: So does this prediction of the handicap hypothesis have any support? Well, the results of a study conducted by Susan Hughes and Gordon Gallup seem to back it up nicely. They found that males with higher shoulder to hip ratios have sexual intercourse at an earlier age, have more sexual partners, have more extra-pair copulations, and engage in more instances of intercourse with people who are involved in another relationship then men with lower shoulder to hip ratios. Since having a higher shoulder to hip ratio is usually due to higher musculature, this data coincides with what would be predicted by the handicap hypothesis.

Cut to scene of Kirles back in front of the weight set. Camera is zoomed in on just Kirles' torso until he bends over to pick up the weights.

KIRLES: So you might be asking- what does all of this have to do with steroids? Well, let's think about the males who don't have good genetics or the time or the inclination to do the work. As I said before, high musculature is an honest signal to females about the underlying genome that the male possesses. For a male that cannot display this honest signal, steroid usage might be a way to cheat. Even without the genes ordinarily required to develop musculature, they can still do it, and might be using steroids as a way to gain access to quality mates that, ordinarily, wouldn't look twice at them. From an evolutionary perspective, the ultimate goal in an individual's life is to pass on their genes to offspring that can further propagate those genetics. With this in mind, a male who chooses to use steroids for a cosmetic purpose may simply be trying to compete with other males for access to quality mates. In taking the numerous risks associated with steroid usage, they are increasing their chances of producing offspring, thereby increasing their differential reproductive success. While they may be hurting themselves in the process, from an evolutionary point of view, they have ultimately succeeded.

Kirles picks up weight, preparing to continue exercising.

KIRLES: Well, I thought that was pretty neat, I hope you did too. But that's enough rest time, I have to

do my second set. Talk to you in a thousand reps!

Kirles resumes doing arm curls, counting as he completes repetitions.

KIRLES: 1...2...3...

End Scene.

Sources Discussed in Video

Hughes, S. M., & Gallup, G. G. (2003). Sex differences in morphological predictors of sexual behavior: Shoulder to hip and waist to hip ratios. *Evolution and Human Behavior*, *24*, 173-178.

Zahavi, A. (1974). Mate Selection- A Selection for a Handicap. *Journal of Theoretical Biology* , *53*, 205-214.

More to Explore

Downes, S. M. (2008). *Evolutionary Psychology*. Retrieved April 3, 2011, from Stanford Encyclopedia of Philospophy: http://plato.stanford.edu/entries/evolutionary-psychology/

Sainoa, N., Møllerb, A. P., & Bolzerna A. M. (1994). *Testosterone effects on the immune system and parasite infestations in the barn swallow (Hirundo rustica): an experimental test of the immunocompetence hypothesis*. Retrieved April 3, 2011, from Behavioral Ecology: http://beheco.oxfordjournals.org/content/6/4/397.abstract

TestCountry Articles. 10 Most Common Side Effects of Steroid Abuse. Retrieved March 1, 2011, from Test Country: http://www.testcountry.org/10-most-common-side-effects-of-steroid-abuse.htm

Workman, L., & Reader, W. (2008). *Evolutionary Psychology*. New York: Cambridge University Press.