Robert Parkin's valuable article on 'Reincarnation and Alternate Generation Equivalence in Middle India' (1988) prompts me to return to a topic which I have discussed previously in the pages of this journal, and to amplify and clarify certain points.

Following Trautmann and Tyler, Parkin calls attention to the alternate generation equations found in kinship terminologies of the Central and Northern branches of Dravidian, but not in the better-known Southern branch. Are they a survival from proto-Dravidian, or a subsequent development? Parkin argues for a survival. He starts with facts. In tribal Middle India alternate generations are assimilated not only by lexical equations, but also in other ways. Marriage is prohibited with relatives in adjacent generations, but may be allowed with ±2 as well as within ego's generation. Roughly speaking, the conventional attitude of reserve towards ±1 level relatives contrasts with prescribed joking towards even-level relatives. Finally, it is often a grandparent, not a

I am grateful to Dr Parkin for his helpful comments.
parent, who transmits to a person soul substance and name, one can almost say identity. These different modes of assimilation cohere, forming a single complex, which also turns up among 'symmetrical prescriptive' tribals in other continents (South America, Australia).

Parkin then turns to theories. He refers to Needham on alternation (1983), Allen on tetradic theory (1986, henceforth 'TT'), and Mauss on the person (1938). Tetradic theory in its strong form proposes that the type of kinship terminology ancestral to all other types consistently equated alternate genealogical levels; and Mauss proposed that behind our present notion of the person (as a phenomenon of droit et morale) lay the ancient tribal notion of the personnage, which was typically transmitted to ego from a grandparent.\(^1\) Using these ideas, Parkin argues persuasively that it is the Southern Dravidian speakers who have innovated, while sporadic traces of the older tribal complex survive in Tamil naming customs.

But what, ultimately, is one to make of this complex? Parkin presents it as the manifestation of a single theme, viz. the basic concept of alternation; and he suggests that the wide distribution of the complex precludes explanation in terms of historic or prehistoric cultural contact: 'These ideas must, therefore, be regarded as fundamental properties of the human mind of the sort often alluded to by Lévi-Strauss and, latterly, Needham' (1988: 11). It is on these points that I should like to offer some comments, starting with three questions.

First, taking for granted the coherence of the complex, how should one attempt to explain its distribution? The reference to the 'human mind' seems to imply independent invention in the different places. But if humanity shares a common origin, and if tetradic structures are the simplest possible way of organizing a society on the basis of kinship, the most economical explanation is patchy retention from very early times indeed (before our species dispersed from Africa?). If this is right, the first humans to enter Australia or the New World carried the complex with them.

Secondly, does not the formulation put too exclusive an emphasis on ideas? To do so is to take a double risk: that of underestimating the difficulty of institutionalising ideas, and that of circular explanations in terms of unconscious ideas for whose existence the only evidence is the practice in question. Kinship is about continuity, social and biological, and it cannot be limited to ideas. It is also the mode of production of new members of

---

\(^1\) Of the different modes of assimilation, tetradic theory recognizes not only equations but also the possibility of marriage with \(\pm 2\) level relatives (cf. TT 6.4, where 'MM' should be corrected to 'FM'). Prescribed attitudes or sentiments were referred to in TT 7.6, the connection with Mauss's theory in Allen 1985: 41-2. James suggests (1987: 51) that Mauss's formal argument is mainly of interest to students of the history of anthropology; but the world-historical questions he was asking still seem to me live issues, and they relate directly to middle-range and surely soluble problems such as the interpretation of Dravidian kinship.
society, and in that sense it is as material and behavioural as making a plough.

Thirdly, should the notion of alternation enjoy a privileged place in the conceptualizations of tetradic society? In a sense it does already. The initial bisection of society into sociocentric levels (TT 3.3) is the introduction of alternation in its simplest form, and in all tetradic models a sequence of lineals, ascendant or descendant, alternates between levels. Regarding the focal tetradic model (a Kariera-type four-section system with one- or two-kinship terms per section), one can be more precise: here, though not in all tetradic models (TT 3.4.2), a sequence of same-sex lineals alternates between sections. But one can go further. For Parkin (1988: 15), the focal model is characterized by two 'fundamental features' - alternation and the parallel-cross distinction. The second label, however well-established in the literature, is best avoided since the only way to allot odd-level sections to one or other category is arbitrarily to privilege one sex (TT 6.1). Moreover, if one is working at this level of abstraction, it is more economical to regard alternation as underlying both features. The sequence - affines, affines of affines, affines of affines of affines... - alternates between the two sections making up a level, and is the horizontal analogue of alternation between generations.

However, even if we recognize two dimensions of alternation in tetradic models, we are not obliged to conceive of alternation as the fundamental principle at work in them. An alternative approach is to recognize that in different contexts different features come to the fore. In contrasting tetradic society with primate ones, the emphasis might be on its demographic self-sufficiency, the existence of rules as such (Fortes 1984), the automatic prohibition of intercourse with primary relatives. In contesting the doctrine that exogamous moieties constituted the evolutionary starting-point, one might emphasize quadripartition, isomorphism of sociocentric and egocentric, absence of asymmetry between the sexes. In relation to Lévi-Strauss's atom of kinship, 'the simplest kinship structure that one could conceive and that could exist' (1958: 56), one might emphasize that, in spite of its quaternity (for the atom consists of four elements and recognizes four relationships), it lacks the internal homogeneity of a tetradic genealogical diagram: in the latter, each element (all eight of them) enters identically into all three of the basic relations - filiation, sibingship, affinity. And so on. Rather than seeking features that are fundamental in some absolute sense, one may prefer to embrace the multiplicity of possible perspectives. It should therefore be useful to label and list some of the various ways of conceptualizing tetradic society, each of which has its own merits.

1) Exchange approach. Sociocentric levels exchange children, and within a level, sections exchange spouses-to-be. If the exchange relationships are pictured in two dimensions and respectively as vertical and horizontal, and if ego and a particular parent are allotted to particular sections, the diagram will seem to imply that ego is more closely related to one parent than the
other. This disadvantage disappears in 2.

2) Compass-point approach. Sections are pictured symmetrically disposed around a circle, intermarrying pairs being diagonally opposite each other. Paradoxically perhaps, sections composing one of the two 'levels' are now aligned vertically (unless both 'levels' are disposed X-wise). This approach formed the basis of my 'Dance' (1982); one only needs to insert a symbol of the centre, a maypole or the like, to produce the form of a mandala. Conceptualizations 1 and 2 are juxtaposed as diagrams in TT Figure 1, and I start with them partly by way of acknowledgement to Mauss (who was at least as interested in dance as in exchange).2

3) Genealogical approach (TT Fig. 2). The eight-symbol genealogical diagram can of course be drawn in several ways. Logically, the most satisfying model is doubtless three-dimensional. If one draws Figure 1 on a detached strip of paper and joins the left- and right-hand ends of the strip, one can then connect descending lines of filiation with ascending ones via the inside of the strip (or flattened torus). This means that the lines never depart from the verticality conventional for showing filiation. Another advantage is the vertical symmetry: inverting the tube leaves the structure unchanged (if triangles are replaced by squares or lozenges, the inversion and original are indistinguishable).

Another transform of the structure leads back to two dimensions. Imagine the top of the tube shrinking until we are left with a cone. If the cone is progressively flattened, the result is a diagram in which upper and lower 'levels' are represented respectively by inner and outer rings of symbols; but the cycling back of filiation lines from periphery to centre can no longer be neatly depicted. (This form of the structure could readily be realized in settlement pattern or in choreography.)

Barnard and Good (1984: 7-8) deplore the use of genealogical diagrams in which a triangle (say) represents all the males of a group. But in this particular context I see no danger of misunderstanding.3 In any case, most of us need visual aids to work out the

2 Exchange has the additional advantage of partly transcending the mental/material divide. Two anecdotal remarks on Mauss and exchange: (i) the view of marriage as exchange can be traced back before Mauss's *Essai sur le don* to Durkheim and Fauconnet (1905: 390) - in the Torres Straits, marriage involved 'a sort of exchange of the women of one clan for those of another'; (ii) when Mauss lists the exchanges constituting a system of total prestations, children sometimes immediately follow women (1950: 151, 227). The reference here may be to the horizontal exchange of foster children (ibid.: 155-6; 1969: 44), but elsewhere it is explicitly to exchanges between different generations of age sets (ibid.: 29, 109n; 1947: 103), or even to inter-generation reciprocity (1969: 301).

3 One of the reasons they give (ibid.: 98) is that prescriptive ZD marriage cannot be diagrammed genealogically in conjunction with matrilineal descent. But there is nothing to stop one drawing a column of circles joined by matrifiliation lines, each female being
allotment of relatives to sections, and alternative formats such as matrices necessarily correspond with the genealogical element by element and relation by relation.

4. **Double-helix approach (TT 6.5.1).** If genealogical levels are conceptualized simply as stacked one above another, the solidarity and continuity linking alternate levels may present a puzzle. How can the ±2 level 'run on into' ego's level and ±2, while remaining totally distinct from the 'intervening' ±1? The double helix resolves this conceptual difficulty, if it is one, by giving equal weight to continuity and alternation.

We need first a sharper conceptualization of the passage of time. Genealogical diagrams reduce individuals to punctate elements in a network of relations. Time enters the picture only in so far as filiation links individuals born earlier - the parental generation - with individuals born later. We need a diagram which shows people as life-spans. Let us therefore envisage society as consisting of life-spans of varying length, starting at different points of time and running parallel to each other. One can use the image of a kernmantle rope seen from the side as it runs down the page, individual fibres corresponding to individual members of society. Relations of marriage, filiation and siblingship link one life-span, or part of it, with another. If one cuts through the linked horizontally with a brother who in turn is connected by an oblique marriage line to his ZD. The apparent difficulty arises from the connotations of 'descent' (which usually implies that those descending unilineally from a common ancestor may not marry), and not from the limitations of genealogical diagrams. One can in fact draw, either in matri or patri format, eight-symbol tetradi-style genealogical diagrams in which every male marries ZD (or even, *mutatis mutandis*, FZ); but whether or not the differing treatment of the two sexes effectively renders these structures octopartite and hence disqualifies them as tetradi on the present definition (TT 5.6), it certainly introduces a type of complexity absent from other tetradi models.
Continuing with the view from the side, our next step, corresponding to TT 3.3., is to bisect the rope (society) longitudinally, so that fibres (individuals) in one strand (sociocentric level) have both their parents and children in the other (Figure 2); all filiation relationships cross the central gap. The alternation of generations is thus represented by a rectilinear meander. Starting at the top of a fibre in the even strand, at ego's birth (t1), the path at first descends vertically; then, a couple of decades later, at ego's son's birth (t2), it traverses horizontally to the top of an odd-strand fibre. Descending again, it crosses back to the even strand at t3, when the birth of ego's son's son initiates a repetition of the process.

To envisage the double-helix model, we now take three steps: mentally slide the odd-level strand behind the even one; envisage the gap between them as a pole of axis; and wind the two strands around it, symmetrically and in parallel. Let us in addition specify that the strands wind clockwise when viewed from above, and that the time taken for a strand to complete the encirclement of the axis corresponds to the average duration of a generation. Time in years is still read down the page: one can imagine it as marked off along the central axis. (The image of the caduceus may come to mind.)

Viewing the double-helix from the side, we now see even and odd strands, one below another, descending from right to left as they cross our line of vision. Let us say that each strand is

---

Having slid the odd-level strand behind the even one, one can bisect both of them into substrands. If one now observes the rope from above, its four substrands correspond to the four sections as envisaged in approach 1. However, the alternation of levels does not immediately relate to intra-level organization, and the double helix model can ignore the bisection of levels.
visible for precisely half of its course, i.e. for precisely one generation. This enables us to trace the rectilinear meander of Figure 2 in its new three-dimensional guise. Ego is born at $t_1$, just where the even strand enters the field on one of its appearances. The fibre spirals downwards to our left. This is an average ego, who reproduces at the average age; so at the very moment when he is about to leave our field of vision (at $t_2$) he produces his one surviving son. The initiation of a filial relationship can be treated as a punctate event, so the line of filiation passes horizontally; and since the structure is symmetrical, it passes through the centre of the axis to emerge in the odd strand at the very moment when the latter enters our field of vision. The line of filiation spirals past us again in the person of ego's son until at $t_3$ it repeats the horizontal passage through the axis. This time, of course, it passes from the odd to the even strand, which is just emerging again from invisibility.

Seen from above, a double helix (like a single one) will appear simply as a circle, and the filiation lines will appear as horizontal diagonals, passing from 9 o'clock to 3 o'clock. One could draw the circle with its upper half broken, indicating its invisibility when seen from the side. The broken line would also indicate that the portion of life cycle following the birth of the son who transmits a line of filiation is in a sense irrelevant. We certainly do not need to postulate that the average ego lives for the duration of two average generations.

The model can be elaborated in various ways. (i) One might well regard the life-span as beginning not with physical birth but with the taking on of social identity. In the light of Mauss's paper, this could be at the moment of naming. If the grandfather were alive he could forthwith retire. If he had died earlier, the name and personage would presumably meanwhile have remained in limbo. (ii) One could elaborate on the contrast between cyclic-generational time, measured in angular motion ($180^\circ = 1$ generation), and linear time, measured lengthwise in units corresponding to years. To deal with egos who reproduce more quickly than average, one might allow fibres within a strand to complete their semicircle without descending the average distance along the axis. Alternatively, if all fibres remained parallel, the speedy reproducer could send his filiation line through the axis before the point corresponding to 9 o'clock. (iii) One might try linking the double-helix model to cosmology (cf. TT 7.6.1). If a tetradic society expressed itself in dance, could it fail to connect the two sociocentric levels with the two heavenly bodies? Analogies suggest themselves, not only between the passage of the two strands across our visual field in the model and the passage of the sun and moon across the skies, but also between the broken semicircle in the end-on view and the presumed movement of the heavenly bodies back to their starting-point during the part of the diurnal cycle when they cannot be seen.

The main point, however, is that whereas alternation can be read off from the double-helix model, the converse is not true. The notion of alternation is too formal, abstract and 'empty' to afford much insight into the functioning of tetradic society.
5. Cumulative equations approach (Allen 1989). This approach operates, not by dividing up a bounded society conceived as a whole, but by simplifying the genealogical grid, the set of distinct types of close relatives that an ego logically possesses. One simplifies siblingship by equating or superimposing sibling affinity by introducing prescription, and filiation by equating alternate levels. All three modes of simplification are essential to tetradiic structures, and if one of them is ascribed to natural proclivities of the human mind, should not the others be treated likewise?

6. Other. There are surely further useful modes of conceptualizing tetradiic society. For instance, starting with the nuclear family, one can try to maximize the number of different sociocentric units to which primary relatives are allotted (cf. TT 13.1.1); or one could explore prescribed attitudes, which may be older than verbal language and may provide a classificatory idiom as revealing as terminologies.5

Whatever the approach chosen, one cannot claim to be doing much more than rephrasing and systematizing ideas already adumbrated by others (cf. TT 7.5). Parkin (1988: 16 n.14) rightly cites Dumont's 1966 paper (reprinted with postscript 1983), which refers to 'a universal tendency to group together alternating generations' and to the irreducibility of this feature in the Australian data;6 but one

5 There is no reason to apply to tetradiic society Lévi-Strauss's proposal (1958: 46) that the attitudinal system is often secondary to the terminology, or that its function is to resolve terminological contradictions or insufficiencies. Moreover, his tetrad of attitudes (mutuality and reciprocity, right and obligation [ibid.: 60]), is probably less applicable to the focal tetradiic model than Radcliffe-Brown's (familiarity, joking, respect, avoidance - generated by the cross-cutting of respect/equality and solidarity/alliance). However, tetradiic theory in the wider sense can surely use the notion of debt. One sociocentric level gives life to the other, and the counter-prestation is of the same character; but as sociocentric levels progressively lose reality, life increasingly flows in one direction only, from ascendants to descendants. The latter are debtors. What could they return, other than worship (TT 10.2.4)? Ancestor worship as normally understood would make little sense in a society which thoroughly assimilated alternate generations.

6 However, because of the patrilocality, Dumont labels the four sections of the Kariera Al + A2, B1 + B2, as if they were in essence bisected moieties: the spell of unilineality is not easily broken. Dumont's postscript expresses unease, recognizing - rightly - that the spatial dimension could well be separated
can go further back. In Mauss's writings one seldom finds the abstract notion of 'alternation' as such - in line with his 'concrete tendency' (Dumont 1986: 183) he often uses the more vivid notion of 'rhythm', with its psychobiological overtones - but his ideas on kinship come close to anticipating tetradic theory. Thus he saw 'the simplest hypothesis' as dividing a society into two moieties, patri- or matri-, 'the distinction between generations producing a second division, that between the sexes a third' (1947: 127); and he interpreted data from Burkina Faso (1969: 21) as confirming what he already suspected - the existence in Africa of 'something resembling Australian matrimonial classes, or what is more or less the same thing, a quadripartite tribal organization (two moieties, each divided in two, no doubt by generation)'.

For Mauss's friend Granet, four-section systems were the simplest known form of social organization, and there was no reason to suppose that they were preceded by any other form (1939: 166-70, a splendid passage). But let us end with Hocart (also mentioned by Parkin), who again and again linked joking relations, bilateral cross-cousin marriage and the transmission of names and identities from grandfather to ego. The naming of a child after his grandfather, Hocart once suggested, was a logical consequence of the cross-cousin system in its earliest form (1928: 203); and he thought that, tribal kinship systems being nine-tenths religion, the key to all of them would be found in reincarnation (1923: 13). In coming to grips with the assimilation of alternate generations one may well find less to build on analytically from the rules of recruitment and marriage. This would remove the grounds for dualistic interpretation of what is in essence a four-element structure. By the same token, the structure of Dravidian terminologies, and particularly of their j1 levels, is better understood starting from tetradic premises than in terms of a kin-affine dualism.

7 He regarded this 'very important' phenomenon as related to social control throughout black West Africa, and as meriting thorough study. Forty years after Radcliffe-Brown's summary remarks (cited by Parkin), one would indeed welcome a compilation of information on the modes of assimilation of alternate generations in Africa. Regarding the Bushmen, Barnard (forthcoming) speaks of the 'structural and social equivalence of alternate generations', combined with a universal joking/avoidance distinction; but the terminologies are difficult to classify in terms of types of equation. Naturally much more work is needed elsewhere too on the coherence and distribution of the kinship-person complex we have been discussing, and/or its elements. Might one find macro-regional differences comparable to those proposed by Testart (1987), who contrasts the concepts of man-animal relationships found in Australia with those found in the ensemble amtricano-sibérien?
in Lévi-Strauss's references to the human mind than in the insights of the preceding generation of scholars.8

N.J. ALLEN

The earlier scholars I refer to have in fact influenced me. Bits and pieces of tetradic theory are certainly to be found elsewhere, notably in the Russian literature (see Plotkin and Howe 1985: 282-96, a reference I owe to Tamara Dragadze).

REFERENCES

NEEDHAM, Rodney 1983. Against the Tranquility of Axioms, Berkeley etc.: University of California Press.