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MAN

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Brenda Zara Seligman : Portrait and Dedication

Pre-Existence and Survival in Nzema Beliefs (with Plate B)
Professor Vinigi L. Grottanelli

A Narcotic from 'Nicotiana ingulba,' Used by the Desert Bindibu (with Plate C)
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A Set of Gambling Pegs from the North-West Coast of America (with Plate D)
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Social Science, Logical or Psychological Impossibility?
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Sir George Robertson : An Early Field Worker
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Proceedings of the Royal Anthropological Institute

Shorter Notes

A Note on Bird Cries and Other Sounds in Zande **Prehistoric Hand Adzes from Gran Canaria**
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THE R.A.I. ENDOWMENT FUND AND THE SELIGMAN MEMORIAL TRUST

In January, 1958, Mrs. B. Z. Seligman sold her famous ivory mask from Benin, Nigeria, to the Museum of Primitive Art, New York, with the intention of devoting the whole proceeds of £20,000 to the endowment of the Royal Anthropological Institute, of whose chronic need of funds she had, as Vice-President and member of its Council, been so long and well aware. She established the Seligman Memorial Trust in commemoration of her late husband, Professor Charles Gabriel Seligman, F.R.S., President, 1923–26, and arranged that the Trustees should add equivalent sums from the Trust to all contributions made to the Institute's Endowment Fund, which was thus launched with a real possibility of attaining its target of £50,000 (see Dr. Marian W. Smith's letter in MAN, 1958, 124). Including the transfers made from the Trust, the Endowment Fund now stands at over £19,000, and the Institute is most grateful to all those who have contributed large sums and small; but much more must be done if the £9,500 so far collected from other sources is to be raised to £20,000 within the five-year term specified by Mrs. Seligman. The President and Council hope that all Fellows and other well-wishers of the R.A.I. will consider at once how they can help in this task of freeing it from its financial anxieties and enable it to do its indispensable work better.

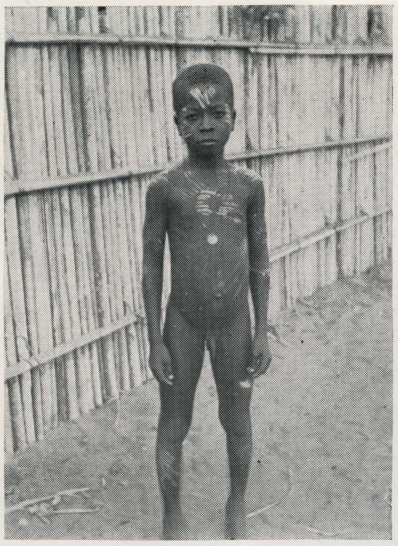
MAN

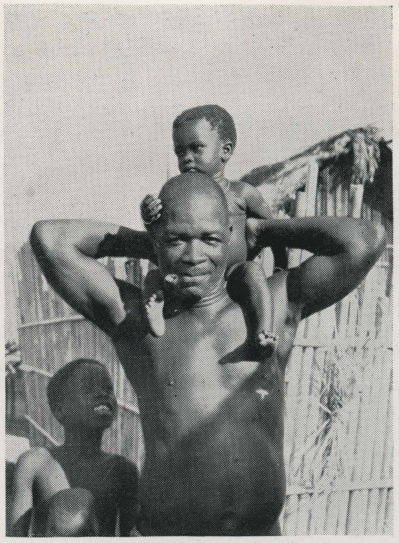
MAN was founded by the late Sir John Myres, F.B.A., and was first published on the first day of the twentieth century (sense stricto), 1 January, 1901. A detailed account of its origins was given by Sir John in the Golden Jubilee issue which appeared on 1 January, 1951. Its circulation now exceeds 1,600; if this could be further increased, the Institute would be enabled to publish more of the good material submitted to the Hon. Editor. The two devices used on the front cover are explained in MAN, 1951, 4 and 44.

TO BRENDA ZARA SELIGMAN

whose magnificently creative generosity has
inspired—and should increasingly inspire—the Fellows
and friends of the Royal Anthropological Institute to
larger efforts in aid of its greatly needed endowment
this double commemorative issue and MAN's
seventh decade are respectfully dedicated.

(*a–c*)





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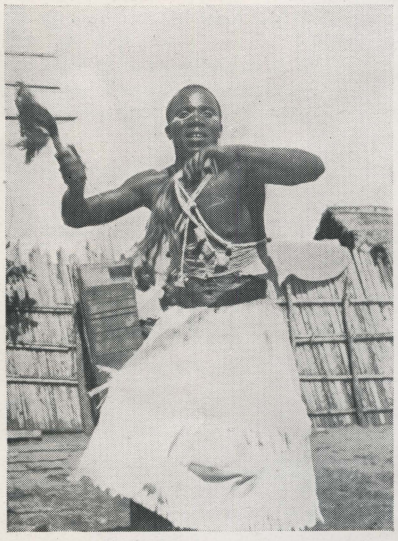
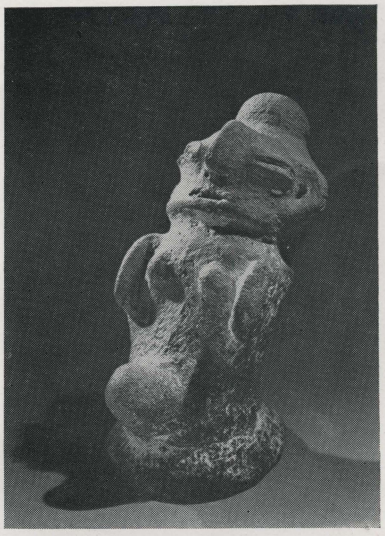
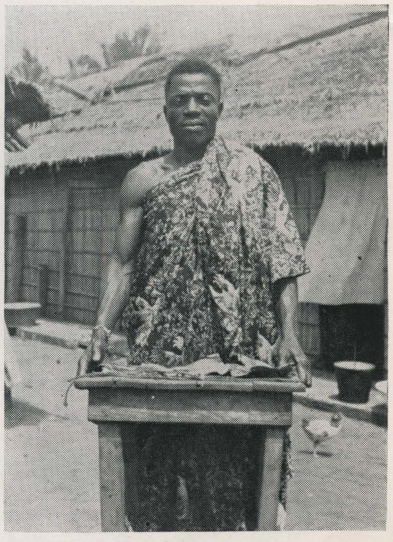






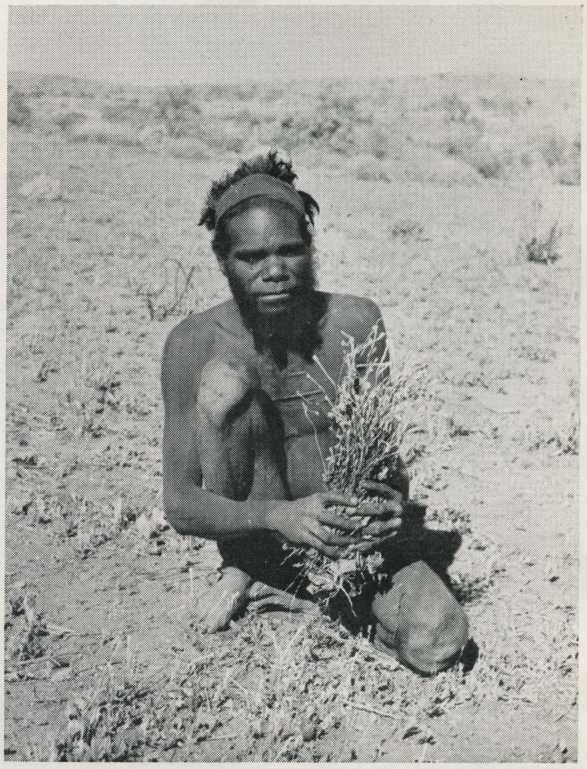
(*g–i*)

THE NZEMA OF SOUTH-WEST GHANA

(*a*) *An ailing boy, Ekebaku;* (*b*) *Nzema man with his little daughter;* (*c*) *Nzema* amonle, *for magical protection of a coconut grove;* (*d*) *Nzema priest dancing;* (*e*) asongu *figurine;* (*f*) *Nzema diviner; on the desk, the knotted cords used in divination;* (*g*) *Nzema women during funeral obsequies, Ekebaku;* (*h*) *Nzema children on the Atlantic beach;* (*i*) *Nzema children, Ekebaku. Photographs: V. L. Grottanelli.*

(*a*)

(*b*)



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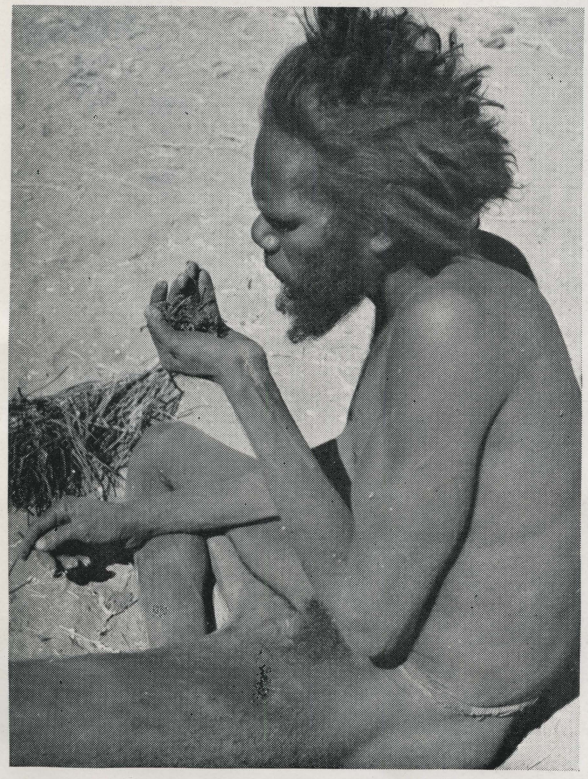

(*d*)

THE PREPARATION OF CHEWING TOBACCO BY THE BINDIBU

(*a*) *Bindibu hunters gathering* Nicotiana ingulba, *J. M. Black, for the preparation of a chewing quid on a plain near the rock hole at Labbi Labbi in central Western Australia. The entire plant, including the tap root, is collected when in flower or setting seed.* (*b*) Nicotiana ingulba, *collected by a Bindibu tribesman for the preparation of the quid from which the narcotics, nicotine and nornicotine, are extracted by chewing.* (*c*) *The quid formed by chewing the entire plant of* Nicotiana ingulba *into a compact fibrous mass, preparatory to rolling it in the white residual ash produced by burning the fresh green leaves of a* Grevillea. (*d*) *A further stage in the rather elaborate preparation of the tobacco quid. Bindibu man holds in his hand tobacco moulded into a compact mass by chewing—ready to receive the white wood ash daubed on by the index finger of his assistant.*

A SET OF GAMBLING PEGS FROM THE NORTH-WEST COAST OF AMERICA

Top row, Nos. 1–11; *second row, Nos.* 12, 13, 15–18, 20, 21, 23–25; *third row, Nos.* 14, 19; *fourth row, Nos.* 22, 26; *bottom row, Nos.* 27, 28

PRE-EXISTENCE AND SURVIVAL IN NZEMA BELIEFS*

by

PROFESSOR VINIGI L. GROTTANELLI

University of Rome

1. *Introductory*

To Africans no less than to us, man's destiny before and after the span of earthly life is not merely a matter for abstract philosophical speculation. Some more or less precise representation of the afterworld is a prerequisite for that action of vital social relevance, ancestor-worship. A consistent set of ideas on the prenatal condition and nature of the human being is more rarely met with; but some thought must be given to it in cases when a high rate of infant mortality imperils the demographic stability or the very survival of a given community. Such a situation is a severe challenge to the pride and feelings of the parents, to their understanding as reasoning individuals, as well as to the strength of competing lineages and clans and to society as a whole; as such, it cannot fail to evoke strong emotional reactions, which must find an outlet along culturally determined channels. Now the search for explanations and causes of children's deaths, and the co-ordinated attempts to ward off this calamity by social and ritual action of an appropriate sort, do not only require a set of accepted techniques and practices to attain these ends, but also involve—and are largely influenced by—the general notions of birth, life, illness and death in the framework of empirical experience, cultural interpretation, and religious belief. I have attempted to examine reactions and solutions of this type among the inhabitants of a Nzema village in south-western Ghana, Ekebaku.[1]

In the present paper, I am trying to summarize some aspects of Nzema mental attitudes towards these problems which may be termed 'traditional'; but the implications of this adjective are subject to caution. True, those attitudes—in their twofold aspect, intellectual and practical—are combined into generally accepted patterns at any given time in the life of the group; but they are also exposed to a certain variety of personal interpretation, and to inner and outward processes of culture change. Even in a small community such as the one that I am speaking of, different degrees of education and acculturation, and the influence of various (mainly Christian) creeds, whether directly accepted or not, make for a relatively large range of variation in ideas. Accounts of the life-giving processes, as well as of survival after death, as found in my field notes, show a number of minor discrepancies calling for a great deal of further investigation. The prevalent explanation for premature deaths, which was at the basis of the *asongu* cult (see section 4 below), was openly declared not to be a traditional one; it was looked upon with scorn and mistrust by the more westernized minority in the village; it was abandoned *en masse*, allegedly, as the result of the preaching of an outlandish 'prophet' at the end of 1954, shortly after I had left the area; but on the occasion of another visit to Ghana (though not to Nzema) in June, 1960, I was told that the cult, and all it stood for, had been re-established. At the same time, even the widespread consensus of opinion and action on a vital issue such as this one does not imply that the cultural response prevalent at the time must exclude others. Alternative possibilities for the supernatural explanation of death in young age were the infringement of some taboo, sorcery, or the abnormal nature of the child itself at birth, while a more rational knowledge of pathogenic agents was by no means foreign to the literate section of the population.

* *With Plate B*

2. Ebolo, *Land of the Dead and of the Unborn*

Unborn children are reputed to dwell in *ebolo*, the afterworld, a subterranean place which is at the same time the abode of the dead. I was unable to obtain from my informants a consistent formulation of this 'theory of pre-existence,' which would have required from them some degree of mastery of a philosophical terminology, but the following points were made clear to me: (*a*) there is a link between life before birth and life after death, in connexion with the belief that the underground world is the place of origin of mankind as a whole; (*b*) there is no general belief in individual re-incarnation of the deceased in the body of an infant; (*c*) during its sojourn in Hades, the unborn babe is already subject to influences by supernatural beings, irrespective of its future social and spiritual ties to its father and mother.

As unborn children do not yet have a fully human personality, little is known about their lot in Hades, except that one often hears it said that so-and-so while in *ebolo* was 'attacked' by *asongu* or *akigyiamo* (see below) and later brought them to earth with him: the 'pre-existing' child is thus obviously thought of as a passive, helpless little creature, already receptive to spiritual influences. Popular beliefs are understandably much more explicit with regard to the destiny of deceased people. *Ebolo* is supposed to be a land beyond an underground river, which has to be crossed on some boat or ferry, a fee being demanded for the crossing.[2] When you first arrive at the river, you see people on the other bank, and they come and fetch you. Once you are landed on the opposite bank, you will be met and greeted by all the deceased members of your *abusua*,[3] to the head of which you will have to give full account of your life on earth. Existence in *ebolo* is in many ways similar to that of living people. The deceased walk about, eat, talk, etc., like people on earth. In the past, as among other Akan, it was customary among the Nzema to sacrifice slaves at the death of an *omanhene* or other person

of high rank, so that they might wait on him in afterlife just as they had done in this world.

The question, what part of man's whole personality survives in Hades, is a somewhat complex one. A brief statement on the subject is to be found in a pamphlet by a Nzema author, Nana Annor Adjaye, who says that 'when a person dies, his soul goes to *erbulo* (*samanadsi*), the world of spirits, where it continues its existence in the same manner as during life. The ghost remains on earth and wanders about for some time . . .'[4] The account which I obtained orally from informants in Nzema, two of whom at least were very well qualified and with whom I discussed the matter at length, is more detailed and points to the need of handling these concepts with greater subtlety. The deceased, *mowama*, dwell in *ebolo* first of all with their bodies (*funli*: the living body is *ngonane*). As to the 'spiritual' principle of man and its survival after death, the question must be examined bearing in mind that the Nzema have three distinct concepts and terms to indicate such a principle. (*a*) The term which was adopted by Christian missionaries and converts to translate the European concept of 'soul' is *ekela* (corresponding to Twi *kra* or *okara*), though this term originally just referred to the day of the week in which a person was born (and consequently to the 'soul's name,' *ekela duma*) rather than to man's personal spirit.[5] Now *ekela* is said to come from Nyamenle (God) at birth and to return to Him at the moment of death: it does *not* survive in Hades. I happened to raise the point that it was strange, to us at any rate, to think of a deceased person existing without a 'soul': the reply to which was that if people in afterworld did have their *ekela* they would indeed be alive, rather than dead, and this in Nzema eyes would be contradictory. (*b*) The dead in *ebolo* are also deprived of their *mora*, or 'life principle,' whose nature will be discussed below. (*c*) The Nzema term indicating 'the soul as it leaves the body' is *ngomenle*,[6] which can approximately be translated by 'spirit' or 'ghost' (*Schattenseele*); it corresponds to Twi *osaman*. This is the 'soul' which, connected with the *funli* and yet well distinct from it, has its main abode in Hades, and a place of honour in religious worship. In fact, though there is a special term for 'ancestor,' *angabenzo*, the spirits of the departed are invoked as *ngomenle* in solemn prayers, when *nza* (palm wine) or rum are poured on to the earth, a first time in honour of the gods and a second time in honour of the ancestors. The usual formula of these prayers is the following: *Awozonle o nee ngomenle mo wo eke la, balie nza benlo na bema yede kpoke dahuu. Saa yekponde ezukwa a bema yenyia bie na eza ye wo mmale doongo. Bema azondwole erela ye manle ye anu dahuu* ('O gods and spirits who are here, come and receive drink and give us more strength always. If we are working for gold (money) help us to get more, and also to beget more children. Let there be peace in this our region always').

3. *How the Dead Return to Earth*

Though *ngomenle* belong to *ebolo*, it is also said that they wander away from it and return to earth. Sometimes, rumour has it that some dead person has been seen in a distant part of the country, roving about or even having settled down, married and set up a store. A *ngomenle* may thus look exactly like the normal human being which he used to be, and be mistaken for such a one, but it is believed that he will suddenly vanish if he happens to meet somebody who knew him in his previous life on earth.

But the dead have another way of returning to this world, that is, by incarnating themselves in the body of a child. They do this, according to Nzema beliefs, in order to satisfy their craving for ornaments and clothes. First-hand evidence for this was supplied by one of my Ekebaku informants. The first two children he had by his first wife (two girls) died at a few years' interval from one another, both at the age of four or five. When a third baby was born to them shortly afterwards, also a girl, the parents greatly feared that she would die too, so the father consulted a diviner to find out what should be done. The diviner revealed that the first child was a *ngomenle* who had come from *ebolo* to look for gold; having failed the child had died, and the spirit had taken its abode in the dead girl's sister; this time it had succeeded in getting what it was after, and had returned to *ebolo* again, causing the death of the second child, but bringing back to Hades the 'spirit of gold' (*ezukwa ne ngomenle*). Yet the ghost was not satisfied, and had come to earth once more, incarnating itself in the third child. Action had to be taken to prevent this child from dying like its sisters. The diviner asked for a gold nugget, tied a piece of white cloth round it, went to the outskirts of the village at 5 p.m., and placed the little bundle on the ground. He then talked to the ghost (addressing the air, as he didn't know the ghost's name), saying: 'Here is all the gold we have, take it and don't come back.' On the following night, the *ngomenle* came and took 'the spirit of the gold,' as the diviner was later able to demonstrate; the little girl survived and was indeed in good health from then onwards. The parents, however, were advised not to go back for the nugget.

A similar case was reported to me in nearby Atuabo. Another little girl would insist on going to market, and walking up to a certain man there asking him to give her 7*d*. The child's parents were surprised and upset about this strange behaviour, because they knew their little daughter could not possibly be acquainted with this particular man. A diviner was called, and revealed that the man actually owed 7*d*. to an old woman who had once sold him *kuma kenke* (a sort of maize bread) and had died without being paid for it. The diviner instructed the parents to leave the 7*d*. in a hidden place in their house. They did so, and the following morning the coins had mysteriously disappeared. After that, the little girl forgot about the man in the market, and her behaviour and health were normal.

Cases such as these are remembered and quoted by the Nzema as strange and unusual occurrences, thus confirming that reincarnation, while believed to be possible, is by no means the ordinary process by which human beings come into this world.

4. *Prenatal influences*

During their prenatal sojourn in *ebolo*, unborn children are subject to various types of supernatural influences,

which they subsequently bring with them into the world. The most prominent of these influences is (or, at any rate, was in 1954) attributed to the deities called *asongu*; I have discussed it elsewhere,[7] and it will here suffice to say that it manifests itself mainly in the form of some serious ailment, but may be turned into a positive force in protection of the individual if proper ritual action is taken in time. Two more types are mentioned in a pamphlet in Nzema language,[8] from which most of the information following in this section is drawn. I am using the word 'influences' for lack of a more exact term to render the Nzema concept; in the original text, the word *amonle* is employed, meaning 'charm' in the more general sense of the term.

The influence called *anguma* (*lit.* 'above,' 'high up') is described as a sort of *amonle* to which no sacrifices are offered, in contrast to *asongu*, which requires numerous offerings. This would seem to imply a magical, rather than a religious, connotation. The person suffering from it becomes pale and dizzy, his eyes become white as a dead man's, the eyesight is blurred. If it attacks a child and makes it faint, a charm called *anguma amonle* is tied round its neck; the child will be placed on the ground just under the eaves, so that rain draining from the roof will drip on it. There is a special medicine for *anguma*, consisting of *ngu* (shea butter, imported from the Northern Territories), tobacco, and *dodo* (a variety of honey) in equal proportions, pounded together in a special mortar (*duba*) and diluted with water. The *anguma* medicine is prepared by a *ninsinli* (doctor), who will recite an incantation while the patient drinks it. As it is being prepared, all people present must step aside so that no one is behind the doctor as he is touching the mortar; the cup from which the patient drinks the decoction must be held with both hands and emptied in one gulp. This medicine is always prepared on a Tuesday, and has its own *kyibadee* or taboos: the patient must not take palm soup or palm oil on a Tuesday, and adults who take the medicine on Tuesday must abstain from sexual intercourse on the previous Monday.

A third type of obnoxious influence brought along from *ebolo* is called *akigyiamo*; this, too, is described as an *amonle* 'to which sacrifices are not offered.' Symptoms are stomach ache for a period of one or two months, accompanied by dysentery and vomiting.[9] A characteristic which it has in common with *asongu* is that if it attacks an adult it can later be used as a protective taboo on his property. If Kodwo suffers from *akigyiamo*, and Kofi walking behind him treads on him, Kofi will have to pull at once Kodwo's index finger (of either hand, it seems), otherwise he will catch *akigyiamo* too. For a sure diagnosis, the suffering person will have to consult a soothsayer, who will perform the *adunyi* divining *séance*.[10] If *akigyiamo* is thereby detected, a special medicine will be prepared for the patient, and in the evening a further ceremony will be performed at the outskirts of town. Standing in front of the patient, the celebrant will cry out: '*Akigyiamo! Akigyiamo! Akigyiamo!* So-and-so (name of the patient) is suffering from stomach ache, and it is said to be caused by you. This is your *ewuole*, come down, stop that stomach ache!' In so saying, the celebrant will put some *ewuole* (white clay) in the patient's mouth, and while the man swallows it he will besmear his stomach with more clay,[11] repeating three times '*dwu aze o!*' ('come down!'). The patient will then take his medicine and be cured.

5. *Life-giving Agents*

The belief in pre-existence, in the limited sense that has been outlined above, does not exclude the recognition of (*a*) God's intervention as a soul-giver, and (*b*) of the natural processes of reproduction. Such as it is reputed to pre-exist in *ebolo*, the unborn child is nothing more than a larva; in order to become a complete human being, it must receive its *ekela* from Nyamenle as well as its physical (and, to a certain extent, its spiritual) substance from both parents. Whether the belief in the coalescence of these different life-giving forces and actions should be judged as a sign of logical inconsistency,[12] is a question that had better be left unasked, if we only stop for a moment to consider the conflicting and yet concomitant convictions held by most people in our own societies. The more relevant question, whether such a coalescence is the result of some syncretistic process in Nzema beliefs, is a problem that only future research may help to solve.

It must be underlined that the action of the father and mother is required not merely in order to bring the child into the world as a living creature, but also and especially after birth, to protect it spiritually as well as materially during its early stages of development against the obnoxious influences of the types mentioned above, though these are determined quite independently of the parents-child relationship. In a society threatened by high infantile death rates, such as that of the Nzema, it is just as vital, and indeed more arduous, to keep a child alive during its first years of life, than to give birth to it.

By virtue of the womb, a child belongs to the maternal clan (*abusua*); in fact, it is believed to get its flesh and bones from its mother. The permanent link thus established between the individual and his matrikin is thus justified by this physical connexion. As a Nzema informant once put it to me, if a woman dies in labour on account of her child, her *abusua* suffers a loss, whereas her husband loses nothing, though he himself has 'spoiled' his wife's *abusua*; hence the claims of the matrikin on the child's allegiance. But the father's function in begetting a child is no less important. Not only does the man put his seed into the woman, and thus transmit his own blood (*mogya*) to the future child, he also transmits his *mora* to it. *Mora* is not altogether a pure spiritual essence, though it appears to be closely connected with the 'soul' (*ekela*): it is 'something in the body,' a vital force or life principle. A deep exhalation (or, as an old informant once put it to me more precisely, a treble breath) by the man at the end of the intercourse is a sign that the man has imparted his *mora* to the woman, his 'power of motion' and his 'strength of heart.' Only if a man's *mora* is 'agreeable' to the *mora* of his wife can procreation take place. Occasionally, when a baby is born, it will take a few moments before it can breathe or cry; a basin, kept near by for this purpose, is immediately beaten, and the noise will bring the *mora* along, but the *mora* is

really already there, *in* the infant. It seems to correspond to Twi *sunsum*, though the precise nature of the latter is subject to controversy.

This twofold physiological relation to father and mother accounts for a dual descent system. Every Nzema is at the same time a member of a matrilineal descent unit and of a patrilocal residential unit, village or town, and most of his or her religious and social duties and affiliations are derived from this double system of allegiances. This corresponds in several respects to the situation among the more easterly Akan peoples,[13] but there are some important differences. Though there are no recognized *ntoro* groups or categories among the Nzema, the father's position appears to be stronger among them on the whole. This is possibly due to the belief that the child inherits its blood from the father, not from the mother as is the case among the Twi-speaking peoples. The social implications arising from this situation cannot be discussed here, but one general remark must be made as it has direct bearing upon the subject of this paper. The individual's ties with his maternal kin prevail absolutely in all situations connected with death and succession, such as funeral obsequies, inheritance, connexions of the dead person with the other deceased in Hades, etc.; but during life, or at any rate during the early stages of life when the individual's parents are normally alive, it is the ties with the father that appear to be stronger. This different emphasis is consistent with the fact that the dead reach *ebolo* with their matrilineally inherited flesh and bones, whereas they are at once deprived of their patrilineally inherited blood circulation and *mora*.

6. *Life-preserving Actions*

In accordance with this system of beliefs, the task of protecting the child's life especially from spiritual dangers is essentially part of the father's duties. 'The father's blood is thick in a child,' 'a father's spirit overshadows his child,' 'a child's qualities follow his father's *mora*,' are some of the frequent sayings by which the Nzema express their conviction in the profound father-child link. If a child is taken away from its father, it is believed that it cannot thrive, and that it will be more exposed to injury through witchcraft. The same may happen when a father leaves his compound—as many do nowadays—to seek employment in the more prosperous provinces of Ghana or of the Ivory Coast; and also when a man remains a widower before having taken a second wife, because in this case children will usually be sent to the deceased wife's kin. In either case, the father will send them money and clothing, so that the children will not forget him, and he will visit them whenever he has an opportunity. Again, if a woman divorces her husband and takes her children away with her according to custom, great care must be taken lest they fall ill and die following separation from their father. If a reckless boy has a row with his mother and beats her, no great importance will be attributed to this misdemeanour, but should he venture to act likewise to his father, he would automatically suffer in health. A constant attitude of respect towards one's father is a strict rule for adults no less than for children; as the proverb says, *etela e ze tendenle a, te eti pene o*, 'even if you are taller than your father, you are not his equal.'[14]

In case of a slight ailment, it may be the mother who will take the child to a medicineman or a diviner and ask for medicine (*ayile*); but should this be of no avail, it is the father who will take things into his hands. For instance, if the child is seriously sick and *asongu* trouble is suspected, it is he who will consult the priest (*komenle*) and, according to the latter's diagnosis, ask for the proper earthenware figurines to be provided, have the shrine erected, pay for the required offerings, etc. Indeed, I was told of cases in which the death of one or more children had occurred without the respective families being able to avoid it or account for it merely because the father had happened to be away from the village at the time; only when he had returned from long absence had it become possible to explain the causes, due to *asongu* action.

Other prerogatives of the father or of relations in the paternal line, such as the naming of the child, which also may play a protective role in the child's interest, cannot be discussed here,[15] but I shall briefly mention one further important aspect of the father-son relationship in this respect. A child must observe a number of prohibitions or taboos, called *kyibadee*, depending on the particular god worshipped by its father—a custom very similar to the *egyabosom* cult of the Fanti.[16] In most cases known to me, these gods are not personal tutelary deities, but the great *awozonle* worshipped throughout Nzemaland and connected with sea, river and lagoon, such as Nyevile, Tanoe, Ade, Amanzule, or Mamelake (a *bosonle* who appears in the form of fire over the sea between Atuabo and Beyin), or, less frequently, *asongu* deities.

The prohibitions themselves are mostly sets of joint food taboos, numbering from two to four in each individual case, *e.g. kpamenle* (a variety of monkey), *bonze* (the monitor lizard) and *donle* (a river fish).[17] Children must observe their father's *kyibadee* from the age 'when they can tell good from bad,' *i.e.* as they pass from childhood to adolescence. If later on in life they wish to give up the prohibition, they must inform their father, who will ask permission from the god on their behalf. If the *kyibadee* is infringed unintentionally, it may cause the offender to suffer two or three days later from some slight disease such as sores in the mouth, or a sore throat. If it is repeatedly and intentionally infringed, a serious sickness and possibly death will ensue. A daughter will also inherit her father's *kyibadee*, but she will be expected to observe it only as long as she lives in the paternal compound, and will not pass it on to her children; when she marries, she will observe her husband's interdicts out of respect for him. An infringement of the *kyibadee* should be atoned for by pouring some rum or *nza* on to the ground, as an offering to the offended deity.

Notes

[1] My journey from the Ivory Coast to Ghana, and my subsequent stay in this country in 1954, were made possible by a grant from the Wenner-Gren Foundation for Anthropological Research, New York, to which grateful acknowledgement is here given.

[2] It is therefore essential that the deceased should have on him the money (*supele*) for the ferry; members of the *abusua* will see to it that a few coins (usually 2*s.* 6*d.*) are tied up in the man's *abelako* (loin-cloth). 'Old Mediterranean' affinities are easily detected in this conception of the underworld, which is not surprising in a West African *Kulturbild*.

[3] The role of the *abusua* (matriclan) is fundamental in funeral obsequies. These take place as a rule within the patrilocal residential unit—village or compound—but are performed by members of the maternal descent group of the deceased. As among the Twi-speaking tribes further east, there are seven *abusua* among the Nzema. Their names are Adhonle, Aloloba, Azanunle, Ezohile, Ndweafoo, Maafole or Asamangama, Nvavile.

[4] N. A. Adjaye, *Nzima Land*, London (Headley Bros.), 1931, p. 11.

[5] I have discussed this point in a paper delivered to the VI International Congress of Anthropological and Ethnological Sciences in Paris, August, 1960, 'Nome e anima fra gli Nzema del Ghana.'

[6] Spelt *ernwuminli* by Adjaye (*loc. lit.*), *nwũmInlI* or *nwuminli* by C. W. Welman, *A Preliminary Study of the Nzima Language*, London (Crown Agents for the Colonies) n.d. [1925], p. 27.

[7] V. L. Grottanelli, 'Asongu Worship among the Nzema,' *Africa* (London), Vol. XXXI, No. 1 (January, 1961).

[8] A. K. Mensah and J. A. Essuah, *Nzema Maamela ne Bie*, London (Society for Promoting Christian Knowledge), 1949, pp. 15–18.

[9] A safe diagnosis cannot apparently be based on these symptoms alone, because—as the authors of *Maamela ne Bie* admit—similar effects may be caused on your guests if you offer them some food discontentedly!

[10] This divining technique, which I had the opportunity of filming on one occasion, is based on the manipulation of a group of several strings joined together at one end and carrying various charms tied to the other end. The diviner, sitting on a stool in front of the patient, rapidly and repeatedly touches the latter's limbs with one or other of the straps in succession, while reciting *sotto voce* his secret formulæ.

[11] On white clay as a symbol of purification, see V. L. Grottanelli, in *Africa*, *loc. cit.*

[12] For similarly conflicting beliefs among the better-known Akan groups to the east, see R. S. Rattray, *Ashanti Proverbs*, Oxford, 1916, p. 36; *id.*, *Religion and Art in Ashanti*, London, 1927, pp. 154f. J. G. Christaller, *Dictionary of the Asante and Fante Language Called Tshi* (*Twi*), Basel, 1933, p. 262; J. B. Danquah, *Akan Laws and Customs*, London, 1928, p. 231; *id.*, *The Akan Doctrine of God*, London, 1944, pp. 91, 112f.; E. Meyerowitz, *The Sacred State of the Akan*, London, 1949, pp. 85–87. An original discussion of the subject was made by the Revd. Dr. P. E. K. Akoi in his unpublished dissertation, *The Concept of the Spiritual Kingdom of the Akan God, Nyame* (Rome, 1953), pp. 121–147.

[13] For the Ashanti, see K. A. Busia, 'The Ashanti of the Gold Coast' in *African Worlds*, edited by D. Forde, London, 1954, pp. 196ff.; for the Fanti, see J. B. Christensen, *Double Descent among the Fanti*, New Haven, Conn., 1954, chapters IV and V.

[14] V. L. Grottanelli, 'Nzema Proverbs,' *Afrika und Uebersee*, Vol. XLII (1958), p. 19.

[15] See my paper 'Nome e anima fra gli Nzema del Ghana,' *loc. cit.*

[16] See Christensen, *op. cit.*, pp. 81ff.

[17] Other *kyibadee* which frequently recur are: *ehole* (a lagoon crab), *bile* (mud fish), *komu* (another monkey), *akominza kokole* (a fish), *fuale alee* ('food cooked by a woman who has passed menses during that period'), *enlokoe* (snail), *elengene* (crocodile), *anzonle* (a small shark?), *fole* (the black monkey), *engona* (land tortoise), *alenge* (a small crocodile), *ekputile* (a river fish), *kokote* (the bush pig), *kpoleke* (domestic pig), *kutu* (a bush goat), *kandale* (a variety of duck), *wele* (deer), *ezozo anloma* (a water bird), and a variety of others. Sexual intercourse, and the eating of some common food, such as corn (*abele*) or salt, may also be *kyibadee*, but in this case only for one day in the week, usually the father's natal day, connected with his *ekela*.

Hon. Editor's Note on Orthography

In accordance with the practice of MAN where strict orthographical nicety is not demanded by the argument, special phonetic sorts have not been used, but the following key is provided for the benefit of specialists. The *e* is open in *abele*, *angabenzo*, *anzonle*, *bema*, *benlo*, *bonze*, *e*, *ebolo*, *ehole*, Ekebaku, *ekela*, *engona*, *enlokoe*, *erela*, *fole*, *fuale*, *kandale*, *kokole*, *kpoke*, *Maamela*, *mmale*, *supele*, Tanoe, *ye*, *yekponde*; the first *e* only is open in *eke*, *pene*, *wele*, *yede*; the second *e* only in *alee*, *etela*, *kyibadee*, Mamelake; and the first three *e* only in *elengene*. The *o* is open in Aloloba, *dodo*, *ebolo*, *engona*, *fole*, *kokote*, *komenle*, *kpoke*, *mo*, *mora*, *ngomenle*, *o*, *wo*; the first two *o* only are open in *doongo*; and the second *o* only in *ntoro* and Ndweafoo. The *ng* in *alenge*, *anguma*, *asongu*, *doongo*, *engona*, *ngomenle*, *ngonane* is pronounced as in 'singer.'

A NARCOTIC FROM *NICOTIANA INGULBA*, USED BY THE DESERT BINDIBU

CHEWING OF A TRUE TOBACCO IN CENTRAL AUSTRALIA*

by

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2 In an article on smoking and smoking pipes in North Queensland and Arnhem Land, published in MAN[1] more than 20 years ago, I recorded the fact that the use of tobacco was of long standing among the aborigines of Cape York Peninsula as well as in Arnhem Land. I pointed out that it was always smoked and not chewed, and that I had never seen tobacco chewed by an aborigine despite the precedent that must have been established in the long contacts of these people with seafaring men. In the same article I contrasted this use of tobacco exclusively for smoking with the practice among certain other aborigines of northern Australia, especially in parts of central and western Queensland, of chewing leaves of the *pituri*, *Duboisia hopwoodii*, F. Muell., a plant with narcotic properties, now well known as the source of the drug hyoscine.

During the expedition to the Bindibu tribe in the desert of central Western Australia in 1957 which was the subject of a recent article in MAN, the practice of these people of preparing a chewing quid from a true native tobacco, *Nicotiana ingulba*, J. M. Black, was studied. That this plant

* *With Plate C and a text figure*

possesses powerful narcotic properties was suggested by observation of the behaviour of a group of Bindibu men—particularly young men—who were addicted to the chew- of *Nicotiana ingulba*, prepared by them as described in this paper.

A preliminary note on the Bindibu country was incorporated in a previous article on the discovery of a sandal in use by these people in the remote desert west and north of Lake Mackay, where they have survived and retained their primitive culture away from contact with the white man.

In 1957, just over 40 Bindibu people from the surrounding desert visited Labbi Labbi Rock Hole where the expedition was based, and many of them stayed there for several weeks. As soon as the confidence of these people had been won, I accompanied them on food-gathering expeditions among the sand dunes in the desert, as well as in Hidden Valley below the rocky escarpment of Red Cliff Pound. When the natives were hunting on the sand dunes I noticed that they would pick bunches of the young branches of a species of *Grevillea* that grew on the slopes of the dunes. The purpose for which these fresh leafy branchlets, grey or green in colour, were intended, was not apparent at first, but later the natives were seen to burn the leaves to produce a white ash which they used in preparing the chewing quid. The leaves of only one *Grevillea* appeared to be used for this purpose, but unfortunately, in the absence of the inflorescence, for which I searched in vain, the species of this plant could not be determined.

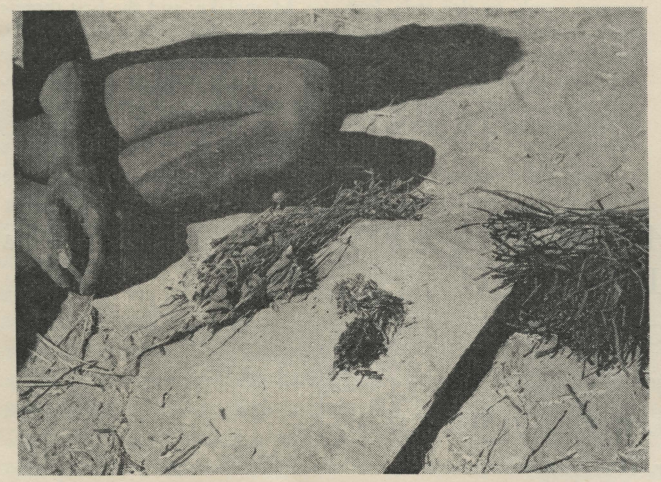

FIG. 1. PREPARATION OF TOBACCO IN CAMP

Nicotiana ingulba, *called* männagärrätta *by the Bindibu, in course of preparation in camp at Labbi Labbi. Centre, a smooth slab of sedimentary rock, used to receive the white mineral ash obtained by burning the young green leaves, freshly gathered, of a species of* Grevillea. *Left centre, entire tobacco plants as they are gathered, and on the right of these, the quid after preliminary chewing, ready to be rolled in the white ash which can be seen in the central foreground. Extreme right, the leaves of the* Grevillea *from which this ash is obtained.*

As we neared camp on return from a hunting expedition, two or three of the younger men would break away and visit a patch of low alluvial ground where the tobacco grew in profusion. The plants were about nine or ten inches tall, and the flowers showed the typical floral character of this genus—white, with long tubular corolla. The men would collect large bunches of these tobacco plants, most of them in full flower or just setting seed, uprooting the entire plant complete with tap root.

Preparation of Chewing Ball

The quid or ball, prepared from *Nicotiana ingulba*—called *männagärrätta* by the Bindibu—for the extraction of the narcotic juices by chewing, was prepared in the following way.

The freshly gathered tobacco was carried back to camp where the men would at once sit down and make a fire. They then swept clean a patch of sand in front of them, smoothing it with their hands, or, if stone was available, they often laid a sheet of flat, stratified stone on the ground and placed the tobacco on this, but sometimes the broad, deeply concave surface of a spear-thrower (*llänguro*) would serve as a palette. One of the men would now cram enough of the *Nicotiana* plants into his mouth to fill it, chewing the material until it formed a compact ball or quid. Meanwhile his assistants took the young green branches of the *Grevillea* that they had collected while hunting on the dunes, and lighted these, holding the burning leaves over the smooth patch of sand, the stone, or the concave face of the spear-thrower, to catch the white ash that fell. The man who had been chewing the tobacco now removed the quid from his mouth and rolled it in the white ash produced by burning *Grevillea* leaves, working the ash in until it thoroughly impregnated the tobacco. The last of the precious ash would be collected carefully by mopping it up with one finger so that none was lost. The quid was now chewed in turn by each of the men who had assisted in collecting the material and making the quid, each retaining it in his mouth for a short time, showing by his facial expressions and grimaces that the tobacco was burning his mouth. It is probable that the addition of the alkaline ash serves to accelerate the narcotic action of the nicotine and at the same time irritates the mucous membrane of the mouth. After chewing it for a short time, each man either passed the quid on to another sitting nearby, or tucked it behind his ear, where it was carried when not in use.

On several occasions I had noticed Bindibu men gathering the branches of the *Grevillea* in the way which I have described without understanding its purpose until I followed them to the place where they were accustomed to collect the tobacco. It was only after I had watched the little group prepare the quid of tobacco and pass it around to one another that I realized the extent to which some of these people were addicted to the habit of chewing. It was evident, after I had seen the natives gathering the leaves of the *Grevillea*—which they often carried for an hour or more, before making a detour to collect the tobacco itself—that the hunters derived a considerable amount of satisfaction from swallowing the juice produced by chewing the prepared ball of tobacco. Soon after chewing, the men, who had returned tired from their hunting in the hot sands of the desert, would recline in a resting position on their

elbows or loll on the ground in attitudes of relaxation. And, invariably, when they returned to camp with the tobacco and the gleanings from their food quest, they would devote themselves to the preparation of the chewing quid in preference to the less laborious and seemingly more immediate task of cooking food.

In an article published in the *British Medical Journal*,[2] Professor J. H. Burn, of the Chair of Pharmacology in Oxford, discussed the effect of nicotine injected intravenously in man. He concluded that the absorption of nicotine is associated with coronary disease, or at least with the restriction of coronary circulation. Professor Burn also recorded the observation that the power to destroy nicotine after absorption by the human body—either by intravenous injection or by the inhalation of tobacco smoke—became progressively less with advancing age. By coincidence, addiction to the chewing of tobacco among the Bindibu, or among the restricted population that I met in the desert in 1957, appeared to be greater among the younger, more active men, and I do not remember having seen any of the old men chewing.

Professor F. H. Shaw of the Chair of Pharmacology in the University of Melbourne has informed me that the action on the partially chewed quid of *Nicotiana* of the white ash obtained by burning leaves of the *Grevillea* is to convert the alkaloid salt into a base. In addition, the absorption through a mucosal surface, *i.e.* the lining of the mouth, would be aided by the alkalinity of the ash. In its altered form, nicotine is probably more rapidly absorbed into the human body. The practice of using lime in the preparation of green betel nut for chewing is widely known among the natives of New Guinea and the Pacific, but it is of interest to discover a technique such as the use of a specially prepared wood ash by the Bindibu in the remote interior of Australia, to achieve the same purpose and apparently developed independently.

The pattern of chewing the *Nicotiana* plant to extract the juice which was then swallowed, rather than smoking the leaf, was new to me in Australia, and, as I pointed out in the paper on tobacco and smoking pipes on Cape York and in Arnhem Land, in those areas tobacco was always smoked, never chewed. This may appear the more unusual, at least on the southern boundaries of the territories mentioned, since the chewing of *pituri* had long been practised there and the pattern of chewing might have been expected to extend to tobacco.

When I first noticed the chewing of tobacco among the Bindibu I was ready to accept this custom as evidence of culture contact with neighbouring tribes. But later experience with these people, supported by the discovery that none of the natives at Labbi Labbi had ever visited a cattle or mission station, and that they possessed no clothing, nor any iron tools, and had no neighbours on the eastern side of their territory, confirmed the belief that they had remained in isolation far out in the desert. On my return from the expedition I found a reference by David Carnegie[3] to the preparation by natives in the western desert of a quid made for chewing from a plant that he did not identify but which can only have been the *Nicotiana* discussed in this paper. Carnegie described the manufacture of the chewing ball and the addition of white ash produced by burning the young silvery leaves of a *Grevillea*, that left no doubt as to its identity.

Addiction and Ritual Aspects of Chewing and Smoking

Observation on the behaviour of the tobacco-chewing groups among the Bindibu, with whom I lived in close proximity for some months, led to the conclusion that the chewing of the *Nicotiana* quid described in this paper was practised under a compulsion or craving which appeared to have a physiological rather than social basis. The urge to chew would begin to manifest itself when the hunting party was far out on the dunes and while the men were still engaged in hunting. One or more of the hunters would be seen to gather the green branches of the *Grevillea* from which ash would later be obtained. And these leaves might well have to be carried for hours before the group returned to camp, when two or three men would make a detour to collect the tobacco plants. Invariably, as I have pointed out, the preparation of the chewing quid would take precedence over the preparation of the food—such as reptiles or vegetable food—brought back by the party.

Although two or three men would assist in the actual manufacture of the quid for chewing, and this would later be handed to others, not all the Bindibu men were addicts, and it could not be said that the tobacco was chewed by all those sitting near as would occur if the practice had been of great social value, and as certainly would be the case with a smoking pipe in Arnhem Land. The social or ritual aspect of tobacco-smoking, wherever it occurs among aborigines, is high, apart from the narcotic or stimulant aspect, which, however, is not to be underestimated. I have described the ceremonial presentation of fire as a prelude to readmission to the social life of a group.[4] This occurs invariably after a long period of separation and may even happen after an absence of only a few days. Even at the time when the paper to which I refer was written and the people of the Edward River were living under tribal conditions, tobacco would be produced and smoked, if any was available, as a ritual adjunct to the presentation of fire. I have stressed the importance of the ritual aspect of the smoking of tobacco in Arnhem Land, notably on the critical occasion of my first approach to the warlike Dai'i-speaking people of Blue Mud Bay in camp on the Koolatong River where I made the first important contact with a big group of natives in terms of the commission with which I had been entrusted by the Commonwealth Government.[5] I have made these references to the importance of the ritual aspect of the smoking of tobacco in Northern Australia to make clear the distinction between the social aspect of smoking and the essentially physiological addiction to the chewing of native tobacco in the desert.

The success of my own contacts with the people of far east Arnhem Land—then uncontrolled—and their acceptance of me, to the extent that I lived and travelled with them, generally unarmed, for years, was in large part due to respect that I showed for their patterns of behaviour and etiquette. The place of tobacco and tobacco pipes in the

prolonged bandying of kinship terms—a necessary prelude to the sorting-out of behaviour patterns—cannot be overstressed. Nothing approaching this ritual attitude could be found in the usage by the Bindibu of tobacco for chewing, where, as I have said, there appears still to be a predominantly physiological basis that contrasted with the social and prestige value of the smoking of tobacco in North Queensland and Arnhem Land.

Notes

[1] Donald F. Thomson, 'Notes on the Smoking Pipes of North Queensland and the Northern Territory of Australia,' MAN, 1939, 76.

[2] J. H. Burn, M.D., F.R.S., 'Antiduretic Effect of Nicotine and its Implications,' *B. Med. J.*, 21 July, 1951, pp. 199–201.

[3] David Carnegie, *Spinifex and Sand*, 1898, p. 265.

[4] Donald F. Thomson, 'Ceremonial Presentation of Fire in North Queensland,' MAN, 1932, 198.

[5] Donald F. Thomson, 'Explorations among an Unknown People,' *Geog. J.*, Vol. CXIII (1949), p. 24.

A SET OF GAMBLING PEGS FROM THE NORTH-WEST COAST OF AMERICA*

by

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3 The set of gambling pegs here described and illustrated was presented to the Manchester Museum[1] by Mrs. B. Richards at some time before 1941. It was described in the museum register as a 'skin bag of praying pegs,' but there can be no doubt that they are in fact gambling pegs of the type described by Stewart Culin in his monograph 'Games of the North American Indians';[2] pages 227 to 266 deal with stick games, and he describes the method of playing with this type of peg as follows (p. 227):

> The implements for the stick game are of two principal kinds. The first, directly referable to arrow shaftments, consists (*a*) of small wooden cylinders, painted with bands or ribbons of color, similar to those on arrow shaftments . . .; (*b*) of fine splints, longer than the preceding, of which one or more in a set are distinguished by marks . . .; (*c*) of sticks and rushes, entirely unmarked . . . The marks on the implements of the first sort are understood as referring to various totemic animals, etc., which are actually carved or painted on some of the sets . . .
>
> The number of sticks . . . varies from ten to more than a hundred, there being no constant number. The first operation in the game, that of dividing the sticks . . . into two bundles, is invariably the same. The object is to guess the location of an odd or a particularly marked stick. On the Pacific coast the sticks . . . are usually hidden in a mass of shredded cedar bark. . . . The count is commonly kept with the sticks . . . themselves, the players continuing until one or the other has won all.
>
> On the Northwest coast the sets of sticks are almost uniformly contained in a leather pouch, . . . with a broad flap to which a long thong is attached, passing several times around the pouch, and having a pointed strip of bone, horn or ivory at the end. The latter is slipped under the thong as a fastening.

He illustrates (on Plate V) eight sticks from a set of 32, which were collected in 1884 by J. Loomis Gould from the Haida Mission, Jackson, Alaska, and are now in the United States National Museum, Cat. No. 73522. They are $4\frac{3}{4}$ inches long and half an inch in diameter, and are comparable to the Manchester Museum set, but they appear to be less well carved. As the Manchester Museum set is in fact the most elaborately carved that I have been able to trace, it is here illustrated *in extenso*.[3]

* *With Plate D and two text figures*

As will be seen from Plate D, the pegs are 28 in number, and are cylinders $5\frac{1}{2}$ inches long and approximately three-quarters of an inch in diameter, with ends in the form of a truncated concave cone. The degree of elaboration varies from piece to piece, several being almost sculptures in the round, whilst in a number the decoration is merely incised. In all the pieces, however, the carving is extremely skilful, and demonstrates the mastery of line which is a characteristic feature even of late carvings from the North-West coast of America. Twenty-one pieces are further decorated with inlays of *Haliotis* sp. (Venus' ear or abalone) shell. An impression of the objects is best conveyed by the photograph, but the line drawings of the unrolled patterns are provided to amplify the descriptions. The style of the carving suggests that they were carved by a Haida, probably during the third quarter of the nineteenth century.

The identification of the animals, which are often incompletely represented, is always difficult, frequently ambiguous, and sometimes quite impossible. The following identifications, however, seem probable:

(1) A dragonfly. The body is segmented, the wings ascend on each side; the tail is shown below the head. *Cf.* J. R. Swanton, 'Contributions to the Ethnology of the Haida,' *Mem. Amer. Mus. Nat. Hist.*, Whole Series, Vol. VIII (New York), 1905, Plate XX, 5. There is a broad band of red paint round the lower end.

(2) A fisherman kneeling on the back of a frog. The eyes of the fishes on his back are inlaid with black rings. *Cf.* Swanton, *ibid.*, Plate III, 3, though here the figure is of a woman.

(3) A man with his legs flexed and a 'copper' on his back. *Haliotis* inlays are on his chest and abdomen.

(4) A sculpin with *Haliotis* inlays to nostrils, eyes, backbone and spines. *Cf.* Swanton, *ibid.*, Plate XX, 15. There is a broad band of red paint round the lower end.

(5) Footprints, probably of a bear. *Cf.* Swanton, *ibid.*, Plate VII, 1, where the bear is represented as well as similar footprints. The other side has three triangular *Haliotis* inlays. Four fine bands of black and two narrow and one broad band of red paint have been drawn round this peg.

(6) A kneeling man holds a cane which is inlaid with *Haliotis*. *Cf.* Swanton, *ibid.*, Plate III, 3. The head is frog-like. Swanton (*ibid.*, Plate VIII, 2) shows a similar unidentified figure said to come from the Tsimshian. The upper end above the carving is painted black.

FIG. 1. DETAILS OF NORTH-WEST COAST GAMBLING PEGS

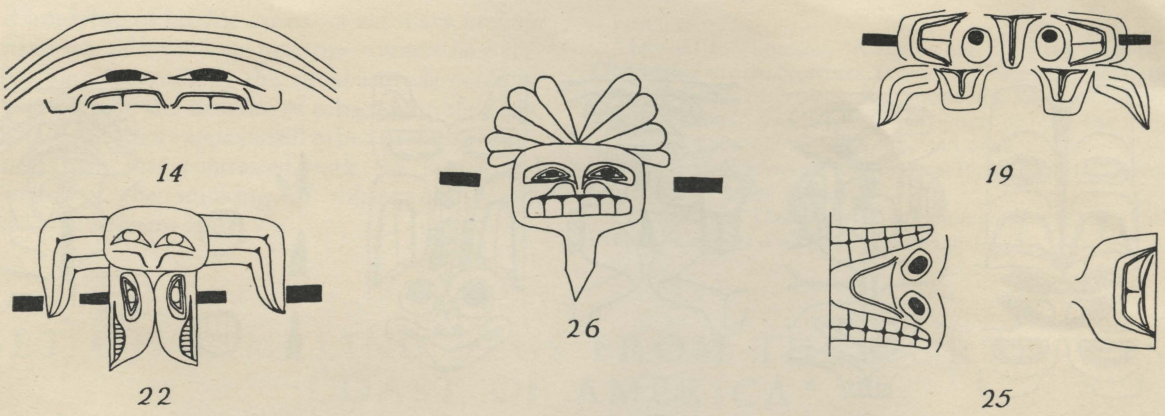

FIG. 2. DETAILS OF NORTH-WEST COAST GAMBLING PEGS

(7) A sculpin with *Haliotis* inlays in the eyes and between the spines. The lower end of the peg has been painted red.
(8) A bear with *Haliotis* inlays in the eyes, forepaws and down the front of the body.
(9) This probably represents a man with the hands on the abdomen.
(10) A toothed sea animal, perhaps a sealion, with *Haliotis* inlays in the eyes and on the back.
(11) A killer whale with eyes inlaid with *Haliotis*. This peg bears two bands of black paint, one wide and one narrow.
(12) A sea monster, probably a sea bear, with the body, dorsal fin and tail of a killer whale and the head and paws of a bear. The eye and gills are inlaid with *Haliotis*.
(13) A woman wearing a *Haliotis* labret in the lower lip. The hands have five fingers, but the feet have only four toes.
(14) This appears to be the head-on view of a dogfish or a clam. *Cf.* Swanton, *ibid.*, fig. 19. The eyes are inlaid with *Haliotis*, and the peg has three fine bands of red paint.
(15) Parts of probably two animals. Paws, eyes and ears can be distinguished. One small disc of *Haliotis* has been inlaid. *Cf.* No. 24. It is marked with three fine bands of red paint.
(16) A hawk with *Haliotis* inlays in wing, claw, eye, nostril and head plume.
(17) A sea mammal, probably a killer whale. *Cf.* No. 23, and Swanton, *ibid.*, Plate II, 3, 4. Traces of three fine bands of black paint remain, and of a broader diagonal stroke.
(18) A raven and a bear. The bear's teeth are *Haliotis* inlays. The peg is painted with four fine red bands and one broad black.
(19) The identification of this piece is uncertain. It may be a devil fish (*cf.* Swanton, *ibid.*, fig. 28 (25)) or the moon conceived as a bird (*ibid.*, fig. 12, *a*). There are *Haliotis* inlays in the eyes,[4] and two others at the ends. The peg is painted in red with one broad and two narrow bands, and two ovals resembling thumb prints.
(20) Two animals, the upper one with wings; both have paws. There are faint traces of three fine bands of red paint.
(21) Resembles No. 20, but has a small triangular inlay of *Haliotis* and traces of three fine bands of red paint.
(22) The head of a bird seen both from the front and in profile. Perhaps this is the moon represented as a bird. *Cf.* Swanton, *ibid.*, fig. 12, *a*. There are four *Haliotis* inlays.
(23) A sea mammal. *Cf.* No. 17, which it resembles also in its painting.
(24) *Cf.* No. 15. It has a smaller *Haliotis* inlay, and its three fine bands of paint appear to have been black.
(25) Probably represents a whale. The eyes are inlaid with *Haliotis*. There are three narrow bands of black paint behind the head and one red and two black broad diagonal strokes on the back.
(26) Perhaps represents the sun. *Cf.* Swanton, *ibid.*, Plates XIX, 8, and XXXI, 3. There are inlays in the eyes and at each end, and one fine and one broad band of black paint at each end.
(27) Parts of animals. Traces remain of three fine bands of black paint.
(28) Parts of animals.

In addition to the bands of paint mentioned in the descriptions, which resemble those on uncarved sets of pegs, many of the pegs have had the details of the sculpture picked out in red or black paint. The set is in its original leather case, $8\frac{1}{2}$ inches wide, $6\frac{1}{2}$ inches deep, $2\frac{1}{2}$ inches thick, with an ample flap secured by a thong two feet long, furnished at the end with the claw of a large bird, perhaps an eagle.[5]

Notes

[1] Registration No. 0.5933.

[2] In W. H. Holmes, *Twenty-Fourth Annual Report of the Bureau of American Ethnology* . . . 1902–3, Washington, 1907, pp. 1–811.

[3] The Manchester Museum also possesses an example of the more common type, a completely undecorated set of 55 pegs in a leather case (No. 0.8580), given by the Wellcome Historical Medical Museum. Of these pegs 44 are five inches long and 0·35 inches in diameter, whilst the remainder are of the same length but only 0·2 inches in diameter.

[4] One, however, is lost.

[5] I should like to record my thanks to Mr. Adrian Digby and Dr. Marian W. Smith for their advice in the preparation of this account.

SOCIAL SCIENCE, LOGICAL OR PSYCHOLOGICAL IMPOSSIBILITY?

by

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4 The Study of Man—Art or Science? This is a question whose possible answers have alternated with one another through hundreds of years of Western cultural history, and may well continue to alternate for hundreds to come. Far be it from me to try to arrest a process which is apparently so inexorable. In what follows, however, I hope to show why it is so hard to shelve this question with a final answer. At present, a powerful body of philosophical opinion is inclined to regard the study of man as art. A recent book by the Oxford linguistic philosopher Peter Winch, entitled *The Idea of a Social Science*, is an excellent crystallization of this position; and it thus forms a natural starting point for further controversy on the subject.

The main theme of Winch's book is that 'Peoples' relations to each other exist only through their ideas and their ideas exist only in their relations to each other.' Hence 'Any worthwhile study of society must be philosophical in character and any worthwhile philosophy must be concerned with the nature of human society.' Now the author shows very clearly that the philosopher must give some account of social relations before he can throw light on his subject matter. For he is concerned to elucidate the force of such basic epistemological concepts as 'meaning,' 'thing,' 'identical,' 'rule of reference'; and he shows that all of these concepts implicitly involve the idea of social interaction between men. They cannot be given meaning without it. Thus far, then, his argument is both valid and important.

It is when Winch tries to prove the other half of his thesis that one must take exception to him. For an important part of what he means by saying that the study of society must be 'philosophical' in character is that such a study cannot be conducted through the conceptual framework of science. He takes the method of science to involve description of all data in terms of a system of space-time co-ordinates, use of the concept 'cause' with its implication of regular but not logically necessary conjunction, and prediction of future events by the use of general laws plus statements of antecedent conditions. Exactly what Winch means by 'philosophical' method is not quite so clear. It seems, however, that he thinks that we come to understand the workings of any given society by learning the meaning of every concept and action used by its members. It is then our job to help others understand by teaching them these meanings in turn. From this view of the study of society, it follows that the system of concepts with which we must work is the system which the people whom we are studying use to refer to their own interactions. And here, according to Winch, comes the rub; for the central concepts of this latter system, so he holds, are incompatible with the concepts central to the activity of scientific prediction and research. Hence the issue of whether there can be such a thing as social science is not just a matter of trying to be scientific about society and waiting to see whether or not any results come in. 'The issue is not an empirical one at all: it is conceptual. It is not a question of what empirical research may show to be the case, but of what philosophical analysis reveals about what it makes sense to say. I want to show that the notion of a human society involves a scheme of concepts which is logically incompatible with the kinds of explanation offered in the natural sciences.'

Now there is nothing logically objectionable about Winch's conception of how one sets about understanding social phenomena. True, it is a limited conception which seems to preclude comparative studies and the possibility of understanding irrational action. But as Winch points out, 'understanding' and 'intelligibility' are systematically ambiguous concepts; and to claim that the sense which they have in science is the only valid one would be a distortion of current usage. Such usage certainly supports him in so far as one possible mode of understanding society is concerned. One could of course quarrel with his assertion that the concepts used by people to describe and explain their own social interactions are incompatible with the concepts of science, on the grounds that his examples are drawn solely from Western Culture. But this would be niggling. For concepts such as 'reason,' 'intention,' 'meaning,' 'rule,' etc., have close equivalents in almost every known culture; and Winch demonstrates clearly enough that the conceptual framework to which they belong is indeed incompatible with that of science. He shows that attempts to mingle elements of the two frameworks lead to absurd or meaningless statements. In this connexion, he makes a very important point in his discussion of 'The Internality of Social Relations.' He notes that 'the relation between an idea and its context is an internal one. The idea gets its sense from the role it plays in the system.' And 'If social relations between men exist only in and through their ideas, then, since relations between ideas are internal relations, social relations must be a species of internal relation as well.' In other words, if one works with the conceptual system used by a given people to refer to their own interactions and institutions, any particular concept referring to a given institution will logically imply other concepts referring to other institutions, and will be implied in turn by these others. Now from all this a crucial consequence follows, namely, that causal-scientific interpretations are ruled out from the conceptual framework in question. For the notion of a

causal relation between any two or more variables implies lack of a relation of logical implication between them, and *vice versa*. Exclusion of causal-scientific interpretation on these grounds is something that has worried a number of anthropologists who have otherwise felt inclined to make use of it. (See for instance Groves, 1954, pp. 88f.)

Winch, then, has abundantly proved his point that the 'philosophical' and 'scientific' conceptual frameworks are mutually incompatible. But he also wishes to prove the distinct and far more dubious point that in the context under dispute, the use of the philosophical framework is inevitable; and it is here that we must part company with him.

Half-way through his book, Winch notes the very viewpoint which I shall urge in this essay. Thus he says: 'Some social scientists have acknowledged the difference in concept between our currently accepted descriptions and explanations of natural and social processes respectively, but have argued that the social scientist need not adhere to this non-scientific conceptual framework; that he is at liberty to frame such concepts as are useful for the kind of investigation he is conducting.' But although he dismisses this view with a promise to expose its fallacies in his next chapter, he nevers fulfils his promise.

One attractive argument which seems at first to prove the second half of his thesis runs as follows: 'To predict the writing of a piece of poetry or the making of a new invention would involve writing the poem or making the invention oneself. And if one has already done this it is impossible to predict that someone else will make up that poem or discover that invention.' Irrefutable as this argument is in one sense, however, it does not really prove as much as it claims to. Admittedly, prediction of making up a poem or of discovering an invention is impossible if we use 'make up' and 'predict' in the sense that implies an absolute first performance. But the scientist is not in fact concerned with whether an event is happening for the first or for the umpteenth time. What interests him is unearthing general causal laws from which he can predict that in a given type of antecedent situation, certain consequences will regularly follow. Now if we divest 'make up' and 'discover' of their special implications of absolute temporal primacy, they still retain the more general sense of production out of contact with any prior copy (even though such a copy may exist). And if we use the terms in this sense, there is in principle no reason why a scientist equipped with sufficient knowledge of antecedent circumstances should not be able to predict every poem made up and every invention discovered. To the argument that a given predicter could not forecast the poetic productions that his own activities as a scientist involved, there is the answer that someone else could. Although the conclusion is startling, even perhaps repulsive, this is no excuse for boggling at it. Clearly other arguments than this must be found to prevent the scientist from invading the social domain.

But the only other arguments which we find in Winch's book merely serve to reiterate the incompatibility of the two conceptual frameworks under consideration: they do nothing to demonstrate the inevitability of the 'philosophical' framework. To take a typical example (Winch, pp. 73f.):

> We say the cat 'writhes' about. Suppose I describe his very complex movements in purely mechanical terms, using a set of space-time co-ordinates. This is, in a sense, a description of what is going on as much as is the statement that the cat is writhing in pain. But the one statement could not be substituted for the other. The statement which includes the concept of writhing says something which no statement of the other sort, however detailed, could approximate to. The concept of writhing belongs to a quite different framework from that of the concept of movement in terms of space-time co-ordinates; and it is the former rather than the latter which is appropriate to the conception of the cat as an animate creature. Anyone who thought that a study of the mechanics of movement of animate creatures would throw light on the concept of animate life would be the victim of a conceptual misunderstanding.

The word 'appropriate' is here the key to the whole matter; for it implies a reason for the exclusive use of a single conceptual framework. But Winch never gives us the reason, and as I shall show later there cannot be a reason. What we are left with is merely a demonstration that concepts such as 'writhing' are incompatible with concepts inplying space-time movement.

Again, he touches at several points on the impossibility of treating 'social concepts,' which to so large an extent logically imply one another, as variables in potential causal relationship. But this warrants no conclusion as to the impossibility of applying the notion of cause to the range of phenomena which constitute social life. All that it proves is that if we wish to apply the notion in this context, we must frame an alternative conceptual system free of the network of mutual logical implications that pervades our present way of talking about social interaction. Here again, Winch provides us with a cogent demonstration of the incompatibility of the 'philosophical' and the 'scientific' frameworks, but shows us no good reason why the use of the 'philosophical' framework should be inevitable and exclusive.

At one point the whole of Winch's argument looks as if it rested on a verbal quibble. Thus in criticizing Pareto's *Mind and Society*, he says (Winch, pp. 109f.):

> In so far as a set of phenomena is being looked at 'from the outside,' 'as experimental facts,' it cannot at the same time be described as a 'theory' or 'set of propositions.' In a sense Pareto has not carried his empiricism far enough. For what the sociological observer has presented to his senses is not all people holding certain theories, believing in certain propositions, but people making certain movements and sounds . . . To describe what is observed by the sociologist in terms of notions like 'proposition' and 'theory' is already to have taken the decision to apply a set of concepts incompatible with the 'external,' 'experimental' point of view. To refuse to describe what is observed in such terms, on the other hand, involves treating it as not having social significance. It follows that the understanding of society cannot be observational and experimental in one widely accepted sense.

Now if Winch really holds that the term 'society' is only applicable to the disputed area of phenomena *as referred to* in terms of his 'philosophical' conceptual framework, his argument is undoubtedly valid. But then it says

nothing against the possibility of the scientist invading the area with the aid of his own conceptual framework: as long as he designated it 'yteicos' instead of 'society' he would be welcome to do as he pleased. And his logical warrant to invade is surely what Winch and the rest of us are arguing over; for it is hard to believe that this whole book is just an exhortation to social scientists to call what they are trying to do by another name.

To diagnose the roots of Winch's intransigence to alternative conceptual systems, we must go right to the central problem of philosophy—the relation of language to reality. His general answers to the problem mark him out as a disciple of the later Wittgenstein; and his introductory chapter is a masterly interpretation of that great man's oblique and poetic exposition. Wittgenstein was the first modern philosopher to rebel effectively against the view that the world is divided neatly into compartments, and that these compartments are simply mirrored by the categories of language. His great achievement was to show that language itself creates the divisions and structure of the world. As Winch says (Winch, pp. 13–15):

> To assume at the outset that one can make a sharp distinction between 'the world' and 'the language in which we try to describe the world,' to the extent of saying that the problems of philosophy do not arise at all out of the former but only out of the latter, is to beg the whole question of philosophy . . . Our idea of what belongs to the realm of reality is given for us in the language we use. The concepts we have settle for us the form of experience we have of the world . . . there is no getting outside the concepts in terms of which we think of the world . . . the world for us is what is presented through those concepts. That is not to say that our concepts may not change; but when they do, that means that our concept of the world has changed too.

Now this position represents an immense advance in our understanding of language. But it carries with it the dangers of overreaction—of neglecting altogether the fact that language has an extra-linguistic context. Because we cannot describe the character of this context in contradistinction to the character of the language applied to it, this is no reason for failing to mention its presence. Indeed, failing to take its presence into account will vitally affect the course of any epistemological argument. Thus Winch makes a set of concepts and its structure the sufficient definition of 'society,' neglecting extra-linguistic context. Hence it follows that any concept outside this chosen set is inapplicable to the study of society. (This must be why Winch thinks that demonstrating the incompatibility of 'scientific' and 'philosophical' frameworks is synonymous with demonstrating the exclusive validity of the 'philosophical' framework in social enquiry.)

But for most people concerned in this dispute, such a line of thought does not go near the core of the matter. For most people, 'society' refers to a certain area of phenomena as conceptualized in verbal or other terms not necessarily specified. When 'scientists' claim from 'philosophers' the right to study society in their own particular way, what they are claiming is the right to substitute one conceptual framework for another in this extra-linguistic area. If we state the dispute in this way, our conclusions must be very different from Winch's. Above all, how can the extra-linguistic context in question be said to compel description in 'philosophical' terms and exclude description in 'scientific' terms? In his opening chapter, Winch himself makes it clear that he disagrees with the old Correspondence Theory of Language, which sees the latter's structure as forced upon it by the pre-existing structure of the world. In pointing out that language itself creates the structure of the world, he himself excludes one way in which a particular extra-linguistic field might be thought to compel application of a certain type of language. Indeed, one cannot see any kind of logical necessity for exclusive use of the 'philosophical' framework in this context. Logical necessity holds where two or more concepts are related in a statement in such a way that the negation of the statement leads to a self-contradiction. How can it hold where the relation is between a conceptual framework on the one hand and its extra-linguistic context on the other? In fact, whether a 'scientific' conceptual framework can be applied to the study of society or not is a question to be solved not by *a priori* argument, but by prolonged testing to see whether such a framework is useful or not. To date, the question is obviously open.

Winch, then, has failed to discredit the idea of a Social Science; but for all that, his book makes some vital side points. First of all, it stresses the extreme to which the social scientist must push his conceptual revolution if he is to escape inconsistency and meaninglessness: he cannot hope to get away with taking two or three of the central concepts of 'science' and using them as a leaven for the conceptual system which we apply to living in society. On the contrary, he must be prepared to take the formidable step of renouncing this system altogether.

Secondly, the book administers a sharp reminder of social science's long-standing failure 'to find its Newton'; and the diagnosis of failure, though fallacious, reminds us of the urgent need to find the right answer. It takes no doctor to see that social science is sick of a great many diseases; but I shall deal here only with what seems to me to be the most deep-seated and pervasive of all its afflictions. The trouble which I have in mind is not limited to professional students of society; it is widespread amongst laymen and even among philosophers such as Winch who are supposed to be clearing our study of incoherent and faulty thinking. Indeed, it is probably the unacknowledged root of Winch's own attitude to social science.

This disease, I think, can be identified by any introspective reader of Winch's book who reflects on the peculiar impact of its point of view. Consider the plausibility of a statement like this (Winch, p. 77):

> Would it be intelligent to try and explain how Romeo's love for Juliet enters into his behaviour in the same terms as we might want to apply to the rat whose sexual excitement makes him run across an electrically charged grid to reach his mate? Does not Shakespeare do this much better?

Or consider the nasty taste left in the mouth by our earlier refutation of Winch's argument against prediction of poems and inventions: despite the logic of such a refutation, there seems something outrageous and

implausible about the idea of social scientists predicting works of art.

Our reactions here can be regarded as examples of a basic human attitude: that human life should be described in terms of concepts used in connexion with non-human objects seems unthinkable, monstrous, thoroughly disquieting. The emotional reaction that such a suggestion arouses was well shown up by the reception of Clark Hull's famous Behaviour Theory (Hull, 1943). Nearly all of the criticism directed against this theory then and since has centred on the use of a type of conceptual system previously confined to non-human organisms, to predict and interpret human behaviour. In fact, as we have seen, there is nothing absurd or self-contradictory about such an enterprise. But only a minority of people, most of them fellow behaviourists, have directed criticism where it should justly fall—on the fact that the empirical properties attributed to the Hullian stimuli and responses are inadequate to the prediction of the observed characteristics of human life, and that a better theory must be produced within the same broad conceptual framework. For the rest, the emotional heat with which they have attacked the transfer of conceptual framework attempted by Hull reminds one of the way in which people sometimes fall savagely on a leader who has dragged them into a terrifying enterprise and whose resources have failed half-way.

To put this sort of reaction in perspective, we must turn to what might at first seem an unlikely source. I refer to a penetrating analysis of the nature of pollution concepts recently sketched out by the anthropologist Mary Douglas (Douglas, 1959). Mrs. Douglas points out that the essence of all pollution situations is the mixing up of objects, activities and situations that the category system of one's culture keeps apart. Such mixing threatens the category system, the coherence of one's outlook on the world, and hence the effectiveness of one's reactions in it. Invariably it arouses fear—often, appropriately enough, the fear of madness. Now the feature which distinguishes scientific from non-scientific thought is the absence of pollution reactions so defined; science regards a category system not as a thing of intrinsic value whose defiance is to be greeted with horror, but as a tool to be applied, scrapped or extended whenever such changes are useful. But scientific thinking is not a process which can be switched on and left to churn away automatically until it has done its job; it is an ideal from which even scientists tend to slip back into non-science as soon as any major upheaval of their commonsense category boundaries is threatened.

The boundaries which separate non-living from living things, non-human from human things, define some of the basic categories of Western Culture; and a history of Western Thought over the last few hundred years would have to devote much of its space to the struggle of scientists to extend their conceptual framework, from its firm base in the sphere of the non-living, across these two great barriers. Every attempted or successful crossing has evoked strong anxieties both in laymen and in scientists themselves; for pushing the scientific conceptual framework across these boundaries involves the deliberate blurring of them, and hence the creation of a typical 'pollution' situation. Where a scientific conceptual scheme has succeeded in embracing all of the major categories, any failure tends to be quickly attributed to its inventor's presumption in boundary-crossing, and he is brusquely told to stay where he belongs; so science has advanced and retreated over the centuries. In such an atmosphere, to be an ambitious scientist is the next most uncomfortable thing to being a social climber!

Since the mid nineteenth century, the extension of science from the sphere of the non-living into that of the living has been considered legitimate; but the struggle for this legitimacy aroused almost as much pious horror and academic ridicule as the lumping of human and non-human objects does today. People's anxieties were rationalized in every sort of argument for the *a priori* impossibility of dealing with things organic as if they occupied the same category as things inorganic; and it was not until the syntheses of organic compounds such as methane and acetic acid from simple inorganic sources that the intellectual *élite* of the day were jerked into realizing that what they held impossible was now established fact. Overcoming the present impasse in the study of man may require similar dramatic demonstrations to remove the blocks in the minds even of would-be social scientists: one day, perhaps, machines simulating the 'higher' aspects of human behaviour will jerk us all into rationality as the great organic syntheses jerked the chemists and intellectuals of the nineteenth century. (Here, one should not look to the so-called Electronic Brains, which simply discharge a predetermined and unmodifiable sequence of operations when a button is pressed. Much more promising as precursors of the human machine are certain mechanically simpler devices invented by psychologists such as Ashby, Grey Walter and Deutsch, which modify their behaviour with variation in attendant circumstances in such a way as to achieve constant goals.) But one is bound to ask whether the forces at work here are not so strong that they will block the conceptual developments necessary to the further elaboration of such machines in just the same way as they block direct application of a scientific conceptual framework to society. For the differences of attitude which underlie the category barrier between things human and non-human are far greater than those which underlie the barrier between things living and non-living. After all, we spend most of our time manipulating living things other than men in just the same way as we manipulate inanimate objects; but however much a normal person manipulates his fellow men, he is to some degree emotionally involved with nearly all of them. For this reason alone, one would expect the 'pollution anxieties' attendant on trying to cross the human/non-human barrier to be far more intense than those that marked the crossing from the non-living to the living. And should an anthropological Newton ever succeed in overcoming these anxieties, one wonders whether his brain could stand up to making a clean switch from living in society to peering at it and back again many times a day. Even those of us who merely fumble with the rudiments of alternative conceptual systems designed for

peering at society rather than for living in it sometimes feel nasty intimations of the mental consequences that would follow on any approach to success in this sphere.

Paradoxically, the only solution which I can suggest to this impasse is one that flouts all the accepted canons of anthropological fieldwork. Since to learn a strange language is already to start living with the people who speak it, and so to move oneself farther away than ever from the possibility of peering at them, the fieldworker's first resolve should be to avoid learning one word of the language. Then, given adequate recording techniques, he can set about treating the society in question as a system of objects influencing each other's behaviour through complex sound sequences. Logically, this programme is as feasible as the normal techniques of a research worker setting out to study the course of a complex chemical reaction. Yet there remains one barrier as intractable as any: for to the people whom he studies, the anthropologist is a man, and therefore someone with whom a *modus vivendi* must be worked out.

It seems, then, that the would-be social scientist must always be face to face with the problem of living with the people whom he is peering at. This being so, 'pollution' feelings, and behind them a very real prospect of mental disorganization, are likely to remain as two intractable lines of defence which nature has opposed to our efforts to look at ourselves scientifically.

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SIR GEORGE ROBERTSON: AN EARLY FIELD WORKER

by

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Sir George Robertson was briefly famous for his heroic defence of Chitral fort during the troubled period of 1895. Now his name is known only to the very old and to a handful of persons interested in the history of the Indian frontier. Yet Robertson was an outstanding man with another claim to fame of an entirely different order which perhaps entitles him to a more enduring place in the history of man's thought and action. He was among the first men of modern times to visit a primitive society with the express purpose of studying it. It is true that many missionaries and travellers had reported upon the peoples that they met, but their researches were incidental to the main objects of their journeys. Robertson, on the other hand, made two carefully planned, conscientiously recorded scientific expeditions, one lasting over a year. The first was in 1889, preceding the Torres Straits by nine years, but six years later than Boas's expedition to Baffin Land.

George Scott Robertson was born to an Orkney family in London in 1852. After qualifying in medicine he joined the Indian Medical Service in 1878 and during the following two years he served in the Afghan campaign, where his interest in the Kafirs of the Hindu Kush—the subjects of his field work—was first stimulated. From 1880 to 1888 he served in various frontier regions and in the latter year transferred to the Political Service, being posted as Agency Surgeon to the remote and unsettled Gilgit area. In fact he did very little medical work, since his abilities as an administrator and his ethnographical interests led him far away from his chosen profession. He was soon placed in positions of great responsibility. He acted in 1891–92 as Chief Political Officer during the short but bitter Hunza-Nagir campaign, and when the war was over he installed Mohammad Nazim Khan as Mir in the presence of Chinese envoys.[1] Later on in 1892 he was dispatched on a dangerous mission to the turbulent Indus valley tribes, was besieged at Gor, was present at the fall of Chilas, and had ample opportunity for displaying the initiative and fortitude for which he is praised by his superior, Durand.[2] In the following year, having succeeded Durand as British Agent, he went (accompanied by Younghusband, then only a captain but already the greatest explorer of his day, and C. G. Bruce of Everest fame) on a mission to Chitral, where dynastic upheavals were endangering the security of the whole area. Some sort of settlement was patched up, and Robertson withdrew and proceeded on leave to England. He returned to Gilgit in December, 1894, and in early January renewed disturbances once more required his presence in Chitral. The story of this mission has been often told, and by none better than Robertson himself.[3] The famous siege, in which a handful of British officers with 500 Kashmiri and Sikh troops held off vastly superior numbers of Chitralis and of Umra Khan's Pathans, is a minor epic. It also gave to others besides the defenders a chance of glory; the elderly Colonel Kelly's great march over the snow-bound Shandur pass to relieve Chitral was an amazing feat,[4] while General Low's more ponderous advance from Peshawar finally opened up the virtually unknown country between the Malakand and Lowari passes.[5] To Robertson, wounded and exhausted, it brought immediate fame, a knighthood (the K.C.S.I.), and the chance to deal wisely and magnanimously with his former foes.[6]

But into this life of action, he managed to sandwich a