OJIBWA EMOTIONAL RESTRAINT AND THE
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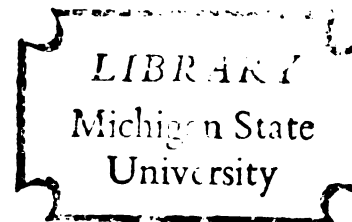
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presented by

Thomas H. Hay

has been accepted towards fulfillment
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ABSTRACT

OJIBWA EMOTIONAL RESTRAINT
AND THE SOCIALIZATION PROCESS

by Thomas H. Hay

This study focuses on the motivation of the
extreme restraint characteristic of the typical
Ojibwa Indian and on the learning process through
which motivation for this restraint is developed.
Hypotheses derived from two different theories of the
motivation of the restraint and from two different
theories of the development of extreme restraint are
tested in this study.

One of the theories of the motivation of
restraint traces this restraint to an exaggerated fear
of retaliation for openly aggressive behavior. The
other theory traces restraint to an exaggerated
fear of doing serious injury to others by openly
aggressive behavior. The first of the theories of
the development of restraint, derived from stimulus-
response learning theory, attributes fear of retal-
iation for aggressive behavior to frequent punishment
in childhood for behavior offensive to adults. The
other theory, derived from cognitive learning theory,

attributes exaggerated fear of doing serious injury
to others to adult acquiescence in the offensive
behavior of children.

Since the Ojibwa consider children incapable
of effective retaliation against adults, but do not
consider children to be immune from injury by adults,
it was reasoned that these theories of the motivation
of restraint could be tested through observation of
adult reactions to the offensive behavior of children.
The observations could also be used to test the
learning theories when analyzed from the point of view
of the experience of the child.

The two motivational theories were partially
formalized in the expected value framework employed
by some contemporary decision theorists. This formal-
ization permitted deduction, from each theory, of
quantitative estimates of the probable choices by
adult Ojibwa of four different courses of action in
a situation where the adult had been offended by a
child. These formalizations also provided estimates
of the frequencies of punishment or of acquiescence
required by the learning theories.

The data to test the hypotheses derived from
these theories was gathered through observations of
the interaction of adults and children in nine Ojibwa
households at Lac du Flambeau, Wisconsin and four

Ojibwa households at Berens River, Manitoba. These
households can not be taken to be representative of
the populations at either place. The sample is
definitely biased toward the more culturally conser-
vative families. The number of observations recorded
was sufficient to permit tests (with the Kolmogorov-
Smirnov test of goodness of fit) for twenty-nine
adults of the hypothesis derived from the motivational
theories. The binomial test of goodness of fit was
used to test the learning hypotheses for thirty-two
children.

The theory that Ojibwa restraint is motivated
by fear of retaliation is not supported by the data.
It implies that Ojibwa adults should punish offending
children with high relative frequency. This hypothesis
could be rejected at the .01 level for twenty-seven
of twenty-nine adults.

The theory that Ojibwa restraint is motivated
by fear of doing serious injury to others is neither
clearly supported nor contradicted by the data. There
is, however, reason to believe that minor modifications
of this theory would lead to deduction consistent with
the data.

The theory that fear of retaliation is learned
through punishment in childhood is unsupported by the
data -- as might be expected from the results for the

theory that restraint is motivated by fear of retaliation.

Finally, the theory that exaggerated fear of injuring others is due to parental acquiescence in the offensive behavior of children can be rejected for only two of thirty-two children.

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AND THE SOCIALIZATION PROCESS

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Thomas H. Hay

A THESIS

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CHAPTER I

INTRODUCTION

Purpose

The purpose of this project is to test some
contrasting hypotheses about the functioning and develop-
ment of the typical personality of the Ojibwa Indians --
a typical personality which is characterized by hos-
tility and emotional restraint. This type of personality
is of interest to both psychiatry and anthropology,
since there is evidence that it is a factor in the
development of psychosis and of some psychosomatic
disorders and because there are theoretical reasons
for believing that it may tend to perpetuate the
"atomistic" social organization of the Ojibwa.

Hypotheses derived from four theories will be
tested. Two of these theories offer explanations of
emotional restraint in terms of underlying values and
beliefs. The other two offer explanations of the way
in which this emotional restraint is learned.

Hallowell has proposed a theory which explains
Ojibwa restraint as a consequence of their fear of
retaliation through sorcery. An alternative theory which
is implicit in the writings of some psychoanalysts ex-
plains this restraint as a consequence of the Ojibwa's

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fear of what they might do to other people if they lost
control of themselves. From each of these theories a
hypothesis has been deduced concerning the relative
frequencies with which Ojibwa adults should choose
punitive behavior toward children who offend them.
These hypotheses will be tested with the same data used
to test the developmental hypotheses described below.

Overview

From two groups of theories of learning of
personality characteristics which differ in the em-
phasis placed on the child's drawing of inferences about
his social environment, are derived two kinds of hypo-
theses about the child rearing antecedents of emotional
restraint and hostility. The hypothesis from one group
of theories implies that the antecedent of emotional
restraint is frequent and severe punishment. The hypo-
thesis from the other group of theories traces emotional
restraint to the absence of adult control.

From these hypotheses are derived measures of
parental punitiveness and acquiescence in situations
which are comparable in different households. Theo-
retical expected frequencies of parental choice of
punitive and acquiescent behavior are derived to permit
statistical tests of the hypotheses from which these
expected frequencies were derived. The data to test
these hypotheses were obtained through participant

observation of interaction in several households in each of two differently acculturated groups of Ojibwa. Interaction of adults with children was observed in a total of thirteen households. Nine of these households were located at Lac du Flambeau, Wisconsin and four at Berens River, Manitoba. Six hundred seventy-one observations of adult reactions to offending children were recorded, permitting statistical tests of hypotheses about the behavior of twenty-nine adults. Twenty-two of these adults were from Lac du Flambeau and seven from Berens River. Seven hundred sixty-seven observations of the adult reactions experienced by offending children were recorded. These were sufficient to permit statistical tests of the hypotheses about these experiences for thirty-two children. Twenty-four of these children were observed at Lac du Flambeau and eight at Berens River.

Ojibwa typical personality

Ojibwa personality has been studied by numerous anthropologists, but the work of A.I. Hallowell has been particularly extensive and thorough and will serve as the principal background for this study. He has studied three groups of Ojibwa, each at a different "stage of acculturation." Two of these groups are located in Manitoba and one in Wisconsin. Hallowell calls the

group at the earliest stage of acculturation the

"Inland Group," and the group at an intermediate stage

of acculturation the "Lakeside Group." The third,

and most acculturated, group is located at Lac du

Flambeau, Wisconsin and gets its designation from that

location. On the basis of a sample of Rorschach tests

from each group (44, 58, and 115 subjects, respectively),

he concludes:

> The most striking fact is the persistence of the
> same basic psychological pattern through these
> stages of acculturation. There is a persistent
> core of generic traits which can be identified
> as Ojibwa (1955:351).

Hallowell does not indicate in this article which traits

constitute this "core," but his other works indicate

that he considers hostility and emotional restraint to

be the central characteristics of the Ojibwa typical

personality. In Chapter Six of Culture and Experience

(1955) in which he attempts to reconstruct the person-

ality typical of the early northeastern Indians from the

accounts of missionaries, explorers, and traders, the

major characteristics discussed are emotional restraint and

hostility. In the same chapter, referring to the

Rorschachs of the two Canadian groups, he says:

The most prominent feature in the great majority
of the records is the emphasis on strong restraint
and control (1955:149).

Other students of Ojibwa personality concur in
the centrality of emotional restraint and hostility as
traits of the Ojibwa typical personality (Landes in a
personal communication to Victor Barnouw, quoted in
Barnouw 1963:147; Barnouw 1950:22, 60-61; James 1961:738,
740; Wallace 1952:104-105; Lowenfels, quoted in Barnouw
1963:282). Lowenfels, in her analysis of Ojibwa child-
ren's drawings, finds 63% "constricted" and "over-
controlled" and the remaining 37% also "manifesting
constriction and over-control" but less "inflexible"
(Barnouw 1963:282). These reports are taken to justify
the assumption that a large majority of the Ojibwa
display hostility and emotional restraint which
Hallowell appears to regard as the "core" of the typical
personality.

Psychological and social significance of this personality type

Personalities marked by this combination of
hostility and restraint are of considerable interest
to psychiatry since there is evidence linking this type
of personality to the development of some psychoses
and to the development of essential hypertension and

neurodermatitis. (See Buss 1961, chapters 11 and 12
for a summary of the evidence.)

Since personality plays an important part in
some theories of cultural integration (Kardiner 1939:
20-21; Whiting and Child 1953:310) and in some theories
of cultural change (Linton 1939:x; Wallace 1951:61;
McClelland 1961:ch2; Hagen 1962:ch 8), the process
of personality development is also of concern to these
theories. These theories of cultural change emphasize
that the typical personality of the members of a society
tends to limit the society's acceptance of cultural
changes to those which are congenial to the typical
personality. The "social atomism" (Barnouw 1950:15-16)
or "particularism" (Hickerson 1962: ch 1) of Ojibwa
society can be explained on this basis through a hypo-
thesis proposed by Berkowitz, building on earlier work
by Newcomb (1947) and that by Thibault and Coules (1952).
Berkowitz hypothesizes that people who are hostile and
also inhibited about expressing aggression

> ...sought to cut off communications with a person
> who, they believed, might heighten their aggressive
> inclinations and therefore, would also increase
> their anxiety about this hostility (1962:99).

If considerable communication is necessary for the

effective organization of groups larger than the
extended family household, then the Ojibwa reluctance
to form larger social groupings would be expected from
this hypothesis.

It seems, therefore, that information about
potentially significant factors in the functioning and
development of this type of personality is relevant
to the concerns of psychiatry, psychology, and anthro-
pology.

Hypotheses to be tested

The fundamental assumption of this study is
that a large majority of contemporary Ojibwa children
are in the process of developing the hostility and
emotional restraint which is regarded as the "core"
of the typical personality.

The hypotheses to be tested are derived from
two groups of theories which embody different concep-
tions of the learning process. The conception of the
learning process in the first of these groups of theories
includes only a minimum use of reasoning on the part of
the child who is learning. This kind of theory is often
labeled "stimulus-response" or "S-R" theory. Hereafter,
these will be called "Group I Theories. " The conception
of the learning process embodied in the second group of
theories includes much more use of reasoning by the child

who is learning. These theories are often called "cognitive theories." These will be called "Group II theories." As used here, the child is said to be reasoning if he draws inferences about relationships among events, real and hypothetical. Reasoning is, of course, inferred from more readily observable behavior. This difference between the two groups of theories is important since, for high degrees of hostility and emotional restraint, the antecedents predicted by the Group I theories are opposite to those predicted by the Group II theories.

All of the hypotheses entertained in the course of the original field work were drawn from Group I theories. Since no alternative to this group of theories had been considered, it was not until after the original work had been completed that the possible inconsistency of the data with the implications of these theories was fully appreciated and a search was begun for theoretical formulations in which personality characteristics were conceived to be differently related to the actual events experienced by the child.

After such an alternative was found, the original study was recast as an effort to test hypotheses derived from the two different groups of theories. The theories being tested are thus primarily explanatory of what has

been observed rather than _predictive_, although their
specific forms and implications were developed before
the data were analyzed formally. It should be noted
here that the formal, logical structure of explanation
and prediction are identical. That is, a formally
adequate, _deductive_ explanation is sufficient for
prediction (Hempel 1942). Partial formalizations of
the two theories of Ojibwa restraint are to be found
in the appendix.

Hypotheses derived from the two theories
purporting to explain Ojibwa restraint concern the
relative frequencies with which individual adults
should be observed to choose specified courses of action
when they have been offended by children. Either
theory (or both theories) could be rejected if the
deduced frequencies of choice were not observed for a
sufficient proportion of the adults in each of the two
groups studied. There are thus two statistical prob-
lems. First, the determination for each adult of
whether or not the observed relative frequencies of
choice of the specified courses of action could be
expected if the hypothesis derived from a particular
theory were true and, second, whether or not a suf-
ficient _proportion_ of the observed adults of both
groups display the frequencies of choice implied by

the particular theory.

The learning theories are concerned with the
relative frequencies with which each child received
certain kinds of treatment from adults. The statis-
tical problems are essentially similar to those in-
volved in testing the theories of restraint.

The sample

As is frequently the case in child-rearing
studies, selection of a probability sample was impos-
sible. Therefore, any conclusions can be generalized
only with caution. In testing hypotheses about the
typical personality of the Ojibwa and its transmission,
the important issue is not the extent to which the
sample represents the population of Lac du Flambeau or
Berens River, but the extent to which the people studied
can be taken to be typical Ojibwa. An effort has
therefore been made to estimate the extent to which the
families which were studied can be taken to be typical.
(See Chapter Three.)

The families which were studied were from the
"Lakeside Group" at Berens River, Manitoba and from the
Lac du Flambeau Reservation in Wisconsin. The differences
between these two groups provide some control over
the possible significance of specific child-care
techniques -- which is not entirely a dead issue

despite Orlansky's conclusions.

Orlansky concluded, "...we are led to reject the thesis that specific nursing disciplines have a specific, invariant psychological impact upon the child" (1949:39). The differences between these "specific nursing disciplines" at the two locations are not clear-cut, but there are differences in the relative frequencies of different "disciplines" between Lac du Flambeau and Berens River.

A few families at Berens River use the cradle-board for infants and some use the cradle-board wrappings without the board itself. At Flambeau neither cradle-board nor wrappings were observed, except on display in business establishments. At Berens the hammock or swing (wéwébizon) in which infants sleep is nearly universal; at Flambeau, it is used by a very few families. At Berens River about two out of three infants are breast-fed (based on a limited sample), while, at Lac du Flambeau, all infants known to me were bottle-fed. Boggs (1958:50-53) has discussed these and some other differences between his two samples from the same Indian groups.

The data to test the hypotheses consist of narrative accounts of family interaction gathered by me and my wife during participation in everyday activities with the sample families.

CHAPTER II

THE TWO COMMUNITIES

Introduction

In each of the two communities in which field
work was done there is a considerable range of variation
in the degree to which individual and family behavior
deviates from the reported traditional norms. In
most respects, the deviations from traditional behavior
are smaller at Berens River than at Lac du Flambeau.
For this reason, I shall consider the community of
Berens River and the behavior of its people in com-
parison to reported traditional behavior first and then
the community of Lac du Flambeau and the behavior of
its people.

Berens River, Manitoba

Physical Setting

The community of Berens River is located at
the mouth of the Berens River on the east side of Lake
Winnipeg about half-way between the northern and southern
end of the lake. The land is low and swampy with fre-
quent outcroppings of granite bed-rock. The swamps
are muskíg, that is, they are thickly grown with trees,

rather than open. The characteristic forest cover is spruce and birch with some balsam. The reserve extends inland on both sides of the river and north from the river along the rocky shore of the lake. There are no roads or railroads nearer than 100 miles and access to the "outside" is primarily through the weekly steamship when the lake is free of ice and by plane or tractor train. During the Fall freeze and Spring "breakup", there is only radio contact with "the outside".

The log houses of the Indians are 100 to 300 yards apart along river and lake shore in the reserve. (In Canada, a "reserve" is primarily an area for housing and the Indians have the right to hunt and trap over the area outside the reserve.) In the summer commercial fishing season, some of the families from up-river live in tents along the lake shore near their relatives.

Population

The 1948 annuity list, supplied by the Hudson's Bay Company factor, with some correction for births and deaths by him, and some by myself, lists 391 enrolled members of the band. In addition to the Indians, there are about 35 whites, mostly the families of government officials, traders, and missionaries, and something less than 100 "half-breeds." These last

are Indian in identification and style of life.
They differ from technical "Indians" in not being
eligible for annuity payments, and in being eligible
to vote in Canadian elections and to buy beer.

Subsistence

Aboriginally, the Ojibwa were hunters and
gatherers. With the arrival of Europeans and the fur
trade, this basic occupation was not disrupted but
intensified by the new emphasis on fur-bearers (Kroeber
1947:96; Hallowell 1955:119).

In 1952 hunting and trapping had declined in
importance, but were still significant in the subsis-
tence of many families. The decline in importance
is indicated by the increased importance of four other
sources of income.

Chief among these is commercial fishing. Most
of the families at Berens River were engaged in this
pursuit in the summer of 1952. As in hunting and in
trapping for the fur trade, a man is still his own boss
in commercial fishing. A man gets his nets, the rental
of a boat and motor, and the purchase of some goods at
the fish company store on credit which is paid off by
his catch. There are three seasons when commercial
fishing is open in different areas of Lake Winnipeg.

There is a spring and early summer season at Berens River;
an early Fall season in areas to which many families move
for the season; and a winter season, in which few
people at Berens River are involved.

Cutting fire wood for sale to the steamship
company is a winter occupation which engaged many men
until the winter of 1952, after which the ship was con-
verted to another fuel.

Wage work for the fish companies, the schools
and the United Church, and the forestry department em-
ployed a few men seasonally, while the Mounted Police
and the Hudson's Bay Company employed one each the year
around.

The fourth source of subsistence is government
payments, usually in the form of rations of foodstuffs
to those who are in need.

A few families gather wild rice for the com-
mercial market, but it is not abundant locally.

The decline in the importance of the fur trade
has been accelerated by the rapid decline in fur prices
in the early 1950s. Few families in Berens River move
to their winter trapping grounds. As a rule, those men
still engaged in trapping go out to their trapping
grounds periodically, leaving their families in the
settlement. Hallowell (1955:119) reports this pattern in
the 1930s when more men trapped. Information supplied

by Dr. Nufeld of the United Church mission indicates that about half of the men, assisted by their older sons, were out trapping in the winter of 1951-52.

The continuing importance of hunting and trapping plus fishing is indicated by the unavailability of animal foods at the stores. In addition, the standard footwear of the Indians is moosehide moccasins over which are worn rubbers purchased at the store -- a great boon in wet country. A surplus of moccasins is produced and sold to the stores for tourists. Despite the summer emphasis on fishing, several moose were shot and the meat smoked and hides tanned while we were there.

Social Organization

Marriage

Landes' description of marriage at Manitou in Ontario (1937:103-105) largely applies to Berens River. It seems unlikely, however, that the disappearance of cross-cousin marriage can be attributed to contact with the Dakota, but must be attributed to other causes which certainly include Christianization and probably the development of relatively large and permanent settlements. Boggs (1954: Ch 2) notes in a few families a tendency for second and third cousins to marry, which could be a persistence of the old pattern

modified to suit the Christian tabu on first-cousin
marriage. Landes' generalization that "...most marriages
are fairly short and very stormy," (1937:104) applies
to Berens River as well as to Manitou.

Adultery and illegitimacy are fairly frequent,
but only sometimes lead to separation of a couple.
The illegitimate child of a married woman is often
knowingly raised by her husband. In the case of an
unmarried girl, the illegitimate child is often brought
up in the household of her parents until she marries
when it will go with its mother to her husband's house-
hold. (This information is derived from a household
survey made by Dr. Nufeld of the United Church mission
dated January 1952 and from field notes.) There seems
to be little stigma attached to either the mother of
an illegitimate child or to the child.

The Household

According to Dr. Nufeld's survey, forty-one
of the seventy-one households of enrolled Indians were
nuclear family households, eighteen included three
generations, three households were composed of one or
both grandparents and grandchildren, three households
included some relative other than nuclear family and
grandparents, and five men and one woman lived alone.
Many households are not stable in membership as people

shift their living arrangements readily as is indicated
by the shifts of spouses mentioned before. Boggs
(1954: Ch 2) concludes that family and household sta-
bility cannot be shown to have decreased as a result of
contact.

The Extended Family

The extended family is an important functioning
unit at Berens River. As indicated above, many house-
holds include three generations. Additionally, it is a
common practice for men to build their houses near those
of their fathers or fathers-in-law. Fishing, trapping,
and cutting wood for the steamer are carried on by groups
of men related in either of these ways and sometimes
by brothers after the death of their father.

Community Organization

As of 1952, government was nominally vested
in a hereditary chief and a group of councellors, but
they lacked effective powers to initiate action or
maintain social control. Social control, as in ab-
original times, is still primarily a matter of individ-
ual, internalized control. Hallowell writes of the
Berens River people:

> Since there are no organized penal sanctions and,
> in fact, no adult has any authority to impose any
> sort of penalty upon another person, and since
> openly expressed moral disapproval is avoided
> because it may be taken as a sign of hostility,
> fear of disease is the major social sanction
> (1955:294).

These internal controls are quite effective; crimes are
very rare. External control is maintained by a single
officer of the Royal Canadian Mounted Police who is
resident in the community, but whose territory must
cover more than 5,000 square miles. The justice of
the peace for the area lives fifty miles down the lake --
a six-hour round trip in the police boat.

Trapping grounds are registered with, and super-
vised by, the provincial Game Guardian.

No organized community activity occurs. Coop-
erative group activity on the scale of the extended
family does occur, but no cooperative activity on a
larger scale.

Religious Behavior

Virtually all of the Indians in the community
are Christians and most attend services with considerable
regularity. They are about evenly divided between
the United Church and the Roman Catholic Church.

Observances of Ojibwa religious ceremonies

have long been forbidden in the community and apparently
do not take place -- certainly none were observed.
Hallowell (1936:49) concludes for this community,
"The last Midewiwin must have taken place over fifty
years ago." Aboriginal herbal remedies are regularly
used, and Boggs reports the use of "love potions,"
as well (1954:35).

Despite the departure from traditional Ojibwa
religious observances, there is a strong religious
orientation at Berens River. Although many people
express disapproval of the traditional religion, they
also evince considerable interest in it (Boggs 1954:
Ch 2). Boggs discusses religious behavior at some length
and concludes that, although Christianized, the
Berens River Ojibwa are closer to the aboriginal
pattern than the people of Lac du Flambeau who are
mostly secular in orientation, although a few people
at Lac du Flambeau still observe traditional rites.

Lac du Flambeau, Wisconsin

Flambeau in 1952

The following account applies to Lac du
Flambeau as it was seen in 1952. A few important changes
in subsistence, political organization, and religious

behavior were noted in 1966. These will be reported in a concluding section.

Physical Setting

The village of Lac du Flambeau sprawls among tall white pines on the high ground which separates the clear, cool lakes which form the Flambeau chain. A dozen stores and the post-office are concentrated on two blocks of a single street. The houses of the Indians spread out from this center among the pines and along the shores of the lakes.

Two miles to the west of the village proper, the "Old Village" stretches along the north shore of Flambeau Lake. It is here in the Old Village that a few people still build wigwams for summer use and the Ojibwa religious ceremonies are generally held, although many of the adherents of the Drum and Midewiwin live elsewhere on the reservation.

The Lac du Flambeau reservation is located in extreme northern Wisconsin. It is a rectangular tract of land about ten miles from east to west and about 12 miles from north to south.. It contains 126 named lakes and many smaller ones. Much of the area which is not lake is swamp and the remainder is sandy soil on which grow some hardwoods (including sugar maple), considerable pine, and a large acreage of aspen, or "popple."

Acculturative influences

Until the advent of a sawmill and the railroads
in 1893, Lac du Flambeau was an isolated reservation
with little contact with white Americans. Since then it
has been increasingly drawn into the mainstream of
American life. There is still some logging of the pine
on the reservation and the "popple" provides winter
employment for some men "cutting pulp" for the paper
industry to the south, but the major factors tending
to draw the Indians into the mainstream are the tourist
industry and a small factory.

The tourist industry got its start in the 1930s
and in 1952 there were 26 resorts on the reservation.
These employ some Indians, both men and women, during
the tourist season -- June through August. The most
important effect of this business has probably been to
bring many permanent residents into the area with
consequent intensification of acculturative pressures.

Since 1946, a small manufacturing company has
operated a plant in what was once the Indian school in
the village. About 100 Indians, most of whom were
women, were employed there in 1952.

In the late 1940s, the Indian school was closed
and the Indian children now attend the public school
with the white children of the area. (Boggs 1954:
Ch 2) gives and excellent brief summary of Flambeau's

history and Hallowell (1955: Ch 18) covers some of the earlier history of the Indian group who eventually settled at Lac du Flambeau.

Polulation

There were 870 people on the tribal roll, as corrected, in 1952. This figure includes resident Ojibwa enrolled elsewhere and some additional changed noted by local Indian service personnel and by me. This list can be considered only approximately correct and certainly includes some non-residents. Hallowell estimated the number of resident Ojibwa in the summer of 1946 to be at least 831 (1955:340). The total population of the school district in 1952 was estimated by the principal to be 1,500, so that the year-around residents of the reservation are about equally divided between whites and Indians.

Subsistence

Primary sources of income at Lac du Flambeau are wage work for white employers and government payments such as old age assistance, aid to dependent children, public welfare, etc. Before the opening of the factory, it was not unusual to have more than 50% of the families on the reservation dependent on such payments for at least part of the year. Since the opening of the factory,

this percentage has declined, but such payments are
still important to the existence of many families.
Ritzenthaler (1953) has described the effects of the
opening of the factory on the community, perhaps,
somewhat optimistically.

Hunting and trapping have long been totally
inadequate as means of subsistence, but they do provide
supplementary food and emergency food occasionally.
Fishing is somewhat more important than hunting as a
means of obtaining food and provides some men with
considerable income in the summer through guiding
tourists. Successful guides also enjoy considerable
prestige among both Indians and white sportsmen.
These former subsistence activities are primarily
important as recreation.

A few families gather wild rice, two families make
maple sugar, and three or four tan hides and make moc-
casins. The motivation for these activities seems to
be largely sentimental attachment to the old ways.

Social Organization

Marriage

The attenuated forms of cross-cousin marriage
found at Berens River do not exist at Lac du Flambeau.
Essentially similar reports to those from Berens
River can be given about the stability of marriage and

about attitudes toward infidelity and illegitmacy at
Lac du Flambeau. Marriages may be even less stable at
Lac du Flambeau than at Berens River, but this impression
may merely be due to longer residence at Lac du
Flambeau. In 1952, the county welfare department was
attempting to increase the stability of marriage through
forcing people into legal marriages by denying public
assistance to couples who were not married.

An important consequence of the greater avail-
ability of employment for women is the blurring of
distinctions in the roles of men and women. There
were several instances where the husbands of employed
women were essentially taking the role of housewife
during the working hours of their wives. They did not
perform this role with either enthusiasm or skill.

The Household

The household is the most important social unit
at Lac du Flambeau, as it apparently has been tradition-
ally for the Ojibwa. My notations on the tribal roll,
made as I came upon the information, indicate that a
minimum of thirty-six of the approximately 210 house-
holds were not nuclear family households; that is,
they contained three generations, were of the grand-
parent-grandchild type, or contained other relatives.
This is almost certainly a low estimate. Boggs reports

(1954:40) that such households constituted 30 percent
of a sample of 42 households best known to him.

The Extended Family

The extended family, as seen at Berens River,
is almost unknown at Lac du Flambeau. At Berens River,
a man and his sons can hunt and trap or fish commer-
cially or cut and haul wood together. At Lac du
Flambeau, where most men work for wages, such cooperation
in production is not possible. There is sharing of
income and a common domicile with relatives, but not
the clustering of the houses of a man and his sons who
work together to produce a living for all of them.

Contacts with kin are maintained, but these
contacts do not seem to involve any particular group
of kin nor any particular kind of exchange of services.

Political Organization

Political organization at Lac du Flambeau is
considerably more complicated than it is at Berens
River. The number and variety of political units with
which the Indians must deal is much greater. These
political units include the tribal council and court,
The Federal Indian Service and Federal Courts, the
local school district, township, county, and state

governments. The school district and township govern-
ments arise as the result of the alienation of Indian
lands. About four-sevenths of the land of the reser-
vation is owned by whites (Hallowell 1955:339) who
organize and control the school board and township
government.

The school board is significant to the Indians
(whether they realize it or not) because the Indian
children attend the school for which the board sets
policy. The township government is significant to the
Indians because the local ordinances it enacts and
enforces apply to the Indians when they are in the
non-Indian four-sevenths of the reservation. The county
government is important to the Indians because it
administers the various welfare programs on which many
of them are partially dependent. The policy of the county
welfare board is to discriminate against the Indians
in terms of the amounts of the benefits due them under
Federal and state law. The impact of the state govern-
ment is relatively indirect. The significance of the
Federal Government for the Indians lies in the fact
that the few laws which govern acts on Indian land are
laws of the Federal Government enforced in Federal
Courts.

Tribal government is vested in an elected
Tribal Council of twelve members and a Tribal Court.

These are intended, under the Indian Reorganization
Act, to enact and enforce laws to govern Indian lands
which cannot, under the U.S. Constitution, be enacted by
Congress and enforced by the Federal Government.
The Tribal Council has enacted some ordiances requiring
children to attend school and others designed to in-
crease family stability. Under the prodding of local
white leaders and local Indian Service people, the
Council and Court have been successful in enforcing
school attendance, but not the other ordinances.

This failure is important since the internal
controls which reportedly functioned adequately under
pre-contact conditions and which are apparently ad-
equate at Berens River cannot be relied upon to the
same extent at Lac du Flambeau. Hallowell notes, from
his composite Rorschach profiles, that at Flambeau,
ther is "...a weakening of the rigid control on which
the Inland Ojibwa depends, without any compensating
factor emerging," (1955:351). Thus external social
controls are more important at Lac du Flambeau than at
Berens River. Even so, 70% of the Flambeau Indians
tested by Hallowell and his students gave 50% or more
F responses (the criterion used for the statement about
rigid control quoted above). (Tetting and Hutchins 1966).
If it were not for this persistence of the Ojibwa

personality, the frequency of vandalism, theft, assault, and homicide at Flambeau might well be considerably higher than it is. Impressionistically these rates seem to be high, but since no accurate figures are available, it is difficult to judge.

The Tribal Council itself initiates little, if anything, in the way of efforts to better the community. Those activities which it does undertake are undertaken almost exclusively on the urging of leaders who are not members of the tribe. Lac du Flambeau has been extremely fortunate to have had the services of an intelligent, wise, and dedicated head of the local Indian Service office, Dorothy Yellowcalf Stewart, herself a Pawnee. She is responsible for much of the good that has been achieved by and for the Indians. (In the summer of 1966, she was inducted into the tribe, an unheard of honor for someone in the Indian Service, and given the name O̱gimábinȇsí i̱kwȇ, Chief-thunderbird-woman.) Election to the Tribal Council confers little prestige so far as most of the Indians are concerned. Some of the Indians regard some of the members as "white men." Some of these members also regard themselves as white men.

Religious Behavior

At Lac du Flambeau, unlike Berens River, most

of the Indian population is secular in orientation.
Boggs suggests that this may be due to the fact that
Christianity was introduced to Berens after long efforts
on the part of the Indians to secure the services of
a missionary and that the missions were identified as
Indian churches from the beginning. Whereas, at
Flambeau, there were no Christian churches until whites
became numerous and then the churches were identified
primarily with whites (1954: Ch 2).

The first missionary arrived at Berens River in
1873 (Hallowell 1955:120), whereas whites did not become
numerous at Lac du Flambeau until after the arrival
of the sawmill in 1893. Thus Flambeau has a shorter
hsitory of contact with Christianity and one less
likely to secure converts. This may have something
to do with the survival of definitely Indian religious
ceremonies at Flambeau.

About 40 people of all ages participate in the
Drum Religion and the "War Dance." Many of these also
carry on the Midewiwin.

We were priviliged to participate in many "song
services" of the Drum Religion (nimí idiwin), including
a first fruits ceremony and a restoration of mourners,
to participate in the "War Dance" (ogičidá nimí idiwin)
and to observe, without participation, some of the rites

of the Midewiwin. We also observed the wake and funeral
of an old midé and a "medicine feast" (for the relief
of asthma) in all of which the ceremonies were conducted
by several midé.

The ceremonies of the Drum Religion have been
described by Densmore (1913, 1929) and those of a
variant of the Drum Religion, the "Dream Dance,"
have been described by Barrett (1911). The Midewiwin
has been described by Hoffman in a classic monograph
(1885). Although there were numerous variations from
the rituals and a genuine religious spirit seem to have
been preserved. The works cited suggest that there has
always been considerable variation in ritual from one
location to another and frequent innovations. Hallowell
describes the origin, in the Inland Group, of a Drum
Dance which seems to have the essential elements of the
Drum Religion and the Dream Dance although differing
in many elements of form (1955:160-163).

These essential elements seem to be communica-
tion with Manido (the Great Spirit) by use of a
sacred drum, which is referred to as Mišómiss (lit-
erally, "our grandfather") and by use of tobacco which
is generally smoked in a sacred pipe. Communication with
the Great Spirit is for the purpose of petitioning Him
for pimádeziwin, life, in the sense of health,

longevity, and well-being for the participants.

The range of variation in the rites of the Midewiwin is at least as great as in those of the Drum Religion. Each Midé has his own songs and is usually unable to sing those of another Midé, even those of his own preceptor. The songs have a general equivalence of form, but much variation of detail -- many of the "words" are nonsense syllables. The paraphernalia of the Midewiwin, drums, rattles, medicine bags, were as described by Hoffman (1885:190-191). The Midewiwin, like the Drum Religion and Dream Dance, is intended to secure for its participants pimádeziwin.

Some of the changes in form are almost certainly decadent, resulting, in part at least, from the small number of participants. When we returned in 1966, we were surprised to find that there were still people carrying on the Drum Religion.

Although the bulk of the population at Lac du Flambeau is not oriented to any church, it seems justified to conclude that about 5% of the population maintains a genuine traditional religious orientation.

Lac du Flambeau in 1966

Three things stand out from a brief visit to Lac du Flambeau in August of 1966. First, an economic

improvement. Second, what appear to be major political
developments. Third, the surprising survival of the
Drum Religion.

Economic Developments

Lac du Flambeau has shared in the general
prosperity of the United States since 1960 and more of
the Indians seem to be adapting to the extent of
becoming steady workers. Few Indians clerked in the
stores in 1952; in 1966 many were working at such
jobs. More Indians seem to be engaged in traditiional
crafts. The market for such objects had expanded
sufficiently to lead to more tanning of hides and
making moccasins and beaded objects.

These changes suggest that expansion of ag-
gregate demand may indeed have results even in pockets
of hard core poverty.

Political Developments

Even more impressive than the economic changes
are the political changes. The Tribal Council seems
to have become an effective body for the introduction
of change. People seem interested in what the Council
is doing and in its membership.

Three developments in public activity evidence
a new effectiveness for the Council. First a sewage

disposal system; second, a water system; and, third,
a public, low-cost housing project. These developments
came about as a result of the receipt of about $30C,000
from the State of Wisconsin for some swamp land.
Mrs. Stewart (now retired from the Indian Service, but
still active in community affairs) apparently suggested
the projects. The Council not only managed to agree
on the value of the projects, but succeeded in getting
two-thirds of the enrolled members of the band to vote
in the referendum and carried on a successful campaign
for support. Although the housing project is partially
financed with Federal funds, it, too, required an ed-
ucational campaign to get it approved by the voters.
The "atomistic" Ojibwa have acted as a community.

These political developments do not seem to me
to indicate any basic change in the typical personality.
They seem, rather, to emphasize what can be done with an
appropriate political system.

The political system is modeled on the system
common to all levels of government in the United States.
There are two features which seem to be particularly
essential for the Ojibwa. The first is a device for
securing the assent of the people which does not require
them to interact intensively in a face-to-face situation.
The secret ballot used in all elections in this country

seems to be nearly ideal for this purpose. The second
feature of the system is a leadership group which can
work together in fairly intensive interaction and achieve
consensus within the group. This leadership group must
also be able to convince the others of the desirability
of the proposed actions.

Clearly, the members of the leadership group,
unlike the rest of the population, must be able to
engage in intensive, face-to-face interaction. This seems
to require a personality different from that of the
typical Ojibwa. The members of this leadership group
at Lac du Flambeau do seem to be different in person-
ality. One family (the "Hunts") from this group is
included in the sample. This family is clearly differ-
ent from the others in the sample.

Survival of the drum religion

Most of the old people who were active partici-
pants in the Drum Religion in 1952 have died. Two of
the four former ogímāg (head men) of drums are still
living, however, and the son (now in his forties) of
one of the surviving ogímāg is now ogímā of a drum
himself. His drum was used for a song service which we
attended. There were fewer than half as many partici-
pants as there were in 1952, and, unless more younger

men become interested, there will soon be too few to maintain even one drum at Lac du Flambeau. It was reported to us that there are quite a few Indians from other reservations who meet frequently to conduct Drum services. Perhaps the automobile will permit the Drum Religion to survive longer than it otherwise would.

CHAPTER III

THE FAMILIES STUDIED

Introduction

        The purpose of this chapter is to present

evidence concerning the extent to which the observed

people can be considered to be typical Ojibwa.

        The first part of the chapter will be devoted

to the development of criteria by which to judge the

extent to which the people can be considered typical.

The remainder of the chapter will present descriptions

of the observed families in terms of these criteria.

Correlation of personality with cultural characteristics

        The available evidence indicates (as one would

expect) that some Ojibwa conform more closely to the

typical personality pattern than others. This evidence

also suggests a correlation between the degree of cul-

tural conservatism and the degree of approximation to

the typical personality.

        Hallowell's Rorschach protocols (Micro-card

Primary Records in Culture and Personality) support

three conclusions. First, in each of the three groups

of Ojibwa, there is a wide range in the frequencies of

each of the Rorschach scores. Second, the differences

in the composite (or average) profiles among the
groups are due to differences in the number of people
whose scores approximate the scores of the typical
profile. Third, the number of people who have scores
close to the typical profile is greatest in the least
acculturated group and least in the most acculturated
group.

Working with the Menomini, who are similar to
the Ojibwa both culturally and psychologically, Spindler
(1955) also found that composite Rorschach profiles
were related to cultural characteristics for five
groups on the Menomini reservation and that the com-
posite profile of the "native-oriented group" most closely
resembled that of Hallowell's "Inland Group."

Boggs (1954;1956), working with families from
two of Hallowell's groups, found interpersonal behavior
to be a function of level of acculturation. He also
found that members of the least acculturated families
were most likely to display the kind of interpersonal
behavior which he took to be typical.

All of these findings suggest that adults who
show typical Ojibwa behavior and children who are in
process of developing the Ojibwa typical personality
are most likely to be found in those families which are
culturally the most conservative.

Measures of cultural conservatism

Hallowell (1955:333-334) and Boggs (1954:178) have used such measures for the Ojibwa and Spindler (1955:107) for the Menomini. The measure used by each of these writers is specific to his problem and to the particular groups or families with which he was working.

All three writers use religious behavior in their measures, with Spindler making it his primary criterion. Hallowell and Spindler both emphasize language and means of dealing with illness. Boggs emphasizes such social factors as participation in an extended family, household composition, and the roles of husband and wife. Boggs also stresses traditional subsistence activities and Spindler finds possession of native objects significant.

A measure of cultural conservatism

For this study, the following indices will be used:

1. Religious identification and participation.

This criterion is not useful at Berens River where everyone participates in Christian services, but it is important criterion at Lac du Flambeau. At one end of the religious continuum are those who participate in the Midewiwin, the Drum Dance, the War Dance, and

related ceremonies. At the other end are the fully
participating Christians. In the middle are those who
are secular or not clearly identified with either native
or Christian groups.

2. Language behavior

At the conservative end of this continuum are
those who do not use English at all. At the other end
are those who, while they may know some Ojibwa, speak
English without Ojibwa mannerisms.

3. Source of income

At the conservative end of this continuum are
those whose income is almost entirely derived from tra-
ditional sources such as hunting and sale of "medicines."
At the acculturated end of this continuum are those who
successfully participate in the economy of the white man.
Between these extremes are those who have a mixed sub-
sistence base, including those for whom the traditional
activities are followed for reasons of sentiment rather
than economics. Also included under this heading are
traditional crafts, such as making moccasins, whether for
own use or for sale.

4. Family type

At the conservative end of this continuum are

extended families with clear, differentiated roles.
At the acculturated end are nuclear families with wide
departures from traditional roles of husband and wife
or roles disorganization. Toward the conservative end
go families which, while not actually extended families,
have strong ties with kin outside of the nuclear family.

5. Treatment of illness

Since treatment of illness may have a ceremonial
aspect, like religion, it does not differentiate among
the Canadian families, but does differentiate among fam-
ilies at Lac du Flambeau. At the less acculturated end
of the continuum are those who frequently use curing
ceremonies or participate in them, and who sometimes
also use the services of an M.D.. At the more accul-
turated end are those who use no native remedies and who
never participate in curing ceremonies.

6. Possession of native objects or practice of tra-
ditional behavior (in areas not covered above).

In the area of child care, for example, the
most traditional family used the cradle board and its
associated wrappings, used the baby hammock, used
sphaguum moss "diapers," and did not use the bottle.
A family toward the other end of this continuum used

none of the traditional practices and the infant was bottle-fed.

These criteria have not been worked into a genuine scale, but they do provide a basis which permits the ranking of the observed families from least-acculturated to most-acculturated, with only a couple of cases where there is doubt about the placement of families relative to each other.

The observed families are described below in sequence from the most traditionally-oriented to the least traditionally-oriented.

Berens River Households

The names used to designate these households and their numbers are fictitious.

The "Wasse" household

This household is the least acculturated household of all those observed. It consists of Wasse (about forty-five), his wife, a married daughter and her infant son, a daughter about ten, and a son about four. Wasse, his wife and his unmarried children are summer visitors from Little Grand Rapids, 110 miles up the river. The married daughter with whom they are staying is a regular resident and her husband is employed by one of

the fish companies. Further conformity to the extended
family pattern is indicated by the fact that this house-
hold is located next door to that of another daughter
of Wasse who is a permanent resident of Berens River.

None of the people of this household could be
induced to use even a work of English and it seems
unlikely that any of them knew more than a few words.

A major source of income for Wasse is the sale
of "medicines." Since all forms of religious and curing
ceremonials are forbidden at Berens, it is not known
whether or not he possesses any of the other shamanistic
skills. Hunting is also an important source of income
for this household. Wasse killed at least three moose
during the summer of 1952. Some of the meat was smoked
and the hides were tanned.

The married daughter is the only mother ob-
served who uses the cradle board. She also uses the
hammock for her baby (nearly universal at Berens) and
he is usually tightly swaddled in the manner used in
the cradle board. This infant is breast fed. His
mother and her married sister, who has a baby of
similar age, frequently sit and talk holding the in-
fants on their laps.

On three occasions the four year old was
observed "nursing" at his mother's undoubtedly dry

breast. These were occasions when he was unhappy,
once apparently because of the attention his sister's
baby was getting.

The Young Mukoman household

This household is related to the Wasse house-
hold through Young Mukoman's wife who is a daughter
of Wasse. Young Mukoman and his wife are both about
twenty-eight years old. There are five children, a boy
of eight, and boy of six, a boy and a girl, both about
four (one probably adopted from another family), and a boy
of about six months.

Young Mukoman speaks English better than most
Berens River Indians, the eight year old boy also
speaks it relatively well; and both are more at ease
with white strangers than are most of the Indians.
The other members of the household use no English.

Young Mukoman is a successful commercial fisher-
man and trapper and also gets considerable subsistence
from hunting. He and his "first cousin" went hunting and
returned the next day with two moose and a dozen ducks.
Game was also in evidence at other times. This house-
hold moves to the Fall commercial fishing area early in
September. They live in a tent during the Fall fishing.

The baby is bottle-fed, and the hammock is

used. He is swaddled tightly in cradleboard wrappings,
but the cradleboard is not used. This family was
observed to use native herbal medicines in the treat-
ment of children's illnesses and also to use the facil-
ities of the nursing station at the R.C. mission.

There are occasional periods of a day or two
when large numbers of relatives stay at the Mukoman
house.

Toward the end of the summer, the Sĭsíp
household (to be described below) pitched a tent ad-
jacent to the Young Mukoman house. This followed the
marriage of the widowed Mrs. Sĭsíp to "Old Mukoman,"
father of Young Mukoman.

The Mukkwa household

The household consists of Mukkwa, his wife, a
boy of six, a girl of four, and a baby girl of one
year. Mukkwa's widowed mother also lives with them,
sometimes occupying a tent pitched next to the house.
During the early part of the Summer, the Sĭsíp household
occupied a tent pitched next to the Mukkwa house.
Following the marriage of Mrs. Sĭsíp to Young Mukoman's
father, they pitched their tent next to Young Mukoman's
house.

Mukkwa speaks English fairly well, his wife

knows some English, and the boy knows a little.

Family income comes primarily from commercial fishing at which Mukkwa is quite successful to judge by his house and its furnishings. Dr. Nufeld's list describes him as a "successful fisherman."

The baby is breast fed, it is swaddled, and the hammock is used. Mrs. Mukkwa and Mukkwa's mother were frequently observed making and beading moose-hide moccasins. They were not observed using native medicines but they did avail themselves of the services of the RC mission nursing station.

The Sĭsĭp - Old Mukoman household

This household occupied a tent for the entire period of observation. For most of the Summer, the tent was pitched near the Mukkwa house. Later it was pitched near the house of Young Mukoman after the marriage (informal) of Abigail Sĭsĭp and Old Mukoman.

Abigail has eight children, but the older ones are actually present in the household only occasionally. (It is not unusual at either Berens or Flambeau for adolescents to stay with kin, moving from one household to another from time to time.) Occasionally her unmarried daughter and the daughter's three-year-old son are present. Her twenty-year-old son is also present only occasionally and the children of fourteen,

twelve, and ten are sometimes absent for extended
periods.

Abigail's chief source of income until her
remarriage was the government issue of rations and the
"mother's allowance." Her twenty-year-old son fishes
(non-commercially) and hunts, providing some additional
subsistence.

Abigail and Old Mukoman both speak some
English as do the school-age children.

Lac du Flambeau Households - 1952

The Mandámin household

Old Mandámin is eighty-eight and his wife is
eighty-two. The other regular members of the household
are a boy of five and his sister who is nearly three.
Occasionally the mother of these children is present.
Although the children call the Mandámins "grandfather"
and "grandmother", the relationship of the children and
their mother to the Mandámins is not at all clear.
The father of these two children is now living with
another woman who is legally married to a white man.
The mother is living with a white man off the reservation.
She returned to the Mandámin household briefly after
the birth of a baby fathered by her current "husband."

Old Mandãmin is the senior member of the
Midewiwin and a leader in all the Indian religious
ceremonies observed. He and his wife speak English
only with considerable difficulty. The boy and girl who
live with them are fluent in the Ojibwa language -- a
rarity for children at Lac du Flambeau. Their mother
also speaks Ojibwa fluently.

The chief source of income for this household
is public old age assistance. Old Mandãmin attempts
to eke out this pittance by hunting and snaring rabbits.
This activity appears to be even more important to him
psychologically than it is economically.

Both of the old people regularly wear beaded
buckskin moccasins and the man owns and uses a "war
dance" drum and a water drum and rattles, (used in
curing ceremonies). When the children's mother brought
the new baby into the household, he was given a new
pair of beaded moccasins with the traditional holes
in the soles so he could not make the long journey to
the land of the spirits. This was done on the insistence
of the old people who also wanted the baby to be in a
hammock. The baby is bottle fed and the hammock is
not used.

The Waswagen household

The regular members of this recently formed

household are Waswagen, seventy-six, his wife "Annie,"

fifty-nine, her brother's widow (addressed as "Auntie")

and the six-year-old daughter of Annie's son. The

adolescent adopted son of "Auntie" -- her deceased

sister's son -- is occasionally resident in the house-

hold. Other kin are also occasionally resident for

periods of two days to a month.

The six-year-old granddaughter is usually

addressed with a diminutive form of her Indian name

rather than with her Christian name. Her mother is a

Menomini, but she has been raised by her father's

parents since the age of one. Her father's father with

whom she and her grandmother lived until recently was

a conservative old man, active in Indian ceremonial

life. He is now bedridden in a state mental hospital

where his illness is diagnosed as senile psychosis.

Waswagen is a man of exceptional character,

whole-heartedly dedicated to maintaining Indian values.

He is the real leader of the Midewiwin and the Drum

Religion, although he defers to the older Mandamin in

matters of cermonial form. He leads the rites for the

dead, participates in curing ceremonies with water

drum and rattles, and prepares herbal medicines. Annie

also participates in all of these religious ceremonies --

she is an active member of the Midewiwin and the Drum

Religion. The family uses the services of doctors as
well as native medicines and ceremonies for curing
the sick.

Annie speaks English well, though with Indian
mannerisms, and can read it well enough for most purposes.
Waswagen was raised off the reservation and never went
to school. His English gives the impression of a trans-
lation from thoughts in Ojibwa. He cannot read or
write, but has recently expressed interest in learning
to read.

The family income is chiefly derived from various
forms of welfare, but is supplemented by earning from
Waswagen's sale of "medicines" and of his services
as a midé. In addition, he and his wife "made rice,"
and made maple syrup -- activities which necessitated
their moving to the ricing area and the maple grove
for periods of about a week. Waswagen also hunts,
traps, spears suckers during the spring run, and snares
rabbits in winter. As with Mandámin, these activities
are even more significant psychologically than econom-
ically. Some income is also gained by tanning deer
hides, from which Annie makes moccasins for sale as
well as for their own use. (Some of the designs for
beadwork are taken from Lyford's Ojibwa Crafts.)

Waswagen's preference for the old ways extends

to a taste for such foods as porcupine and skunk and
he expressed his pleasure that Annie, in contrast
to his previous wife, was willing to prepare these
foods.

The Robinson household

        This household was observed in 1952 and again
in 1966. Since there were major changes in the mem-
bership of the household and in the roles of the mem-
bers between these dates, it will be described first
as it was in 1952 and then as it was in 1966.

        The household consists (as of 1952) of Old Robinson
and his wife, both about sixty, their son, twenty-seven,
and the son's wife, nineteen, and two daughters, twenty-
eight months and nine months.

        Old Robinson and his wife are active partici-
pants in the Midewiwin, the Drum Religion, and other
native ceremonies. The younger Robinsons are frequent
spectators or marginal participants in these activities
and their two-year-old child is often present at the
dances. Old Robinson and his wife speak English with
Ojibwa mannerisms and use it in talking with the
granddaughter, but both are more at ease speaking Ojibwa.
The younger Robinsons are fluent in English, but re-
tain the Ojibwa manner of speech. If they speak Ojibwa,

it is only in private.

The chief source of support of this household
is the wages of the younger Robinsons. Both are
steadily employed, he as a driver of fork lift trucks
and bulldozers and she as a worker in the local
electrical meter plant. This employment leaves the
care of the children to their grandparents during
most of the day. The baby is sometimes left with her
mother's grandmother because the baby attacks her
older sister and frightens her (report of mother).

Old Robinson has arthritis and no longer hunts,
but his son hunts frequently, "makes rice," and spears
fish during the spring "runs." These activities not
only give him considerable satisfaction, they also add
to the household's subsistence.

Old Mrs. Robinson makes beaded buckskin shirts
and moccasins and the older child has a pair of
moccasins which she wears. The baby is bottle-fed
but the hammock is used.

The Robinson household in 1966

This is still an extended family household,
but there have been changes in its membership. Old
Mrs. Robinson has died, and, in 1953, Young Robinson
and his wife separated and he married again. The two

daughters stayed with their father. The older daughter
is now married and living away from the reservation.
The daughter who was an infant in 1952 is now a cap-
able housekeeper and the chief caretaker of her four
younger half-sisters in the Summer. She is paid for
her services. She is a good student in high school.
She also participates actively in the dances which are
put on for tourists and to a limited extent in the
ceremonies of the Drum Religion.

The children of the second Mrs. Young Robinson
are girls of eight, seven, and six, and a baby girl of
three weeks.

Their mother is not Indian in physical char-
acteristics; her hair is light brown and her skin is
fair and she is not on the tribal roll. She speaks
English with definite Indian mannerisms and considers
herself to be an Indian. The baby is bottle fed, but
the hammock is used and it is tightly swaddled in the
manner of infants who are put in a cradle-board.

Young Robinson still works for the same employer
and his second wife, like the first, is employed in
the meter plant. He continues to hunt, spear fish, and
gather wild rice. Despite the clock-pacing necessitated
by this employment of the adults, the children still
have much of the freedom of eating times characteristic

of the Berens River Indians. That is, there is almost
always some food available so that they eat when they
feel like it, rather than on a schedule. For instance,
the children were observed to eat cold pancakes when
they got up, much as the children at Berens River
ate bannocks whenever they felt like it.

Since 1952, the Robinsons have added running
water, a bottle-gas cook stove, a television, and a
telephone, but these somehow blend into the Indian
style of furnishing and housekeeping and remain un-
obtrusive..The interior of the house seems much the
same as it was in 1952 despite these changes. One
change adds to the "Indian-ness." The baby's hammock
is now in the "living room" whereas it was in the second-
floor room in 1952.

Three of the large drums used in the ceremonies
of the Drum Religion are now kept in the Robinson house.
A song service was held in the Robinson's living room
with the drum and the singers in front of the television
while one of the children watched the service from
beneath the television.

Young Robinson's participation in the Drum
Religion was only peripheral in 1952, but he is now
the ogima (or "chief") of a drum -- the drum which was
used in the song service mentioned above.

The Marshall household

This household, like the Waswagon household,
is rather newly formed. Marshall returned to the
reservation about three years ago after living else-
where for thirty years. His wife has five children by
two previous marriages. The two oldest, girls of eighteen
and seventeen, are not often at home. A girl of nine and
a boy of seven are regular members of the household.
The youngest child, a boy of five, is in a tuberculosis
sanaterium. Unlike the previously described Lac du
Flambeau families, the Marshalls live in the "New Village."

Both of the Marshall adults are deeply involved
in the Midewiwin, the Drum Religion, and the War Dance.
Marshall was installed as "heater" of a drum at one
of the ceremonies which we observed. They were also
observed participating in curing ceremonies and the
rites for a mide who died. The younger children
participate in the observances of the Drum religion
and are present at other ceremonies.

The Marshalls speak Ojibwa fluently, but the
children are not learning more than a smattering of
the language.

Their subsistence is derived from welfare
payments, from Mrs. Marshall's work as a cook at a
resort during the tourist season, and from odd jobs.

Marshall also does some fishing as a means of adding
to their diet.

The Fitch household

Betty Fitch has had six children by a previous
marriage and has two by this one. The three oldest
children are not living with her and her present
husband. The oldest of the children living at home is
a girl of ten; the youngest, a girl of 1½ months.

The Fitches do not participate in native
religious ceremonies nor in either of the Christian
churches. Jack Fitch has had an extensive exposure
to native religious practices -- his mother is a member
of the Midewiwin and an active participant in the Drum
Religion. Betty's ten year old daughter has an Indian
name. She is addressed by a diminutive form of the
name, but the whole name is not revealed. This suggests
more native orientation than is revealed by the other
characteristics of this household.

Both Fitches, but especially Jack, speak English
well. Betty has more Ojibwa mannerisms in her speech.

The income of the household is derived from
Betty's employment in the electronics plant. This
leaves Jack in charge of the house and the children,
a role in which he is neither happy nor skillful.

No native artifacts were observed in the pos-

session of the members of this household.

The baby is bottle-fed and spends most of her time in a crib.

This is a disorganized household. Betty and Jack have frequent drinking bouts in which he sometimes beats her. Neither the children nor the house are well-cared-for, although they do get improved attention on weekends.

The Fitch household in 1966

In 1966, the Fitch household consists of Betty and two "boarders" -- one a young man of about eighteen and the other, Ben Ellis, a man of thirty-five. This household is included because Betty regularly cares for the five-year-old son and two-year-old daughter of her daughter, Mary St. Louis, while Mary and her husband are employed in the electronics factory.

This household has more of an Indian flavor in 1966 than it did in 1952. There is a tanning frame built into the trees in the front yard and Betty was observed making and beading buckskin moccasins and other buckskin objects for sale to tourists. Betty also participates regularly in the dances put on for tourists. In the dances she wears a beaded dress and moccasins.

The St. Louis household

This household consists of Jim St. Louis, thirty, his wife Mary, twenty-four, and their two children, Billy, five, and Alice, two. Mary is the daughter of Betty Fitch. She was ten years old when the Fitch family was observed in 1952.

Their house is located near the house of Jim's widowed mother (who is white). Jim and Mary are both employed at the electronics plant, and the children are usually left with Mary's mother, Betty Fitch, during working hours. Most of the observations of the St. Louis children were made at Betty's house. Since Jim spent most of his non-working hours fishing, it was not possible to observe his interaction with the children.

The family seems to be secular rather than religious in orientation. Their identification is, however, clearly Indian, and Mary is known by a diminutive form of her Indian name. Mary's speech shows many Indian mannerisms, but she knows only a few Ojibwa words. She does beadwork for sale to tourists, but otherwise there are no traditional objects in the house.

The Reed household

This household consists of Pauline and her five

children, ages four to twelve. Their house is located
very close to that of Pauline's mother and the family
seems to live at her mother's house as much as at
Pauline's. Pauline's father is dead and her mother does
not have a man. Pauline's sister is sometimes present
and occasionally a boy of about sixteen, to whom Pauline
refers as a nephew. The father of Pauline's children
is also the father of the two children who were living
with the Mandamins in 1952. He was living with Pauline
in 1952, but not in 1966.

Religiously, this household is quite secular
and seems to have little contact with anyone with
either a native or Christian religious identification.
Pauline knows a few Ojibwa words, but can not speak
the language. All of the family speak English with
Indian mannerisms.

The income of this household seems to be derived
primarily from the employment of Pauline's mother and
from the occasional employment of Pauline at a resort.

This household, at least in the summer of 1966,
seemed to be part of a matrilocal extended family, but
the absence of any adult males certainly made it an
atypical family.

No traditional objects or practices were ob-
served.

The Clauson household

This household consists of Roger Clauson, his
wife, Agnes, Agnes' aged and blind mother, and their
grandson, aged seven. Two other grandsons are frequently
present. All observations on these children were made
in this household.

Roger is white and Agnes is Indian. The grand-
sons are children of two of the sons of Roger and Agnes.
All the children of Roger and Agnes are on the tribal
roll. The boys' mothers are Indian and are no longer
married to the boys' fathers. The present wives of the
boys' fathers (the boys' step-mothers) are also Indian.

Roger is a relatively successful small business-
man and their house is much the best of the houses of
any of the families observed. It gets some Indian flavor
because Agnes' mother makes birch-bark baskets for sale
and one room is full of her supplies and her inventory
of finished baskets.

Roger does not share the Indian emotional
restraint. On one occasion, his wife had calmly told
the resident grandson that she was angry. Roger said
to her, "You're mad. Why don't you say you're mad?"
Agnes did say that she was "mad", but she did't sound
much more emotional than she had the first time.

This household is secular in orientation and
there is little contact with those Indians who maintain
traditional ceremonial activities. Evidences of tradit-
ional culture are slight, except that Agnes and the
grandsons speak English with Ojibwa mannerisms.

The Hunt household in 1952

The Hunts regard themselves as Indians and they
have considerable knowledge of native customs, but
their acceptance of the values of the white middle
class is quite genuine and fairly complete. John and
Ann are both about thirty. They have three children --
two boys, seven and five, and a girl of four.

They attend the Roman Catholic Church regularly
and are devout in their observance of the tenets of
the faith.

Their income is primarily derived from John's
employment in the electronics plant where he holds a
position of considerable responsibility. Their sub-
sistence is considerably improved by John's success
as a hunter and fisherman and by their use of a freezer.
They also harvest wild rice.

The interior of their house is finsihed and
painted (both unusual). The living room is furnished
with a table, chairs, and a sofa; it is not used for
a bedroom and nothing is stored along the walls or

under the sofa or table. They have a bottle-gas
cooking stove, electricity, and running water. The
housekeeping is such that one who has been raised on
our standards of cleanliness could accept an invitation
to a meal without reluctance.

A row of evergreens has been planted along the
road in front of the house and flowers have been planted
near the front entrance.

The Hunt household in 1966

The three children who were observed in 1952
have left the reservation, the two boys for employment
and the girl through marriage. There are two children
born since 1952; a girl of thirteen and a girl of six.

John has achieved a position of even greater
responsibility with the electronics company which has
grown considerably. He is active in the Knights of
Columbus and the Lions Club and has been elected to
the Tribal Countil.

Their house has been further improved by the
addition of a complete bathroom and numerous appliances
and new furniture.

John continues to hunt and fish and "make rice",
but this is clearly a household which largely adheres to
the values of the white middle-class, despite the identi-

fication of its members as Indians.

Summary

The sample consists of thirteen households,
four of them from Berens River and nine from Lac du
Flambeau. As judged by the criteria developed in the first
part of this chapter, the four Canadian families and
the first three of the Wisconsin families (Mandamin,
Waswagen, and Robinson) can be considered quite con-
servative. The next four of the Wisconsin families
(Marshall, Fitch, St. Louis, and Reed) are clearly less
conservative, although the Marshall's participation
in native religious activities puts them relatively
closer to the conservative group. The Clausons and
especially the Hunts are clearly distinct from all of
the others. The Hunt's fuller acceptance of the values
of the white middle-class sets them apart from the
Clausons. This sample has a definite conservative
bias despite the inclusion of the Clausons and the
Hunts. Four of the nine Lac du Flambeau families are
from the five percent of the population which carries
on native ceremonial observances.

CHAPTER IV

THEORIES OF THE MOTIVATION AND DEVELOPMENT

OF OJIBWA RESTRAINT

The literature provides two theories of the way
in which this type of personality functions, and two
theories of the learning process through which this
personality is developed. The two theories of the
functioning of Ojibwa typical personality will be con-
sidered first.

Theories of the Motivation of Restraint

Perhaps an example from my field notes will give
some body to the reports of Ojibwa restraint. The
nature and extent of this restraint can best be illus-
trated by an extreme example. The incident which is
described below is the most extreme example of non-
aggressive reaction to provocation in my field exper-
iences. The incident occurred at an evening ceremony
of the Drum Religion held in one of the houses in the
Old Village at Lac du Flambeau.

The description of the incident must be pre-
faced by some information about the Drum Religion which
is needed to understand the provocation. The drum, itself,

is sacred. It is addressed as "Our Grandfather"
(nišómiss); it may be touched only be certain designated
officials of the group; if the drum is moved from one
house to another, dr if a mistake is made in its
handling or ritual, a dance must be held "to apologize
to the drum"; only sacred songs may be played upon it;
and, finally, no one who has been drinking should
approach the drum (from field notes 1952, see also
Barrett 1911; Densmore 1929). With these prescriptions
and prohibitions in mind, the significance of this in-
cident becomes clearer.

    Dancing had been going on for some time when an
Indian, who was obviously very drunk entered. At
first, he created only a mild disturbance by trying
to get responses from the children. The drumming
and singing went on, but the adults who were not
drumming became quite tense. When none of the
children were willing to respond to his overtures,
he took a drumstick and sat down at the drum. He
began to play a "squaw dance" song. ("Squaw
dances" are solely for entertainment, the music is
therefore profane.) He also yelled such things
as, "Come on, let's dance, let's have some fun!"
All of the Indians became tense and silent and the
singers left the drum. No one said anything to the
drunken man or made any effort to prevent further
sacrilege. Eventually he tired of trying to get
participation from the group, sat on a bench along
the wall, and went to sleep.

    As soon as the drunk left the drum, the ap-
pointed officials hastily put the drum away.
Then, one of the old men came to me and asked me
to tell the Indian policemen to come and take the
drunk away because the old people who lived in
the house did't want him staying there all night.

The provocation here is certainly extreme, the drunk has committed and is continuing to commit multiple sacrilege (in addition to having interrupted the "song service"), yet no one makes any effort to stop him or to punish him for his sacrilegious behavior.

Introduction

The first of these theories is so widely accepted as an explanation for restraint that it is often taken for granted as the only possible explanation. This theory has been advanced by Hallowell to explain Ojibwa behavior. The central notion of this theory is that hostile people avoid all behavior which is likely to annoy some other person because they fear that the other person will retaliate and injure them severely. I shall call this theory the "fear of others theory."

The second theory of Ojibwa functioning is derived from the writings of Freud, Erikson, and Bettelheim. The central notion of this theory is that hostile people avoid all aggressive actions because they fear that such actions will do more damage to the other person than they wish to do. I shall refer to this as the "fear of self theory."

Hallowell's statement of the "fear of others" theory
of Ojibwa behavior

Hallowell does not concisely state this theory
in one location but it is all to be found in Chapters 6
and 15 of Culture and Experience. Briefly stated,
this theory says that, despite a tendency to be hostile,
the Ojibwa suppress "...any impulse to tell someone
else what to do..." (1955:135) and refrain from "overt
aggression in face-to face situations..." (1955:278)
because, "...there is always the possibility that another
man's power may be greater than my own. To provoke him
to exercise it by offending him, is always a gamble,"
(1955:290) and "... the best defense is to avoid offense..."
(1955:290). This forbearance is found even "...in all
the daily face-to-face relations with others that in-
evitably must have aroused emotions of annoyance,
anger, or a desire to criticize or correct..." (1955:
137).

Restatement of the "fear of others" theory

In short, this theory asserts that when annoyed,
the typical Ojibwa would "like to" choose a course of
action which would be likely to produce the outcomes
of stopping the annoyance and punishing the person who
caused the annoyance. But he refrains from actions

which are likely to produce these outcomes because he
believes these actions would be very unlikely to pro-
duce another outcome which he wants -- avoidance of
severe injury to himself through the other's retaliation.

Some implicit assumptions of this theory

Hallowell seems to have used (probably without
full awareness) the idea that people unconsciously cal-
culate the expected value of possible actions as a
basis for deciding which action to choose. His argu-
ment (presented above) that the Indians avoid offending
others because of the "possibility that another man's
power may be greater..." suggests that Hallowell con-
ceives of the Indians' estimating this probability. That
he sees them giving up all other outcomes which might
be secured by an offensive action because of a small
probability of suffering severe retaliation indicates
that Hallowell believes that the Indians value the
outcome "not being seriously injured" more than they value
any combination of other outcomes. This version of
the theory can easily be stated within the expected
value frame work developed in contemporary decision
theory.

The expected value framework for predicting the choices of an individual

For any course of action which an individual might choose, there are at least two (and usually more) possible results, or outcomes, of choosing that course of action. Usually, the individual prefers some of these outcomes to others. That is, each outcome has a value for him and the values are not all the same.

For each course of action, there is a certain objective probability that each of the outcomes will occur.

The individual forms estimates of these probabilities based on his experience -- estimates which may diverge quite widely from the objective probabilities. These estimates are called the individual's subjective probabilities.

Thus, for each course of action, each outcome has certain value to the individual and also a certain probability of occurrence. In choosing a course of action, the individual must take into account both the values of the outcomes and the probabilities of their occurrence for each course of action. This is taken to be done through "calculation" of the expected value of all courses of action. The subjective expected value (to an individual) of a given course of action is the sum of the products

obtained by multiplying the value of each outcome by
its subjective probability of occurrence. The notion
involved here is exemplified by the old adage, "A bird
in the hand is worth two in the bush."

It is not asserted that the individual whose
behavior we are trying to predict actually goes through
any such process of calculating expected value. What
is asserted is that such a process of calculation per-
mits the observer to predict the subject's probable
choices with increased accuracy.

Informal statement of the "fear of others" theory in
the expected value framework.

In a situation in which some other person is
being annoying, the Ojibwa are pictured as valueing
three outcomes: (1) stopping the annoyance, (2)
injuring the annoyer, and (3) avoiding being seriously
injured themselves.

These three outcomes and their negates can occur
in eight possible combinations. Hallowell indicates
that the Ojibwa value any of the four combinations
which include avoidance of injury to themselves much
more highly than they value any of the four combinations
which involve such injury. Their most highly valued
combination of outcomes is indicated to be that in
which the annoyance is stopped, the annoyer is

punished, and the self is uninjured.

To produce this outcome seems to require an aggressive action -- certainly the annoyer can not be punished otherwise. The Ojibwa, however, rarely choose aggressive actions and the usual outcome achieved is: the annoyance is not stopped, the annoyer is not punished, and the self is not injured.

Hallowell explains this preference for non-offensive actions by asserting, in effect, that the Ojibwa believe that any action which is likely to produce the stopping of the annoyance and the punishment of the annoyer also has a high enough probability of producing retaliation with severe injury so that they do not choose offensive actions in this situation.

This amounts to saying that, given these values of the Ojibwa and their subjective probabilities, the expected value, to the Ojibwa, of non-offensive actions is enough greater than the expected value of offensive actions so that they almost always choose non-offensive actions. This places their subjective probability estimate of retaliation at the center of the explanation of their choices.

Since the subjective probability of retaliation plays such a central role in this theory in accounting for Ojibwa choice of non-offensive courses of action,

then the behavior of Ojibwa toward persons who are
believed to be incapable of retaliation should provide
a clear test of this theory. The reactions of Ojibwa
adults to offending children should provide such a
test since the Ojibwa believe that no child possesses
any supernatural powers. They are explicit that children
are extremely vulnerable as a result of this lack
(Landes 1937:117-118).

This version of the "fear of others" theory can
be partially formalized by assigning numerical values
to the values of the outcomes and to the subjective
probability estimates of the Ojibwa which are consistent
with Hallowell's statements. Given some other reasonable
assumptions, we can determine the levels of the values
of the Ojibwa and the subjective probabilities re-
quired to predict, within this framework, their very
high probability of choosing non-offensive actions when
annoyed. Such a formalization of this theory is
presented in the appendix.

The "fear of self" theory in the literature.

This theory appears in Freud's 1909 "Notes on
a Case of Obsessional Neurosis" although not expressed
clearly and concisely. One sentence will serve to
indicate Freud's use of this theory: "From that time for-

ward he was a coward -- out of fear of the violence of

his own rage" (Freud 1963:63).

Bettelheim has also employed this theory in

the interpretation of extreme inhibition:

> In order to protect herself and those around her
> from her own violence, whose consequences she ex-
> aggerated megalomanically, she inhibited herself
> in every direction: intellectually, physically,
> and socially she was unable to budge (1950:207-
> 208).

Erikson, too, follows this theory in interpreting a

case of severe inhibition of the use of the hands

in a little girl (1963:195-208).

Each of these three children seems to have

formed a self-image in which the self is conceptualized

as extremely powerful and dangerous to others--even

adults. The little girl described by Erikson indicated

through her drawings that she conceptualized her

hands as huge and powerful. In each case, the child's

inhibition of aggressive actions rests in part on the

image of the self as extraordinarily powerful.

Statement of the "fear of self" theory

This theory asserts that, when annoyed, the

typical Ojibwa would "like to" choose a course of action

which would be likely to produce the outcomes of stop-

ping the annoyance and punishing the person who caused the annoyance. He refrains from actions which are likely to produce these outcomes because he believes that due to his great powers, any action he might choose which is likely to produce these outcomes is very likely to produce the outcome of the very serious injury or death of the other person -- an outcome which he wishes to avoid, since he also has warm feelings toward the other. The person believes that there is a high probability of doing serious damage to someone else if he takes any offensive action at all when he is angry.

Informal statement of the "fear of self" theory in the expected value framework

In a situation in which some other person is being annoying, the Ojibwa are pictured as valueing three outcomes, two of which are the same as those involved in the "fear of others" theory: (1) stopping the annoyance, and, (2) punishing the annoyer. The third outcome, however, is quite different from that in the "fear of others" theory. The third outcome involved in this theory is that of serious injury to the annoyer.

As in the other theory, those four combinations of outcomes which include the third outcome, in _this_

case "no serious injury to the annoyer," are valued

much more highly than any of the four outcomes which

include "serious injury to the annoyer." In this theory,

the most highly valued combination of outcomes is

considered to be that in which the annoyance is stopped,

the annoyer is punished, and the annoyer is not seriously

injured.

It would seem that this outcome could be pro-

duced by a limited aggressive action which would punish

the annoyer without doing him serious injury. The

Ojibwa seldom attempt such actions and the most frequent

outcome actually produced is: the annoyance is not

stopped, the annoyer is not punished, and the annoyer

is not seriously injured.

The preference of the Ojibwa for non-offensive

actions is explained within this theory by the as-

sertion that they believe that any action they might

choose which is likely to stop the annoyance and

punish the annoyer also has a high probability of doing

serious injury to the annoyer.

This can be rephrased to say that, given these

values of the Ojibwa, and the subjective probabilities,

the expected value of offensive actions is so low that

they almost always choose non-offensive actions. In this

case, it is their subjective probability estimate of doing

serious injury to the annoyer which is central to
the explanation of the Ojibwa's choices.

As in the case of the "fear of others" theory,
this theory will be tested by observing adult behavior
toward offending children. In this case, the critical
issue is not whether or not children posses retaliatory
capabilities, these are irrelevant. The important
question is the extent to which adults believe that
directing or attaking a child will injure the child.

This theory, too, is presented with the addit-
ional precision of partial formalization in the appendix.

Theories of the Development of Ojibwa Restraint

The central problem of theories of development

As they were stated above, the two theories
of the way in which the Ojibwa type of personality
functions explain the individual's preference for non-
aggressive behavior in terms of the individual's beliefs
regarding the consequences of aggressive and non-ag-
gressive behavior. That is, they explain the individual's
behavior in terms of his subjective probability
estimates. One theory asserts that the individual
estimates that, following aggressive behavior on his
part, the probability that he will suffer severe in-

jury to himself is unacceptably high. The other theory

asserts that it is the estimated probability of serious

injury to someone else following aggressive behavior

which is unacceptably high. Within this frame work,

then, a theory of development must account for the

formation of estimates of the probability of these

outcomes.

Although it is not usually stated in these terms,

this seems to be the kind of problem with which learning

theorists have long been concerned. It seems appro-

priate, therefore, to consider the problem of the devel-

opment of Ojibwa personality as a problem in learning

and to use observations of the Ojibwa to test two dif-

ferent conceptions of the learning process.

Two conceptions of the learning process

These two conceptions of the learning process

differ primarily in the extent to which reasoning

on the part of the learner is considered to be involved.

That group of theories in which reasoning or inference

is considered to play a very small part in the learning

process will be called "Group I." The group of theories

in which reasoning or inference is considered to play

a larger role in the learning process will be called

"Group II." Both theories apply equally to "conscious"

learning and to "unconscious" learning. The behavior
with which we are concerned here is largely unconscious.
That is, the people would find it difficult to verbalize
their values and beliefs about interpersonal behavior.

Group I learning theories characterized

Group I theories are alike in containing the
assumption (usually not explicit) that an individual
will come to expect outcome O1 to follow course of
action C1 if and only if he has chosen course of action
C1 and it has been followed by outcome O1.

Some examples may help to clarify the way in
which this assumption differentiates Group I learning
theories from those of Group II. (Group II theories
will also be exemplified below.)

A child (whom we will call "Joe") will come to
expect that punishment (O1) will follow if he annoys (C1)
an adult only if he actually annoys an adult and
punishment follows. This statement also says that,
if Joe does not annoy an adult, he will not come to
expect that punishment will follow his annoying an
adult.

Joe will come to expect that making an angry
attack (C1) on an adult will seriously injure (O1) the
adult only if Joe actually makes an angry attack and

the adult is injured. Further, if Joe never makes
an angry attack on an adult, then he will never come
to expect that an angry attack will result in serious
injury to an adult.

Group II learning theories characterized

Group II theories also assume that the indi-
vidual will come to expect outcome O1 to follow course
of action C1 _if_ the individual chooses course of action
C1 and it is followed by outcome O1. _But,_ Group II
theories assert in addition, that the individual will,
under some conditions, come to expect that outcome O1
will follow course of action C1 _if_ outcome O2 follows
course of action C2, even though the individual has
never chosen C1. The conditions which make this pos-
sible are that the individual sees a relationship
between C2 and C1 and between O2 and O1.

Group II theories, like Group I theories,
hold that, if Joe annoys an adult and gets punished,
he will come to expect punishment for annoying adults
and Group II theories also hold that, if Joe angrily
attacks an adult and the adult is injured, he will make
the connection between his behavior and the injury to
the adult. _In addition,_ Group II theories assert that
Joe will come to expect that _serious injury_ to an adult

(O1) will follow an _angry attack_ (C1) by Joe even though Joe never makes an angry attack on an adult _if_ Joe makes a very mild, non-angry attack, such as a disturbing noise, (C2) and the adult _accepts the injury (disturbance) without either retaliation or controlling Joe's attack (O2)_. In other words, Joe reasons that, since the adult doesn't prevent Joe from annoying him, he would not (or could not) prevent Joe from injuring him severely if Joe were to make an attack.

These examples oversimplify the case, since both theories will be stated in terms of the probabilities that the outcomes will follow the specified causes of action. Mowrer has stated a Group I learning theory in terms of probabilities.

Mowrer's partial statement of a Group I learning theory in terms of subjective probability estimates

> . . . we must assume that probability has, first of all, a basis in the real world which, by means of learning can be gradually reporduced in the nervous system so as to give a sense of conviction, or set of expectations, which corresponds fairly precisely (one would hope) to prevailing external reality. Thus, of necessity, we assume an external reality ([objective] probability) and an internal (personalistic) one; and learning is the process whereby the latter comes to match the former (1960b:347) (italics in original).

A more complete statement of Mowrer's position

In the context of the rest of Mowrer's discussion

of learning, a fuller statement of this Group I theory

in terms of subjective probabilities would be: If

(1)   in any given class of situations, in which

several courses of action and several outcomes are

available,

(2)   the individual chooses each of the courses

of action available in that situation many times, then

(3)   the individual's estimates, for each of

these courses of action, that it will produce each of

the outcomes, will correspond "fairly precisely"

to "prevailing external reality" or the "best estimates"

of these probabilities.

Implications of Group I theory for the Ojibwa

If this learning theory is correct, and if it

is correct that the Ojibwa do not choose offensive

actions because they believe that such actions have

high probability of producing severe retaliation, then

the objective probability of such retaliation should

correspond with the subjective probabilities. The

probability that an offended person will take direct

retaliatory action toward an offender is very low.

It is this observation from which the "emotional

restraint" of the Ojibwa is inferred. It is also this

observation which makes it necessary to assume that any

effort at retaliation must be by the indirect route
of sorcery. But the _objective_ probability that someone
will be injured through sorcery is zero -- if one accepts
contemporary scientific assumptions. There is, therefore
a large discrepancy between the subjective probability
of retaliation and the objective probability of re-
taliation.

Resolution of failure of subjective probabilities to correspond with objective probabilities

Such failures of correspondence between subjective
and objective probabilities are not rare and they pose
a problem for Group I theories. (See Mowrer 1950: ch 18
for a discussion of this "neurotic paradox.") One
method, (the "fixation approach", of resolving this
problem is to consider the present _subjective_ prob-
abilities as corresponding to the _objective_ probabil-
ities with which outcomes actually occurred in largely
(but not completely) similar situations of the past.
This view is adopted by Buss:

> The way to insure a generalized inhibition of
> aggression is to punish it in a variety of situations
> so that the individual learns that aggression is
> associated with so many stimuli that it is simply
> not safe to aggress (1961:59).

Dollard, et al also adopt this view: "...those actions cease to occur which, in the past, have been followed by punishment" (1939:33). Another method of dealing with this problem the "identification approach", holds that the child "identifies with" the rewarding and punishing parent -- a mechanism by means of which the child can reward himself for behavior previously rewarded by the parent (Sears, Rau, and Alport 1965:5). Presumably, this also leads the child to punish himself for acts previously punished by the parents. Similar views are expressed by Bandura and Walters (1963:92-100), Cameron (1947:99-102), Parsons (1961: 174-184), Spiro (1961:116-121), Whiting and Child (1953:240-242), and Berkowitz (1964:5).

Both approaches to dealing with this problem assert that the subjective probabilities which do not correspond with _present_ "reality" do correspond with a "reality" which was experienced in the past when the subject was a child.

Summary statement of implications for the Ojibwa

If either the "fixation approach" or the "identification approach" is correct, the _objective_ probability of severe punishment for offensive acts by Ojibwa _children_ should correspond with the _subjec-_

<u>tive</u> probabilities necessary to explain the behavior

of Ojibwa <u>adults</u> within the fear of others theory.

Formal analysis of this theory reveals that this prob-

ability must be <u>at least</u> .45 in order to account for the

behavior of Ojibwa adults (see appendix).

It is this implication of Group I theories

which is to be tested.

<u>Group II learning theories in the literature.</u>

Concise and explicit statements of Group II

learning theories are not abundant in the literature.

Kelly argues that all people learn through an informal

version of scientific hypothesis-testing and explicitly

introduces the notion of indirect evidence:

> A good scientist tries to bring his constructs
> up for test as soon as possible. But he tries
> them out initially in test-tube proportions.
> <u>If hazards appear to be great</u>, he will first seek
> some <u>indirect evidence</u> on the probable outcome
> of his trials (1955:13 emphasis supplied).

<u>Indirect learning in the literature</u>

This notion of indirect testing of hypotheses

is an important feature implicit in explanations of the

inhibition of aggressive behavior in some psycho-

analytic case histories.

Freud's 1909 work, "Notes on a Case of
Obsessional Neurosis" (1963:62-63) traces the beginning
of the patient's inhibition of aggressive behavior to
an incident in which the patient, at the age of three,
concluded that his father was afraid of the boy's rage:

> ...he had done something naughty, for which his
> father had given him a beating. The little boy
> had flown into a terrible rage and had hurled
> abuse at his father even while he was under
> his blows . . . His father, shaken by such an
> outburst of elemental fury, had stopped beating
> him . . . (1963:62-63)

The boy apparently continued to test the hypothesis
that his father was afraid of him since he noted that
the father never beat him again.

A similar use of the notion of indirect hypo-
thesis testing occurs in Erikson's account of the treat-
ment of a child with severe inhibition of the use of her
hands. In Erikson's interpretation, the little
girl's inhibition was due to her belief that her hands
were dangerous to other people. This notion received
indirect confirmation for her when her handling of a
light plug was followed by a blown fuse and extinguished
lights (1963:195-208).

A more explicit statement of Group II theory in ap-
plication to the development of restraint

The general notion of this theory is that the

individual draws conclusions about what would happen

if he were to choose a particular action in a critical

situation from what does happen in a different situation

when he chooses a different action.

In the critical situation, the first individual

is angry at another individual (that is, the first

individual puts fairly high value on the outcome of

moderate injury to the second individual) but he places

still higher value on not seriously injuring the second

individual. From his experiences in another situation,

he concludes that any action he might choose which has

a high probability of producing moderate injury also has

a high probability of producing serious injury. He comes

to this conclusion despite the fact that he "never"

chooses an action with high probability of producing mod-

erate injury when he is in this situation. He does not

choose this action because he hypothesizes that it might

produce serious injury.

The first individual concludes that his hypo-

thesis that a course of action with a high probability

of producing moderate injury also has a high probability

of producing severe injury to the second individual

is correct because, in the second situation, in which

he is _not_ angry at the second individual, an action

which has high probability of producing _slight_ injury

to the second person has a high probability of pro-

ducing an acquiescent response from the second person.

(An acquiescent response is an action which involves

no counter-offensive actions sufficient to produce a

change to non-offensive behavior on the part of the

first individual.)

The individual assumes that the probability

that the hypothetical offensive action in the critical

situation would produce severe injury to the other

person is equal to the frequency with which his

slightly offensive action in the second situation does

produce an acquiescent response from the other.

For example, a child who is naughty, who offends

an adult by being noisy, finds that, although the adult

doesn't like his behavior the adult does not make him

change to acceptable behavior. Since the adult does not

control the child, the child concludes that the adult

can not control him. Hence, the child infers that, if

he made an angry attack on the adult, the adult would

be seriously injured.

Testing the Theories of Functioning and of Learning

The two learning theories can be tested adequately
only if the subjective probability estimates necessary
to account for the typical behavior of the Ojibwa
are known. Estimates of minimum values of these sub-
jective probabilities have been obtained from the partial
formalizations of the two theories of the way in which
this type of personality functions. Since the tests
of the learning theories are dependent on the theories
of functioning, tests of the learning theories also
constitute tests of the functioning theories. The
theories of adult functioning and the theories of learning
can be tested with the dame data.

Analytical categories

We are interested in classes of outcomes of
situations in which a child's behavior has been offensive
to an adult. These outcomes are defined in terms of
the behavior of the adult in response to the offensive
behavior of the child and whether the child's behavior
remains offensive or becomes acceptable following the
adult's response.

Offensive Behavior of a child

Offensive behavior of a child is any behavior

which might offend (or irritate or annoy) an adult.
Basically such behavior is aggressive, but, because
we are concerned here with extremely mild aggression
in most cases, I have used the term offensive rather
than the term aggressive, which seems to connote stronger
actions. The term offensive should not be construed in
the sense to which defensive is an antonym. A child
who has been asked to do a chore, and who withdraws
before doing the chore is behaving offensively in the
sense intended here. This corresponds fairly closely
with the sense of "changeworthy behavior" as used by
Sears (Sears, Maccoby, and Levin 1957).

Adult Responses to offensive behavior

The possible responses of the adult which are
relevant to the theories of concern are: the adult
may (1) neither tell the child what to do nor punish
him. (2) tell the child what to do but not punish him,
(3) not tell the child what to do but punish him, and
(4) both tell the child what to do and punish him.

Outcomes of the situations

With each of these four adult responses, the
child's behavior may remain offensive or it may become
acceptable (non-offensive). All together, there are

then eight possible outcomes. The theories imply that
different relative frequencies of these outcomes should
be observed for the class of situations in which the
child's behavior has been offensive to the adult.

Specification of the operational meanings of these terms

Offensive Behavior is any behavior which makes
it more difficult for another to produce outcomes which
he values. Especially for children, offensive behavior
includes:

    (a) quarreling, verbal or physical;

    (b) disturbing adults by requests, or by
noise or commotion in the vicinity of the adult;

    (c) acting in a manner potentially damaging
to property, including touching adult tools or work
in process;

    (d) behaving in a manner potentially dangerous
to the self;

    (e) failing to comply with any indication,
however subtle, of the adult's wishes;

    (f) failing to conform to household routine;

    (g) violating ritual prohibitions.

Behavior of an adult in response to offensive behavior
of a child.

Directing is a brief expression for "telling

another what to do." In general <u>directing</u> is less
intensely offensive that <u>attacking</u>. The term will
be used to refer to any behavior on the part of one
person which is intended to influence another individ-
ual's choice of a course of action. <u>Directing</u> specifically
includes:

(a) using imperative sentences addressed to
another;

(b) requesting that another person perform some
act;

(c) warning of the possible outcomes of choosing
a course of action, such as telling a climbing child,
"You'll fall;"

(d) asking a "question" which conveys intentions
to have the other change his behavior, such as a mother
asking a child who is sitting in her lap, "Do you
want to get down?"

(e) physically controlling the behavior of
another, such as grasping and holding a running child;
(This kind of "directing" may sometimes be so strongly
offensive as to constitute an <u>attack</u>.)

In general, attacking is <u>offensive</u> to a greater
degree than is directing. <u>Attacking</u> includes those
actions which are primarily intended to produce physical
or psychological pain. Specifically included in <u>attacking</u>
are:

(a) all actions, such as striking, which may produce tissue damage and physical pain;

(b) scolding, telling another that he is unacceptable or "bad;"

(c) ridiculing another;

(d) restricting the interaction of the individual with others;

(e) depriving the individual of a privilege.

Attacking behavior which is a response to offensive behavior of another is called <u>punishing</u>. For the purposes of this study, <u>any</u> punishment in the above sense will be considered "severe" punishment.

Some problems in determining outcomes

It is relatively easy to determine which of the four courses of action an adult has chosen. It is sometimes more difficult to determine whether a child's behavior should be considered to be acceptable or offensive. There are two problems here.

The first problem concerns cases of "pseudo-compliance" which may either initiate or continue offensive behavior. These cases involve compliance with the "letter" of the instructions, but not with the "spirit." Perhaps some examples will make this distinction clear. The first is from Berens River.

A man is building a fire. He calls his six year old
son who comes to him. The man tells the boy to get
some firewood. The boy gets a small stick on which
he has been whittling and puts in in the fire, then
returns to his play.

This is regarded as offensive behavior on the part of the

boy, since the man's intention was clearly to have the

boy collect a pile of wood.

The second case involves a six-year-old Lac du

Flambeau girl who lives with her grandparents. These

incidents take place at a ceremonial dance held in a

house in "The Old Village."

 The girl is playing with a boy and his sister. She
becomes very noisy. Three women (not including her
grandmother) tell her to be quiet. After each
admonition she is quiet for a few seconds, then
becomes noisy again immediately.

This is taken to be a continuation of the offensive be-

havior, since the intention of the adults was for her to

remain quiet and she did not.

Another problem arises when there is more than one

adult within range of the child's offensive behavior and

all ignore it. When this occurs, it is scored only for

the adult who is primarily responsible for the child.

The second problem concerns cases in which,

following some adult direction or punishment, the child's

offensive behavior clearly continues. Since the child
must eventually choose some acceptable action, under
what conditions should this be considered a situation
with an outcome involving offensive behavior? The decis-
ion concerning this problem was often made in the field
and the decision to consider that the outcome involved
offensive behavior depended on several factors. In
those cases where the adult directed or punished, one
important factor was the length of time the offensive
behavior persisted without further directing or punishing
by the adult. There must have been sufficient time for
the adult to become aware that the child was contin-
uing his offensive behavior and to direct or punish if
he chooses. This time varies with details of the sit-
uation such as the nature of the offensive behavior and
the case of adult observation of the continued offense.

More important than the lapse of time is the
tendency of the adult to shift his attention from the
child who continues to misbehave. This attention shift
gives the impression of a deliberate (but not necessarily
conscious) decision to ignore the child's continuing
offense.

In case where the adult neither directs nor
punishes, and the child's behavior eventually becomes
acceptable (perhaps because the adult has made an adjust-

ment), the situation will be considered to have ended with the child's behavior still offensive. Group I theories would seem to hold that adult adjustment to the child's offensive behavior which led to acceptable behavior would constitute reward of the offensive behavior and hence would be likely to lead to higher, rather than lower, frequency of choice of offensive behavior.

Analysis of sample incidents

As indicated above (p 88), eight possible outcomes of a situation on which the child's behavior has been offensive have been distinguished on the basis of the implications of the theories being tested. The primitive outcomes are:

```
oa = child is directed by adult = "directed"
ob = child is punished by adult = "punished"
oc = child's behavior is offensive = "offensive"
     ("oc'" = "not offensive" = "acceptable")
```

The eight combinations of these are:

```
Oa = oa'ob'oc' = not directed, not punished, accep-
                 table
Ob = oa ob'oc' = directed, not punished, acceptable
Oc = oa'ob oc' = not directed, punished, acceptable
Od = oa ob oc' = directed, punished, acceptable
Oe = oa'ob'oc  = not directed, not punished, offensive
Of = oa ob'oc  = directed, not punished, offensive
Og = oa'ob oc  = not directed, punished, offensive
Oh = oa ob oc  = directed, punished, offensive
```

Implications of the Group I learning theory

Group I theory implies that Oc, Od, Og, and Oh
(the four outcomes which include severe punishment)
should occur for each child with a combined relative
frequency of <u>at least</u> .45. That is, on <u>at least</u> 45%
of the occasions in which a child is offensive, he
should be punished to account for the high degree of
restraint. (This frequency estimate is derived from
the formal analysis of the fear of others theory.
Appendix).

Group II theory implies that the adult should
show an acquiescent response to the child's offensive
behavior with a relative frequency of at least .75.
An acquiescent response was defined as one in which there
occur no offensive actions sufficient to produce a change
to acceptable behavior on the part of the child (p. 87 .)
That is, on at least 75% of the occasions when a child
offends an adult, that adult does nothing which actually
results in the child's changing to acceptable behavior.

Oe, Of, Og and Oh are outcomes involving an
acquiescent response by the adult. The combined relative
frequency of these four outcomes should be at least .75
according to the formal analysis of the fear of self theory
(Appendix).

The analysis of some incidents of adult-child interaction which follows will indicate the use of these outcome categories.

Behavior samples analyzed

The following behavior samples involve two siblings of the St. Louis family, Alice, two, and Bill, five. They are in interaction with their maternal grandmother, Betty, while their mother, Mary, is away at work. The first incident described is the first observation of this family on this field trip. Betty and Mary are known to the field workers from previous field trips. The following incidents took place outside the front door of Betty's house.

> (1) After initial greetings, Betty said, "This is my little granddaughter," pointing to Alice. I asked Betty for name of granddaughter. Betty said to child, "Tell him your name." Child made no response and Betty said nothing further.

Offensive behavior on the part of Alice begins with her failure to comply with the adult's direction. Betty gave no further directions and did not punish the child and the child never complied with the original direction. In terms of the outcome categories, once the child's behavior became offensive, the adult chose the action

"neither direct nor punish" and the child's behavior remained offensive. The outcome of this situation is therefore classed as "Oe."

> (2) Alice went to the door of the house and tried to open it. Betty jumped up and opened it for Alice and followed her inside. Alice shortly emerged eating a soda cracker and followed by Betty.

Alice's attempt to enter the house is regarded as offensive behavior on two counts -- it seems to be a non-verbal request which disturbs her grandmother and Alice's going alone after something in the house is a threat to property. Betty's reaction is considered to be "neither directing nor attacking" since she does not attempt to stop the child from disturbing her nor from getting into the house and getting the cracker -- Betty aids her, perhaps as a device to limit the possible damage to the cracker supply. This incident is considered to have ended with the child's behavior still offensive since it became acceptable through an adjustment by the adult to the child's demands. The outcome of this situation thus falls in the class Oe. Two more incidents, essentially similar to this one occurred, adding two more outcomes to the Oe class. (3,4)

(5) Alice again went to the door and tried to open it. This time Betty held the door shut and said, "Uh, Uh. Later!" Betty also remarked to my wife, "She's really got me running!" Alice desisted from her efforts to get in for the remainder of this observation period.

This time, Betty's response to the offensive behavior is directing and not punishing and the child's behavior becomes acceptable, hence this outcome falls in the class Ob.

(6) Bill and some other boys were throwing pebbles at each other in the area around the house. This was noticed by Betty who ignored it.

Throwing stones at other children and being a target for their throws is offensive behavior since it is potentially dangerous to the child and to property. Since Betty noticed the offensive behavior and neither directed nor punished the boys who continued their activities, the outcome of this situation fails in class Oe.

Later, there were three incidents separated from each other by several minutes, in which Betty directed the boys to stop throwing stones (7,8,9). In each case, the boys continued and Betty shifted her attention to other matters. The outcomes of these three situations all fall in the class Of.

(10) Billy told me a story about having driven a
     snowmobile. Betty listened awhile and then
     said, "You lie, Now I know you lie! Your dad
     drove it. You just rode." Billy looked down,
     smiling faintly, and said no more about snow-
     mobiles.

This incident is considered to have the outcome

Oc, since Betty told Billy that he was bad, but did not

tell him explicitly to change, and Billy's behavior

became acceptable.

Methods of testing the Hypotheses

Selection of appropriate tests

Each of the theories purporting to explain Ojibwa

emotional restraint implies a hypothesis for each adult,

that, when the adult is offended by a child, the adult

should be observed to choose each of four courses of ac-

tion with a specified relative frequency. The theories

differ in the relative frequencies of choice which they

imply. Similarly, each of the learning theories implies

a hypothesis for each child. Each child should be

observed to receive specified frequencies of either

punitive or acquiescent responses when he offends an

adult. These theories also differ in the relative

frequencies which they imply.

In all of these cases, the question is one of

whether or not observed frequencies are consistent with
the theoretical expected frequencies. Therefore, the
appropriate tests are one-sample tests of goodness of
fit. Since none of the data involve measurement in an
interval or ratio scale, only non-parametric tests are
appropriate (Siegel 1956:29-33).

A test for the theories of emotional restraint

In testing the theories which purport to explain
Ojibwa restraint, the concern is with the goodness of
fit of observed frequencies with expected frequencies in
four categories. The X^2 test must be ruled out because
some of the expected frequencies are smaller than 5.
The Kolmogorev-Smirnov test not only lacks this ob-
jection, but may be in all cases a more powerful test
than the X^2 test (Siegel 1956:51). The Kolmogorov-
Smirnov test will therefore be used for testing the hypo-
theses which purports to explain the individual behavior
of the adults.

A test for the learning theories

For tests of the learning theories, where the
data are dichotomous, either the binomial test or the
X^2 test would be appropriate. Since expected frequencies
here will also often be less than 5, the X^2 test will

not be usable and the binomial test will be employed.

Statistical hypotheses from the theories of restraint

Statistical hypothesis from the "fear of others" theory

Formal Analysis of the "fear of others" theory

yeilds two sets (depending on the assumptions) of prob-

abilities of coice of courses of action by the adult.

(Matrix B1, p.216 and Matrix B2, p.221). According to

Matrix B1, the adults should choose C1 with a relative

frequency of .11, C2 with relative frequency of .22,

C3 with relative frequency of .35 and C4 with relative

frequency of .32. The outcomes which involve adult choice

of C1 are Oa and Oe, the outcomes which involve C2 and

Ob and Of, outcomes which involve C3 are Oc and Og, and

outcomes which involve C4 are Od and Oh. Thus, according

to this hypothesis: $p(Oa+Oe) = .11$, $p(Ob+Of) = .22$,

$p(Oc+Og) = .35$, and $p(Od+Oh) = .32$. The cumulative

distribution of these expected frequencies is used in

the Kolmogorov-Simirnov test (Siegel 1956:47-52).

The theoretical cumulative distribution of outcomes is

then as follows:

Course of action	C4	C3	C2	C1
Theoretical cumulative frequencies	.32	.67	.89	1.00

(The order of listing of the outcomes has been reversed to facilitate computation.)

Statistical hypothesis from the "fear of self" theory

As formalized (Matrix C1, p.223) the "fear of self" theory implies that adults who are offended by a child should choose C1 with a relative frequency of .91, C2 with a relative frequency of .039, C3 with a relative frequency less than .029, and C4 with a relative frequency of .021. The outcomes which involve C1 are Oa and Oe, those which involve C2 are Ob and Of, those which involve C3 are Oc and Og, and the outcomes which involve C4 are Od and Oh. The theoretical cumulative frequencies of these outcomes are as in the table below:

Course of action	C4	C3	C2	C1
Theoretical cumulative frequencies	.02	.03	.09	1.00

Both of these theoretical distributions will be tested by comparing the observed distributions with the theoretical distributions for goodness of fit using the Kolmogarov-Smirnov test.

Example of K-S test

As an example of the use of this test, the hypo-

thesis deduced from the "fear of others" theory is tested

below for one adult using the incidents presented as

samples of the field data.

TABLE 4.1

SAMPLE APPLICATION OF K-S TEST TO TEN INCIDENTS OF ADULT-CHILD INTERACTION UNDER A HYPOTHESIS FROM THE "FEAR OF OTHERS" THEORY.

Course of action	C4	C3	C2	C1
f = observed frequencies	0	1	4	5
$F_o(X)$ = theoretical cumulative distribution under Ho	.32	.67	.89	1.00
$S_n(x)$ = cumulative distribution of observed choices	.00	.10	.50	1.00
$F_o(X) - S_n(X)$	.32	.57	.39	0

$$D = .57$$

The K-S test concentrates on the largest <u>difference</u>

between the theoretical cumulative distribution of

outcomes and the cumulative distribution of observed

outcomes and indicates the probability of a difference

as large as that observed if the observations are a

random sample from the theoretical distribution. In

this example, the largest value of this difference

(denoted "D") is .57. The table of critical values

of D indicates that the probability of D as large as

.57 with N = 10 is less than .01. Therefore it seems

unlikely, on the basis of this example, that the "fear

of others" theory is a satisfactory explanation of the

behavior of Betty in these instances.

Derivation of statistical hypotheses from the theories

of learning statistical hypothesis from the Group I theory

The Group I theory asserts (in essence) that the

subjective probability of retaliation for offensive

behavior must be equal to an objective probability of

retaliation experienced earlier. The formalizations of

the "fear of others" theory indicate that the minimum

subjective probability of retaliation sufficient to ac-

count for the high probability of choice of Cl is .45

(Matrix Bl p.216). The outcomes which involve retaliation,

or punishment, are Oc, Od, Og, and Oh. Thus the sta-

tistical hypothesis is:

$$Ho : p(Oc + Od + Og + Oh) \geq .45$$

Statistical hypothesis from the Group II theory

The Group II theory asserts (in essence) that

the subjective probability of doing serious injury to

another by an aggressive act is equal to the objec-

tive probability (experienced earlier) of getting an

acquiescent response to an offensive act. The formal-

ization of the "fear of self" theory (Matrix Cl, p. 223)

indicates that the subjective probability of doing serious injury to another must be about .75 in order to account for the very high probability of choice of Cl. Therefore the probability that an adult will respond acquiescently to the offensive behavior of a child must be about .75. An adult responds acquiescently if he chooses a course of action which does not produce an outcome involving acceptable behavior on the part of the child. The four outcomes which involve continued offensive behavior on the part of the child are Oe, Of, Og, and Oh. The occurrence of any of these outcomes indicates an acquiescent response on the part of the adult. The statistical hypothesis is therefore:

$$Ho:p(Oe + Of + Og + Oh) \geq .75.$$

Both of these hypotheses will be tested by use of the binomial test of goodness of fit.

An example of the use of the binomial test

As an example of use of the Binomial test for the Group I hypothesis, the five incidents (previously described) of interaction between Alice and her grand-mother, Betty, resulted in four outcomes classed as Oe and one outcome classed Ob. That is, not one of these

five observations fell into the class predicted by Ho.
The binomial test gives the probability of observing x
or fewer instances of the specified class. Since, in
this case, x = 0, the test will give the probability
of exactly 0 observations if the true frequency is .45.
This probability is calculated from the formula:

$$p(x) = \binom{N}{x} p^x Q^{N-x}$$ (Siegel 1956:37)

Substituting in this formula we get:

$$p(0) = \binom{5}{0} (.45)^0 (.55)^5$$

$$p(0) = 1 \times 1 \times .0503$$

$$p(0) = .05$$

(In the actual application of this test in Chapter V,
the probabilities were obtained by use of the computer
or from tables.)

Therefore, if Ho is correct, the observation of
no cases which are consistent with Ho when N = 5 is
improbable -- i.e. the hypothesis can almost be rejected
at the .05 level for this child on the basis of this
example.

The tests described and illustrated above make it possible to decide for each adult which theory (if either) better predicts his behavior and, for each child, which theory (if either) better predicts the kind of responses to his offensive behavior which he experiences. The acceptance or rejection of any of these theories as an explanation of the functioning or development of Ojibwa typical personality depends on the proportion of the sample which the theory explains.

If it were certain that the sample of people were random and if the true proportion of typical personalities in the population were known, it would be expected that the proportion in the sample would not differ significantly from the proportion in the population. Unfortunately, the sample is not random and information about the proportion of the population whose personalities fit the typical pattern is limited and is based on non-random samples. The information available about the sample and the population does permit some rough estimates as to the proportions to be expected.

Relative frequency of typical personalities in the populations studied

There is little published information on which to base a conclusion concerning the actual proportions of the Ojibwa who display the hostility and restraint

which are taken to constitute the "core" of the typical
personality. Lowenfels' analysis of children's drawings
from Lac du Flambeau led her to conclude that all of
the children showed "constriction" or restraint and that
63% of these children were "severely overcontrolled"
(Quoted in Barnouw 1963:282). This suggests that the
proportion showing the typical personality should be
near 60% to 65%. An analysis of Hallowell's primary
records of Rorschach protocols from the two locations
found that 70% of the Lac du Flambeau subjects gave
50% or more pure form responses, which is one accepted
measure of overcontrol. Eighty-seven percent of the
subjects from the Lakeside group gave 50% or more pure
form responses (Tetting and Hutchins 1966). The two
studies, taken together, suggest that 60% or more of the
adult population in each place should be typical Ojibwa
and that 60% or more of the children may be expected
to be in the process of developing the typical person-
ality. This expectation about the children is based
not only on Lowenfels analysis of children's drawings,
but on Hallowell's conclusion that the typical person-
ality has persisted through many generations of contact
with people of western culture.

Characteristics of the sample

A separate chapter has been devoted to the
characteristics of the families which are included in
the sample. This chapter seems to justify the con-
clusion that the sample is probably biased toward families
with a relatively traditional orientation. If the
assumption is made that those families with the rel-
atively more traditional orientation (as judged by cer-
tain social characteristics) are more likely to behave
in the typical fashion, then it seems justified to
conclude that the sample does not under-represent the
relative frequency of typical personalities. Boggs
has presented considerable evidence that behavior varies
with these social characteristics. (1954: Ch 2). It
will therefore be assumed that, if the behavior of
40% or more of the sample is inconsistent with the
hypothesis derived from a particular theory, the hypo-
thesis can be rejected and the theory from which it was
deduced questioned.

CHAPTER V

RESULTS

Theories of the Motivation of Restraint

The "fear of others" theory

We will begin with the two theories of the motivation of Ojibwa restraint. The first of these two, which was derived from Hallowell's (and the Ojibwas') attempts to explain this restraint, has been called the "fear of others" theory. Briefly and informally stated, this theory asserts that the Ojibwa refrain from directing or attacking another Ojibwa who is annoying them because they fear that doing so will lead the other to retaliate by means of sorcery. Since the Ojibwa are also hostile, if this theory is correct, then an Ojibwa who has been annoyed by someone who lacks magical powers should readily attack a defenseless annoyer. Since children are held to lack magical powers, it should be expected that Ojibwa adults would attack (punish) annoying children with high frequency.

A formal decision model of the typical Ojibwa as this very restricted theory assumes him to be was constructed (see appendix). From this model, it was

calculated that the typical Ojibwa, when annoyed by a child, would choose C1 (neither direct nor punish) with a relative frequency of .11; that he would choose C2 (direct but not punish) with a relative frequency of .22; that he would choose C3 (not direct but punish) with a relative frequency of .35; and that he would choose C4 (both direct and punish) with a relative frequency of .32.

Observed responses: composite treatment

Three or more responses to annoying behavior of children were observed for 29 adults. The total number of responses for these 29 adults is 671. Of these responses, 350 (.52) were C1, 298 (.44) were C2, 13 (.02) were C3, and 10 (.02) were C4. Table 5.1 compares this observed distribution with the theoretical distribution deduced from the "fear of others" theory.

TABLE 5.1

DISTRIBUTION OF OBSERVED RESPONSES OF TWENTY-NINE OJIBWA ADULTS COMPARED WITH THE THEORETICAL DISTRIBUTION FROM THE "FEAR OF OTHERS" THEORY

| | Courses of Action* | | | |
	C4	C3	C2	C1
theoretical distribution	.32	.35	.22	.11
observed distribution	.02	.02	.44	.55

*The order in which the courses of action are listed has been reversed to facilitate computation in the K-S statistical test.

Inspection of Table 5.1 indicates that there
is little correspondence between the observed relative
frequencies of choice of the four courses of action
and the theoretical relative frequencies. Where the
theoretical frequencies are high, the observed fre-
quencies are low and vice versa.

Observed responses: individual treatment

The composite observed frequencies, of course,
present an average picture of the responses of all
twenty-nine adults, whereas the theory purports to
predict individual behavior. Table 5.2 presents the
data individually for each of these twenty-nine adults.
Table 5.2 includes a Kolmogorov-Smirnov test of the
significance of the observed deviation from the
theoretical frequency for each adult.

TABLE 5.2

OBSERVED RESPONSES OF ADULTS TO OFFENDING CHILDREN AND
TEST OF HYPOTHESIS FROM "FEAR OF OTHERS" THEORY FOR
EACH OF TWENTY-NINE ADULTS

f = observed frequency of choice of each course of action

$F_0(X)$ = theoretical cumulative distribution of choices
under Ho from the "fear of others" theory.

$S_n(X)$ = cumulative distribution of observed choices.

D = maximum $/F_0(X) - S_n(X)/$

p = probability associated with D under Ho

Adult No. 1	John Hunt		L du F		1952
Course of action	C4	C3	C2	C1	
f	0	0	11	6	N = 17
Fo(X)	.32	.67	.89	1.00	D = .67
Sn(X)	.00	.00	.65	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.24	.00	

Adult No. 2	Ann Hunt		L du F		1952
Course of action	C4	C3	C2	C1	
f	1	0	17	8	N = 26
Fo(X)	.32	.67	.89	1.00	D = .63
Sn(X)	.04	.04	.69	1.00	p < .01
/Fo(X) - Sn(X)/	.28	.63	.20	.00	

Adult No. 5	Old Mandamin		L du F		1952
Course of action	C4	C3	C2	C1	
f	0	2	6	4	N = 12
Fo(X)	.32	.67	.89	1.00	D = .50
Sn(X)	.00	.17	.67	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.50	.22	.00	

Adult No. 6	Old Annie Mandamin		L du F		1952
Course of action	C4	C3	C2	C1	
f	2	0	15	11	N = 28
Fo(X)	.32	.67	.89	1.00	D = .60
Sn(X)	.07	.07	.61	1.00	p < .01
/Fo(X) - Sn(X)/	.25	.60	.28	.00	

TABLE 5.2 -- continued

Adult No. 7   Rose Decker   L du F   1952

Course of action	C4	C3	C2	C1	
f	0	.0	2	5	N = 7
Fo(X)	.32	.67	.89	1.00	D = .67
Sn(X)	0	0	.29	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.60	.00	

Adult No. 15   Pauline Reed   L du F   1966

Course of action	C4	C3	C2	C1	
f	0	0	37	8	N = 45
Fo(X)	.32	.67	.89	1.00	D = .67
Sn(X)	.00	.00	.82	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.07	.00	

Adult No. 20   Old Robinson   L du F   1952,1966

Course of action	C4	C3	C2	C1	
f	0	1	25	14	N = 40
Fo(X)	.32	.67	.89	1.00	D = .64
Sn(X)	.00	.03	.65	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.64	.24	.00	

Adult No. 21   Old Mrs. Robinson   L du F   1952

Course of action	C4	C3	C2	C1	
f	0	1	8	23	N = 32
Fo.(X)	.32	.67	.89	1.00	D = .64
Sn(X)	0	.03	.28	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.64	.61	0	

Adult No. 22   Young Robinson   L du F   1952

Course of action	C4	C3	C2	C1	
f	0	0	1	5	N = 6
Fo(X)	.32	.67	.89	1.00	D = .72
Sn(X)	0	0	.17	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.72	.00	

Adult No. 23   Eunice Robinson   L du F   1952

Course of action	C4	C3	C2	C1	
f	0	0	2	7	N = 9
Fo(X)	.32	.67	.89	1.00	D = .67
Sn(X)	0	0	.22	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.67	.00	

Adult No. 24   Arlene Robinson   L du F   1966

Course of action	C4	C3	C2	C1	
f	0	0	3	47	N = 50
Fo(X)	.32	.67	.89	1.00	D = .83
Sn(X)	0	0	.06	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.83	.00	

TABLE 5.2 -- continued

Adult No. 25   Jean Robinson   L du F   1966

Course of action	C4	C3	C2	C1	
f	0	0	7	22	N = 29
Fo(X)	.32	.67	.89	1.00	D = .67
Sn(X)	0	0	.24	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.65	.00	

Adult No. 31   Annie Waswagen   L du F   1952

Course of action	C4	C3	C2	C1	
f	1	0	3	8	N = 12
Fo(X)	.32	.67	.89	1.00	D = .59
Sn(X)	.08	.08	.33	1.00	p < .01
/Fo(X) - Sn(X)/	.24	.59	.56	.00	

Adult No. 40   Jack Fitch   L du F   1952

Course of action	C4	C3	C2	C1	
f	1	4	14	42	N = 61
Fo(X)	.32	.67	.89	1.00	D = .59
Sn(X)	.02	.08	.31	1.00	p < .01
/Fo(X) - Sn(X)/	.30	.59	.58	.00	

Adult No. 41   Betty Fitch   L du F   1952,1966

Course of action	C4	C3	C2	C1	
f	0	2	43	25	N = 70
Fo(X)	.32	.67	.89	1.00	D = .64
Sn(X)	0	.03	.64	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.64	.25	.00	

Adult No. 42   Old Mary Fitch   L du F   1952

Course of action	C4	C3	C2	C1	
f	0	0	0	3	N = 3
Fo(X)	.32	.67	.89	1.00	D = .89
Sn(X)	0	0	0	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.89	.00	

Adult No. 43   Ben Ellis   L du F   1966

Course of action	C4	C3	C2	C1	
f	1	1	8	4	N = 14
Fo(X)	.32	.67	.89	1.00	D = .53
Sn(X)	.07	.14	.71	1.00	p < .01
/Fo(X) - Sn(X)/	.25	.53	.18	.00	

Adult No. 51   Marion Marshall   L du F   1952

Course of action	C4	C3	C2	C1	
f	1	1	44	19	N = 65
Fo(X)	.32	.67	.89	1.00	D = .64
Sn(X)	.02	.03	.71	1.00	p < .01
/Fo(X) - Sn(X)/	.30	.64	.18	.00	

TABLE 5.2 -- continued

Adult No. 63   Frank Mukkwa   B.R.   1952

Course of action	C4	C3	C2	C1	
f	0	0	5	7	N = 12
Fo(X)	.32	.67	.89	1.00	D = .67
Sn(X)	0	0	.42	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.47	.00	

Adult No. 64   Maggie Mukkwa   B.R.   1952

Course of action	C4	C3	C2	C1	
f	0	0	4	19	N = 23
Fo(X)	.32	.67	.89	1.00	D = .72
Sn(X)	0	0	.17	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.72	.00	

Adult No. 70   Young Mukoman   B.R.   1952

Course of action	C4	C3	C2	C1	
f	0	1	3	1	N = 5
Fo(X)	.32	.67	.89	1.00	D = .47
Sn(X)	0	.20	.80	1.00	p = .15
/Fo(X) - Sn(X)/	.32	.47	.09	.00	

Adult No. 71   Mary Mukoman   B.R.   1952

Course of action	C4	C3	C2	C1	
f	1	0	0	13	N = 14
Fo(X)	.32	.67	.89	1.00	D = .82
Sn(X)	.07	.07	.07	1.00	p < .01
/Fo(X) - Sn(X)/	.25	.60	.82	.00	

Adult No. 76   Abigail Šišíp   B.R.   1952

Course of action	C4	C3	C2	C1	
f	0	0	6	14	N = 20
Fo(X)	.32	.67	.89	1.00	D = .67
Sn(X)	0	0	.30	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.59	.00	

Adult No. 80   Wasse   B.R.   1952

Course of action	C4	C3	C2	C1	
f	0	0	1	2	N = 3
Fo(X)	.32	.67	.89	1.00	D = .67
Sn(X)	0	0	.33	1.00	p < .10
/Fo(X) - Sn(X)/	.32	.67	.56	.00	

Adult No. 81   Mrs. Wasse   B.R.   1952

Course of action	C4	C3	C2	C1	
f	0	0	2	11	N = 13
Fo(X)	.32	.67	.89	1.00	D = .74
Sn(X)	0	0	.15	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.7	.00	

TABLE 5.2 -- continued

Adult No. 101   Agnes Clauson   L du F   1966

Course of action	C4	C3	C2	C1	
f	2	0	10	8	N = 20
Fo(X)	.32	.67	.89	1.00	D = .57
Sn(X)	.10	.10	.60	1.00	p < .01
/Fo(X) - Sn(X)/	.22	.57	.29	.00	

Adult No. 121   Mary St. Louis   L du F   1966

Course of action	C4	C3	C2	C1	
f	0	0	11	14	N = 25
Fo(X)	.32	.67	.89	1.00	D = .67
Sn(X)	0	0	.44	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.45	.00	

Adult No. 990   Mrs. Schmidt   L du F   1952

Course of action	C4	C3	C2	C1	
f	0	0	5	0	N = 5
Fo(X)	.32	.67	.89	1.00	D = .67
Sn(X)	0	0	1.00	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.11	.00	

Adult No. 992   Mrs. Johnson   L du F   1952

Course of action	C4	C3	C2	C1	
f	0	0	5	0	N = 5
Fo(X)	.32	.67	.89	1.00	D = .67
Sn(X)	0	0	1.00	1.00	p < .01
/Fo(X) - Sn(X)/	.32	.67	.11	.00	

Table 5.2 confirms that inference made from the composite data presented in Table 5.1. The null hypothesis derived from the "fear of others" theory can be rejected at the .01 level for twenty-seven of the twenty-nine adults. For the other two adults, the probability that the null hypothesis is correct is equal to .15 in one case and less than .10 in the other.

Types of punishment observed

The punishments which were administered tended to

be mild as well as infrequent. The following incidents
represent five of the first six incidents of punishment
(in order of coding, not of observation) in my notes.
The remaining incident of the first six is quoted in
the scoring examples in Chapter IV.

> D is a girl of six, Annie is D's grandmother.
> Annie Waswagen at treadle-operated sewing maching.
> D began to move the belt of the sewing machine up
> and down about a half inch. Annie said, "Get away
> from there," in a rather loud growl, turning her
> head toward D rapidly as she growled. D drew back,
> startled, but did not move away from sewing machine.
> A little later she began to touch the belt lightly
> with her forefinger. No response from Annie.
> (Flambeau 52)

Since the growl was enough to startle D, it was
considered to be a punishment.

> B is a boy of six. G is a playmate. Marion Marshall
> is B's mother. Marion baking bread. The two boys
> came into the house. B said G wanted a drink.
> Marion launched into a tirade about "...Didn't he
> have any water at his own house?..." Both boys
> listened without saying anything or moving and with
> blank faces. B went and got himself a drink. G
> remained standing near door. (Flambeau 52)

> D and E are brothers. D is eight and E is four. H
> is their sister, five. Maggie Mukoman is their mother.
> D and E sitting on ground near path. I sat down
> near them, we talked a little. H came out of
> house and screamed at them to do something I couldn't
> understand. D screamed back and remained where he

was. After a few minutes, Maggie cam out, walked down to us, talked rather loudly to the boys (my Ojibwa was not good enough to understand it), and led them off up to the house. (This was counted as a punishment for each boy.) (Berens 52)

This is the same household as in the preceding incident, two weeks later. R is a boy of six and Young Mukoman is his father. The children have been unusually quarrelsome today. Young Mukoman tells R to bring the ax. R just wanders around "in a fog." Young Mukoman speaks sharply to R using word, "maja" ("get going"). R still wandering in "fog". Young Mukoman cuffs him on side of head, twice. R goes out door and comes back with ax which Young Mukoman begins to sharpen. (Berens 52)

This is the only incident in which I observed a child actually to receive a blow from an adult.

P is a girl of two. She is, as usual, staying at her grandmother's while her mother works. Ben is a boarder at the grandmother's house. P has been running through the house. Ben has repeatedly told her to stop, without success. Finally, he picks her up and puts her on a chair. She stays put. (Flambeau 66)

Summary of results for "fear of others" theory

These data offer no support for the "fear of others" theory. The theory does not provide any basis for the correct prediction of the behavior of even one adult of this sample in the critical situation. Adult Ojibwa rarely punish offending children even though the children lack the capacity to retaliate.

The "fear of self" theory

Perhaps the alternative theory, which has been called the "fear of self" theory, will provide better predictions of the behavior of the sample adults in the critical situation.

Briefly and informally stated, the "fear of self" theory asserts that the typical Ojibwa refrains from directing or attacking another Ojibwa who is annoying him because he fears that to do so may do the other serious injury (physical or psychological). If this theory is correct, and if it is assumed that the Ojibwa believe children to have the same vulnerability to direction and attack as they believe adults to have, then adult Ojibwa should treat children in very much the same manner in which they treat other adults. From a formal decision model of the typical Ojibwa as this simple theory assumes him to be, it was calculated that the typical Ojibwa, when annoyed by another would choose C1 (neither direct nor attack) with a relative frequency of .91; that he would choose C2 (direct but not attack) with a relative frequency of .04; that he would choose C3 (not direct but attack) with a relative frequency of .03; and that he would choose C4 (both direct and attack) with a relative frequency of .02.

The same data which were used to test the "fear

of others" theory will be used to test the "fear of self"
theory.*

Observed responses: composite treatment

Of the 661 responses of these twenty-seven adults,
350 (.53) were C1, 288 (.44) were C2, 13 (.02) were C3,
and 10 (.02) were C4. (Relative frequencies do not add
to 1.00 because of rounding.) Table 5.3 compared this
observed distribution with the theoretical distribution
deduced from the "fear of self" theory.

TABLE 5.3

DISTRIBUTION OF OBSERVED RESPONSES OF TWENTY-SEVEN OJIBWA
ADULTS COMPARED WITH THEORETICAL DISTRIBUTION FROM "FEAR
OF SELF" THEORY

	Course of Action			
	C4	C3	C2	C1
Theoretical frequency	.02	.03	.04	.91
Observed frequency	.02	.02	.44	.53

---

*The data for adults 990 and 992 are ommited here-
after. These adults were not members of the households of
any of the children involved in the study. Because of
the rule adopted earlier (Ch IV) that if more than one
adult was present, only the response of the adult pri-
marily responsible for the child would be scored, it was
impossible to score C1 (neither direct nor attack) for
either of these adults. Since C1 is predicted by the "fear
of self" theory to be the most frequent response of
Ojibwa to offending children, it would be misleading to
include the responses of adults for whom this score
could not be included.

Figure 5.1 presents the composite observed distribution of choices of course of action compared with the theoretical distributions derived from both the "fear of others" theory and the "fear of self" theory.

As figure 5.1 shows, the correspondence between the observed relative frequencies of choice and the theoretical relative frequencies deduced from the "fear of self" theory is quite close for C4 and C3. The observations, however, depart rather widely from the predictions for C2 and C1. The sample adults chose C2 much more frequently than the "fear of self" theory predicts and they chose C1 correspondingly less frequently than predicted. Nevertheless the general form of the observed distributions is similar to the form of the distribution derived from the "fear of self" theory.
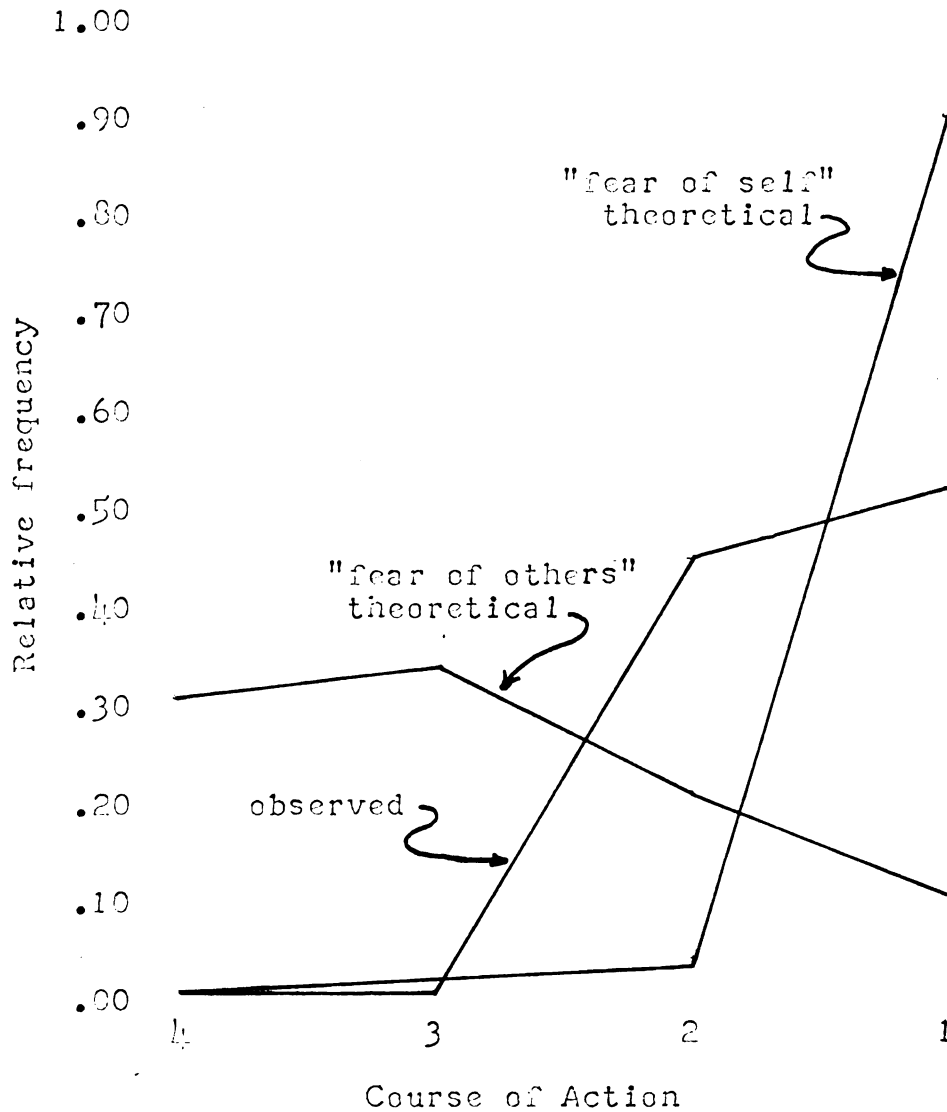
FIGURE 5.1

DISTRIBUTION OF OBSERVED RESPONSES OF ADULTS TO OFFENDING
CHILDREN COMPARED WITH THE THEORETICAL DISTRIBUTIONS FROM
THE "FEAR OF OTHERS" THEORY AND THE "FEAR OF SELF" THEORY

Observed responses: individual treatment

As in the case of the "fear of others" theory,

it is individual behavior which the "fear of self" theory

purports to predict. Table 5.4 presents the data and a

K-S test of significance of the deviations from the

theoretical frequency for each adult.

TABLE 5.4

OBSERVED RESPONSES OF ADULTS TO OFFENDING CHILDREN AND
TEST OF HYPOTHESIS FROM "FEAR OF SELF" THEORY FOR EACH
OF TWENTY-SEVEN ADULTS

f = observed number of choices of each course of action

$F_o(X)$ = theoretical cumulative distribution of choices
under Ho from "fear of self" theory

$S_n(X)$ = cumulative distribution of observed choices

D = maximum $/F_o(X) - S_n(X)/$

p = probability associated with D under Ho

Adult No. 1	John Hunt		L du F	1952	
Course of action	C4	C3	C2	C1	
f	0	0	11	6	N = 17
$F_o(X)$	.02	.05	.09	1.00	D = .56
$S_n(X)$	.00	.00	.65	1.00	p < .01
$/F_o(X) - S_n(X)/$	.02	.05	.56	.00	

Adult No. 2	Ann Hunt		L du F	1952	
Course of action	C4	C3	C2	C1	
f	1	0	17	8	N = 26
$F_o(X)$	.02	.05	.09	1.00	D = .60
$S_n(X)$	.04	.04	.69	1.00	p < .01
$/F_o(X) - S_n(X)/$	.02	.01	.60	.00	

Adult No. 5	Old Mandamin		L du F	1952	
Course of action	C4	C3	C2	C1	
f	0	2	6	4	N = 12
$F_o(X)$	.02	.05	.09	1.00	D = .58
$S_n(X)$	.00	.17	.67	1.00	p < .01
$/F_o(X) - S_n(X)/$	.02	.12	.58	.00	

TABLE 5.4 -- continued

Adult No. 6	Old Annie Mandámin			L du F 1952	
Course of action	C4	C3	C2	C1	
f	2	0	15	11	N = 28
Fo(X)	.02	.05	.09	1.00	D = .52
Sn(X)	.07	.07	.61	1.00	p < .01
/Fo(X) - Sn (X)/	.05	.02	.52	.00	

Adult No 7	Rose Decker			L du F	1952
Course of action	C4	C3	C2	C1	
f	0	0	2	5	N = 7
Fo(X)	.02	.05	.09	1.00	D = .20
Sn(X)	.00	.00	.29	1.00	p .20
/Fo(X) - Sn(X)/	.02	.05	.20	.00	

Adult No. 15	Pauline Reed			L du F	1966
Course of action	C4	C3	C2	C1	
f	0	0	37	8	N = 45
Fo(X)	.02	.05	.09	1.00	D =.73
Sn(X)	.00	.00	.82	1.00	p <.01
/Fo(X) - Sn(X)/	.02	.05	.73	.00	

Adult No. 20	Old Robinson			L du F	1952,1966
Course of action	C4	C3	C2	C1	
f	0	1	25	14	N = 40
Fo(X)	.02	.05	.09	1.00	D = .56
Sn(X)	.00	.03	.65	1.00	p < .01
/Fo(X) - Sn(X)/	.02	.02	.56	.00	

Adult No. 21	Old Mrs. Robinson			L du F	1952
Course of action	C4	C3	C2	C1	
f	0	1	8	23	N = 32
Fo(X)	.02	.05	.09	1.00	D = .19
Sn(X)	.00	.03	.28	1.00	p ≳ .20
/Fo(X) - Sn(X)/	.02	.02	.19	.00	

Adult No. 22	Young Robinson			L du F	1952,1966
Course of action	C4	C3	C2	C1	
f	0	0	1	5	N = 6
Fo(X)	.02	.05	.09	1.00	D = .08
Sn(X)	.00	.00	.17	1.00	p > .20
/Fo(X) - Sn(X)	.02	.05	.08	.00	

Adult No. 23	Eunice Robinson			L du F	1952
Course of action	C4	C3	C2	C1	
f	0	0	2	7	N = 9
Fo(X)	.02	.05	.09	1.00	D = .13
Sn(X)	.00	.00	.22	1.00	p > .20
/Fo(X) - Sn(X)/	.02	.05	.13	.00	

TABLE 5.4 -- continued

Adult No. 24   Arlene Robinson   L du F   1966

Course of action	C4	C3	C2	C1	
f	0	0	3	47	N = 50
$F_o(X)$	.02	.05	.09	1.00	D = .05
$S_n(X)$	.00	.00	.06	1.00	p > .20
$/F_o(X) - S_n(X)/$	.02	.05	.03	.00	

Adult No. 25   Jean Robinson   L du F   1966

Course of action	C4	C3	C2	C1	
f	0	0	7	22	N = 29
$F_o(X)$	.02	.05	.09	1.00	D = .15
$S_n(X)$	.00	.00	.24	1.00	p > .20
$/F_o(X) - S_n(X)/$	.02	.05	.15	.00	

Adult No. 31   Annie Waswagen   L du F   1952

Course of action	C4	C3	C2	C1	
f	1	0	3	8	N = 12
$F_o(X)$	.02	.05	.09	1.00	D = .24
$S_n(X)$	.08	.08	.33	1.00	p > .20
$/F_o(X) - S_n(X)/$	.06	.03	.24	.00	

Adult No. 40   Jack Fitch   L du F   1952

Course of action	C4	C3	C2	C1	
f	1	4	14	42	N = 61
$F_o(X)$	.02	.05	.09	1.00	D = .22
$S_n(X)$	.02	.08	.31	1.00	p > .05
$/F_o(X) - S_n(X)/$	.00	.03	.22	.00	

Adult No. 41   Betty Fitch   L du F   1952, 1966

Course of action	C4	C3	C2	C1	
f	0	2	43	25	N = 70
$F_o(X)$	.02	.05	.09	1.00	D = .55
$S_n(X)$	.00	.03	.64	1.00	p < .01
$/F_o(X) - S_n(X)/$	.02	.02	.55	.00	

Adult No. 42   Old Mary Fitch   L du F   1952

Course of action	C4	C3	C2	C1	
f	0	0	0	3	N = 3
$F_o(X)$	.02	.05	.09	1.00	D = .09
$S_n(X)$	.00	.00	.00	1.00	p > .20
$/F_o(X) - S_n(X)/$	.02	.05	.09	1.00	

Adult No 43   Ben Ellis   L du F   1966

Course of action	C4	C3	C2	C1	
f	1	1	8	4	N = 14
$F_o(X)$	.02	.05	.09	1.00	D = .62
$S_n(X)$	.07	.14	.71	1.00	p < .01
$/F_o(X) - S_n(X)/$	.05	.09	.62	.00	

TABLE 5.4 -- <u>continued</u>

Adult No. 51   Marion Marshall   L du F   1952
Course of action C4   C3   C2   C1
f   1   1   14   19   N = 65
Fo(X)   .02   .05   .09   1.00   D = .62
Sn(X)   .02   .03   .71   1.00   p < .01
/Fo(X) - Sn(X)/   .00   .02   .62   .00

Adult No. 101   Agnes Clauson   L du F   1966
Course of action C4   C3   C2   C1
f   2   0   10   8   N = 20
Fo(X)   .02   .05   .09   1.00   D = .51
Sn(X)   .10   .10   .60   1.00   p < .01
/Fo(X) - Sn(X)/   .08   .05   .51   .00

Adult No. 121   Mary St. Louis   L du F   1966
Course of action C4   C3   C2   C1
f   0   0   11   14   N = 25
Fo(X)   .02   .05   .09   1.00   D = .35
Sn(X)   .00   .00   .44   1.00   p < .01
/Fo(X) - Sn(X)/   .02   .05   .35   .00

Adult No. 63   Frank Mukkwa   B.R.   1952
Course of action C4   C3   C2   C1
f   0   0   5   7   N = 12
Fo(X)   .02   .05   .09   1.00   D = .33
Sn(X)   .00   .00   .42   1.00   p ≈ .10
/Fo(X) - Sn(X)/   .02   .05   .33   1.00

Adult No 64   Maggie Mukkwa   B.R.   1952
Course of action C4   C3   C2   C1
f   0   0   4   19   N = 23
Fo(X)   .02   .05   .09   1.00   D = .08
Sn(X)   .00   .00   .17   1.00   p > .20
/Fo(X) - Sn(X)/   .02   .05   .08   .00

Adult No. 70   Young Mukoman   B.R.   1952
Course of action C4   C3   C2   C1
f   0   1   3   1   N = 5
Fo(X)   .02   .05   .09   1.00   D = .71
Sn(X)   .00   .17   .80   1.00   p < .01
/Fo(X) - Sn(X)/   .02   .12   .71   .00

Adult No. 71   Mary Mukoman   B.R.   1952
Course of action C4   C3   C2   C1
f   1   0   0   13   N = 14
Fo(X)   .02   .05   .09   1.00   D = .05
Sn(X)   .07   .07   .07   1.00   p > .20
/Fo(X) - Sn(X)/   .05   .02   .02   1.00

TABLE 5.4 -- continued

Adult No. 76   Abigail sĭsĭp   B.R.   1952
Course of action C4   C3   C2   C1
f   0   0   6   14   N = 20
Fo(X)   .02   .05   .09   1.00   D = .21
Sn(X)   .00   .00   .30   1.00   p > .20
/Fo(X) - Sn(X)/ .02   .05   .21-   .00

Adult No. 80   Wasse   B.R.   1952
Course of action C4   C3   C2   C1
f   0   0   1   2   N = 3
Fo(X)   .02   .05   .09   1.00   D = .24
Sn(X)   .00   .00   .33   1.00   p > .20
/Fo(X) - Sn(X)/ .02   .05   .24   . 00

Adult No. 81   Mrs. Wasse   B.R.   1952
Course of action C4   C3   C2   C1
f   0   0   2   11   N = 13
Fo(X)   .02   .05   .09   1.00   D = .06
Sn(X)   .00   .00   .15   1.00   p > .20
/Fo(X) - Sn(X)/ .02   .05   .06   .00

Summary of results for "fear of self" theory

The individual data of Table 5.4 tend to confirm
the conclusions from the comparison of the composite
data with the two hypothetical distributions: although far
from a perfect fit, the hypothetical distribution from
the "fear of self" theory is a better fit to the data
than the hypothetical distribution from the "fear of
others" theory. The hypothesis from the "fear of self"
theory can be rejected at the .01 level for twelve of
twenty-seven individuals where the hypothesis from the
"fear of others" theory can be rejected at this level
for twenty-seven of twenty-nine individuals. For thir-
teen of the twenty-seven individuals there is at least

one chance in five that the observed sample of their
behavior could be a random sample from a population of
responses having the distribution deduced from the "fear
of self" theory. There were no cases of similar fit be-
tween the individual data and the "fear of others"
theory.

Separate treatment of the Berens River and Lac du Flambeau samples

Some additional evidence in support of the "fear
of self" theory is provided by separating the data for
the Berens River people from the data for the Lac du
Flambeau people.

If the observations of the Berens River sample
are separated from those of the Lac du Flambeau sample,
we find that the observed frequencies of choice for the
Berens River sample correspond much more closely to the
frequencies deduced from the "fear of self" theory than
do the observed frequencies for the Lac du Flambeau
sample.

Empirical modifications of the "fear of self" theory

The comparatively close correspondence between
the data and the hypothetical distribution deduced from
the "fear of self" theory suggests that it might be
possible to modify this theory so that the observed

frequencies of choice can be deduced from it. The process of modification begins with the observation that the major differences between the observed relative frequencies and the hypothetical relative frequencies occur in the greater observed relative frequency of choice of C2 and the correspondingly lower observed frequency of choice of C1.

Within the decision-theory framework an individual's probability of choice of a given course of action is taken to be a function of the expected value of that course of action relative to the expected values of the other courses of action. Thus, we account for the relatively greater observed than predicted frequency of choice of C2 by hypothesizing that C2 has higher expected value for the typical Ojibwa than was originally assumed. But, expected value depends on both the values assigned to the compound outcomes and on the subjective estimates of the probabilities of the various outcomes if C2 is chosen. The values of the outcomes and the subjective probability estimates were both assumed. The particular figures used being chosen because they led to the deduction of a frequency of choice of C2 which was consistent with the reports of the behavior of typical Ojibwa and because they did not seem unreasonable.

The expected value of C2 could be altered by

altering the assumed values of the outcomes or by altering

the assumed subjective probabilities (or both).

Rationale for modification of subjective probabilities

This section offers a speculative rationale for

the hypothesis that Indian adults at higher levels of

acculturation regard directing as less dangerous to

children. The argument is based on the differences in the

frequency and intensity of Indian interaction with whites

at the two locations studied -- differences which roughly

parallel the differences in frequency with which adults

direct children.

At Lac du Flambeau there is a permanent population

of whites which is about equal in size to the Indian

population. Most of the permanent white residents are

owners of small, independent businesses and quite middle-

class in orientation. In the summer, the white pop-

ualtion is greatly increased by two categories of summer

people. The first category consists of people who own

summer homes on the reservation and who are present enough

to get to know some of the Indian people. The second

category consists of people who are present for very

brief periods and who may never return again -- people

who stop at the numerous resorts and motels in the area.

Both of these groups, of course, have middle-class

values.

The whites who are permanent residents exercise considerable influence on the Indians. This influence arises in part because of the special status that the northern Algonkians have apparently always given to the white man. The attitude of dependence toward whites with its corollary hope of receiving something from the white man has resulted in their giving considerable deference to whites. (See Barnouw 1963:152.) In addition, many of the whites with whom they interact most frequently actually do have power over the Indians. The teachers and administrators of the school have definite ideas on parental control of children which they do not hesitate to express to Indian parents, they and the school board have been influential in getting the tribal council to pass an ordinance making parents responsible for the school attendance of their children. This was, in 1952, the only tribal Ordinance which was fully enforced.

The Indians are also in frequent and significant interaction with the local merchants upon whom they are realistically dependent for credit. These merchants also give Indians unwanted advice on what they regard as "moral" issues. The Indians have no trouble getting the message that whites expect Indians to control their

children in the same fashion that whites do.

The Indians have frequent opportunities to see
white parents constantly telling their children to do
this or that or not to do some other thing. These
occasions arise almost daily in the stores, the post
office, the laundromat and at school functions which
are well attended by both whites and Indians. My wife
and I were especially impressed with the frequency with
which white parents direct their own children in such
places in contrast to the Indians at Flambeau.

In any case, the Indians at Flambeau seem to
have gotten the idea that white people think that Indians
should do more directing of their children. They do
direct them more frequently than the Berens River people
do theirs, but less frequently than do whites. They may
have gotten the idea that directing is less dangerous
than they thought partly from observing the absence of
damage to white children. They must also have come to
believe it is less dangerous from having done quite a
lot of directing without disaster. It should be empha-
sized, however, that Indian parents seldom "sound as
if they mean it" when directing children.

Many of the same factors operate at Berens
River, but to a much lesser extent. In particular, there
are fewer opportunities for the Indians to observe

white parents and children in interaction and fewer
whites to tell the Indians to control their children.

Changes in the assumptions

Following this reasoning, I have assumed that
the subjective probability of injuring a child by choice
of C2 is lower than originally assumed and that it is
lower for the Indians at Lac du Flambeau than it is for
the Berens River Indians. It was possible to find
subjective probabilities for each group which led to the
deduction of theoretical probabilities of choice of C2
very close to the composite observed probabilities for
the people of each location*.

Data and the modified theory: the post hoc nature of these tests

Properly, each of these modifications of the
"fear of self" theory should be tested with data not
used in arriving at these modifications. Since this
was not practicable at this time, the original data
are being reused. The use of this data thus makes these
tests of the modified theory completely post hoc in

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*These changes in the assumptions and the resulting
changes in the theoretical probabilities of choice are
presented in detail in the appendix.

nature. Hopefully, at some time in the future, it will
be possible to make additional observations at Berens
River and Lac du Flambeau to test these modifications.

Data and the modified theory: composite treatment

Table 5.5 compares the composite observed
relative frequencies for the Berens River sample with
the modified theoretical frequencies which result from
the changes in the subjective probabilities assumed for
the Berens River people.

TABLE 5.5

COMPARISON OF OBSERVED DISTRIBUTION OF CHOICES OF BERENS
RIVER ADULTS WITH MODIFIED THEORETICAL DISTRIBUTION

| | Courses of Action | | | |
	C_4	C_3	C_2	C_1
Modified theoretical distribution	.017	.023	.25	.71
Observed distribution	.011	.011	.23	.74

TABLE 5.6

COMPARISON OF OBSERVED DISTRIBUTION OF CHOICES OF LAC
DU FLAMBEAU ADULTS WITH MODIFIED THEORETICAL DISTRIBUTION

| | Courses of Action | | | |
	C_4	C_3	C_2	C_1
Modified theoretical distribution	.012	.016	.47	.50
Observed distribution	.016	.021	.47	.50

Data and the modified theory: individual treatment

Table 5.7 presents the individual data for the

seven Berens River adults and a K-S test of each of

the individual variations from the "fear of self" theory

as modified for Berens River.

TABLE 5.7

OBSERVED RESPONSES OF ADULTS TO OFFENDING CHILDREN AND
TEST OF HYPOTHESIS FROM BERENS RIVER MODIFICATION OF
"FEAR OF SELF" THEORY FOR EACH OF SEVEN ADULTS

f = observed number of choices of each course of action

$F_o(X)$ = theoretical cumulative distribution of choices
under hypothesis from Berens River modification
of "fear of self" theory

$S_n(X)$ = cumulative distribution of observed choices

D = maximum $/F_o(X) - S_n(X)/$

p = probability associated with D under Ho

Adult No. 63	Frank Mukkwa		Berens River	1952		
Course of action	C4	C3	C2	C1		
F	0	0	5	7	N =	12
$F_o(X)$	.02	.04	.29	1.00	D =	.13
$S_n(X)$	.00	.00	.42	1.00	p >	.20
$/F_o(X) - S_n(X)/$	.02	.04	.13	.00		

Adult No. 64	Maggie Mukkwa		B.R.	1952		
Course of action	C4	C3	C2	C1		
f	0	0	4	19	N =	23
$F_o(X)$	.02	.04	.29	1.00	D =	.12
$S_n(X)$	.00	.00	.17	1.00	p >	.20
$/F_o(X) - S_n(X)/$	.02	.04	.12	.00		

Adult No. 70　　　Young Mukoman　　　B.R.　　　1952

Course of action	C4	C3	C2	C1	
f	0	1	3	1	N = 23
Fo(X)	.02	.04	.29	1.00	D = .51
Sn(X)	.00	.20	.80	1.00	p = .10
/Fo(X) - Sn(X)/	.02	.16	.51	.00	

Adult No. 71　　　Mary Mukoman　　　B.R.　　　1952

Course of action	C4	C3	C2	C1	
f	1	0	0	13	N = 15
Fo(X)	.02	.04	.29	1.00	D = .22
Sn(X)	.07	.07	.07	1.00	p > .20
/Fo(X) - Sn(X)/	.05	.03	.22	.00	

Adult No. 76　　　Abigail Sisip　　　B.R.　　　1952

Course of action	C4	C3	C2	C1	
f	0	0	6	14	N = 15
Fo(X)	.02	.04	.29	1.00	D = .04
Sn(X)	.00	.00	.30	1.00	p > .20
/Fo(X) - Sn(X)/	.02	.04	.01	.00	

Adult No. 80　　　Wasse　　　B.R.　　　1952

Course of action	C4	C3	C2	C1	
f	0	0	1	2	N = 3
Fo(X)	.02	.04	.29	1.00	D = .04
Sn(X)	.00	.00	.33	1.00	p > .20
/Fo(X) - Sn(X)/	.02	.04	.04	.00	

Adult No. 81　　　Mrs. Wasse　　　B.R.　　　1952

Course of action	C4	C3	C2	C1	
f	0	0	2	11	N = 13
Fo(X)	.02	.04	.29	1.00	D = .14
Sn(X)	.00	.00	.15	1.00	p > .20
/Fo(X) - Sn(X)/	.02	.04	.14	.00	

The null hypothesis from the "fear of self" theory can be
rejected, even at the .20 level of significance, for
only one of these seven adults. That is, there is a
probability greater than one in five for six adults that
the sample of his or her behavior came from a population
of responses having the relative frequencies predicted
by the "fear of self" theory as modified for Berens River.

Table 5.8 presents similar information for the Lac du Flambeau sample. In five cases, the null hypothesis derived from the "fear of self" theory as modified for Lac du Flambeau can be rejected at the .01 level of significance.* In two cases, the probability that the null hypothesis is correct is approximately .10. In the remaining thirteen cases, the probability for each case that the sample of behavior came from a population having the distribution of responses deduced from the Lac du Flambeau modification of the "fear of self" theory is greater than one in five.

TABLE 5.8

OBSERVED RESPONSES OF ADULTS TO OFFENDING CHILDREN AND TEST OF HYPOTHESIS FROM LAC DU FLAMBEAU MODIFICATION OF "FEAR OF SELF" THEORY

f = observed number of choices of each course of action

$F_o(X)$ = theoretical cumulative distribution of choices under hypothesis from Lac du Flambeau modification of "fear of self" theory

$S_n(X)$ = cumulative distribution of observed choices

D = maximum $/F_o(X) - S_n(X)/$

p = probability

Adult No. 1	John Hunt		L du F	1952	
Course of action	C4	C3	C2	C1	
f	0	0	11	6	N = 17
$F_o(X)$	.10	.03	.50	1.00	D = .15
$S_n(X)$	.00	.00	.65	1.00	p > .20
$/F_o(X) - S_n(X)/$	.01	.03	.15	.00	

*One of these cases conforms quite closely to the predictions of the original "fear of self" theory and another conforms quite closely to the Berens River modification of the theory.

TABLE 5.8 -- <u>continued</u>

Adult No. 2   Ann Hunt   L du F   1952

Course of action	C4	C3	C2	C1	
f	1	0	17	8	N = 26
Fo(X)	.01	.03	.50	1.00	D = .19
Sn(X)	.04	.04	.69	1.00	p > .20
/Fo(X) - Sn(X)/	.03	.01	.19	.00	

Adult No. 5   Old Mandamin   L du F   1952

Course of action	C4	C3	C2	C1	
f	0	2	6	4	N = 12
Fo(X)	.01	.03	.50	1.00	D = .17
Sn(X)	.00	.17	.67	1.00	p > .20
/Fo(X) - Sn(X)/	.01	.14	.17	.00	

Adult No. 6   Old Annie Mandamin   L du F   1952

Course of action	C4	C3	C2	C1	
f	2	0	15	11	N = 28
Fo(X)	.01	.03	.50	1.00	D = .11
Sn(X)	.07	.07	.61	1.00	p > .20
/Fo(X) - Sn(X)/	.06	.04	.11	.00	

Adult No. 7   Rose Decker   L du F   1952

Course of action	C4	C3	C2	C1	
f	0	0	2	5	N = 7
Fo(X)	.01	.03	.50	1.00	D = .21
Sn(X)	.00	.00	.29	1.00	p > .20
/Fo(X) - Sn(X)/	.01	.03	.21	.00	

Adult No. 15   Pauline Reed   L du F   1966

Course of action	C4	C3	C2	C1	
f	0	0	37	8	N = 45
Fo(X)	.01	.03	.50	1.00	D = .32
Sn(X)	.00	.00	.82	1.00	p < .01
/Fo(X) - Sn(X)/	.01	.03	.32	.00	

Adult No. 20   Old Robinson   L du F   1952, 1966

Course of action	C4	C3	C2	C1	
f	0	1	25	14	N = 40
Fo(X)	.01	.03	.50	1.00	D = .15
Sn(X)	.00	.03	.65	1.00	p > .20
/Fo(X) - Sn(X)/	.01	.00	.15	.00	

Adult No. 21   Old Mrs. Robinson   L du F   1952

Course of action	C4	C3	C2	C1	
f	0	1	8	23	N = 32
Fo(X)	.01	.03	.50	1.00	D = .22
Sn(X)	.00	.03	.28	1.00	p ≈ .10
/Fo(X) - Sn(X)/	.01	.00	.22	.00	

TABLE 5.8 -- continued

Adult No. 22   Young Robinson   L du F   1952
Course of action C4   C3   C2   C1
f   0   0   1   5   N = 6
Fo(X)   .01   .03   .50   1.00   D = .33
Sn(X)   .00   .00   .17   1.00   p > .20
/Fo(X) - Sn(X)/   .01   .03   .33   .00

Adult No. 23   Eunice Robinson   L du F   1952
Course of action C4   C3   C2   C1
f   0   0   2   7   N = 9
Fo(X)   .01   .03   .50   1.00   D = .28
Sn(X)   .00   .00   .22   1.00   p > .20
/Fo(X) - Sn(X)/   .01   .03   .28   .00

Adult No 24   Arlene Robinson   L du F   1966
Course of action C4   C3   C2   C1
f   0   0   3   47   N = 50
Fo(X)   .01   .03   .50   1.00   D = .44
Sn(X)   .00   .00   .06   1.00   p < .01
/Fo(X) - Sn(X)/   .01   .03   .44   .00

Adult No. 25   Jean Robinson   L du F   1966
Course of action C4   C3   C2   C1
f   0   0   7   2   N = 29
Fo(X)   .01   .03   .50   1.00   D = .26
Sn(X)   .00   .00   .24   1.00   p < .01
/Fo(X) - Sn(X)/   .01   .03   .26   .00

Adult No. 31   Annie Waswagen   L du F   1952
Course of action C4   C3   C2   C1
f   1   0   3   8   N = 12
Fo(X)   .01   .03   .50   1.00   D = .17
Sn(X)   .08   .08   .33   1.00   p > .20
/Fo(X) - Sn(X)/   .07   .05   .17   .00

Adult No. 40a   Jack Fitch   L du F   1952
Course of action C4   C3   C2   C1
f   1   4   14   42   N = 12
Fo(X)   .01   .03   .50   1.00   D = .19
Sn(X)   .02   .08   .31   1.00   p < .01
/Fo(X) - Sn(X)/   .01   .05   .19   .00

Adult No. 41   Betty Fitch   L du F   1952,1966
Course of action C4   C3   C2   C1
f   0   2   43   25   N = 70
Fo(X)   .01   .03   .50   1.00   D = .14
Sn(X)   .00   .03   .64   1.00   p ≈ .10
/Fo(X) - Sn(X)/   .01   .00   .14   .00

TABLE 5.8 -- Continued

Adult No. 42	Old Mary Fitch		L du F	1952	
Course of action	C4	C3	C2	C1	
f	0	0	0	3	N = 3
Fo(X)	.01	.03	.50	1.00	D = .50
Sn(X)	.00	.00	.00	1.00	p > .20
/Fo(X) - Sn(X)/	.01	.03	.50	.00	

Adult No. 43	Ben Ellis		L du F	1966	
Course of action	C4	C3	C2	C1	
f	1	1	8	4	N = 14
Fo(X)	.01	.03	.50	1.00	D = .21
Sn(X)	.07	.14	.71	1.00	p > .20
/Fo(X) - Sn(X)/	.06	.11	.21	.00	

Adult No. 51	Marion Marshall		L du F	1952	
Course of action	C4	C3	C2	C1	
f	1	1	44	19	N = 65
Fo(X)	.01	.03	.50	1.00	D = .21
Sn(X)	.02	.03	.71	1.00	p < .01
/Fo(X) - Sn(X)/	.01	.00	.21	.00	

Adult No. 101	Agnes Clauson		L du F	1966	
Course of action	C4	C3	C2	C1	
f	2	0	10	8	N = 20
Fo(X)	.01	.03	.50	1.00	D = .10
Sn(X)	.10	.10	.60	1.00	p > .20
/Fo(X) - Sn(X)/	.09	.07	.10	.00	

Adult No. 121	Mary St. Louis		L du F	1966	
Course of action	C4	C3	C2	C1	
f	0	0	11	14	N = 25
Fo(X)	.01	.03	.50	1.00	D = .06
Sn()	.00	.00	.44	1.00	p > .20
/Fo(X) - Sn()/	.01	.03	.06	.00	

Summary of results for modified "fear of self" theory

A very slight modification of the "fear of self" theory is sufficient to permit rather accurate predictions of the relative frequencies of choice of the four courses of action for the two samples as groups. The slightness of the modification which was required to

produce this improved accuracy of prediction is taken
to support the "fear of self" theory.

The Learning of Emotional Restraint

Group I theory restated

In its most common form, this theory involves the
implicit assumption that restraint is motivated by
the values and subjective probabilities of the "fear
of others" theory. It is assumed, following Mowrer,
that the subjective probability of severe retaliation
following an offensive act is equal to the objective
probability of retaliation in the individual's previous
experience. Thus the actual probability of punishment
for an offensive act should be equal to the subjective
probability of retaliation which is required to explain
Ojibwa restraint. From the formal model of the typical
Ojibwa as postulated by the "fear of others" theory,
it was determined that a subjective probability of
retaliation of .75 would be sufficient to explain
Ojibwa restraint within that theoretical framework.
Additionally, it was deduced that, if the individual were
extremely cautious (if he were a nearly perfect maxi-
mizer of expected value), a relative frequency of
punishment of .45 would be adequate to explain the
reported restraint. The null hypothesis to be tested is

that the Ojibwa child receives punishment for offensive acts with a relative frequency equal to or greater than .45.

Group I theory: composite data

From the finding that Ojibwa adults do not punish offending children with the frequency predicted by the "fear of others"theory, it seems unlikely that children will experience punishment with a relative frequency of .45, but the theory calls for the experiences which the children have as individuals.

TABLE 5.9

OUTCOMES OF 767 SITUATIONS IN WHICH CHILDREN BEHAVED IN A MANNER OFFENSIVE TO ADULTS

	Child's behavior becomes acceptable following adult response				Child's behavior does not become acceptable following adult response				
	Adult response				Adult response				
	C1C1	C2C2	C3C3	C4C4	C1	C2	C3	C4	Totals
No.	5	135	9	10	338	223	5	0	767
%	0.65	17.6	1.2	1.3	49.5	29.2	.65	0	100.1

Table 5.9 presents the composite data for all recorded instances of "misbehavior" by children. The adult responses which involve punishment are C3 and C4. The total number of such responses is 24. The relative frequency of punitive responses if .031 which is sig-

nificantly below the hypothetical relative frequency,

.45. (χ^2 = 541, p< .001).

There is a strong tendency for adults to adjust to
the behavior of infants and children less than two years
of age, which suggests the possibility of different
reactions to such young children. The composite data
ommitting the six children less than two years of age
are presented in Table 5.10.

TABLE 5.10

OUTCOMES OF SITUATIONS IN WHICH A CHILD BEHAVES IN A
MANNER OFFENSIVE TO ADULTS. CHILDREN UNDER TWO YEARS
OF AGE OMMITTED

	Child's behavior becomes acceptable following adult response				Child's behavior does not Become acceptable following adult response				
	Adult response				Adult response				
	C1	C2	C3	C4	C1	C2	C3	C4	Totals
No.	3	133	8	10	270	216	1	0	641
%	.5	20.7	1.2	1.6	42.1	33.7	.2	0	100.0

The total number of punishments received is now
nineteen rather than twenty-four* and the total number
of incidents is reduced from 767 to 741. The relative

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*One rejected little girl between one and two
years of age received the five punishments which make
this difference. She was the youngest member of the
Fitch household.

of punishment is actually reduced to .030 by this change.
It should be emphasized again that most of these punish-
ments are mild by our standards.

Relative frequency of punishment at Berens River and at
Lac du Flambeau

Table 5.11 presents the data for all observations
at Lac du Flambeau and at Berens River separately.

TABLE 5.11

OUTCOMES OF SITUATIONS IN WHICH A CHILD BEHAVES IN A
MANNER OFFENSIVE TO ADULTS. COMPARISON OF ALL OBSER-
VATIONS AT BERENS RIVER WITH ALL OBSERVATIONS AT LAC
DU FLAMBEAU

	Child's behavior becomes acceptable following adult response				Child's behavior does not become acceptable following adult response				
	Adult response				Adult response				
	C1	C2	C3	C4	C1	C2	C3	C4	Totals
BR No.	0	12	1	2	75	11	0	0	101
%	0	11.9	1.0	2.0	74.3	10.9	0	0	100.1
LF No.	5	123	8	8	305	212	5	0	666
%	.8	18.6	1.2	1.2	45.8	31.8	.8	0	100.2

There were twenty-one instances in which a child
received punishment in 666 observations at Lac du
Flambeau. This is a relative frequency of .0315. At
Berens River there were three instances of punishment
in 101 observations for a relative frequency of .0297.

This slight difference is far from significant.

$X^2 = .0434$, $p > .80$. This finding that the frequency with which children experience punishment is low and nearly equal at both locations is consistent with the earlier finding that the sample adults punish children with nearly equal low frequencies in both places.

Individual data and tests of the Group I learning theory

The data for each child and a binomial test of the hypothesis from Group I theory for each child are presented in table 5.12.

TABLE 5.12

GROUP I LEARNING THEORY. NUMBER OF OFFENSIVE ACTS, NUMBER OF PUNITIVE RESPONSES RECEIVED, RELATIVE FREQUENCY OF PUNISHMENT, AND BINOMIAL PROBABILITY OF OBSERVED NUMBER OF PUNITIVE RESPONSES UNDER THE NULL HYPOTHESIS, FOR EACH OF THIRTY-TWO CHILDREN

N = number of offensive acts by child

x = number of times child received a punitive response from adult

X/N = relative frequency of punitive responses from adult

$p(x)$ = binomial probability of x or fewer punitive responses under the null hypothesis: $(x/n \geq .45)$.

Lac du Flambeau children

Child	HH Name	N	x	x/n	$p(x)$
1	Hunt	11	1	.091	.01393
2	Hunt	10	0	.000	.00253

TABLE 5.12 -- <u>continued</u>

<u>Child</u>	<u>HH Name</u>	<u>N</u>	<u>x</u>	<u>x/n</u>	<u>p(x)</u>
3	Hunt	20	0	.000	.00001
10	Mandámin	44	2	.045	.00000
11	Mandámin	29	3	.103	.00007
12*	Mandámin	5	0	.000	.05033
18	Reed	17	0	.000	.00004
19	Reed	22	0	.000	.00000
20	Clauson	13	2	.154	.02691
21	Clauson	10	0	.000	.00253
22	Clauson	7	0	.000	.01522
26	Robinson	66	1	.015	.00000
28	Robinson	19	0	.000	.00001
29	Robinson	19	0	.000	.00001
30	Robinson	19	0	.000	.00001
31*	Robinson	58	0	.000	.00000
36	Waswagen	24	1	.042	.00001
45	Fitch	22	1	.045	.00004
46	Fitch	51	0	.000	.00000
47*	Fitch	36	5	.139	.00008
55	Marshall	22	1	.045	.00004
56	Marshall	50	1	.020	.00000
60	St. Louis	21	2	.095	.00056
61	St. Louis	56	1	.018	.00000

*Child less than two years of age

TABLE 5.12 -- continued

Berens River children

Child	III Name	N	x	x/n	p(x)
65	Mukkwa	13	0	.000	.00042
66	Mukkwa	13	0	.000	.00042
67	Mukkwa	13	0	.000	.00042
82	Mukoman	6	1	.167	.16357
84*	Mukoman	10	0	.000	.00253
87	Wasse	12	0	.000	.00077
94	Šíšíp	7	0	.000	.01522
95	Šíšíp	9	0	.000	.00461

The null hypothesis (that the relative frequency
of punishment is not significantly different from .45)
can be rejected at the .05 level for 30 of the 32 child-
ren (93.75%). If the .01 level were used, it could still
be rejected for 26 of the 32 children (81.25%) for whom
5 or more observations were recorded.

Summary of results of the Group I theory

It is clear that the observed relative fre-
quency with which children experience punishment in
both samples is significantly below the hypothetical
minimum relative frequency (.45) deduced from this

*Child less than two years of age

version of Group I theory. Neither the composite data
nor the individual data offer any support for the theory
that the emotional restraint of typical Ojibwa is
produced by frequency and severe punishment.

Group II learning theory

This application of the theory rests on the
assumption that restraint is motivated by the values
and subjective probabilities of the "fear of self"
theory. Mowrer's notion that subjective probabilities
come to match objective probabilities is retained in a
modified form. Rather than holding that the subjective
probabilities of a given outcome match the objective
probabilities of the same outcome, it is held that the
subjective probabilities of a given outcome (severe
injury to another individual) following aggression,
match the objective probabilities of a different
outcome (acquiescence by the other individual) following
very limited aggression.

In short, this theory holds that the learner
makes less direct inferences from his experience, while
the other theory holds that the learner makes only the
most direct inferences from his experience.

From the formal model of the typical Ojibwa as
postulated by the "fear of self" theory, it was deduced

that, if the adults acquiesce in the minor offensive behavior of the child with a relative frequency of .75, this would be sufficient for the child to infer that the probability of serious injury to another following less minor aggression is equal to .75.

An adult was considered to acquiesce in the offensive behavior of a child whenever the adult chose a course of action which was not adequate to produce a change to acceptable behavior on the part of the child. Thus all of the instances listed in the right-hand half of table 5.13 are instances of adult acquiescence in the offensive behavior of the child since these are the instances in which the "child's behavior does not become acceptable following the adult's response".

TABLE 5.13*

OUTCOMES OF SITUATIONS IN WHICH A CHILD BEHAVES IN A MANNER OFFENSIVE TO ADULTS. ALL OBSERVATIONS AT LAC DU FLAMBEAU AND BERENS RIVER

	Child's behavior becomes acceptable following adult response				Child's behavior does not become acceptable following adult response				
	Adult response				Adult response				
	C1	C2	C3	C4	C1	C2	C3	C4	Totals
No.	5	135	9	10	380	223	5	0	767
%	.65	17.6	1.2	1.3	49.5	29.2	.65	0	100.1

*This table duplicates table 5.9 above.

Composite data and the Group II theory

As can be seen from Table 5.13, 608 of the total of 767 situations had outcomes involving adult acquiescence. The overall relative frequency of adult acquiescence is thus .793, which is greater than the minimum relative frequency (.75) required by the Group II theory. The composite data are therefore consistent with the Group II theory.

Because of the tendency of Ojibwa adults to adjust to the demands of children less than two years of age, table 5.14 presents the data for all the children two years old or older.

TABLE 5.14*

OUTCOMES OF SITUATIONS IN WHICH A CHILD BEHAVES IN A MANNER OFFENSIVE TO ADULTS. CHILDREN UNDER TWO YEARS OF AGE OMITTED

	Child's behavior becomes acceptable following adult response				Child's behavior does not become acceptable following adult response				
	Adult response				Adult response				
	C1	C2	C3	C4	C1	C2	C3	C4	Total
No.	3	133	8	10	270	216	1	0	641
%	.5	20.7	1.2	1.6	42.1	33.7	.2	0	100.0

There are 487 outcomes in which the adult ac-

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*This table duplicates table 5.10 above

quiesced in the child's offensive behavior in the total of 641 incidents. This gives a relative frequency of acquiescence of .760 which is still above the theoretical minimum relative frequency (.75).

Perhaps a description of some incidents involving acquiescence on the part of adults will clarify the meaning of _acquiescence_. The following incident occurred in the Robinson household in the summer of 1966.

> Old Robinson is sitting in the yard whittling. Three of his grand-daughters, aged six to eight, and some other girls are playing nearby with a blanket. A couple of them are under the blanket staggering and crawling around while the others are pulling and pushing the ones underneath. Old Robinson says, somewhat crossly, "You'll tear that blanket." The six-year-old answers flatly, "No," and the game continues uproariously. No further reaction from Old Robinson.

The following incident is from my notes on the household of Wasse, the medicine man from Little Grand Rapids, the most culturally conservative household in the sample. Alō is Wasse's youngest child, a boy of four. Alō's mother is sitting on the ground inside the tent, but near the door. In the back part of the tent, a group of girls is playing with the infant son of Alō's eighteen-year-old sister.

> Alō showed considerable interest in the baby, too, but after a few minutes, he climbed into his

mother's lap and reached inside her dress. In a few moments he was "nursing" his mother's undoubtedly dry breast. The baby's mother came in and began nursing the baby. Aló continued to "nurse" as long as the baby did. Aló's mother made no attempt to prevent his "nursing", nor did she encourage him.

Comparison of Berens River and Lac du Flambeau

Because of the interesting differences in "directiveness," between Flambeau and Berens River adults revealed by the examination of adult behavior it may be significant to contrast childhood experiences at the two locations. Table 5.15 presents the data for all observations at the two locations separately.

TABLE 5.15

OUTCOMES OF SITUATIONS IN WHICH A CHILD BEHAVES IN A MANNER OFFENSIVE TO ADULTS. COMPARISON OF ALL OBSERVATIONS AT BERENS RIVER WITH ALL OBSERVATIONS AT LAC DU FLAMBEAU

		Child's behavior becomes acceptable following adult response				Child's behavior does not become acceptable following adult response				
		Adult response				Adult response				
		C1	C2	C3	C4	C1	C2	C3	C4	Total
BR	No.	0	12	1	2	75	11	0	0	101
	%	0	11.9	1.0	2.0	74.3	10.9	0	0	100.1
LF	No.	5	123	8	8	305	212	5	0	666
	%	.8	18.6	1.2	1.2	45.8	31.8	.8	0	100.2

There were 666 observations at Lac du Flambeau. In 522 of these, the child received acquiescent responses from the adult. Children at Lac du Flambeau thus experience adult acquiescence with a relative frequency of .785. At Berens River, the adults acquiesced 86 times in the 101 cases observed. Berens River children experience adult acquiescence with a relative frequency of .851, which is slightly higher than the relative frequency at Lac du Flambeau. Both relative frequencies are clearly above the minimum required by the Group II theory.

In the case of the children who were two or more years of age, the basic data are given in table 5.16

TABLE 5.16

OUTCOMES OF SITUATIONS IN WHICH A CHILD BEHAVES IN A MANNER OFFENSIVE TO ADULTS. COMPARISON OF CHILDREN TWO YEARS OLD AND OLDER AT LAC DU FLAMBEAU WITH SIMILAR CHILDREN AT BERENS RIVER

		Child's behavior becomes acceptable following adult response				Child's behavior does not become acceptable following adult response				
		Adult response				Adult response				
		C1	C2	C3	C4	C1	C2	C3	C4	Total
BR	No.	0	12	1	2	51	8	0	0	74
	%	0	16.2	1.4	2.7	68.9	10.8	0	0	100.0
LF	No	3	121	7	8	219	208	1	0	567
	%	.5	21.3	1.2	1.4	38.6	36.7	.2	0	99.9

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For the Lac du Flambeau children, there were
428 instances of adult acquiescence in 567 obser-
vations -- a relative frequency of .755. This relative
frequency is still above the theoretical minimum, but
just barely. For the Berens River children, there were
59 instances of adult acquiescence in 74 observations --
a relative frequency of .797.

The data for the six children who were less than
two years of age are presented in table 5.17.

TABLE 5.17

OUTCOMES OF SITUATIONS IN WHICH A CHILD BEHAVES IN A
MANNER OFFENSIVE TO ADULTS. CHILDREN LESS THAN TWO YEARS
OLD: BERENS RIVER AND LAC DU FLAMBEAU COMPARED

		Child's behavior becomes acceptable following adult response				Child's behavior does not become acceptable following adult response				
		C1	C2	C3	C4	C1	C2	C3	C4	Total
BR	No.	0	0	0	0	24	3	0	0	27
	%	0	0	0	0	88.9	11.1	0	0	100.0
LF	No.	2	2	1	0	86	4	4	0	99
	%	2.0	2.0	1.0	0	86.9	4.0	4.0	0	99.9

All 27 of the indicents involving children less
than two observed at Berens River ended with parental
acquiescence. Ninety-four of 99 incidents at Lac du

Flambeau ended with adult acquiescence**

Individual Data and Group II theory

More important than the agreement between the
composite data and the requirements of the Group II
theory is the answer to the question, "For how many
children does the relative frequency with which they
receive acquiescent responses from adults depart so
far from the hypothetical relative frequency that it is
reasonable to conclude that the observed frequency is
unlikely if the hypothesis were correct?". Table 5.18
gives the basic individual data and statistical tests
of the data from which this question can be answered.
The table covers all children for whom five or more
observations were recorded.

**The difference between the relative frequencies
of adult acquiescence to these very young children in
the two places may be misleading. All of the cases in
which the child conformed to adult demands involved the
rejected little girl who also received more than one-fifth
of all the punitive adult behavior observed. When the
data from this child are omitted, there is no difference
in adult acquiescence between the two groups.

TABLE 5.18

GROUP II LEARNING THEORY. NUMBER OF OFFENSIVE ACTS,
NUMBER OF ACQUIESCENT RESPONSES RECEIVED, RELATIVE
FREQUENCY OF ACQUIESCENCE AND BINOMIAL PROBABILITY OF
OBSERVED NUMBER OF ACQUIESCENT RESPONSES UNDER THE
NULL HYPOTHESIS, FOR EACH OF THIRTY-TWO CHILDREN.

N = number of offensive acts by child

x = number of times child received an acquiescent re-
sponse from adult

x/N = relative frequency of acquiescent responses from
adult

$p(x)$ = binomial probability of x or fewer acquiescent
responses under the null hypothesis $(x/n \geq .75)$

Lac du Flambeau children

Child	Household	N	x	x/N	$p(x)$
1	Hunt	11	4	.364	.0077
2	Hunt	10	7	.700	.4774
3	Hunt	20	6	.300	.0000
10	Mandámin	44	35	.795	.8101
11	Mandámin	29	22	.959	.6179
12*	Mandámin	5	5	1.000	1.0000
18	Reed	17	12	.706	.4299
19	Reed	22	18	.818	.8402
20	Clauson	13	9	.692	.4191
21	Clauson	10	8	.800	.7582
22	Clauson	7	6	.857	.8678

*Child less than two years of age.

TABLE 5.18 -- continued

Child	Household	N	x	x/N	p(x)
26	Robinson	66	52	.788	.8064
28	Robinson	19	15	.789	.7401
29	Robinson	22	17	.733	.6804
30	Robinson	19	13	.684	.3360
31*	Robinson	58	58	1.000	1.0000
36	Waswagen	24	22	.917	.9912
45	Fitch	22	18	.818	.8402
46	Fitch	51	38	.745	.5279
47*	Fitch	36	31	.861	.9668
55	Marshall	22	18	.818	.8492
56	Marshall	50	35	.700	.2573
60	St. Louis	21	16	.762	.6366
61	St. Louis	56	50	.893	.9979

Berens River children

Child	Household	N	x	x/N	p(x)
65	Mukkwa	13	10	.769	.6704
66	Mukkwa	13	12	.923	.9767
67	Mukkwa	13	13	1.000	1.0000
82	Mukoman	6	4	.667	.4684
84*	Mukoman	10	10	1.000	1.0000
87	Wasse	12	10	.833	.8435
94	Šišip	7	6	.857	.8670
95	Šišip	9	7	.778	.7021

*Child less than two years of age.

The table shows that there are just two children
for whom it is clearly <u>unlikely</u> that the observed
frequency of adult acquiescence is a sample from a
population of experiences in which the relative frequency
of adult acquiescence is .75 or more. For both of these
children, the probability that the sample of experiences
came from the hypothetical population of experiences is
less than .01. For the other thirty children, the
probability that the sample came from the hypothetical
population is greater than .25. For twenty-three of the
children, this probability is greater than .50.

The two children for whom this hypothesis can
be rejected are both members of the Hunt family --
the family which has accepted most of the values of the
white middle-class. The fact that this hypothesis can
not be rejected for the middle child of this family
provides a problem. There is a possible explanation in
a statement by his mother. She volunteered the infor-
mation that this child had been so sickly when younger
that they had "spoiled" him. If this is so, they have
not altered their behavior toward him to match their
behavior toward the others.

Summary for Group II learning theory

It seems clear that there is no basis in the data

for rejecting the Group II learning theory. As presently

formulated, its predictions are not precise enough in

the individual case to be entirely convincing as to its

correctness, but it is clearly a better guide than

is the Group I theory.

CHAPTER VI

THE WINDIGO BELIEF AND THE "FEAR OF SELF" THEORY

Introduction

Some slight additional support for the "fear of self" theory may be secured from an examination and interpretation of the windigo belief common to all the Northern Algonkian tribes.

A number of studies of the "windigo psychosis" have been published (Folelson 1965; Hallowell 1934; Landes 1938; Parker 1960; Teicher 1960). Some of these have concentrated on the conclusions which may be drawn from study of this pathological adjustment. I shall not follow this practice, but I shall attempt to draw some conclusions about the typical personality of the Ojibwa from the widely shared <u>beliefs</u> about the "windigo sickness" rather than concentrating on the pathology of sick people involved.

I have drawn heavily on Teicher's monograph (1960) in which he had emphasized the importance of the beliefs about windigoes and windigo sickness. Although my conclusions are somewhat different from his, his compilation of cases of "windigo psychosis" has been fundamental to my efforts.

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The Windigo Belief

The nature of the windigo belief has been well
presented by Teicher. A few quotations from his
monograph will serve to elucidate the belief here.

Throughout the large area inhabited by the
Algonkian-speaking Indians of Northeastern Canada,
the belief in a superhuman, man-eating giant is
tenaciously held. This being is given a variety
of names, all referring to the same fabulous monster
who lives in the dark forest, preying on the Indians
to gratify his insatiable lust for human flesh.
An awesome and grotesque creature, some twenty to
thirty feet tall, windigo is fearsome and blood
curdling (1960:2).

There are a variety of explanations as to how
the windigo came into being. Of these, the one
held most frequently is that the windigo was formerly
a human being who was transformed into his super-
human state of [by?] sorcery. In this transfor-
mation process, the individual developed a heart of
ice. His body swelled to the size of a pine tree
and became as hard as stone, impenetrable by a
bullet or arrow and insensitive to cold. (1960:3
citing Cooper 1933).

For present purposes the essential element of
this belief is the idea that any Indian can be trans-
formed into a supernatural giant with an insatiable
hunger for human flesh. In terms of this belief, "one
who develops this craving for human flesh or is con-
sidered to be in process of doing so is called a windigo"
(Teicher 1960:5).

Generality and Intensity of Belief

It seems clear that there were few Northern
Algonkians who did not share the windigo belief in the
past. Three paragraphs from Teicher's monograph (1960:4)
will indicate that many Indians still accepted the
windigo belief as recently as 1950.

In 1950, 1,300 Saulteaux [Ojibwa] living at
Island Lake, 326 miles northeast of Winnipeg, were
completely disrupted and thrown into a state of total
panic and trepidation for an entire summer by the
rumor that a windigo was on the prowl. (Teicher
cites B. Paterson in The Winnipeg Free Press, August
2, 1952 for this statement.)

Writing just a few years earlier about the
Montagnais-Naskapi, a geographer reported that
numerous terrifying spirits still range the forests
...Windigo, the giant cannibal...who lives on human
flesh...no one among them would dare to doubt the
existence of the cannibal giant Windigo..." (Teicher
cites V.A. Tanner, Outlines of the Geography, Life
and Customs of Newfoundland - Labrador, Cambridge,
Mass.: University Press, 1947 for this quotation.)

About 100 miles northwest of Sioux Lookout in
Northwestern Ontario is a small lake called Packwash
Lake. The contemporary Ojibwa believe that a windigo
resides there and claims at least one life each year.
Their fear is so intense that the area is studiously
avoided. (Teicher cites R. Morenus, Crazy-White-
Man, New York; Rand-McNally, 1952.)

Internalization of the Belief

The quotations above suggest that the windigo
belief receives more than merely verbal assent. The
case reports quoted by Teicher emphasize how thoroughly

this belief was incorporated into the emotional reactions
of the Indians.

In fifteen cases, a person considered to be in
process of becoming a windigo was killed before attacking
anyone. The intensity with which the windigo belief was
held is indicated by the relationships to the victim of
those involved in these preventive executions. In
seven cases, the executions were carried out by band
members of unspecified relationship to the deceased.
In two cases, youn men were executed by their own
fathers. A woman was executed by her two sons and
a man by his wife, later approved by his "closest rel-
atives." One of the people, a Mrs. Cochran was executed,
at her own request, by her brother-in-law, in the presence
of her assenting husband and children. Another, David
Meekis, was executed by two of his brothers and two other
men. A young woman was killed by her father-in-law and
three other men with the consent of her husband. Yet
another, Me-new-as-cum, was killed by some apparently
unrelated men at the urging of his wife.

The windigo belief was also shared by at least
some of the victims of the "windigo sickness". An
old woman who was believed to be becoming a windigo
told Hallowell's informant "...that if she became a
wihtigo she would be as tall as the trees and nothing

could stop her..." (Teicher 1960:64-65, from unpub-
lished field notes of A.I. Hallowell). This woman was
cured through the efforts of a missionary.

In another case, "...a helpless, aged and ailing
..." old woman was reported to have said that "...if
she isn't dead before the sun goes out tonight she
cannot be killed and will then begin to eat the
children" (Teicher 1960:88). This old woman was one of
those executed by her band before she could become in-
vulnerable and begin to eat the children.

Clearly, the windigo belief had been thoroughly
internalized by these old women, by the Island Lake
people who spent a summer in a "state of trepidation
and panic", by those who avoided Packwash Lake, and
by all those who executed their relatives or friends
before the windigo transformation could become complete.

If it is assumed that such thoroughly inter-
nalized beliefs must be consistent with the personal
experiences of the individuals who held the beliefs,
on what experiences does the windigo belief rest?

Possible bases of the windigo belief in individual experience

Teicher suggests that the belief has been
"...built up by inductions from actual experiences of
starvation and cannibalism" (1960:110). But, given

the rarity of cases of actual cannibalism -- Teicher
found forty-four cases for the entire area for a period
of 300 years -- it seems very unlikely that very many,
if any, of the total of seventy windigoes had had any
direct personal experience with cannibals prior to their
own illnesses. (Fogelson 1965:88 accepts Teicher's
conclusion of rarity.) Even if they had had such ex-
periences, such experiences would not account for belief
in an invulnerable giant -- particularly since most of
the cannibals were clearly vulnerable when they were
killed to prevent their continuance of cannibalism.

Teicher, himself, notes this discrepancy.

> Nevertheless, the unavoidable conclusion is that
> windigo psychosis is a relatively rare phenomenon.
> This is particularly striking in the face of the
> widespread nature of the windigo belief and its
> great importance in the lives of the people. It
> clearly illustrates the way in which a belief may be
> more important than the facts on which it depends
> (1960:107).

It may well be the case, however, that actual instances
of cannibalism are not "...the facts on which it [the
belief] depends." It seems to be the case that such
thoroughly internalized beliefs can not, for most of
the believers, depend on having witnessed actual
cannibalism. It is certainly the case that belief in
a supernatural, cannibal giant does not depend on

having witnessed a real supernatural giant. There is,

however, an alternative experiential base for accepting

a belief in a cannibal giant.

There is a psychodynamic basis for the inter-

nalization of the windigo belief. The basis for inter-

nalization of the windigo belief which I shall propose

here is derived from Spiro's proposal of a basis for

acceptance by the Ifaluk of a belief in malevolent

ghosts. Since my proposal parallels Spiro's proposal

rather closely, I shall summarize Spiro's proposal,

quoting relevant passages from his article.

The beliefs of the Ifaluk concerning malovolent

ghosts called <u>alus</u> are paradoxical since:

> ...the alus are conceived of as the ghosts of
> evil people, but according to both the Ifaluk and
> ethnographic observation there are no evil people
> in Ifaluk. If so, how can there be alus? Our
> analysis, however, has revealed (by implication)
> that there are evil people in Ifaluk. (1953:381).

Every Ifaluk has repeatedly experienced an evil person:

> <u>The evil person that the adult experiences is</u>
> <u>himself</u>, for everyone who experiences hostile
> drives within himself is evil. Thus, psychologically
> viewed, the tradition is true (1953:381 emphasis
> in original).

This could also be interpreted to say that the Ifaluk

believe that anyone can be come a malevolent ghost
because at some level of consciousness, each of them
"knows" that it is possible for himself.

Similarly, the northern Algonkians never actually
see any cannibal giants, but they have internalized the
belief that any one of their own number can become a can-
nibal giant. If the parallel with Spiro's argument is
valid, it must be maintained that those northern Algon-
kians who internalize the windigo belief must "know",
at some level of consciousness that they could become
windigoes; that is, they must be, in some sense, aware
of a feeling of rage and of an "unconscious" (and
grossly exaggerated) sense of great destructive power.

This awareness of destructive power and hostility
is also a basic assumption of the "fear of self"
theory which received support from the observations of
adult-child interaction.

The translation of "destructive power and
hostility" into a symbolic cannibal giant seems to be
quite consistent with what we know of unconscious
symbolism. It seems legitimate to apply to this case
Freud's assertion that "....a colourless and abstract
expression of the dream-thought is exchanged for one that
is pictorial and concrete", (1938:361) since Freud also
assures us "...that symbolism does not appertain
especially to dreams, but rather to the unconscious

imagination..." (1930:369).

Following a somewhat different route, Wallace

arrives at a conclusion consistent with the above:

> Oral-aggressive impulses are projected in the
> dread of cannibalistic monsters, the windigos; that
> the windigo is really a projection of the Ojibwa
> personality under stress, is evident in the fact that
> the Ojibwa are known to have a form of neurosis or
> psychosis characteristically their own, in which
> the victim imagines himself to be transformed into
> a cannibalistic monster. (1952:103 emphasis sup-
> lied).

The problem of the apparent inconsistency between the self-image as powerful and Ojibwa dependence

Psychological dependency is a generally rec-

ognized characteristic of the Ojibwa (Parker 1960:

606-7; Wallace 1952:104; Barnouw 1963:151). How can

this dependency with a self-image of "helplessness" be

consistent with a self-image of power and hostility?

There are (at least) two approaches to the origins

of dependency in the literature. Horney (1937) can be

taken to represent one of these approaches and Kardiner

(1939) the other. Both writers emphasize the objective,

or factual, dependence of the child on its parents

(Horney 1937:85; Kardiner 1939:31-34). From this point

they diverge markedly.

Horney tacitly assumes that the infant not only
is dependent, but feels dependent. She then builds
her theory of neurosis on the perpetuation of this
dependency. She takes this psychological dependency to
be the ultimate motivation for the repression of hos-
tility which she regards as the most frequent basis for
neurosis (1937:63).

Kardiner, on the other hand, carefully dis-
tinguishes between the infant's factual dependence and
the infant's feelings:

> ...infants do not perceive their helplessness,
> but on the contrary feel as if they control the
> world (1939:34-35).

He goes on to explain how this occurs:

> The helplessness of the child is conceded by the
> parent, aid is given unsolicited...the mother can
> interpret his every discomfort and can do for him
> what he can not yet do for himself...the control
> over the environment exerted by the infant through
> the mother's agency is very like the one we sub-
> sequently observe in magic practices...A few
> vocalizations of the child set in motion a series
> of complicated changes in the outer world which the
> child does not understand, but which terminate in
> easing his tension...During this period of magic
> control through the mother, we cannot speak of the
> child's attitude of dependency. For such an
> attitude to exist, it is necessary to have a wish
> tension, a knowledge of the inadequacy of resources
> to satisfy it by oneself, and an attitude of de-
> manding this satisfaction from someone else (1939:
> 35-36).

My observations of the relations of Ojibwa
mothers and their infants are, with one exception,
examples of Kardiner's description. (The one exception
was the little girl of eighteen months at Flambeau who
received five of the total of twenty-four punitive
responses received by all observed children). For all
of the others, a cry was followed by nearly instant
attention and satisfaction of the infant's needs. If
Kardiner's theorizing is correct, this infantile exper-
ience should lay the foundations for a feeling of power.
The assumption that Ojibwa have this feeling of power
(at least where their aggressive impulses are concerned)
is a fundamental element of the "fear of self" theory.
The same assumption is also basic to the explanation
presented above of the windigo belief.

Kardiner continues:

> The period of magic omnipotence in the infant
> does not go on very long: for the child is propelled
> by the process of growth, which simultaneously changes
> both the needs and the resources of the child.
> However, the resources never catch up with the
> needs...Whenever a situation develops which the child
> cannot meet, and which is accompanied by a recog-
> nition of the limitation of his resources and an
> expectation of outside help, we have an attitude of
> dependency....The attitude of dependency can be said
> in every case to be due to a failure of resources;
> but this failure may be due to the social pro-
> hibition of the exercise of certain impulses, to
> constitutionally determined inadequacies or to
> accidental interferences (1939:37).

The Ojibwa child manages to retain his belief in his own omnipotence in at least one area -- the area of his power to injure others. When he annoys an adult, the adult acquiesces in the annoyance three-fourths of the time. According to the cognitive learning theory employed here, this should result in the child's coming to believe that he is too powerful for the adult to control. This belief then leads him to inhibit his aggressive impulses for fear of injuring those whom he also loves. This then has the consequence that, when someone makes him angry, he cannot take action to end the other's annoying behavior. In short, his resources fail every time somebody angers him. If this inter-pretation is correct, his belief in his own power results in his helplessness before the aggression of others.

Horney, I find, has long ago enunciated this idea; although she does not trace it to feelings of power:

> Repressing a hostility means "pretending" that everything is all right and thus refraining from fighting when we ought to fight, or at least when we wish to fight. Hence the first unavoidable con-sequence of such a repression is that it generates a feeling of defenselessness, or to be more exact, it reinforces an already given feeling of defense-lessness. If hostility is repressed when a person's interests are factually attacked it becomes possible for others to take advantage of him (1939:64).

The main reasons why awareness of hostility may
be unbearable are that one may love or need a
person at the same time one is hostile toward him
... (1939:66).

This inability to cope with the annoying behavior

of others is a large and important aspect of inter-

personal relations and it seems unlikely that very many

people could maintain a genuine indifference to their

inability to deal effectively with such situations.

Horney, seems to hold that inhibition of aggressive

impulses may be sufficient to account for general de-

pendency. Writing of sources of "a weak and helpless

attitude toward life" she asserts:

Or, most frequently, he may have a general
notion of having inferiority feelings. These feelings
are the result rather than the cause of his tendency
to recoil from self-assertion (1939:256).

Since the feelings of dependency are relatively

conscious while the earlier self-image as powerful and

destructive is closer to completely unconscious, the

inconsistency of the two beliefs need not become

evident to the individual who simultaneously accepts

both of them. It is possible that the belief in their

own helplessness helps them to control their aggressive

impulses.

CONCLUSIONS AND IMPLICATIONS

The Theories of Motivation

General

Two hypotheses, one from each of two theories
of the motivation of Ojibwa restraint, have been
tested with data derived from observation of 767
incidents of adult-child interaction.* These incidents
involved twenty-two adults and twenty-four children
from Lac du Flambeau, Wisconsin and seven adults and
eight children from Berens River, Manitoba.

The tests of these hypotheses, and therefore
of the theories from which the hypotheses were derived,
were independent of each other. That is, the rejection
of one hypothesis did not entail the acceptance of the
other hypothesis and the theory from which it was
deduced. The statistical tests could have resulted in
the rejection of both hypotheses and both theories.

These two theories of the motivation of Ojibwa
restraint (one from Hallowell and one from Freud,

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*For the test of the "fear of self" theory, two
adults and ten incidents in which they figured are omitted
from the statistical analysis.

Bettelheim, and Erikson) were partially formalized

(see appendix) in the framework employed by some decision

theorists (Ackoff 1953, 1962; Churchman 1961: Churchman

and Ackoff 1947a, 1947b; Churchman, Ackoff, and Arnoff

1957). This formalization has two related purposes.

First, to make the relationship of the hypotheses to

the theories so rigorously deductive that tests of the

hypotheses are clearly tests of the theories from which

the hypotheses were deduced. Second, to provide

quantitative estimates of the subjective probabilities

of certain outcomes which would be necessary to explain

(within each of the theories) the behavior of the typical

Ojibwa. These estimates of the subjective probabilities

are also used in testing the theories of the manner in

which Ojibwa restraint is learned.

The "fear of others" theory

Statement of theory and hypothesis

I have called the theory taken from Hallowell

the "fear of others" theory. The basic notion of this

theory is that the restraint characteristic of the typical

Ojibwa depends on the value he attaches to avoiding

serious injury to himself and on his belief that, if

he offends another Ojibwa, there is a significant

probability that the other will injure him through sorcery.

The test of this theory rests on the assumption that the Ojibwa do not believe that children are capable of sorcery (Landes 1937:117), from which (in combination with the rest of the theory) the hypothesis is deduced that they should be much less restrained in dealing with an offending child than they are with adults.

Conclusions

The data are not consistent with this hypothesis. It can be rejected at the .01 level for 27 out of 29 adults. The data for the other two adults, although not statistically significant, is inconcsistent with the null hypothesis also. Of course, if the assumption that children are believed to be incapable of sorcery is false, then the hypothesis which was tested can not be deduced from the theory. The data presented could then be used to argue that the Ojibwa "really" believe that children have supernatural powers. The assumption that children are believed to have magical powers, however, seems inconsistent with the readiness of the Ojibwa to attribute such powers to adults and their insistence that the child "...fast for knowledge and abilities or he will be helpless in the struggle for life" (Landes 1937:117). Since the Ojibwa do not attack even the children, who cannot retaliate, I conclude that the restraint characteristic of the typical Ojibwa is

<u>not</u> due to fear of retaliation by others.

Implications

Most generally, and most obviously, this con-
clusion implies that fear of retaliation is not the
only motive people have for not attacking others.

The "fear of self" theory

Statement and Hypothesis

I have called the theory taken from Freud
(1963:62-63) and other psychoanalysts (Bettelheim
1950:207-208; Erikson 1963:195-208) the "fear of self"
theory. The underlying idea of this theory is that
restraint of the degree characteristic of the typical
Ojibwa depends on the value he places on not doing
serious physical or psychological injury to other
people and on his belief that, if he directs or attacks
another Ojibwa, there is a high probability that such
injury to the other will occur. The original hypothesis
tested for this theory asserted that, when offended by
a child, adults would choose neither to direct nor
attack with the same very high frequency with which they
choose that course of action when offended by another
adult.

This hypothesis was accepted for fifteen of the twenty-seven adults. Under this hypothesis, the observed frequencies of choice of the _punitive_ courses of action are very close to the predicted frequencies. The observed frequencies of choosing to direct and not to attack are higher than predicted and the observed frequencies of choosing neither to direct nor attack are lower than predicted. When it was also noted that the frequency of choice of directing was higher at Lac du Flambeau than Berens River, it was hypothesized that the higher frequency of this choice was a function of level of acculturation. Following this acculturational hypothesis, the assumed subjective probabilities of moderately or seriously injuring a child through directing him were reduced -- slightly for the Berens River group and somewhat more for the Flambeau people.

Ideally, these new hypotheses should have been tested with new data. Since this was out of the question with the available resources, they were tested against the previously used data. Following these modifications, there were no rejections for the seven Berens River cases and only five rejections (all at .01) for the twenty Lac du Flambeau cases. Six of the seven Berens River cases and thirteen of the twenty Flambeau cases must be accepted even at the .20 level. If the observed _average_

frequencies of choice for each location

are used, the deviations from the predicted frequencies

are very slight.

Conclusions

The "fear of self" theory is roughly consistent

with the data even under the first hypothesis tried.

Under the hypothesis that adults at higher levels of

acculturation regard directing as less dangerous to child-

ren, the observed behavior is in surprisingly close

accord with the predictions. The supports the theory that

Ojibwa restraint is motivated by the desire _not_ to injure

others seriously and by the belief that any attack on

another will result in serious injury to the other.

In so far as, the "fear of self" theory

implies that the Ojibwa conceive of themselves as

powerful and dangerous to others, it is supported by

the analysis of their acceptance of the windigo belief.

Implications

If the "fear of self" theory is, indeed, even

approximately correct, it implies that positive feelings*

_____

*By "positive feelings" I mean "friendliness" or
"liking". I think that such feelings may exist in all
people who have had satisfying relationships with others.
These feelings _may_ spring from dependency, but it does not
seem to be _necessary_ to assume that this is _always_ the case.

toward others play a more important role in human behavior
than most of our explicit theories concede. This
suggests that predictions of another's behavior on the
basis of "a rational assessment of his self-interest" --
as that phrase is usually construed -- are likely to be
in error. This should not be taken to imply that there
are no people who do not act exclusively on the basis
of narrow self-interest as least some of the time. I
do mean to imply that altruism should not be excluded
a priori.

It seems likely that a theory which took into
account both the fear of retaliation and the fear of
one's own anger in differing proportions would give
better predictions for people who are less rigidly re-
strained than the Ojibwa. There is no reason why such
a theory can not be formulated.

Theories of the Development of Restraint

General

Two hypotheses, one from a stimulus-response
type of theory and one from a more cognitive type of
theory have been tested. The same data used in testing
the theories of motivation are used in testing these
learning hypotheses, but these data are now analyzed

in terms of the learning experiences of each child.

As in the case of the motivational theories, the tests of these hypotheses are independent of each other. Rejection of one hypothesis does not imply acceptance of the other.

Group I, or S-R, theory
Statement of theory and hypothesis

This theory asserts that an individual will expect any given outcome to follow a particular kind of act only if he has chosen that particular kind of act and the given outcome has followed it. Mowrer (1960b: 347) states that the subjective probability of a given outcome for an individual tends to equal the objective probability of its occurrence in his previous experience. From the formal "fear of others" theory, it was deduced that the minimum subjective probability of retaliation necessary to account for the restraint of the Ojibwa is .45 (see appendix). Hence, the hypothesis tested is: Ojibwa parents punish offending children with a relative frequency of at least .45.

Conclusions

The average observed relative frequency of punishment of offending children is .031. When tested

individually for each child, this hypothesis was rejected
at the .05 level for thirty of the thirty-two children.
It seems clear that these Ojibwa do not learn restraint
as a consequence of punishment for offensive behavior
in childhood.

Implications

Many students of child development have con-
cluded that a simple stimulus-response theory is inad-
equate to account for all of human learning (of Mowrer
1960b; Bandura and Walters 1963; Sears, Rau, and Alpert
1965). The conclusion of this part of this study supports
that view.

Group II, or cognitive, theory

Stated in terms of subjective probabilities, this
theory holds that the child infers that the probability
that another would be injured if he were to attack the
other is equal to the probability that adults respond
acquiescently to his offensive behavior. From the formal-
ization of the "fear of self" theory it was deduced that
the minimum subjective probability of injuring another by
an attack must be .75 to account for the high degree of
restraint of the typical Ojibwa.

Less precisely, but perhaps more clearly stated,

the high frequency of adult acquiescence leads the child
to believe that there is a high probability that, if he
were to attack an adult, the probability that the adult
would be seriously injured would be high. That is, the
high frequency of acquiescence leads the child to be-
lieve that he is powerful and dangerous. Therefore, the
hypothesis tested is: Ojibwa adults respond acquies-
cently to the offensive behavior of children with a
relative frequency of at least .75.

Conclusions

The average observed frequency of adult acquies-
cent responses to the offensive behavior of children is
.76. When tested for each child individually, this
hypothesis must be accepted for thirty of the thirty-two
children. For all thirty of these children the proba-
bility that the observed sample of their behavior came
from a distribution in which the relative frequency of
acquiescent responses by adults is greater than one in
four. For twenty-three of the children, this probability
is greater than one in two.

I therefore conclude that the restraint character-
istic of the typical Ojibwa is a consequence of adult
acquiescence in the offensive behavior of children.

Implications

This conclusion suggests that at least some of the
people in other societies who are emotionally restrained
reached that state by the same route as the Ojibwa. These
findings support the psychoanalytic hypothesis that adult
failure to control the child may lead him to overcontrol
himself.

When an adult is observed to be anxious or inhib-
ited about certain kinds of activities, there is a tend-
ency to attribute this anxiety or inhibition to "severe"
socialization concerning the activities about which he is
anxious or inhibited. If my conclusions about the develop-
ment of restraint by the Ojibwa are correct, then the
attribution of anxiety or inhibition to severity of
socialization is not always correct. At least in some
cases, the anxiety or inhibition may be due to social-
ization practices that would not ordinarily be described
as "severe."

Implications for the future of the Ojibwa

It seems clear that the Ojibwa (in the U.S. at
least) have no real choice but to become full partici-
pants in the dominant society. They apparently can not
maintain a really separate existence, and they can not
continue as dependent and second-class citizens without

complete loss of self-respect. But, their typical
personality creates a serious barrier to their becoming
full participants in our society.

For the Ojibwa (or other northern Algonkians) to
become full participants in our society, they will have
to become able to compete openly. If I am correct that
this inability to compete is a consequence of an un-
conscious conviction that to compete with another is to
threaten serious harm to him, then this change can not
be brought about by merely reducing the external barriers
(such as racial discrimination) to their competing in
our economic and social systems. Since the greatest
barrier to their fuller participation in our system is
internal, some way of changing their belief in their own
destructive powers must be found.

If my contention that this belief in their own
powers is a consequence of the extreme acquiescence of
Ojibwa parents to the offensive behavior of children,
then the development of this belief could be limited by
giving them more experience with adults who find it easy
to control children.

At present, nearly all of these Indians are ac-
quiring some experience in childhood with people who do
not hesitate to control them. These controllers are their
teachers. Since they do not go to school until they are

six or seven, this experience of people who are capable

of withstanding the "powers" of the Indian child probably

comes too late to change the underlying self-image. The

Indian children are already quite restrained before the

age of six. At Lac du Flambeau there has been a "head-

start" program which has been very popular with the Indian

children. This early experience with people who are not

so acquiescent as Indian adults, may do something to

counteract the belief of the children that they are too

powerful for others to withstand. The children might,

of course, come to conclude that, although whites are

strong enough to control them, Indians are not. This would,

however, still facilitate their assimilation into the

social system of the dominant group. It might be in-

teresting to investigate the behavior of those children

who participated in "Headstart" for varying lengths of

time.

Limitations of the Study and Suggestions for Future Research

Theoretical limitations

One merit of attempting to develop a partially

formalized theory is that it forces the scientist to

make many of his assumptions explicit. This may be hard

on the scientist, since explicit assumptions are ready

targets for criticism and investigation, but, by the
same token, scientific progress is accelerated.

Naturally, all of the assumptions, explicit and
implicit, of this study are potential targets for further
examination. I wish to call attention to just two of
them.

The first of these is my translation of Hallowell's
statements about restraint into the assumption that the
typical Ojibwa chooses to neither direct nor attack with
a relative frequency of at least .90. This quantitative
assumption conditioned all of the other quantitative
assumptions, especially those of the subjective probabil-
ities and of the decision rule. In the absence of
quantitative data about interpersonal relations, this
seemed a reasonable assumption. If this assumption is
erroneous it has had numerous effects on my conclusions.

To illustrate, let us suppose that .90 is too
low for this probability. If that is the case, then,
according to my data, Ojibwa adults treat children very
differently from adults in directing the children as
often as they do. On the other hand, if .90 is too
high, then the difference in treatment of children and
adults is smaller than I have concluded. Only a quan-
titative study of the reactions of adults to other adults
who have offended them can answer this question. If

such a quantitative study of adult interaction should become available, it would permit adjustment of my present data and the drawing of more accurate conclusions from them.

Another of my assumptions which seems reasonable but which may prove erroneous is the assumption that the learner equates the probability of adult acquiescence following offensive behavior with the probability of serious injury to the other following an attack on the other. The whole area of indirect learning is in need of a great deal of investigation. The fact that these assumptions did not result in unreasonable conclusions suggests that these assumptions may be approximately correct.

Statistical limitations

Since these conclusions are not based on a random sample of the Ojibwa population they can be generalized only to the extent that the sample used in this study is representative. The sample was not designed to represent the whole population, even of the two groups studied, but only those which were taken to approximate the typical personality and even here, no claims to genuine randomness can be supported. The most that can be said, is that the Flambeau sample seems to be quite heavily

weighted toward the culturally conservative families.

Observational limitations

The problem of recording the observations is significant. In most cases, notes had to be recorded from memory after leaving the observed people. Sound movies would be ideal from the point of view of recording all the interaction, but would be an even greater handicap to undistorted interaction than a notebook and pencil. Perhaps, a small, finger-operated device which could record general type of offensive behavior and the response of the adult could be developed. This would provide basic data and would facilitate the filling in of details from memory.

Lack of interview data

The "fear of others" theory explains Ojibwa restraint as arising from a distorted perception of the powers of others to injure or kill through magical means. The "fear of self" theory explains restraint as a consequence of the individual's distorted perception of his own powers to injure others. Data gathered from "depth" interviews with a sample of Ojibwa adults and children might have added to the evidence for or against either interpretation. Data from relatively "superficial"

interviews, reaching only the most conscious perceptions
of interpersonal relationships would have provided ad-
ditional material for interpretation. The effort to
understand both their actual adult-child behavior and
their verbalized views of the adult-child relationship
might have resulted in additions to our knowledge of
the connections between verbalized conscious perceptions
and overt behavior.

Unfortunately, very little interview data was
collected so the investigation of these interesting
topics must await future field work.

Suggestions for future research

One possibility which grows out of the tests of
the "fear of self" theory is the investigation of less
acculturated Ojibwa groups to see if the frequency of
directing is in fact a function of level of accultur-
ation.

Another investigation of some significance would
be a study of the effects on restraint, for the children
involved, of the "headstart" program at Lac du Flambeau.
Following the Group II learning theory, we should expect
that Ojibwa children who have the experience of being
in charge of people who are not hesitant to control
children should show some lessening of the character-
istic restraint.

Finally, theories of interpersonal behavior more general than the two presented above can be developed and tested by somewhat similar techniques of observation. Such theories could combine the values and subjective probabilities of the two theories presented here and they could contain additional values and beliefs. Such theories could also be applied to the study of intergroup behavior, with reference to competing or conflicting groups within a society or to intersocietal conflict or competition.

APPENDIX

FORMALIZATION OF THE TWO THEORIES

OF MOTIVATION

Introduction

The purpose of this appendix is rigorously to
derive some consequences of theories of Ojibwa person-
ality and its development to permit better tests of these
theories. Since the candidate explanatory theories of
Ojibwa typical personality are stated informally and
imprecisely, the first step is to put them into a more
rigorous form from which the reported bheavior of the
typical Ojibwa can be deduced. This will permit tests
of some additional consequences of these theories and
also provide better estimates of the values of certain
variables needed in testing the theories of development
of Ojibwa typical personality. These theories are very
simple, perhaps overly simple, but the formalization
of these simple versions should facilitate testing and
enrichment of these simple theories.

This presentation can be greatly facilitated
(though at the cost of learning some new symbolism) by
the introduction of the conceptual system employed in
contemporary decision theory. The presentation of
decision theory which follows is based principally on

on the works of C.W. Churchman and R.L. Ackoff (Churchman
and Ackoff 1947a, 1947b; Ackoff 1953, 1962; Churchman
1961; Churchman, Ackoff, and Arnoff 1957).

This system will be introduced by presenting its
elementary, or "primitive" concepts and then using these,
first, to restate Hallowell's description of typical
Ojibwa behavior, and, second, to explicate Hallowell's
"common-sense" theoretical explanation of this behavior.

Elementary concepts

The elementary concepts of the system are:

(1) an _individual_, I_k, whose behavior is to be pre-
     dicted or explained.

(2) a set of _courses of action_, C_i, which the individ-
     ual can choose.

(3) a set of possible _outcomes_ or consequences, O_j,
     of the courses of action.

(4) the _probability_, P_i, that the individual will
     select C_i in a specified environment.

(5) the _probability_, E_{ij}, that O_j will occur if C_i is
     selected by I_k in a specified environment.

(6) the _value_, V_j, of O_j to I_k.

(7) the _environment_, N, which consists of all the
     conditions which determine E_{ij}. The conce

logic and mathematics are also presupposed in the construction of the system.

Ojibwa behavior

Using these concepts we can begin to explicate the Ojibwa typical personality as described by Hallowell. We begin with some of the behavior which Hallowell seems to regard as central to the Ojibwa typical personality. He refers to "...suppression of any impulse to tell someone else what to do..." (1955:135) and to "...absence of overt aggression in face-to-face situations..." (1955: 278). "Telling someone else what to do" apparently describes a "course of action." We will abbreviate this description to "directing" and denote it be "c1." Similarly, "overt aggression" describes a different course of action which will be shortened to "attacking" and will be denoted by "c2."

For the present, we will restrict attention to the compound courses of action, Ci, which can be foremed from these two "primitive" courses of action.* These compound courses of action are:

$$C1 = c1'c2' -- \text{neither direct nor attack}$$

---

*"Direct" and "attack" can be defined within the system of Churchman and Ackoff, but for now they will be treated as "primitives" of the "fear of others" theory.

$$C2 = c1\ c2' \quad -- \text{ direct and not attack}$$
$$C3 = c1'c2 \quad -- \text{ not direct but attack}$$
$$C4 = c1\ c2 \quad -- \text{ both direct and attack}$$

"c1'" designates all courses of action which do not involve c1. It is read "not-c1," or "c1-prime," or in any other locution which retains the meaning as in C1 above.

Hallowell's description indicates that for Ia, the typical Ojibwa, $P1$ (the probability that he will choose C1) is very high and $P2$, $P3$, and $P4$ are all low. The examples he gives indicate that this is the case even when some other person, Ib, has annoyed him. It is assumed from Hallowell's reports that the frequency of choice of C1 is approximately .90. This assumption conditions all the later assumptions concerning the subjective probabilities of the various outcomes given choice of each course of action. Therefore, to the extent that this figure is in error, the conclusions based on the tests of both the following theories will be in error. Research is particularly needed to correct or validate this assumption.

The "fear of others" theory of Ojibwa personality

The problem is to explain the very high $P1$ (probability of choice of C1) by Ia even when Ia is annoyed. "Common sense" suggests that people r.....i.

from directing or attacking others when they fear that
the others may retaliate with superior force. Hallowell
appears to adopt this view when he attributes Ojibwa
restraint to the fear that the other person will retal-
iate by means of sorcery (1955:148). It appears that
this theory is intended to explain the behavior of adults
in interaction with other adults, since the Ojibwa
believe that children lack magical powers as well as
physical capability to injure adults.

If the assumptions in this account are made
somewhat more explicit the theory seems to assert that the
typical Ojibwa would "like to" choose a course of action
which would make the other person stop annoying him and
would also "like to" injure his annoyer, but he refrains
from choosing courses of action (directing or attacking)
which are likely to have such outcomes because he fears
that doing so would lead the other to retaliate, pro-
ducing an outcome he does not want, severe injury to him-
self. This will be recognized as the "balance of power"
or "mutual deterrence" theory, the assumptions of which
are so familiar as to seem almost necessary.

This theory can be cast in the framework of
contemporary decision theory where the individual's
probability of choice of a course of action (pi) is
explained as a function of the "expected value" for the

individual of the course of action.

The "expected value" of a course of action (ci)
is calculated by multiplying the value (Vj) of each
outcome (Oj) by the probability (Eij) that Oj will
occur if Ci is chosen. The theory being explicated
employs subjective probabilities, that is, the prob-
abilities which the typical Ojibwa is assumed to believe.
This theory assumes that the individual will tend to choose
that course of action which has the highest expected
value in a given situation.

Requirements of the decision theory framework

To express this theory in the decision theory
framework will require that we make explicit not only
the courses of action and outcomes with which the theory
is concerned, but also the assumed relative values (Vj)
to Ia of these outcomes and the subjective probabilities
(Eij) that each of the outcomes will occur if each course
of action is chosen, which are also assumed in this
theory.

The outcomes

The courses of action with which this theory
is concerned have already been specified in above. The
outcomes which are mentioned in the informal presentation

above are, first, <u>Ib stops annoying Ia</u>, which will be
designated "o1;" second, <u>Ib is injured</u>, which will be
designated "o2:" and, third, <u>Ia is severely injured</u>, which
will be designated "o3."

Compound outcomes

The outcomes are clearly not exclusive; they may
occur in any combination. By means of a Boolean ex-
pansion, an exclusive and exhaustive classification of
these possibilities can be constructed (as was done in
the case of the courses of action). Since there are
three "primitive" outcomes (oj), there will be eight
compound outcomes (OJ) as follows:

O1 = o1 o2 o3   -- Ib stops annoying Ia, Ib injured,
                   Ia injured.

O2 = o1'o2 o3   -- Ib does <u>not</u> stop annoying Ia, Ib
                   injured, <u>Ia</u> injured.

O3 = o1 o2'o3   -- Ib stops annoying Ia, Ib <u>not</u> injured,
                   Ia injured

O4 = o1'o2'o3   -- Ib does <u>not</u> stop annoying Ia, Ib <u>not</u>
                   injured, <u>Ia</u> injured

O5 = o1 o2 o3'   -- Ib stops annoying Ia, Ib injured,
                   Ia <u>not</u> injured

O6 = o1'o2 o3'   -- Ib does <u>not</u> stop annoying Ia, Ib
                   injured, <u>Ia</u> <u>not</u> injured

O7 = o1 o2'o3'   -- Ib stops annoying Ia, Ib <u>not</u> injured,
                   Ia <u>not</u> injured

O8 = o1'o2'o3'   -- Ib does <u>not</u> stop annoying Ia, Ib <u>not</u>
                   injured, <u>Ia</u> <u>not</u> injured

<u>The value assumptions of the "fear of others" theory</u>

Deduction of Ia's high probability of choosing

Cl in this situation demands quite detailed assumptions about the relative values of the outcomes in this situation and such assumptions do appear to be implicit in Hallowell's statements. I shall try to estimate the relative values of these outcomes to the typical Ojibwa (as described by Hallowell) using a technique suggested by a procedure developed for a somewhat different purpose by Churchman and Ackoff (Ackoff 1953:24-27, 375-376; 1962:87-91). Many researchers attempt to avoid making detailed estimates of the relative value of outcomes by concerning themselves only with the single outcome of greatest value. This does not avoid the problem since it amounts to assigning maximum value to one outcome and zero value to all other outcomes. In many cases, this amounts to a greater distortion than any other possible error of estimation. Therefore, assignment of relative values by judgments for which the bases are made explicit is a permissible research procedure (See Ackoff 1962:82; Churchman, et al 1957:115-116).

The first step in the procedure is to rank these eight outcomes in accordance with the assumed preferences of the typical Ojibwa. This theory seems to assert that the typical Ojibwa strongly prefers any compound outcome involving o3' (Ia is not severely injured) to any of the outcomes involving o3. That is, each of o3,o4,

07, or 08 is strongly preferred to 01, or 02, or 03 or

04. It seems clear that Ia is assumed to value both

o1 and o2, given o3', hence his first choice is 05.

His second choice depends on his preference for o1'o2

or o1o2'. The assumption is made here that stopping

the annoyance is preferred to injuring the offender,

although, since the Ojibwa are "hostile" they <u>might</u> pre-

fer injuring the offender, the assumption is also made

that he prefers any of the above to o1'o2'. Therefore

we arrive at the following ranking of these outcomes on

the basis of the assumptions of the "common-sense"

theory:

05 (Ib stops annoying Ia, Ib is injured, Ia is <u>not</u> injured)
07 (Ib stops annoying Ia, Ib is <u>not</u> injured, Ia is <u>not</u>
     injured)
06 (Ib does <u>not</u> stop, Ib is injured, Ia is <u>not</u> injured)
08 (Ib does <u>not</u> stop, Ib is <u>not</u> injured, Ia is <u>not</u>
     injured)

On the assumption that the ranking within the

group of outcomes which include injury to Ia is the same

as within the group which does not include injury to Ia,

this group ranks as follows:

01 (Ib stops, Ib is injured, Ia is injured)
03 (Ib stops, Ib is <u>not</u> injured, Ia is injured)
02 (Ib does <u>not</u> stop, Ib is injured, Ia is injured)
04 (Ib does <u>not</u> stop, Ib is <u>not</u> injured, Ia is injured)

This ranking (or relative valuation) of outcomes is a distinguishing feature of the "fear of others" or "balance of power" theory.

The next step in the procedure is the assignment to the outcomes of numbers which represent the relative values to Ia of the outcomes (preserving the ranking of values above, of course). The "fear of others" theory is not so clear regarding the fine adjustments within this ranking. I have therefore assigned these numbers on the basis of two considerations. First, the previously mentioned great preference for any Oj containing o3' to one containing o3. Second, to choose figures which will lead to predictions in accord with Hallowell's reports (a great range of figures which preserve the ranking will meet this consideration). I have therefore assigned the following numbers as value estimates:

Oj	vj		Oj	vj
05	100		01	5
07	90		03	4
06	80		02	3
08	60		04	0

It is conventional to standardize these figures by dividing each by the sum of all of them. When this is done, we get:

Cj	vj		Cj	vj
05	.29		01	.015
07	.26		03	.012
06	.23		02	.0089
08	.18		04	0.0

These figures will be entered in the matrix to be described below.

The subjective probability assumptions of the "fear of others" theory

It is convenient to present the probability figures (Eij) in a matrix in which the outcomes are listed horizontally across the top and the courses of action are listed vertically on the left. The values to Ia of the outcomes are listed below the outcomes. Later, the expected values of the courses of action and the probabilities of choice of the Ci will be listed vertically on the right.

Oj

Ci	01	02	03	04	05	06	07	08
VJ	.015	.0089	.012	0	.29	.23	.26	.18
C1	E11	E12						
C2								
C3					E35			
C4	E41							

In this matrix, E11 represents the subjective prob-
ability that O1 will occur if Ia chooses C1, E12 rep-
resents the subjective probability that O2 will occur
if C1 is chosen, E35 represents the subjective
probability that O5 will occur if C3 is chosen, etc.

These probabilities are determined by the prop-
erties of the environment (N), or, rather, since we are
dealing with subjective probabilities, by what Ia be-
lieves the properties of the environment to be. As
this theory has been expounded by Hallowell, these en-
vironmental properties are the capabilities and intentions
of Ib. Social factors operate indirectly through fos-
tering the belief in sorcery which is regarded as the
effective factor in producing restraint. The prob-
abilities which are inserted in the matrix thus rep-
resent in numerical form the capabilities and intentions
which the typical Ojibwa imputes to other Ojibwa adults,
according to this theory.

In general, "common sense" assumes that directing
(C2) someone is more effective in producing a desired
change in the person's behavior (o1) than not directing
him (C1); that attacking him (C3) in some fashion is
much more effective than merely telling him, and that a
combination of both directing and attacking (C4) is
slightly mor effective than attacking alone.

The Ojibwa seem to believe that C1 is very
unlikely to injure the other person (o2), that directing
him (C2) has considerable likelihood of injuring his self-
esteem, and that attacking him (C3) is very likely to
injure him and hence that both directing and attacking
him (C4) has slightly greater probability of injuring him
than attacking alone. It is significant in determining
the subjective probabilities held by the typical Ojibwa
that the Ojibwa are psychologically injured by what the
average white American would regard as a mild verbal
attack. They do not feel that it takes much "to really
tell someone off."

The only course of action (of the set under
consideration) which does not have a high probability of
producing retaliation causing severe injury (as the Ojibwa
are reported to see it) is C1 (neither directing nor
attacking). As Hallowell reports the Ojibwas' beliefs,
attacking someone is more likely to produce retaliation
by sorcery than directing him, but the probability is
high in both cases. The probability that the retaliator
will be successful in seriously injuring the director or
attacker seems also to be very high in the belief of all
but a few individuals. As Hallowell pictures it, each
person seems to feel that nearly every adult can and
will injure him severely by sorcery on (what we regard

as) provocation totally inadequate to the intended

injury (the intended injury is often death).

In calculating the probabilities of the compound

outcomes (oj) for each of the compound courses of action

(Ci), a numerical probability consistent with the above

assumptions will be assigned to each of the primitive

outcomes (oj) for each course of action. If the

probability of oj is p, then the probability of oj' is

1-p. Each of these primitive outcomes is assumed to be

an independent event (each of which is contingent upon

choice of some Ci), hence the probability of a compound

outcome (Oj) is the product of the probabilities of the

three primitive outcomes (or their negations) which compose

the compound outcome.

Calculation of the numerical probabilities (Eij)

For the purpose of assigning numerical values to

the probabilities of the primitive outcomes, the total

range of probabilities will be divided into twelve

classes, each of which (except for the two end classes)

will be represented by its midpoint. These classes are

as follows:

Range of subjective probabilities:	Range represented by:
virtually zero ($<.01$)	0
.01 - .10	.05
.11 - .20	.15
.21 - .30	.25
.31 - .40	.35
.41 - .50	.45
.51 - .60	.55
.61 - .70	.65
.71 - .80	.75
.81 - .90	.85
.91 - .99	.95
virtually certain ($p>.99$)	1.00

The following table represents the tentative assignments of probabilities to each of the _primitive_ outcomes for each of the courses of action based on the "fear of others" theory (where both Ia and Ib are adults).

TABLE 8.1

ASSUMED SUBJECTIVE PROBABILITY OF OCCURRENCE OF EACH OF THE PRIMITIVE OUTCOMES GIVEN CHOICE OF EACH COURSE OF ACTION

	o1	o2	o3	o1'	o2'	o3'
C1	.15	0	0	.85	1.00	1.00
C2	.35	.75	.75	.65	.25	.25
C3	.75	.95	.85	.25	.05	.15
C4	.85	.95	.85	.15	.05	.15

Then, since the probability of a compound outcome, given choice of a course of action, is the product of the probabilities of the three primitive outcomes, E21, for example, is the product of $p(o1)$, $p(o2)$, and $p(o2)$,

.35 x .75 x .75 = .20. The remaining thirty-one Eij
were calculated by a similar procedure. When these are
entered in the matrix, it looks like this:

C_i \\ v_j	O_1	O_2	O_3	O_4	O_5	O_6	O_7	O_8
C_1	0	0	0	0	0	0	.15	.85
C_2	.20	.36	.067	.12	.067	.12	.022	.0l1
C_3	.61	.20	.032	.011	.11	.035	.0056	.0019
C_4	.68	.12	.036	.0065	.12	.022	.0065	.0012
	.015	.0089	.012	.0	.29	.23	.26	.18

For convenient reference, the specifications of the compound outcomes and compound courses of action are presented below:

$O_1 = o_1\, o_2\, o_3$ = Ib stops annoying Ia, Ib injured, Ia injured

$O_2 = o_1'\, o_2\, o_3$ = Ib does not stop annoying Ia, Ib injured, Ia injured

$O_3 = o_1\, o_2'\, o_3$ = Ib stops annoying Ia, Ib not injured, Ia injured

$O_4 = o_1'\, o_2'\, o_3$ = Ib does not stop annoying Ia, Ib not injured, Ia injured

$O_5 = o_1\, o_2\, o_3'$ = Ib stops annoying Ia, Ib injured, Ia not injured

$O_6 = o_1'\, o_2\, o_3'$ = Ib does not stop annoying Ia, Ib injured, Ia not injured

$O_7 = o_1\, o_2'\, o_3'$ = Ib stops annoying Ia, Ib not injured, Ia not injured

$O_8 = o_1'\, o_2'\, o_3'$ = Ib does not stop annoying Ia, Ib not injured, Ia not injured

$C_1 = c_1'\, c_2'$ = neither direct nor attack

$C_2 = c_1\, c_2'$ = direct and not attack

$C_3 = c_1'\, c_2$ = not direct but attack

$C_4 = c_1\, c_2$ = both direct and attack

This matrix presents information to the effect
that this theory asserts that Ia believes that, if he
chooses C1, the probability of any outcome other than
O7 or O8 is virtually zero. It also informs us that Ia
is held to believe that C2 has a relatively high prob-
ability of producing O4, but, since O4 does involve
severe injury to Ia and does not involve the end of the
annoyance nor injury to Ib, he puts no value on this
outcome.

Justification of these calculations

It may be asked, "Why make such calculations as
these when the theory has been stated so imprecisely?"
The justification for this effort lies in the belief
that such an attempt to state this theory precisely may
more quickly lead to research specifically designed to
test these assumptions and also, as will be shown later,
this set of assumptions and calculations (or deductions)
does provide something approximating a rigorously
deductive explanation of Hallowell's reports of the very
low frequency of directing or attacking behavior among
the Ojibwa. These figures could be rounded to the nearest
tenth or modified in other ways and they would still
result in somewhat similar deductions about Ojibwa
behavior. These figures, however, seem to make the theory
work particularly well.

Expected value of a course of action

The expected value of a given course of action is the sum of the products of the value of each outcome and the probability that the outcome will occur if the given course of action is chosen. In the symbols of the statistician, the expected value of Ci is expressed:

$$EV(Ci) = \sum_{j=1}^{J} EijVj.$$ For EV(C2) in the theory under consideration we write:

$$EV(C2) = \sum_{j=1}^{8} E2jVj = .20(.015) + .36(.0089) +$$

.067(.012) + .2(0) + .067(.29) + .12(.23) + .022(.26) +

.041(.18) = .067

EV(C1), EV(C3), and EV(C4) were calculated similarly and their values entered in Matrix A1:

Pi as a function of expected value

If I interpret the "fear of others" theory correctly, it can be construed as asserting that the probability, Pi, that an individual will choose any course of action, Ci, is a function of the expected value (for him) of all the Ci. It is a frequent practice in studies of decision-making to assert that the individual should always choose the course of action which has the highest

MATRIX A1

Ci	O1	O2	O3	O4	O5	O6	O7	O8	EV(Ci)	EV3(Ci)	Pi
vj	.015	.0089	.012	.0	.29	.23	.26	.18		.00758	
C1	0	0	0	0	0	0	.15	.85	.19	.0069	.91
C2	.29	.36	.067	.12	.067	.12	.022	.041	.067	.0030	.039
C3	.61	.20	.032	.011	.11	.035	.0056	.0019	.060	.00022	.029
C4	.68	.12	.036	.0065	.12	.022	.0065	.0012	.054	.00016	.021

For convenient reference, the specifications of the compound outcomes and compound courses of action are presented below:

C1 = $c_1'c_2'$ = neither direct nor attack
C2 = $c_1 c_2'$ = direct and not attack
C3 = $c_1'c_2$ = not direct but attack
C4 = $c_1 c_2$ = both direct and attack

O1 = $o_1 o_2 o_3$ = Ib stops annoying Ia, Ib injured, Ia injured
O2 = $o_1'o_2 o_3$ = Ib does not stop annoying Ia, Ib injured, Ia injured
O3 = $o_1 o_2'o_3$ = Ib stops annoying Ia, Ib not injured, Ia injured
O4 = $o_1'o_2'o_3$ = Ib does not stop annoying Ia, Ib not injured, Ia injured
O5 = $o_1 o_2 o_3'$ = Ib stops annoying Ia, Ib injured, Ia not injured
O6 = $o_1'o_2 o_3'$ = Ib does not stop annoying Ia, Ib injured, Ia not injured
O7 = $o_1 o_2'o_3'$ = Ib stops annoying Ia, Ib not injured, Ia not injured
O8 = $o_1'o_2'o_3'$ = Ib does not stop annoying Ia, Ib not injured, Ia not injured

expected value, that is, Pi = 1.0 for the course of action which has the highest expected value for him in the given environment. This is often regarded as the best decision rule for the individual, but it seems unlikely that many individuals will be observed to follow this rule with perfect consistency. It seems, however, that some approximation to this rule is asserted by the theory under consideration.

One way to approximate this decision rule is to express the individual's probability of choosing any course of action as proportional to some power (such as the square or cube) of the expected value of the course of action. As higher powers are used, this rule approximates more and more closely to the "maximization" rule (i.e. Pi approaches 1.0 for the course of action which has the highest EV and approaches 0 for all others). (See Mowrer 1960b:330-345 for summary of experimental evidence on approximate maximizing.)

A decision rule tentatively to be employed in this theory

In the Ojibwa case with which we are concerned here, we will somewhat arbitrarily adopt the rule that the typical Ojibwa's probability of choosing any course of action is proportional to the cube of its expected value. In mathematical symbols, $Pi = \dfrac{EV^3(Ci)}{\sum\limits_{i=1}^{n} EV^3(Ci)}$.

Assuming that the typical Ojibwa does have the values and
subjective probabilities attributed to him in Matrix
A and follows this decision rule, his probabilities of
choosing the four courses of action are as follows:

Ia's probability of choice of C1 = P1 = .91
Ia's probability of choice of C2 = P2 = .039
Ia's probability of choice of C3 = P3 = .029
Ia's probability of choice of C4 = P4 = .021

Many questions can be raised about these prob-
abilities of choice and about the value and subjective
probability assumptions from which they were derived,
but since these figures are quite consistent with Hallowell's
description of the typical Ojibwa, these questions will
be postponed until later.

Personality

Any such rule, combined with the information
about values and subjective probabilities necessary to
calculate the expected values of the courses of action,
is the personality of an individual. Such information
about an individual is his personality since it permits
us to predict (probabilistically) his behavior in any
situation. This is a nominal definition of personality
in the sense in which Spiro uses the term nominal in
"Culture and Personality: the Natural History ? ?

False Dichotomy" (1951). The personality of an indivd-
ual is thus the product of the scientist's study of the
individual just as the "law of falling bodies," $S = \frac{1}{2} gt^2$,
is the product of the scientist's study of falling bodies.
Both the personality of an individual and the law of
falling bodies serve the same function: each permits
the prediction of the behavior under varying (but
specified) conditions, of the entities to which they
apply.

Use of personality to predict behavior in a different situation

If we assume that our typical Ojibwa places the
same relative values on these outcomes in situations
which differ only in the subjective probabilities (E_{ij})
of occurrence of these outcomes, and that his choices
follow the same decision rule, we will predict different
probabilities of choice of the same four courses of
action in this new situation. This amounts to saying
that his personality remains constant but his behavior
changes to meet the (at least subjectively) different
situation. Let us examine a somewhat different situation
which is central to this study -- the situation in which
Ia is dealing, not with another adult, but with a child.

Specification of the changed situation

For this changed situation, we assume that the relative values attached to the outcomes by the typical Ojibwa adult remain the same. That is that he still wishes to have the annoyance stopped, that he wishes strongly to retaliate and injure the annoyer, and that he most strongly wants to avoid serious injury to himself. It seems unlikely from Hallowell's descriptions that the subjective probabilities of the various outcomes will be changed except for the believed probability that an Ib who is a child can produce serious injury to an adult. The Ojibwa believe that no child has any supernatural powers. They are explicit that children are extremely vulnerable as a result of this lack (Landes 1937:117-118). Hence, for all courses of action, the probability of o3 must be virtually zero and the probability of o3' must be virtually 1.0.

Deductions from this changed situation

Calculating the subjective Eij from this one change in the subjective probability assumptions, and calculating the expected values of the courses of action and the resulting Pi, we get the results displayed in Matrix B1, (next page) where Ia is an adult and Ib is a child. Thus, this theory from which it is possible

MATRIX B1

Ci	O1	O2	O3	O4	O5	O6	O7	O8	EV(Ci)	EV3(Ci)	Pi
Vj	.05	.0089	.012	.0	.29	.23	.26	.18	.0629		
C1	0	θ	0	0	0	0	.15	.05	.19	.0069	.11
C2	0	0	0	0	.26	.49	.088	.16	.24	.014	.22
C3	0	0	0	0	.71	.24	.033	.013	.23	.022	.35
C4	0	0	0	0	.81	.14	.043	.0075	.27	.020	.32

to deduce the reported restraint of Ojibwa adults in interaction with other adults has, as another of its logical consequences, that adults, when annoyed by children, can be expected to choose courses of action involving attack (C3 and C4) with a frequency of .67.

An alternative version of the "fear of others" theory

Hallowell seems to feel that the Ojibwa are not inclined to take any chances on retaliation even though the subjective probability of such retaliation may not be high. If the subjective probability of o3 is reduced for C2, C3, or C4, there are two possible ways of retaining high P_i. The value to the individual of o3' might be increased or the individual's tendency to maximize expected value might be increased. Since the value assigned to o3' could be increased only slightly, the alternative of greater tendency to maximize must be adopted. If the individual's probability of choosing a course of action is assumed to be proportional to the tenth power of its expected value (rather than to the third power as in Matrix A1), a P_1 of .91 can still be attained if the subjective probabilities displayed below are adopted. The subjective probabilities of all the primitive outcomes except o3 and o3' are retained unchanged as indicated in the following table;

TABLE 8.2

SUBJECTIVE PROBABILITIES OF PRIMITIVE OUTCOMES GIVEN
CHOICE OF C1, C2, C3, OR C4. "FEAR OF OTHERS" THEORY,
NEAR PERFECT MAXIMIZATION, MINIMUM PROBABILITIES OF o3.

	o1	o2	o3	o1'	o2'	o3'
C1	.15	0	0	.85	1.00	1.00
C2	.35	.75	.45	.65	.25	.55
C3	.75	.95	.55	.25	.05	.45
C4	.85	.95	.55	.15	.05	.45

When the subjective probabilities of the com-

pound outcomes are inserted in the matrix, we get:

(see Matrix A2)

These probabilities of choice are consistent with

Hallowell's reports as are those in Matrix A1. If we

now make the same assumption about the lack of danger

in directing or attacking a child that was made above

(p. 215) while retaining P_i as proportional to the tenth

power of the expected value of C_i, we get: (See

Matrix B2 p. 221) If this version of the "fear of others"

theory is more nearly correct than that presented in

Matrices A1 and B1, then the probability that an adult

will punish an offending child is even higher than in

the version of Matrices A1 and B1. P_i in Matrix B1

are .11, .22, .35, and .32, while in Matrix B2 they are

.011, .11, .52, and .36.

Formalization of the "fear of self" theory

Since this theory offers to explain the same observed behavior as the fear of others theory, it is identical in many respects and similar in others. In the "fear of others" theory, primitive o2 is "Ib is injured" and primitive o3 is "Ia is injured." In the "fear of self" theory, o2 is "Ib is injured moderately, " and o3 is "Ib is injured severely." The same assumptions about the relative values of the compound outcomes to Ia are made in both theories (although these outcomes have different meanings in the two theories), and the same assumptions are made about the probabilities of occurrence, given choice of C1, C2, C3, or C4, of these primitives. Consequently, Matrix C1 is identical with Matrix A1, except that o2 and o2' and o3 and o3' designate different outcomes.

There may be some question about the meaning of compound outcomes containing combinations of "moderate injury to Ib" (and its negations) with "serious injury to Ib" (and its negations). These combinations are possible so long as "moderate injury" and "serious injury" are defined qualitatively. For example, an individual can receive both bruises (moderate) and fractures(serious) or he could be killed (serious) without receiving bruises. (It should not be concluded

MATRIX A2

	01	02	03	04	05	06	07	08	EV(Ci)	EV10(Ci) (x 10⁻⁸)	Pi
value	.015	.0009	.012	0	.29	.23	.26	.18			
C1	0	0	0	0	0	0	.15	.35	0.19	6.1	0.91
C2	.12	.22	.049	.073	.14	.27	.048	.089	0.14	0.29	0.043
C3	.39	.13	.021	.0070	.32	.10	.017	.0055	0.13	0.14	0.021
C4	.45	.079	.024	.0042	.36	.065	.019	.0034	0.13	0.14	0.021

6.67

MATRIX B2

	01	02	03	04	05	06	07	08	$EV(c_i)$	$EV10(c_i)$ $(\times 10^{-3})$	P_i
C1	0	0	0	0	0	0	.15	.05	.19	6.1	.011
C2	0	0	0	0	.26	.49	.008	.16	.24	63.	.11
C3	0	0	0	0	.71	.24	.038	.013	.28	300.	.52
C4	0	0	0	0	.81	.14	.043	.0075	.27	210.	.36
value	.015	.0089	.012	0	.29	.23	.26	.18		580.1	

from these examples that <u>injury</u> is restricted to physical injuries. Any action which reduces the probability that an individual will produce an outcome which he values, produces <u>injury</u> and is classed as an <u>offensive action</u>.

Implications of the "fear of self" theory for adult interaction with offending children

When the subjective probabilities assumed in the "fear of others" theory were modified in accordance with assumptions about the subjective probability of a child's injuring someone through sorcery, this theory predicted that adults would punish an annoying child with a probability of .67. This interpretation of the "fear of others" theory is not supported by the analysis of the data (Ch 5). Nor does it seem possible to make it consistent with the data by minor modifications.

In testing the "fear of others" theory, it was hypothesized that adults believed that children were incapable of retaliating for adult direction or punishment. This hypothesis was justified on the basis of Landes's statements about the believed vulnerability of children due to their lack of supernatural powers.

In testing the "fear of self" theory, the critical issue is the beliefs of adult Ojibwa concerning the effects on children of directions or punishment.

MATRIX C1

Ci	01	02	03	04	05	06	07	08	EV(Ci)	EV³(Ci)	Pi
vj	.015	.0089	.012	.0	.29	.23	.26	.18	.00758		
C1	0	0	0	0	0	0	.15	.85	.19	.0069	.91
C2	.20	.36	.067	.12	.067	.12	.022	.041	.067	.00030	.039
C3	.61	.29	.032	.011	.035	.0056	.0019		.060	.00022	.029
C4	.68	.12	.036	.0065	.12	.022	.0065	.0012	.054	.00016	.021

For convenient reference, the specifications of the compound outcomes and compound courses of action are presented below:

$C1 = c_1'c_2'$ = neither direct nor attack
$C2 = c_1c_2'$ = direct and not attack
$C3 = c_1'c_2$ = not direct but attack
$C4 = c_1 c_2$ = both direct and attack

$01 = o_1 o_2 o_3$ = annoyance stops, Ib injured moderately, Ib injured severely
$02 = o_1'o_2 o_3$ = annoyance does not stop, Ib injured moderately, Ib injured severely
$03 = o_1 o_2'o_3$ = annoyance stops, Ib not injured moderately, Ib injured severely
$04 = o_1'o_2'o_3$ = annoyance does not stop, Ib not injured moderately, Ib injured severely
$05 = o_1 o_2 o_3'$ = annoyance stops, Ib injured moderately, Ib not injured severely
$06 = o_1'o_2 o_3'$ = annoyance does not stop, Ib injured moderately, Ib not injured severely
$07 = o_1 o_2'o_3'$ = annoyance stops, Ib not injured moderately, Ib not injured severely
$08 = o_1'o_2'o_3'$ = annoyance does not stop, Ib not injured moderately, Ib not injured severely

More than one hypothesis about adult beliefs is pos-
sible. The first hypothesis to be tested was that adults
believe that children are affected by direction or
attack to exactly the same extent that adults are af-
fected. This leads to the deduction that the adult's
probability of choice of each of the Ci is identical
whether the offender is another adult or a child.

Tested under this hypothesis, the "fear of
self" theory predicted adult behavior better than the
"fear of others" theory did under the hypothesis of no
fear of retaliation from the child. The results were,
however, far from ideal. The null hypothesis could be
rejected for twelve of the twenty-seven adults.

The observed behavior differed from the theoret-
ical expectations under this hypothesis chiefly in the
higher relative frequency of choice of C2 and lower
relative frequency of choice of C1. It was also observed
that the deviations from expected behavior were consid-
erably greater at Lac du Flambeau than at Berens River.
These observations suggested that, (1) the Ojibwa regard
children as less vulnerable to direction than adults,
and equally vulnerable to attack, and, (2) that since
P2 is much greater at Lac du Flambeau that belief in
the ability of children to take direction is a function

of level of acculturation.

On the hypothesis that adults believe that direction is less likely to injure a child than an adult and on the hypothesis that the extent of this belief is a function of level of acculturation, new estimates of the subjective probabilities of the various outcomes, given choice of C2, were prepared. It was possible to find subjective probability estimates which led to deduction of Pi very close to the average observed Pi for both locations. All subjective probabilities for C1, C3, and C4 remained unchanged. Table 8.3 displays the subjective probabilities of various outcomes, given choice of C2, as originally estimated and as modified for both communities

TABLE 8.3

SUBJECTIVE PROBABILITIES OF EACH OF THE OUTCOMES, GIVEN CHOICE OF C2 AS ORIGINALLY ESTIMATED AND AS MODIFIED FOR EACH LOCALITY. "FEAR OF SELF" THEORY; ADULTS IN INTERACTION WITH CHILDREN

		o1	o2	o3	o1'	o2'	o3'
Original	C2	.35	.75	.75	.65	.25	.25
Berens	C2	.35	.55	.45	.65	.45	.55
Flambeau	C2	.35	.25	.15	.65	.75	.85

Using these subjective probabilities, the new

deduced probabilities of choice for each locality are as displayed in Table 8.4.

TABLE 8.4

PROBABILITIES OF CHOICE OF EACH OF THE COURSES OF ACTION, AS ORIGINALLY CALCULATED AND AS MODIFIED FOR EACH LOCALITY. "FEAR OF SELF" THEORY ADULTS IN INTERACTION WITH CHILDREN

	Original	Berens	Flambeau
P1	.91	.71	.50
P2	.039	.25	.47
P3	.029	.023	.016
P4	.021	.017	.012

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