TETRADIC THEORY: AN APPROACH TO KINSHIP

1.   Kinship

1.1.   Social anthropology is the collective attempt to come to
        terms with the diversity of the societies the world has
        seen.

1.2.   One aspect of this diversity is the variety of ways in
        which societies have elaborated on the biological imper-
        atives to mate and reproduce. *The study of kinship is
        the study of what societies make of the relations between
        the sexes and generations.*

1.3.   From these relations a society not only makes a kinship
        system; it makes itself. To merit the name of a society
        a group must endure, normally by the continuing produc-
        tion of new generations to replace old. Nothing that a
        society might produce could be more fundamental to it;
        and the mode of production imposed by biology involves
        both sexes. Thus kinship is necessarily fundamental
        among social phenomena.

1.3.1. The production of its new members *constitutes* a society.
        In contrast, the production or provision of a food
        supply, which is also a biological imperative and
        variously elaborated, is merely a *condition* for social
        continuity; it is not *what we mean* by the continuity.

2.   <u>What sorts of kinship phenomena are basic to the theory?</u>

2.1.   Societies handle the relations between the sexes and
            generations in two ways which are logically different:
            egocentric (relativistic, local, individual) and socio-
            centric (absolute, global, holistic). The egocentric
            system pertains to the relatives of an *individual*, ego,
            the sociocentric to the structure of *society as a whole*.

2.2.   Occasionally 'kinship' is used in the narrow sense of
            'consanguinity as opposed to affinity'. Ordinary usage
            associates it most closely with the egocentric system.
            *But any general theory of kinship must handle sociocent-
            ric phenomena as well as egocentric.* (If a society con-
            sists of three endogamous hereditary strata, the relations
            between the sexes and generations are implicated *ipso
            facto.*)

2.3.   From the whole range of kinship phenomena conceived in
            this way, the theory abstracts the most 'formal', those
            that provide the framework for the rest.

2.3.1.   Sociocentrically, the focus is on social structure or
            social morphology, and we shall narrow these expressions
            so as to exclude, especially, considerations of terri-
            tory. Egocentrically, the focus is on the constitution
            of the domain of relatives, i.e. on its range and struc-
            ture, and particularly on kinship terminologies, under-
            stood in the narrowest sense.

2.3.2.   These formal aspects of kinship are interrelated, offer
            the greatest scope for rigorous abstract treatment, and
            have historically been at the centre of the field. If a
            satisfactory general theory of kinship is possible they
            would be part of it, and no doubt part of its core.
            Their relationship to other aspects is scarcely touched
            on.

3.   <u>Conceptual steps to the notion of tetradic society</u>

3.1.   Although the theory grew out of analyses of Tibeto-
            Burman kinship terminologies and clan organisation, and
            has been developed by working back and forth between
            facts and abstractions, it is best *presented* by separat-
            ing the empirical and theoretical, and concentrating on
            the latter.

3.2.   *The conceptual starting-point is the totality* par excel-
   lence - *society, endogamous and enduring*. At this point

nothing more is specified than that sexual relations
stop at the bounds of society, that all new members re-
sult from these relations, and that membership of the
society is co-extensive with the domain of ego's
relatives.

3.3.   *The simplest step towards reality is to split the total-
           ity into two endo-mating child-exchanging sociocentric
           levels* ('generation moieties'). The rules are now that
           sexual relations are confined to one's own level, and
           that recruitment is to the level of the grandparents.

3.3.1.   The most obvious alternative to 3.3. is to split the
           totality into patri- or matri-moieties. However, this
           would be to introduce not only a bifurcation but also a
           sexual asymmetry.

3.4.   The next, and final, step is a second bifurcation: each
           sociocentric level is split into exogamous sections in
           such a way that people who are brother and sister to each
           other belong in the same section. The marriage rule is
           now 'own level, other section'; but for the recruitment
           rule there exist two possibilities.

3.4.1.   Consider the four grandparents. Symmetry demands that
           each section contain one male and one female. FF and
           FM are married, so must belong in different sections.
           That leaves FF and MM, i.e. PssP, in one section, PosP
           in the other. Ego could be recruited to either.

3.4.2.   In the former case the line of same-sex ascendants or
           descendants *oscillates* between two sections, while in
           the latter it *cycles* round all four. For convenience
           we shall focus on the oscillatory model. Cf. Figure 1.

3.4.3.   (We shall ignore some other comparable quadripartite
           models, for instance, those locating the interlevel
           division at marriage rather than at birth, and those
           that make the four components endogamous rather than
           exogamous.)

3.5.   All such models (whose properties remain to be defined)
           will be called 'tetradic'. The label is used both spec-
           ifically, as in speaking of 'the focal tetradic model',
           and generically, to speak of 'tetradic society' (as one
           might speak of 'feudal society'). Tetradic society is
           the fundamental concept in the present theory, which is
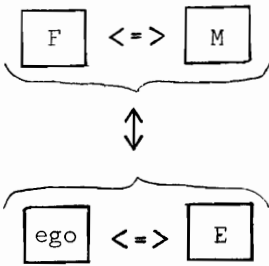   therefore named after it.

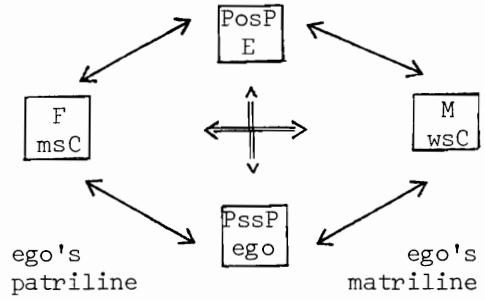*Figure 1.   Conceptual steps leading to the focal tetradic model*
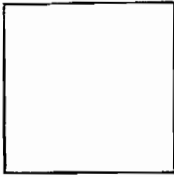
Unstructured
endogamy (3.2.)
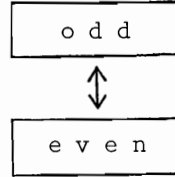
Sociocentric   levels
(even = ego's)   (3.3.)

Four sections, recruitment
undefined (3.4.)

Focal (= oscillatory)
model (3.4.1.)

Legend

< = >   represents marriage or alliance relations

⇕ ⤢ ↘   represent child-exchange relations

ms, ws   male ego's, female ego's
ss, os   same-sex, opposite-sex
E   spouse

4.   Some properties of the model

4.1.   *The focal tetradic model prescribes marriage within a*
            section which includes cross cousins and excludes
            primary relatives; marriage of a male with his M, Z or
            D is thus precluded.

4.1.2.   If it is stipulated that sexual relations take place
            only between spouses or potential spouses, the model
            precludes incest in the sense of sexual intercourse
            between primary relatives.

4.2.   This gives the tetradic model a realistic quality absent
            from the models of 3.2.- 3.3.1. - so much so that if a
            primate society conformed to the model, one would be
            confident that the society was a human one. That is why
            3.4. talked of 'marriage' rather than 'mating'.

4.3.   The society posited in 3.2. cannot be split into *two*
            enduring groups in such a way as automatically to pre-
            clude incest in the specified sense. A *four-element*
            structure is the simplest that can do this.

4.4.   Tetradic models are such elementary logical constructs
            that anthropologists would have had to invent them even
            if neither section systems nor cross-cousin marriage had
            ever been reported.

4.5.   Given a total population of a few hundred, there is no
            reason of a demographic nature to prevent the rules
            being adhered to perfectly. (To be sure, real societies
            seldom obey their rules perfectly; there is nothing to
            stop the model builder imagining rules to deal with
            deviants.)

4.6.   Though exceedingly simple compared to attested societies,
            tetradic models are sufficiently complex to raise worth-
            while conceptual problems. Their theoretical signifi-
            cance derives from their position at a threshold along
            the scale leading from almost vacuous logical simplicity
            towards unmanageable complication.

4.7.   Their properties derive from human biology, notably from
            the existence of the   two sexes and their necessary co-
            operation in reproduction (*not* from any a priori inter-
            est that may attach to the number four).

5.   Tetradic terminologies

5.1.1.   A tetradic society could obey its own marriage and re-
            cruitment rules without possessing verbal language (for
            instance, if section members were distinguished absolute-
            ly by body-painting). *A fortiori*, it could function
            without a kinship terminology.

5.1.2.   However, a kinship analyst could not claim to have fully
            understood it (or to have translated it so as to render
            it readily understandable to others) without envisaging
            it egocentrically.

5.1.3.   Moreover, the members of a tetradic society could dis-
            tinguish the sections and follow their rules using
            solely an egocentric, relativistic nomenclature (i.e.
            kinship terms), in the absence of any absolute nomen-
            clature.

5.2.   *The simplest kinship terminology making the necessary
            distinctions has four terms.* Each ego classifies rela-
            tives into four categories, each category corresponding
            to one section. Egos in two different sections using
            the same term are, of course, referring to relatives
            located (absolutely) in different sections.

5.3.   The otherwise similar four-term terminology presented in
            JASO 1982[1] was unnecessarily indigestible in that it
            pressed relativism to the limit: the term ego applied
            to relatives in the odd level was *doubly* relativistic,
            i.e. relative to the sex as well as to the section of
            ego.

5.3.1.   The focal tetradic society presented here can be charac-
            terised from an egocentric point of view as *singly* rela-
            tivistic. To take account of 3.4.3, one could complete
            the characterisation by stating that, from both egocent-
            ric and sociocentric points of view, the society is not
            only oscillatory but also 'single-stage' (in that the
            individual's life-cycle is not bisected at marriage),
            and 'BZ-merging' (as opposed to 'HW-merging').

5.4.   The categorisation of any kin-type, however remote, can
            be readily calculated with the aid of Figure 2, supple-
            mented by 'the principle of same-sex sibling equival-
            ence'. This states that, whether as alters or as link
            relatives, ssG are to be treated as indiscriminable.
            (If the conventions are not obvious, check that
            MZSDSWZHMBWM is classified with Z.)

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[1] N.J. Allen, 'A Dance of Relatives', *JASO*, Vol. XII, no.2,
pp. 139-46.

Figure 2.   Genealogical diagram underlying the focal tetradic terminology
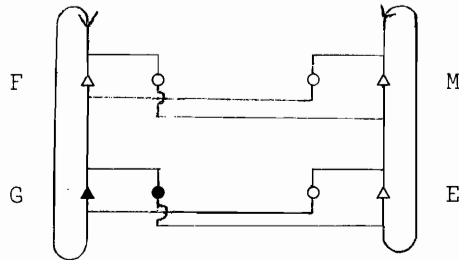
Ego by convention is located in the lower left quadrant. Relatives are categorised with siblings (G), father, mother or spouse, according to their quadrant. The arrows show the direction of the passage of time. Thus to reach ego's FF, one follows the line from F backwards in time round the outside of the diagram and down to the triangle which already represents a male ego and his ssG. (The diagram can just as well be drawn with circles replacing triangles and vice versa, in which case the labels M and F must be reversed. The *diagram* would then show a female bias rather than a male one, but the *structure*, the set of relationships represented by the diagram, would be unchanged.)

5.5.   The sociocentric structuring of society and the egocentric categorisation of relatives here pattern the same universe using the same dividing lines.

5.6.   *A tetradic society is defined as a quadripartite society which handles the relations between the sexes and generations in such a way that the egocentric and sociocentric systems are co-extensive and isomorphic.*

6.   Corollaries and refinements

6.1.   Sociocentrically, the splitting of the endogamous levels (3.4.) affects both levels identically, but egocentrically it does not. The even level is split into ego's own section, which includes parallel cousins, and the section in which the closest cognates are cross cousins;

so the split can aptly be called parallel versus cross. As for the odd level, ego is in a sense closer to the section of his or her children, which is also that of his or her ssP, than to the other section; but male ego is closer to one section, female to the other. Thus odd-level relatives can be qualified as parallel or cross only at the cost of neglecting one sex of ego.

6.2.   As presented so far, *tetradic models are wholly symmetrical as between the two sexes*. The term 'descent' is usually, and properly, associated with unilineality, and will always imply it below. Thus the term cannot be applied to tetradic models unless an asymmetry is explicitly introduced.

6.2.1.   In its place, the more general and versatile term 'recruitment' is used to refer to the maintenance of continuity (especially sociocentric) across the generations. One can speak either of a section recruiting certain of the grandchildren of its members, or of new members of society being recruited to the section of certain grandparents - looking 'downwards' to the future or 'upwards' to the past respectively.

6.2.2.   Where necessary, one can distinguish the sociocentric relation of 'alliance' holding between sections and the egocentric relation of 'marriage' holding between relatives.

6.3.   Out of the rules that constitute a tetradic model, one can theoretically abstract rules of *marriage* bearing on the relations between the sexes and rules of *recruitment* bearing on the relations between the generations; but the separation is artificial, since each type of rule presupposes the operation of the other. *The rules constituting a tetradic society form a single complex, within which marriage and recruitment are of equal significance.*

6.4.   The model prescribes marriage into the section which includes cross cousins, but it does not prescribe cross-cousin marriage, even bilateral. Male ego can marry DD or even, if he wishes, MM.

6.5.   Similarly, the model cannot be imagined as consisting of genealogical levels stacked one above another. Suppose one possesses the complete genealogical records of a properly functioning tetradic society. If one takes a particular genealogical level, say +2, and works outwards from a lineal relative of ego, say FF, confining oneself to intra-generational or 'horizontal' genealogical links (G, E, PGC, CEP), one will eventually reach ego, and FFFF, but never FFF or F. *The model does not recognise the distinction between genealogical levels as*

such; it recognises the distinction between even-level relatives and odd-level ones.

6.5.1.   Rather than levels stacked in a pile, one can imagine a double helix. The two strands represent the two socio-centric levels and spiral round an axis representing time. The time taken to complete a single circuit of the axis is two generations.

7.   What is the use of tetradic models?

7.1.   They can help in refining analytical concepts (as in 6).

7.2.   As will be the main theme of the rest of the paper, the models can serve as the starting point for generating models of more complex kinship systems. *Tetradic theory is the theory that attested kinship systems should be set in relation to tetradic models.*

7.2.1.   The relation between a tetradic *model* and an attested kinship system has two components: typological (conveniently thought of as horizontal), and ontological, holding between different 'levels' of abstraction or concreteness. Cf. Figure 3.

7.2.2.   To conceptualize the ontological relation in isolation, imagine a society attempting to realise a tetradic model. It would have to fill out or enrich its formal rules with other rules bearing on residence, divorce, plural marriage, matrimonial choice, forms of address, etc. Given the description of such a society, an analyst could reverse the process of enrichment and abstract the underlying model.

7.2.3.   A tetradic model could, of course, be filled out in a variety of ways. The resulting realisations would all have something in common, and from descriptions of them the analyst could abstract what they shared. He might equally well call this the *model* underlying all the realisations, or the *type* of which the realisations were tokens. 'Model' usually implies more precise specification than 'type', but the distinction will not be important here.

7.2.4.   Types or models generated from tetradic models bear to their realisations the same ontological relation as tetradic models bear to theirs. The ontological relation seems less problematic than the typological, and

Figure 3.   Relations between components of tetradic theory
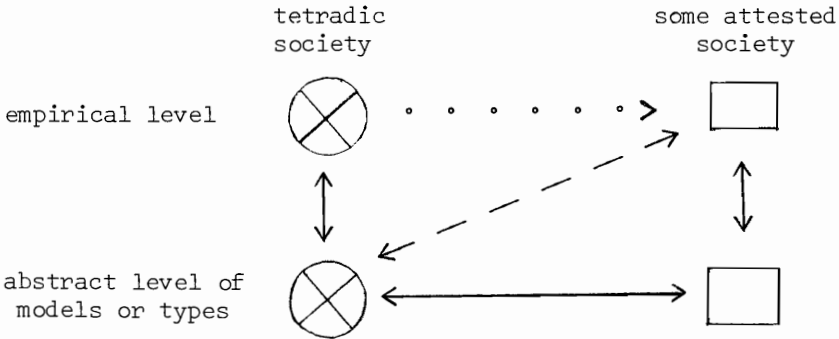
The theory recommends formulating the relation ⟋⟶ .

↕ = reversible analytical operations of abstraction/enrichment.

⟵⟶ = reversible analytical operations of typological transfor-
mation (which might be drawn ⟷ to indicate the divergence
of the egocentric and sociocentric - 8.5.).   On the strong inter-
pretation of the theory, ∘ ∘ ∘ > represents essentially one-way
historical processes.

it is on the latter that we must concentrate in the
first instance.

7.3.   Tetradic theory can be interpreted in a weak fashion or
a strong one. The weak holds merely that it is analyti-
cally valuable to look at real kinship systems as if
they derived from tetradic models, but remains agnostic
on whether they did so. *The strong interpretation holds
that attested kinship systems derive historically from
ones of tetradic type.*

7.3.1.   The weak interpretation could be held alone, but the
strong interpretation implies the weak.

7.4.   The strong interpretation, which is much the more
interesting, might serve to guide research on the rela-
tion between prehuman and human society.

7.5.   The theory offers a firm base from which to explore the

jungle of the specialist literature on kinship. Such an exploration would not only contribute to the historiography of social anthropology, but would also consolidate the theory itself and provide a (much needed) expression of its indebtedness to its predecessors.

7.6.   In principle, the theory might guide reflection on kinship phenomena other than the strictly formal (e.g. prescribed sentiments[2]), and on non-kinship phenomena relatable to kinship ones.

7.6.1.   For instance, in so far as society is an aspect of the cosmos, and in so far as religion is an attempt to apprehend what gives continuity to the cosmos, the theory could have a bearing on religion. (Supernaturals are commonly associated with components of social structure, or with the functions performed by such components.[3])

7.7.   If the theory is taken seriously, it must have a bearing on general theoretical positions within anthropology. For instance, as regards structuralism, one thing it suggests is that the binary oppositions favoured by that approach may sometimes be fragments of or derivative from more complex four-element structures.

7.8.   However, applications 7.4. - 7.7. lie outside the scope of this paper.

8.   How can the focal tetradic model be used to generate other models (7.2.)?

8.1.   The model is subjected to stepwise transformations, each of which can be regarded as instantaneous and complete (in contrast, of course, to *historical* transformations - 15.2.1.).

8.2.   The number of transformations theoretically conceivable is indefinite - a powerful enough magic wand can change anything into anything else. The transformations likely to prove *instructive* will be as follows: (i) they will produce more or less familiar models, i.e. idealisations approximating to attested kinship systems; (ii) they will be reasonably simple in themselves, from a logical

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[2] Cf. ibid., p. 140.   [3] Cf. ibid., p. 145.

point of view; (iii) they will be such as could be real-
ised by reasonably plausible historical processes.

8.3.   In formulating transformations, it is unnecessary to
specify every detail. It is sufficient to generate
types (7.2.2-3.).

8.4.   *The majority of the more familiar types can be generated
by a single series of transformations*, each acting on
the result of its predecessor. (This finding results
from trial and error, rather than from any a priori
leaning towards unilineal evolutionary theory.)

8.5.   Tetradic society is characterised by the perfect overlap
and isomorphism of the egocentric and sociocentric sys-
tems, but the perfect fit disappears as soon as one
leaves tetradic models, and the further one moves away
from them, the more the two branches draw apart. They
are best followed separately in the first instance.

9.   Egocentric branch: properties of the focal tetradic
terminology

9.1.   The terminology covers the whole of society, and not
only its members within living memory, but *all* members,
from the indefinite past to the indefinite future; its
range is truly total. This makes the society 'closed',
in a strong sense.

9.2.   Each term covers a homogeneous category. The genealog-
ical distance separating ego from an alter is irrelevant,
and to stipulate that a category centred on a focal
specification would be to detract from its perfect con-
gruence with a component of social structure, and hence
to change the character of the terminology as a whole.

9.3.   The 'formal' semantic structure of a terminology con-
sists in the discriminations and equations that it makes.
In a model terminology these will fall into clear-cut
types. The focal terminology makes three types of dis-
crimination, one structurally insignificant type of
equation, and three important types of equation.

9.4.   The three types of discrimination separate relatives
belonging to (i) different sociocentric levels, (ii)
different even-level sections, (iii) different odd-level
sections (cf. 6.1.). One may refer to the 'vertical'
and the two 'horizontal' discriminations.

9.5.   Step 5.2. equated male and female members of a section;
            but nothing fundamental changes if we introduce the dis-
            crimination of sexes (a suffix marking one sex would
            suffice).

9.6.   *The three important types of equation are as follows:*

9.6.1.   Alternate generation equations (like Z = FFZ) equate
            kin-types belonging within a single section but removed
            from each other by two generations. (It is convenient
            to include under the heading equations such as FF = SS
            where the number of generations separating two kin-types
            is a multiple of two.)

9.6.2.   Prescriptive equations (like MBD = W) equate cognatic
            and affinal kin-types represented by a single symbol in
            a genealogical diagram showing prescribed cross-cousin
            marriage. (Figure 2 can be counted as such a *diagram*,
            in spite of 6.4. It is convenient here to include MBC
            = FZC under prescriptive equations although it equates
            cognatic kin-types.)

9.6.3.   Classificatory equations (like F = FB, S = msBS) equate
            kin-types by using the principle of same-sex sibling
            equivalence (5.4.).

10.   Egocentric branch: the three major recognised types

10.1   Tetradic terminologies, which have not been attested
            empirically or recognised theoretically, can be called
            type 1. *Types II – IV are generated by replacing the
            three major types of equation by three new types of
            discrimination.*

10.2.1.   Type II are the conventional prescriptive terminologies;
            they make prescriptive equations (9.6.2.), but the dia-
            grams they are related to lack the 'vertical cycles'
            shown by the lines with arrows passing round the outside
            of Figure 2. (In practice, the conventional diagrams
            usually show a 'stack' of five genealogical levels.)

10.2.2.   Type II is generated from type I by eliminating the
            alternate generation equations. Since *adjacent* genea-
            logical levels are already discriminated, to discrimin-
            ate *alternate* ones is to distribute relatives into a
            stack of genealogical levels (cf. 6.5.). This has radi-
            cal effects, both 'horizontal' and 'vertical'.

10.2.3.   The prescribed category is no longer sociocentric as

well as egocentric. It is no longer an enduring compon-
ent of society with a constant inflow of new members.
Unlike a sociocentric level, a genealogical level event-
ually dies out. If marriages were strictly confined to
a genealogical level, instances would necessarily arise
when the last-born member of a genealogical level could
not find a spouse. If one takes account of demography
(not merely of genealogical diagrams), *the only*
societies which can obey perfectly a rule prescribing
marriage with an egocentric category of relatives are
those in which the category is also sociocentric. Tet-
radic societies are workable (4.5.) in a sense that non-
tetradic societies with positive marriage rules are not.
The latter *must* sometimes 'fudge' their marriage rules.

10.2.4.   The temporal range of the terminology is restricted. It
could only continue to cover the indefinite past and
future (9.1.) by inventing indefinite numbers of new
terms for the 'unfolded' remoter levels. Being excluded
from the field of the terminology, distant ancestors are
no longer relatives of ego *in the same sense* as members
of close genealogical levels. (Perhaps the relation
might rather be felt as religious.)

10.3.   Type III terminologies are classificatory but non-pres-
criptive. They are generated from type II by eliminat-
ing the prescriptive equations, i.e. by systematically
discriminating cognates and affines.

10.3.1.   Although theoretically it may not be absolutely neces-
sary, we may reasonably stipulate that the range of the
terminology is no longer co-extensive with society
(understood more or less synchronically). This creates
an implicit category of contemporary members of society
who are not relatives. (One supposes that ego might
feel towards them a sense of 'ethnic' identification or
solidarity.)

10.4.   Type IV terminologies are non-classificatory, i.e. des-
criptive. They are generated from type III by elimin-
ating the classificatory equations, i.e. by systematic-
ally descriminating those previously equated on the
basis of the ssG equivalence principle. Type IV termin-
ologies are necessarily limited to covering a range of
kin-types removed from ego by only a relatively small
number of genealogical steps.

10.4.1.   (If such a terminology is used by a society having en-
dogamous sub-divisions, the effect of the limitation is
to create for ego an implicit category of potential-but-
not-actual relatives, towards whom he might feel yet a
third type of identification, based perhaps on common
life-style or economic expectations.)

11.   Egocentric branch: elaborations

11.1.   The majority of generally recognised terminological
           types can be related to types II - IV. The main excep-
           tion is the generational ('Hawaiian') type, which in
           addition to using the principle of *ssG* equivalence
           treats *osG* as equivalent when they are link relatives.

11.2.   Types I - IV can be refined to give constructs having
           any desired degree of specificity. We consider only one
           sub-division per type.

11.2.1.   Closely related to tetradic terminologies are terminol-
           ogies which retain the egocentric-sociocentric isomorph-
           ism but divide the universe into a *multiple* of four cate-
           gories (this assumes that males and females within a
           category are not discriminated). For instance, eight
           categories can be arranged two-by-two in four sociocent-
           ric levels, or four apiece in two levels as with the
           Aranda.

11.2.2.   Type II can be divided into symmetrical and asymmetrical,
           as is conventional.

11.2.3.   Type III may show 'skewing', i.e. it may override the
           vertical tetradic discrimination by making the Crow-
           Omaha equation of cross cousins on the one side with +1
           cognates, on the other side with -1; or it may not.

11.2.4.   Type IV may wholly lack equations; or it may make
           'counter-tetradic' equations, like FBS = FZS or FB = MB,
           which override the horizontal tetradic discriminations
           (even-level and odd-level respectively) - as in English.

11.3.   A type I terminology takes account neither of genealogi-
           cal distance (9.2.) nor of genealogical level (as dis-
           tinct from sociocentric level). In a type IV terminol-
           ogy genealogical concepts are fundamental, and sometimes
           a one-to-one relationship exists between kinship terms
           and genealogical formulae. The importance given to
           genealogy by types II and III is intermediate, and they
           can be envisaged, as it were, from either side.

11.3.1.   If the analyst's conceptual starting-point is type IV,
           ego is envisaged as surrounded by concentric circles of
           relatives, primary, secondary and tertiary, at increas-
           ing degrees of genealogical distance. Classificatory
           equations then appear as the result of kinship terms
           extending their meanings outwards from the closest,
           focal meaning, and prescriptive equations appear as the
           result of eliminating the terms rendered redundant by
           superimposing cognates and affines. In so far as one is
           interested merely in translation between European

kinship categories and exotic ones, this approach is not necessarily valueless.

11.3.2. However, tetradic theory naturally recommends starting conceptually with type I, and envisaging the other types as resulting from *contraction*. The general trend is *from* focus on the totality *towards* focus on the individual ego.

11.3.3. The model-builder can leave unspecified the extent to which categories in the intermediate types II and III may be conceived of by ego as polarised (between the genealogically closest kin type and remoter types), rather than as homogeneous.

12. Sociocentric branch: generalities

12.1. For our model-building purposes, *social structure can be defined as mode of division of a whole endogamous society on the basis of kinship.*

12.2. A minority of societies lack a social structure in this sense, and to generate corresponding models one must include in the theory a transformation deleting non-egocentric internal dividing lines.

12.3. Whereas there is not much incentive to generate models in which two kinship terminologies co-exist, there is no objection to models in which a plurality of social structures co-exist, either subsuming or cross-cutting each other.

12.4. As with the egocentric branch (8.2-4.), the types or models an analyst is most likely to want can be generated in essentials with a reasonable degree of economy and historical plausibility by starting from tetradic models.

13. Sociocentric branch: major transformations

13.1. In tetradic society one sociocentric dividing line separates parents *en bloc* from their children, while the other splits up spouses, including an ego's parents.

(Following 9.4, one would have to call the P/C divide
'vertical'; but although it pertains to a 'vertical'
relationship, the line is most naturally *pictured* hori-
zontally.)

13.1.1.   By eliminating first the P/C divide, then the E/E
divide as well, one distinguishes three major types of
social structure. In terms of recruitment, child-
exchanging structures locate children in the component
of *neither* parent, while descent-based ones locate them
in that of *one* parent; structures based on endogamous
groups recruit bilaterally and locate children in the
component of *both* parents. In terms of alliance, the
three types (i) put E, F, M and ego into equally separate
components, (ii) keep E and ego in separate components
while putting ego in the natal component   of one parent
(E may or may not be in the natal component of the
other), (iii) put all four in the same component.

13.2.   To move from exogamous tetradic sections to exogamous
descent groups, one must merge the children's section
with the section of one or other parent. The following
seem the most obvious transformational paths.

13.2.1.   If one odd- and one even-level section are merged, the
result is descent moieties (patri- or matri-).

13.2.2.   By moving to an eight-element Aranda-type model (11.2.1)
before merging sections (or 'sub-sections') of adjacent
levels, one can generate a four-clan model with
symmetrical exchange.

13.2.3.   If, before the merging, one moves to an eight-element
model with asymmetrical exchange between sub-sections,
one can generate a four-clan model with asymmetrical
exchange.

13.2.4.   In both four-clan models the clans are arranged in exo-
gamous pairs. One can therefore recognise two levels
of organisation or segmentation: binary into moieties,
quadripartite into clans.

13.3.   All these sociostructural models possess a quality of
rigidity resulting from (i) a fixed number of exogamous
components (at most eight), (ii) a fixed number of
levels of organisation (at most three), (iii) fixed
alliance relations (symmetrical or not) between compon-
ents. To generate models applying to a wider range of
descent-based societies, one must eliminate the rigid-
ity.

13.4.   A plausible way to do this is to increase the number of
components. If the society remains reproductively

bounded, the new units must be formed by segmenting pre-existing ones. By segmenting and resegmenting, one can generate models with an indefinite number of units arranged in an indefinite number of levels of segmentation.

13.4.1. Whenever a unit is segmented, the model builder can stipulate the fate of the original unsegmented component. The latter may be eliminated from the model so that the resultant units are no more closely interrelated than any other pair of units of the same level of segmentation; or it may be retained as a component of the model on the superordinate level of segmentation. If it is retained it may remain exogamous; or the new segments may be defined as the maximal exogamous units.

13.4.2. Further flexibility can be introduced by eliminating fixed alliance relations. The model-builder again enjoys considerable freedom to stipulate how and at what point this shall come about.

13.4.3. These operations generate socio-structural models in which the relations between generations are handled by the rule of unilineal descent and the relations between sexes by rules of descent-group exogamy. The descent groups may or may not show more than one level of segmentation. The rules of exogamy may apply to the descent groups of more than one of ego's grandparents (Crow-Omaha models), or only   to   ego's own descent group.

13.5. *The final major step is to segregate descent groups into endogamous sets.* Once this 'endo-recruiting' component is constituted, the descent groups may be deleted.

13.5.1. Theoretically, each endogamous component might be equally valued, but the models will come closer to empirical societies if the components are ranked. (Empirically, higher rank might be represented by greater honour, power, wealth, purity, etc., but formal models must abstract from such particular values. The highest ranking element would be the one closest to representing the whole.)

13.5.2. All the social structures considered so far have consisted of components which are sharply bounded, in the sense that every member of society belongs unambiguously in one component or another. Such structures can be called segmentary. (Where there is any risk of confusion, one must distinguish this concept from the narrower notion of segmentation on a multiplicity of levels, as in 13.4.)

13.5.3.   To generate a model of a class-based society, one must
replace sharp boundaries by statistical ones. In the
limit, even the notion of statistically separable strata
can be replaced by a continuum of ranked positions with
a statistical tendency for members of a nuclear family
to cluster around a point on the continuum. This would
no longer be a social structure in the sense of 12.1.

14.   Relations between the egocentric and the sociocentric

14.1.   Corresponding more or less to the types set up indepen-
dently for the two branches, one may distinguish the
following situations: (i) perfect isomorphism; (ii)
approximate isomorphism; (iii) egocentric domain covers
at least one component of social structure but not all
of them; (iv) egocentric domain is included within one
component.

14.2.   In the perfectly isomorphic tetradic models, the system-
atic equation of alternate genealogical levels correl-
ates with socio-structural components which endure by
recruiting grandchildren, not children; and the lateral
symmetry of the terminology corresponds to the symmetry
between the sexes, in particular to the lack of lineal-
ity.

14.3.   The conventional genealogical diagrams which underlie
prescriptive *terminologies* (10.2.1.) can also represent
social structures consisting of descent groups in endur-
ing alliance relationships. For the sake of clarity the
two interpretations of the diagrams should be distin-
guished, but the very possibility of ambiguity expresses
the approximate isomorphism which characterises kinship
systems based on conventional (= non-tetradic) element-
ary structures.

14.3.1.   ('Elementary structures', in whatever forms they may be
realised, are best understood as *being* the abstract re-
lations expressed in genealogical diagrams representing
cross-cousin marriage [cf. 9.6.2.]. Tetradic structures,
as exemplified in Figure 2, are more elementary than
conventional elementary structures and can be termed the
only *truly* elementary structures.)

14.4.   With the loss of prescriptive equations and of the cor-
responding alliance relations, the scope for egocentric-
sociocentric isomorphism decreases, but Crow-Omaha
models attempt, as it were, to salvage what they can.
The terminology covers the descent groups not only of

ego but also (at whatever level of segmentation) of some of his non-lineal cognates (13.4.3.), reflecting the lineality of these groups in its vertical equations (11.2.3.).

14.4.1.   Other type III terminologies can retain a degree of iso-morphism by making some egocentric category boundaries coincide with group boundaries - for instance, by limit-ing 'classificatory father' to covering +1 males *within the patriclan*. To stipulate this would in effect be to preclude application of the principle of ssG equivalence to both sexes *to the same extent*.

14.5.   The elimination of classificatory equations and of des-cent groups are parallel operations. With this step, one eliminates the possibility of the egocentric and sociocentric systems sharing internal dividing lines, and there is nothing left of the original isomorphism.

14.5.1.   If any link remains between the two systems, it relates to the bilaterality seen in the sociocentric recruitment rule. This bilaterality can perhaps be recognised within the terminology in the elimination of the limited sexual asymmetry introduced in 14.4.1.; and also, where they occur, in equations such as FB = MB which treat the parents as indiscriminable.

15.   In conclusion

15.1.   This paper has offered an *approach*; within its framework there is indefinite scope for elaboration. In principle, one could readily build into the models other formal kinship phenomena such as relative-age discriminations, double descent, hypergamy and age sets (not to mention matters like territory and property which are often re-lated to kinship).

15.1.1.   How would such elaborated models fit into Figure 3? The abstract level there does not consist simply of a single sequence of types for each branch, for we have already suggested a choice of paths leading from four sections to four clans (13.2.) and, at least by implication (11.1.), one or more side branches leading to Hawaiian terminologies. Thus one possibility would be to locate additional phenomena in models situated on the same con-ceptual level or plane as the others.

15.1.2.   Alternatively, one might envisage levels of abstraction intermediate between the two shown in Figure 3. On these

would be located types and models more 'filled out', closer to concrete realities, than those considered so far.

15.2.   This paper has concentrated on the lower horizontal arrow in Figure 3 at the expense of the vertical and the upper horizontal arrows.   The former represent two things: (i)   statically, the gap between a model and its realisation (for instance, between an elementary structure (14.3.1.) and a society in which cross-cousin marriage is present in some sense, perhaps merely as a preference);(ii) dynamically, the gap between analytical transformations and historical processes.   (Henceforth, we can ignore the weak interpretation of tetradic theory, which declines the challenge of history and simply abstains from comment on ii.)

15.2.1.   Whereas the transformations take place instantaneously and completely on the conscious decision of an analyst manipulating models in a vacuum, the gradual, incomplete, overlapping historical processes take place under local impulsions unclear to those involved, in societies which interact, which may be polylingual, which migrate and invade each other.   Nonetheless, the transformations can serve as *models* of historical processes; and the step leading from tetradic to non-tetradic structures is intended to be as *real* as the concept of the Neolithic Revolution.

15.3.   Thus the central problem for the strong interpretation lies in the upper horizontal arrow in Figure 3.   Before attempting to justify the arrow empirically, one would have to be clear about its significance.

15.3.1.   Tetradic theory is in certain senses evolutionary, but evolutionism is by no means a single package (such as might reasonably be rejected *en bloc*).

15.3.2.   In particular, if tetradic theory can be described as 'unilineal' at all, it is so only in a very qualified sense.   Although the theory proposes a single starting-point, a sort of Big Bang for human society, it is not committed to forecasting an end-point.   It is happy to recognise side-branches and multiple rightward paths. It does not exclude either leap-frogging or leftward regression; indeed it expects both of these to occur, as a result of influences between societies.   Above all, *it does not suppose that real societies can be fitted into clear-cut stages or ranked unambiguously along a single scale of distance from tetradic models.*

15.3.3.   The fundamental reason for this (in addition to the parallel paths and side-branches) is that the unilineal

stages one can stipulate on the level of types and models do not survive on the empirical level. In real societies, formal aspects of the kinship system will occasionally conform quite well to a single type, but generally they will present a mixture of features related to several types. Supposing one were determined to set up a single scale of distance from tetradic models, procedures would have to be devised for balancing progressiveness in one respect with conservatism in another; but such procedures could not escape being arbitrary. There is no possibility of a meaningful *quantitative* left-right scale.

15.3.4.   Admittedly, one can sometimes make more or less *intuitive* estimates of the relative global position of real societies along such a hypothetical scale. The kinship system of the nineteenth-century Kariera stands closer to tetradic models than does the system of the modern West. But the purpose of the theory is not to facilitate such 'league-table' judgements, which have little point, but to understand kinship systems within a world-historical perspective.

15.3.5.   This orientation can be contrasted with certain brands of a priori anti-evolutionism, for instance, the view which is sometimes expressed that societies 'choose' their kinship systems from the range of logical possibilities. This is unrealistic and misleading. The most that societies do is adapt the systems they inherit, and their options are far from unlimited.

15.4.   The central claim of tetradic theory is that (in so far as changes can be conceived in such left-right terms) *endogenous historical change has always led AWAY from tetradic society.* For instance, the theory proposes that since the emergence of tetradic society, some time in prehistory, equations of the three main types (9.6.) have regularly been broken down but have never been invented; apparent exceptions will be due to complex socio-linguistic interactions (e.g. sub-strata).

15.4.1.   The theory also suggests that, in so far as it is meaningful to speak of typological transitions in the context of historical systems, they are likely to occur in a certain order. For instance, a terminology which at a given time conforms to type II is unlikely to go on to eliminate all its classificatory equations while retaining all its prescriptive ones.

15.5   These claims and suggestions must, of course, be tested empirically. The relevant materials are dispersed and in need of careful evaluation, but their volume is considerable. The methods of history and of ethnohistory

(studies of tribes documented over longish periods) must be supplemented by comparative methods, both those based on language families and those of the lexical evolutionists.[4]   Evolutionary theories are sometimes dismissed as speculative and untestable, but the second charge at least does not apply here.

15.5.1.   Particular attention should be given to empirical cases which appear to show leftward changes.

15.5.2.   Some other possible lines of exploration, which might add weight to the theory, were suggested in 7.4-7.

15.6.   However, before a theory can be justified, tested or used, it has to be stated.

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[4] Cf. N.J. Allen, Review of Cecil H. Brown, *Language and Living Things: Uniformities in Folk Classification and Naming*, in *JASO*, Vol. XV, no.2 (1984), pp. 169-72, at pp. 171-2.