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PROCEEDINGS  
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## **"Socio-Psychological barriers to crop production and extension and extension work in Antigua — Edmond J. A. King**

### **PREAMBLE**

By virtue of my acquaintance with our general problems and needs through my work experiences in Antigua and especially Barbuda, the most important barrier to crop production and extension work is the communication system. The theoretical concept in this paper is focused on the development of the human resources, but mainly for the improvement of rural people in their own environment.

The author believes that a pattern of agricultural principles should be taught in rural schools which assumes a society not less than 5 years hence since it is human to follow the line of least resistance. He also thinks that the psychological meaning of agriculture, in that it is inferior should be changed not only in the schools, but in the Universities, for example. In spite of that the fact the College of Agriculture at Cornell University earns the finest reputation in New York State, it has the lowest rating in the University and is commonly referred as the "*low college.*"

The author feels that the Government in Antigua (and perhaps in most of the West Indian islands) has shouldered too much of the responsibilities in farming which have caused the farmers not to realize their importance in the community as farmers.

Consequently, the farmers are rapidly "leaving" the land. He considers that a method of teaching agriculture in Antigua through organizations of any sort, should be instigated. The possibility can hardly be seen but must be created.

### **INTRODUCTION**

In this paper, the author assumes to deal with some of the psychological and sociological problems affecting the flow of agriculture information between agriculture officers and the farmers.

Antigua is one of the smallest English speaking West Indian islands and the largest in the Leewards which has attained the status of "INDEPENDENCE IN ASSOCIATION WITH BRITAIN", on February 27th 1967. It is 108 square miles with a population of 65 thousand people, situated 17° N of the equator and 62° W of Greenwich. Barbuda is its largest dependency with an area of 62 square miles and a population of one thousand living in one community. The island receives an average annual rainfall of 45 inches but has been experiencing severe droughts over the last 4 years. The 1966 rainfall was 27 inches.

Agriculture is administered by two Ministries :

1. The Ministry of Finance ;
2. The Ministry of Trade Production and Labour.

Agricultural extension is directed through the Ministry of Finance and the Honourable Minister without Portfolio is directly responsible, and functions as the Head of that Department. The other portion of the Agricultural Department is directed through the Ministry of Trade,

Production and Labour and the Director of Agriculture is the head of this section. The Director of Agriculture has nothing to do with agricultural extension.

Antigua does not have any agricultural coöperative as such. There is no 4-H Club and agriculture is not taught in the schools. There is no agricultural bulletin published to farmers; no agricultural column in the press; nor any radio or TV programme in agriculture. Agricultural communication is only through lip service.

#### AGRICULTURAL DEPARTMENT

45% of the island or 30,000 acres are given over cultivation. 2/3 of this is for sugarcane and about half a million lbs of sea island cotton lint are produced annually. Not nearly enough fruits and vegetables are cultivated to feed the islands 65 thousand people but the Government's policy is to expand the growing of food crops. The Government has already constructed 14 dams for irrigation of crops and domestic usage and the capacity is approximately 300 million gallons.

There is no agricultural research as such conducted in Antigua. There is no agronomist on the Government's staff but the island is one of those in the Caribbean served by the University of the West Indies in the field of agronomy. An officer covering the Leeward Islands is stationed in Antigua.

#### EXTENSION

This division is also known as the Peasant Development Services. It is a Government controlled coöperative having the Honourable Minister without portfolio as the head of this division. He has a relatively large staff and his officers are as follows :

- 1 Principal Administrative Officer
- 1 Extension Officer
- 3 Senior Field Officers
- 10 Agricultural Instructors and
- 30 Agricultural Rangers.

#### IMPORTANT ORGANIZATIONS

There are several important organizations in Antigua through which agriculture could be promoted.

1. The newly formed Food Growers Association
2. The Antigua Trades and Labour Union
3. The Credit Party etc.

##### 1. *Food Growers Association*

This organization started 4 years ago and has not yet got off the ground. It has a membership of 50. The size of farms range from 2 to 10 acres with one or two over 30 acres. The largest farm is 170 acres. They hold monthly meetings to discuss difficulties and seek Government solutions. The Government provides them with one trained agricultural officer who works full-time. Government's policy is to finance loans to 5 times

the value of the crop security. The society is a very progressive thinking one with good leaders.

## 2. *Antigua Trades and Labour Party*

This Union is undoubtedly by far the most established organization in Antigua. The social services lay emphasis on the education of the young in society. In order to do this teachers are trained continuously. Free medical treatment and consultation are available to poor parents and the aged in the community. The party recognizes the social needs of the old, sick and disabled artisans and the difficulties they encounter to have a comfortable existence.

It is still very clear that for a long time to come agriculture must play a major role in the economy of the island. The aim is to provide as far as possible the major position, if not all, of the basic foods locally, and if possible to have exportable surpluses for other consuming markets. The future role of agriculture must be to satisfy the local consumption needs for such products that can be grown locally and at reasonable prices to both the consumer and producer. Antigua's agriculture development must therefore concentrate on mechanization, increasing productivity and reducing high overhead costs through faulty equipment and ancient techniques. New crops suitable to Antigua's climate must be introduced and market sought for such crops.

### *Credit Union*

Over the past few years this organization has become quite active. It claims to operate free from the Government and is making plans to establish 4-H Clubs in the island. It has about 14 union members and is affiliated with C.U.N.A. international

### *The Antigua Workers Union*

This is a new organization which has its origin in the Antigua Trade and Labour Union and through which agricultural knowledge could be channelled.

## THEORETICAL FRAMEWORK

When people are confronted with new opportunities, acceptance or rejection, they depend not only on the basic cultural articulations, nor on favourable pattern of social relations or economic possibilities, but on the psychological factors.

For this most important aspect of psychology as a barrier to change, effective communication program cannot be overemphasized. In Whorf's support on the importance of "Cultural Relativism" in this study on the Significance of Language, he found that more fires caused by gasoline were from "Empty" drums than from full drums.

Whorf assumed that when people observed the signs "EMPTY GASOLINE DRUMS", they develop a "care-free" attitude which would indicate that they could relax, or smoke, or even play around with fire in the general area where the "empty" drums were located.

Communication means much more than mastering a language and pre-

senting ideas in simple or clear speech. (Obviously enough, the sign "Empty Gasoline Drums" is simple language). It means that new ideas and techniques must be presented verbally, visually and conceptually so that the recipient perceive the potential advantage in such the same way as does the technical agent.

In the book "TRADITIONAL CULTURE" by Foster, he made it quite clear that changes do not necessarily come about when these conditions are met. He drew an illustration about some people who may want to build a latrine, not because they appreciate the environmental sanitation, but because they perceive the prestige that will accrue to them for their program ideas.

According to Dr. W. W. Reeder of the Department of Rural Sociology at Cornell University in his publication entitled "DIRECTIVE FACTORS IN SOCIAL ACTION Part 1, 1961", there are a few key points which "Social Action Theory" should be able to provide answer for about individuals and groups as social actors. The 4 which he listed are :

1. Why do individuals and groups behave as they do ?
2. What are their relevant characteristics ?
3. What processes are relevant in understanding their behaviors ?
4. What are the relevant or important products of these social actors ?

Dr. Reeder believes that the first question is the most basic, since it contains the relevant criteria for answering the other three. This seems to be a question never to be answered from ever since, man has been always curious willing to learn the answer to this question and has come up with several hypothesis which in themselves sound real and fundamental. In order to exist it is imperative to compete. Our societies are patterned within the framework of what our predecessors prescribed, ever we have consciously accepted some of them and have taken the other for granted.

The author bears in his mind the concept "Consciousness is a private thing and the concept of Superstition and believes they are important guides to attempt to answer the question "Why do individuals and groups behave as they do ? Some psychological deductions on experiments done on pigeons, indicated that each pigeon did a different dance to receive their reward-food.

They continue to do their own dance in exactly the same pattern as long as they continue to receive the reward which they expect, i.e. food. This continuous feeding reinforced the "dance."

It seems to appear that the pigeons believed they were rewarded because they danced in their characteristic manner. The dance became a habit ; consequently, a "second nature". It is quite obvious to assume that the reaction of the pigeons in the first instances were somewhat due to excitement or fear ; but being successively reinforced over time, the excitement or fear were extinguished to be the right thing to do to get food.

The most important point here is, that each pigeon had the same objective, that is to get food. Although they each went about obtaining

"this" in different ways, their objectives were still met and they appeared to be quite happy and contented afterwards. It is quite clear here that the dances had absolutely no significance to the getting of food, so far as the experimenter is concerned, since he had planned to feed them whether they danced or not. Consequently, I deduce that the dancing which had so much significance to the pigeons was in reality a mean to an end, and superficial.

If the same concept be applied on an culture to culture basis, some logical deductions could be made for some of the basic difference between cultures. In the case of the pigeon, their objectives were equally met and they had one common control. But in the case of cultures, the objectives are much more complexed, and are usually obtained from within each culture; consequently, it would never be possible to do a similar type of experiment on culture where you could have one common control.

It is the general consensus of opinion that the lesser the degree of development of an area, the lesser the degree of superstition. A developed culture may be considered as a culture which contains many well organized control systems with a strong tendency for each system to function somewhat efficiently and independantly; consequently, there is the minimum tendency for the "diffusion" of superstition of one control system into the other. On the other hand, an underdeveloped or developing culture has few well developed and defined control systems which have a much higher degree of overlapping and are therefore much more dependent on one another. Consequently, there is much greater tendency for the superstition of each system (control) to be diffused in one another. This may well be a fair assumption and may account for some of the reasons why the consensus of opinion is that developed cultures are less superstitions than underdeveloped cultures.

The author believes that it is possible for the basic cultural norms to be compatible with the individual's natural inclination. He further perceives that our actions are directed by two sets of basic forces. They are :

1. the forces of the individual's natural inclination (PSYCHOLOGICAL);
2. the forces of culture (SOCIOLOGICAL).

The combination of these forces vary from individual to individual and the over all effects are best observed in the difference between cultures. The author thinks that the answer to the question stated by Dr. Reeder "why do individuals and groups behave as they do?" lies in analysis of the two sets of forces with a view to separate one from the other in the most concise, precise, complete and exact form.

This seems practically impossible because, since the analyser himself will inevitably possess one of the combinations of these two forces, he can only hypothesize on what he deems logical which this combination would permit him to do. In other words, since these two forces are responsible for this consciousness, and since consciousness is a "private thin", he can only perceive what exists in his own world.

These two sets of forces (whether consciously or unconsciously) exist in this world, and it seems impossible for him to arrive at any conclusion better than what exists in his "own" world.

## IMPLICATIONS AND CONCLUSION

The sociological difficulties to communicate agricultural knowledge between agricultural officers and farmers are emphasized by the Governments increasing interest in promoting the other industries such as oil refinery, hotel, aluminum factory etc. creating contrast rather than comparison with these industries and agriculture. The psychological developments of individuals in our society through our education system permit them to recognize that the line of least resistance is not the production of food "crops".

Perhaps quite a great deal of element of truth is in the old saying "customs make law", but the contrast in our development for the last 10 years or as between non-agricultural industries and agricultural industries indicates that it could be helpful if agriculture education were instructed through organizations of any sort and schools.

However, the Government has plans to set up a department (a division of department) for irrigation and crop requirements specially on vegetables, pastures and sugarcane. Fourteen dozens are already constructed for the purpose. An agricultural program might soon be drawn up for the Government Schools.

The Ministry of Home Affairs and Source Services, to which the author is recently seconded as Community Development Office, has already expressed its desire to have a trained agricultural officer on the staff of Division of Education. The steps which my Government has recently being taking is in no uncertain terms, an indication that our system of Agricultural Communication is under review.