PRELIMINARY NOTES ON THE POSSIBLE SOCIOBIOLOGICAL IMPLICATIONS OF THE RURAL CHINESE POLITICAL ECONOMY

(as long and academic a title as was ever written)

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Metaconjecture on Sociobiology: Intelligent lifeforms have a very time analyzing their own sociobiology for several main reasons:

- (1) Sociobiological analysis is most easily applicable to those behaviors which are most fundementally and powerfully linked to genetic fitness, i.e. those concerning reproduction and life-and-death decisions. These behaviors are also those which are innately linked to the strongest emotions, hence likely to be surrounded by the strongest cultural taboos blocking study. (In the human case, for example, it is very difficult to gather accurate empirical evidence on e.g. incest, homosexuality, and standard sexual behavior; a century ago it might have been impossible.)
- (2) Controlled breeding experiments are the most effective means of seperating genetic from cultural influences on behavior. It seems plausible that most intelligent lifeforms would consider such experiments performed on their own kind to be immoral, or at any rate, that the experimental subjects would be uncooperative and resentful.
- (3) Most subtlely of all, it is probable that a given intelligent life form would have a reproductive/developmental cycle long compared to its attention span, making breeding experiments impractical. For example, a human experiment would require decades or centuries for any solid results—far too long for any mad dictator (or any cruel but fussbudget scientific committee); fruitflies are much easier.

These three considerations make the study of the sociobiology and psychobiology of humans a problem orders of magnitude more difficult than that (say) for hamsters, even if we leave aside the fact of far greater human complexity. Much of the most important empirical evidence confirming the validity of sociobiological analysis of human behavior has been obtained by studying the results of social experiments or unusual customs, e.g., incest barriers from Israeli kibbutz children and Taiwanese child-brides or kinship ties from Yanomamo villagers.

Such empirical studies have been extremely useful in shedding light on the static aspects of human epigenetic behavior. However, little objective evidence has been acquired on the dynamic nature of epigenetic traits, their heritability or the degree of selective pressure required to modify them. This, once again, is due to the impermissibility and impracticality of controlled breeding experiments: no sociobiological may do the equivalent of disproving Lamarkian inheritance by cutting the tails off 50 generations of laboratory rats. It is the purpose of this paper to suggest the possible existence of just such a long-term human breeding experiment as a byproduct of the rural political economy of old China.

The Social Economy of Rural China:

The rural Chinese social economy is very notable for its stability and longevity. From the foundation of the modern state in 680(?) to the Communist Revolution in 1948, a single set of social and economic relations maintained its grip on the peasantry (comprising perhaps 95% of the Chinese population), evolving only while slightly: dynastic successions and military conquests transformed the governmental superstructure.

The main structural characteristics of the system were:

(*) Three Official Classes

Three distinct Chinese social classes received official recognition: the gentry, consisting of those who had passed an official examination and received an academic degree; the "mean people," such as prostitutes, entertainers, and slaves; and the "common people," everyone else, including the peasantry. The first of these classes enjoyed official privileges, the second suffered under legal discrimination, but neither amounted to more than a percent or two of the rural population. All the rest of the populace enjoyed complete legal equality (in theory).[cf. Ch'u T'ung-Tsu]

(*) Economic Class Structure

The common people of rural China have usually been divided into five basic economic classes based on graduated wealth and "exploitative"income: landlords, those obtaining most or all of their income from rent or hired labor; rich, middle, and poor peasants, grouped according to decreasing wealth and rent income, and increasing tendency to hire out their own labor; and agricultural laborers, those obtaining nearly all their income from hired labor.

and subject to change
These strata were fluid and purely economic: a landlord who lost his land would become a poor peasant; a poor peasant who came into wealth would become the equal of any landlord. As a crude estimate, landlords and rich peasants constituted about 10% of the population and possessed 70-80% of the land, while poor peasants and hired laborers made up over half the population and owned 10-15% of the land. [cf. Fanshan, Moise]

(*) Extreme Free Market Economy

Rural China exhibited one of most absolute and unrestrained free market economies known to history. Land, the main form of wealth, was freely bought, sold, traded, rented out, sub-leased,

or used as loan collateral. Money-lending and food-lending was widely practiced, especially during times of famine, with usurous rates of interest the norm (often in excess of 10% per month compouned). In extreme cases, children or even wives might be sold for cash and food. Peasants without land or food, unless aided by relatives, routinely starved to death.

(*) Malthusian Population Levels

By the twentieth century, China's rural population had approximately reached the Malthusian carrying-load of the agricultural system (given the existing technical and economic structures). Population growth was largely held in check by mortality, decreased fertility due to malnourishment, high infant mortality, disease, and periodic regional famines which killed an average of 5% of the population.

(*) Sex Imbalance

Widespread female infanticide and deprivation resulted in roughly a 10-15% shortfall in women of marriagable age. This led to the existence of (relatively) very expensive bridesprice payments, especially among the poor.

(*) Equal Inheritance of Wealth

Throughout rural China, inheritance was by <u>fenjia</u>, or equal division of wealth (among sons).

Social Results:

The above characteristics of the rural economy led to certain unique social results:

In each generation, the poorest 10-15% of the population either failed to reproduce or produced only a negligible fraction of the successor generation. This was partly due to obvious factors such as disproportionate early mortality from starvation or disease. very high infant mortality, and lower fertility due to malnourishmen Even more significant, however, was the fact that the shortage of women and high bridesprice placed marriage out of the financial reach of most of the poorest segment of the population. amounts of anec#dotal evidence exists to this effect:

How could any man in our village claim that his family had been poor for three generations? If a man is poor, then his son can't afford to marry; and if his son can't marry, there can't be a third generation.(Crooks(1959))

family had four members. Further down the economic scale there were many families with unmarried sons who had already passed the customary marriage age, thus limiting the size of the family. Wong Mi was a case in point. He was already twenty-three, with both of his parents in their mid-sixties; but since the family was able to rent only an acre of poor land and could not finance his marriage, he lived with the old parents, and the family consisted of three members. Wong Chun, a landless peasant in his forties, had been in the same position when he lived with his aged parents ten years before, and now, both parents having died, he lived alone. There were ten or lifteen families in the willage with single unmarried sons.

Yang (1259)

The Landless and Agricultural Laborers

The limited number of landless consists

As previously mentioned, there were about twenty families in Nauching that had no land at all and constituted the bottom group in the village's pyramid of land ownership. A few of these families were tenant farmers, but the majority, since they could not finance even the buying of tools, fertilizer, and seeds, worked as "long-term" agricultural laborers on an annual basis. As such, they normally were paid about 1,000 cattics of unbusked rice per year and board and room if they owned no home. This income might equal or even exceed what they might have wrested from a small rented farm, but it was not enough to support a family of average size without supplementary employment undertaken by other members of the family. For this reason, many of them never married, and the largest number of bachelors were to be found among landless peasants, Wong Tu-en, a landless peasant working for a rich peasant for nearly ten years, was still a "bare stick" (unmarried man) in his fifties; and there were others in the village like him. They were objects of ridicule and pity in the eyes of the villagers, whose life centered upon the family.

Yang (1959)

- (2) Throughout all economic strata, production of surviving offspring was to a significant degree positively correllated with family wealth. The richer a man's family, the earlier he would be able to marry, the more food he would have available for his wife and children, and the less likely his children would be to starve to death during a famine. In addition, the very richest men of a village occasionally took concubines in addition to their legal wives.
- (3) Equal division of land by fenjia pushed the sons of every villager into a lower economic stratum than their father. was especially true in the richest strata of society, where it was not uncommon for a man to leave two or three male heirs, forcing each to start economic independence with only a fraction of his father's wealth. Unless they succeeded in augmenting their inheritance, the sons of an especially fecund rich landlord might be middle peasants, the grandchildren, starving poor peasants [examples from Fanshen]. The members of a wealthy family could maintain their wealth from generation to generation only if in each generation large amounts of additional wealth were extracted from their land and their neighbors through high intelligence, sharp business sense, extremely hard work, and great diligence. penalty for major business miscalculations or prolonged laziness was either personal or reproductive death. As William Hinton very graphically describes:

Security, relative comfort, influence, position, and leisure [were] maintained amidst a sea of the most dismal and frighteni poverty and hunger—a poverty and hunger which at all times threatened to engulf any family which relaxed its vigilence, took pity on its poor neighbors, failed to extract the last copper of rent and interest, or ceased for an instant the incessant accumulation of grain and money. Those who did not go up went down, and those who went down often went to their deaths or at least to the dissolution and dispersal of their families.

(4) The realities of the relations of production within the rural class society made it extremely difficult for the poorest segments of society to raise their economic status, or indeed simply to maintain it. Still, in each generation, a number of poor succeeded in rising to wealth; this could only be accomplished through a very great combination of high intelligence, hard work, frugality, and diligence (plus luck). For example, Mao Zedong's father succeeded in rising from a landless poor peasant to a rich peasant: ***EXEXPREXTY**

LENGTHER

"My father was a poor peasant and while still young was obliged to join the army because of heavy debts. He was a soldier for many years. Later on he returned to the village where I was born, and by saving carefully and gathering together a little money through small trading and other enterprise he managed to buy back his land:

"As middle peasants then my family owned fifteen mout of land. On

A Arien roughly corresponds to a U.S. county. It was the smallest territorial unit inder the central government, and was ruled by a magistrate.
† About 2.5 acres, or one bectare.

Red Star Over Chim Snow

sis they could raise sixty tan* of rice a year. The five members of the mily consumed a total of thirty-five tan—that is, about seven each—thich left an annual surplus of twenty-five tan. Using this surplus, my ather accumulated a little capital and in time purchased seven more mou, which gave the family the status of 'rich' peasants. We could then raise eighty-four tan of rice a year.

"When I was ten years of age and the family owned only fifteen mou at land, the five members of the family consisted of my father, mother, gandfather, younger brother, and myself. After we had acquired the additional seven mou, my grandfather died, but there came another younger brother. However, we still had a surplus of forty-nine tan of rice each year,

md on this my father steadily prospered.

"At the time my father was a middle peasant he began to deal in pain transport and selling, by which he made a little money. After he became a 'rich' peasant, he devoted most of his time to that business. He hired a full-time farm laborer, and put his children to work on the farm, as well as his wife. I began to work at farming tasks when I was six years old. My father had no shop for his business. He simply purchased grain from the poor farmers and then transported it to the city merchants, where he got a higher price. In the winter, when the rice was being ground, he hired an extra laborer to work on the farm, so that at that time there were seven mouths to feed. My family ate frugally, but had enough always.

(5) The richest strata of each village possessed the wealth to give their most able children a classical education in hopes of preparing them for the series of official examinations. If the son of a rich peasant or petty landlord were sufficiently diligent and intellectually able, he might be able to pass such an examination and obtain an official degree; this degree would open enormous opportunities for wealth and political power. For the Ming and Ch'ing dynasties, statistics exist on the social origins of the chin-shin (those possessing an academic doctorate, marking them as members of highest stratum of the ruling Chinese elite) and these show a rate of upward social

Cultural and Epigenetic Implications:

As we have seen, Chinese society maintained very high selection rates for intellectual ability, business sense, hard work, and diligence for many centuries, perhaps even millenia. The results of such a nightmare system of near absolute social darwinism would be two-fold.

First, purely cultural evolution would rapidly occur. Cultural values would come to place a very high emphasis on scholastic and intellectual ability, hard work, cooperation, thrift, perserverance, and other behavorial traits necessary to successful survival and reproduction. That Chinese culture does in fact exhibit such an emphasis is very apparent to outside observers, and is indeed universally recognized by the Chinese themselves.

Second, these same selective pressures would lead to some degree of genetic evolution favoring epigenetic tendencies toward these same traits of intellectual ability, hard work, cooperation, thrift, and perserverance. The degree of heritability and variability of such epigenetic tendencies is completely unknown. Equally unknown (and unknowable) is any exact quantification of the selective pressurance the rural Chinese economy maintained, i.e. exactly how much of an individual's economic advancement or survival was due to

chance and how much to behavior. Still, the extreme length and stability of the social system and the apparent strength of the selective pressure make it seem plausible that a significant amount of genetic evolution may have occured.

Empirical Evidence:

Objective evidence is always the weak link in sociobiological analyses; Man's complexity and the extremely complex causal relationships woven into all human societies force non-controlled "field studies" to usually reach ambiguous conclusions. The analysis presented in this paper does not escape this difficulty.

Still, certain general facts can be discussed.

- (*) Relatively small Chinese communities have achieved rapid economic and technical progress (often in spite of severe ethnic discrimination) in Indonesia. Malaysia, Vietnam, Singapore, Hong Kong, Taiwan, the United States, and many other countries. This is probably due mostly to the Chinese cultural system discussed above; however, the possible role of epigenetic factors should not be dismissed.
- (*) Most standard measures of academic achievement show significant higher rates of success among ethnic Chinese students than among the general population. This effect is magnified (rather than reduced) when one controls for socioeconomic status. Again, this may be largely due to cultural factors; but again, the epigenetic role should not be ignored.
- (*) Allegedly "culture-free" intelligence tests developed by testers of North European ancestry and culture consistently show

North Europeans as placing very high, higher than nearly all other peoples around the world. This is probably without significance. However, these same tests generally show ethnic Chinese (of low socioeconomic status, non-modern home environment, and alien culture) as scoring distinctly higher. Again, this may simply be due to the chance fact that such IQ tests contain hidden biases toward cultural traits found to a great extent in North European culture and found to an even greater extent in Chinese culture. But it may also be a case of doing the Victors of Salamis one better. [cf. Lynn]

Further Suggestions:

- (1) Studying the academic and career records of ethnic Chinese children adopted out at an early age into non-Chinese families might provide fairly clear empirical evidence concerning the validity of this paper's hypothesis. Factors which might weaken the effectiveness of such evidence would include:
- (a) The residue of anti-Asian discrimination remaining in the U.S. and other countries (this factor would probably lessen personal success, but might also conceivably raise it due to psychological over-compensation).
- (b) The common stereotype of the intelligent, hard-working, and successful Chinese might influence the behavior of ethnic Chinese raised in a non-Chinese family.
- (2) It would be very interesting to see whether the analysis of the rural Chinese economy presented above might not also apply to some other Asian peoples such as the Japanese and the Vietnamese.

^{*} After the combined Greek victory at the Battle of Salamis (due to Themistocles brilliant strategy), all the Greek commanders voted on who had been most responsible for the victory; each man put his own name first and Themistocles' name second. A similar effect

Conclusions:

The rural Chinese social economy may constitute the world's longest and largest controlled breeding experiment. The thorough investigation of its nature and result may provide fruitful insight into the nature of human epigenetic behavior.

may be present in "culture-free" IQ tests.

Main Sources:

"Downward Social Mobility in Pre-Revolutionary China," E.E.Moise, <u>Modern China</u> (1977)

"Aspects of Social Mobility in China, 1368-1911," P.T.Ho. Comp. Stud. in Soc. and Hist. (1979)

"The Biosocial Nature of Man," H.J. Eysenck, JSBS (1980).

Mankind Evolving, T. Dobzhansky, 1962.

A Chinese Village in Transition, C.K. Yang, 1959.

Red Star Over China, E.Snow, 1968.

Law and Society in Traditional China, Ch'u T'ung-Tsu, 1961.

Fanshen, W.Hinton, 1966.

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Human Variation, Osborne et.al. (including Lynn), 1978.

Revolution in a Chinese Village, Crook and Crook, 1959.

(There's also an appendix in an unpublished book by Philip C.C. Huang which contains an excellent example of impoverishment through fenjia in the raw data; only a handful of Chinese villages ever were studied carefully enough for such a process to show up in the data, so it might be worthwhile sending off a letter asking for a copy.)