

Hypothesis on the symbiosis of humans and the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis.

11/5/2002 Stephen H. Saunders

This paper is dedicated to two of the greatest farmers I know- My Father Stephen G. Saunders and my Grandfather, James Levi Evans.

This paper points to several key physiological correlations between the chemical components found in the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis, and the chemical components required for the biological functioning of the mammalian species, *Homo Sapiens*.

The first corollary which bears scrutiny is the correlation between the nutritional requirement for Essential Fatty Acids (EFA) for proper maintenance of brain tissue, skin, and hair, and the chemical composition of the fruit produced by the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis. The essential fatty acid profile of the fruit of the *Cannabis Sativa* plant contains the full spectrum of essential fatty acids required by humans on a daily basis, perfectly balanced nutritionally down to the tenth of a percent, with nothing added, and nothing left out. This corollary, when combined with the historical and cultural fact that the fruit of the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis has been consumed for food for thousands of years by humans suggests that the consumption of this fruit has played a major role in the formation of the current chemical and physiological structure of the brain, skin and other physiology of humans.

The second corollary can be found by examining the structure and composition of neuro-receptor sites which exist on the surface of the brain of the species *Homo Sapiens*. The surface of the human brain contains minute areas which are called "neuro-receptor sites" which function to allow chemical compounds to interact with and have an influence in creating and maintaining all of the various chemical "states" of the brain. These receptor sites vary in size and shape, and thus allow various compounds to "lock in" to them, causing various changes in the chemical composition of the brain. Some

of these receptor sites are “substance-specific”, which means that they will only allow specific compounds to “lock in” to them. Some receptor sites are susceptible to a phenomenon called “blocking”, which is created by compounds which, when “locked in” to certain receptor sites, create changes in the chemical composition of the human brain by preventing other compounds from “locking in”.

The chemical compound manufactured by the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis that sometimes has a psychoactive effect on the brain chemistry of humans *called TetraHydraCannabinol (THC)* consists of a particular formation of a compound called Cannabinol which is also manufactured naturally by the body to aid in the proper functioning of the cornea of the human eye, and support the ability of the human eye to discern the difference between lines and shapes. This compound has a neuro-receptor site in the network of neuro-receptor sites found on the surface of the brain of humans which is “substance specific” which is to say that no other chemical compounds are able to “lock in” to these receptor sites.

The surface of the brain of humans contains more of these “substance specific” neuro-receptor sites *THAN RECEPTORS FOR ALL OTHER CHEMICAL COMPOUNDS PUT TOGETHER.*

The arrangement of these “substance specific” neuro-receptor sites for Cannabinoids across the surface of the human brain has been scientifically described as “ubiquitous”. Ubiquitous is defined scientifically as “the state of being everywhere at the same time”.

A symbiosis between the two species which would influence this level of chemical integration would require many tens of thousands of years of consumption of the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis by humans to create such an enormous influence on the physiological structure of the brain of the species.

While virtually every creature on the planet has “substance specific” neuro-receptor sites for *TetraHydraCannabinol (THC)*, *the mammalian species* Homo Sapiens has the unique condition of being capable of ingesting and utilizing *TetraHydraCannabinol (THC)* in such enormous capacities over all other chemical substances which influence the functioning of the brain of the species.

The Cannabinoids are found on the leaves and flowers of the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis, as well as inside the fruit or “seeds”. The Cannabinoids are ingested by humans and delivered to the brain by consumption of the seeds/fruit as food. The

Cannabinoids are also delivered to the brain by consumption of the leaves and flowers of the plant by burning and breathing the resultant smoke, or eating the leaves and flowers. The latter methods, which use the leaves and flowers create a psychotropic/psychoactive effect on the brain.

In examining the use for the Cannabinoids in the physiology of the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis, we find that the plant manufactures the compound for use as a filter that blocks the upper end of the spectrum of light of the sun known as “ultraviolet” or UV light.

The *TetraHydraCannabinol (THC)* is a protective shield for the plant against UV radiation.

In light of these empirical facts, this paper demonstrates proof of *species symbiosis* between humans and the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis, predicated upon scientific proof which answers the following questions:

a) Does the deprivation of the full and balanced spectrum of Essential Fatty Acids delivered by the fruit/seeds of the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis from the nutritional diet of humans create adverse effects on the health of the species?

Correlations between the historical date of the political prohibition of the fruit/seeds for use as a food source in the United States, and the ensuing decline in the use of the fruit/seeds as a food source throughout the rest of the world due to martial enforcement, AND the rise of aberrative forms of disease and illness cannot be overlooked.

b) Does the effect of filling the “ubiquitous” numbers of “substance specific” neuro-receptor sites for *TetraHydraCannabinol (THC)* located on the surface of the brain of humans create for this brain, as it does for the leaves and flowers of the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis the effect of blocking or screening the brain and it’s brainwave activity from the effects of the radiation of Ultraviolet (UV) light?

Current commercial research and development into the use of THC as an effective ingredient in the manufacture of sunscreen for human skin suggests that it’s function in the substance-

specific neuro-receptor sites on the surface of the human brain, acts for the brainwave activity of the human brain in a similar capacity.

c) While the consumption of the leaves and flowers of the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis by humans through oral ingestion and smoking has been a part of human culture as far back as recorded history, is the sudden and sharp rise in the chronic smoking of the leaves and flowers of the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis by humans a symptom of malnutrition due to insufficient consumption of the seeds/fruit of the same plant, which would, as a staple in the diet of humans provide enough quantities of non-psychoactive/ psychotropic cannabinoids to the brain, in addition to the vital, balanced profile of Essential Fatty Acids delivered by the seeds/fruit of the plant?

Closing comments

While there are many, many additional corollaries which support the hypothesis of symbiosis between humans and the plant species' Cannabis Sativa, Indica, and other hybrid strains of Cannabis, this paper focuses on physiological and biological data and ensuing questions and call for research outlined above.

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