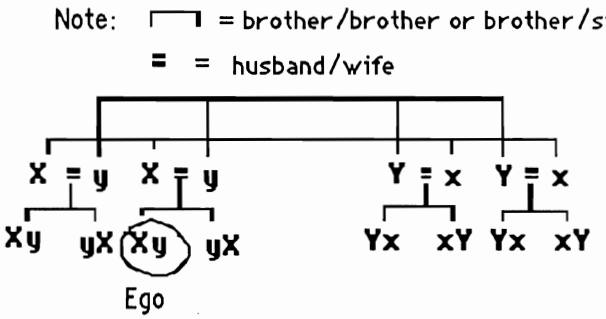
Appendix 2

The Elementary Structures of Kinship

Levi-Strauss's theory of exchange begins with a sociological interpretation of the incest taboo. The sociological significance of the incest taboo is depicted as the prerequisite rule for women to be exchanged for purposes of creating alliances among clans. If a family does not exchange their sisters or daughters, it would collapse upon itself through successive generations of intermarrying and eventually die out (ibid.: 12-25). Levi-Strauss proposes that kinship structures are the basis for economic exchange and, at a more elementary level, these structures compose systems of integration whereby a matrix of social values defines rights and obligations, membership and trust.

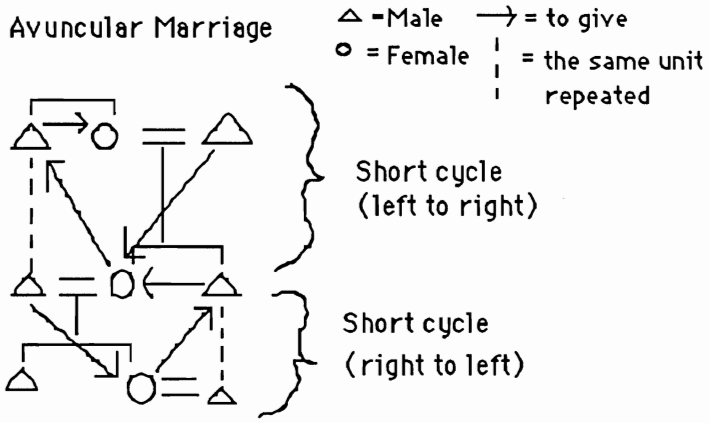
Levi-Strauss defines three elementary types of marriage: bilateral cross-cousin marriage, marriage with the mother's brother's daughter and marriage with the father's sister's daughter (or marriage between the mother's brother and the mother's daughter) (ibid.: 438-55). Within these three basic types of marriage, parallel cousins are strictly prohibited and often categorized as "sisters". What is the fundamental difference between cross and parallel cousins, for both stand in the same biological relationship of distance from the parents on either side? Levi-Strauss's theory of kinship is based upon the exchange of women, the division between "givers" and "takers", which constitutes the sociological relations between actors or groups of actors (ibid.: 52-83). To differentiate between cross and parallel cousins, let us assume that two brothers (X, X) take sisters (y, y) from brothers (Y, Y) who in turn receive sisters (x, x) from the brothers who initiated the

exchange. Let us also assume that each couple produces a son and daughter each, who must now intermarry while adhering strictly to the incest prohibition.



If we look at ego, the father's brother's daughter (or mother's sister's daughter) contains the same elements as himself (i.e., X and y) which are essentially the same elements as ego's sister, whereas the father's sister's daughter (or mother's brother's daughter) contains opposite elements from ego (i.e., x and Y). Essentially a father and his brother are "takers" from the same group which places them in debt (therefore their daughters must be given to another group), whereas the mother's brother is a "giver" from the opposite group and can now demand compensation (ibid.: 141-45). The mother's brother has a credit that can last over a long period of time or, if the security of the system is threatened, the mother's brother can demand an immediate return in the form of an oblique marriage whereby he has the right to marry his sister's daughter (that is, if no sister in the opposite group is available). Oblique marriage, i.e. marriage across generations, is essentially a closed cycle which upsets the balance of the system; an immediate return undermines trust among actors. By marrying the sister's daughter, the sister's husband's nephew must either remain unmarried or marry *his* sister's

daughter, which, like a catalyst, sets off a series of oblique marriages that reduces the system into tiny components of short cycles (ibid.: 432-34).



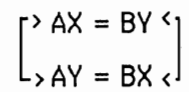
For Levi-Strauss, the primary level of group integration is the moiety system of dual organization (ibid.: 69-83; Fox 1971: 97-121). In dual organization, descent and residence are "confused"; descent (tracing one's lineage through the male or female line) and location of residence (living with one's agnate or cognate relatives) cannot be differentiated on the basis of one division only, for four elements (matrilineal, patrilineal, matrilocal and patrilocal) are present and are therefore in need of two divisions to separate the elements from each other.

For example let A and B represent lineages, and X and Y, location of residence:

AX <-------> BY

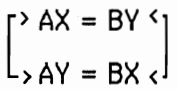
With only one division, lineage and residence are the same.

However the structure that emerges out of dual organization is precisely the recognition and separation between lineage and residence such that in a four class system, we have the following:



Levi-Strauss makes the important distinction between harmonic and disharmonic regimes (Levi-Strauss ibid.: 197-220, 441-442). In a harmonic regime, residence and descent are the same (patrilineal/patrilocal or matrilineal/matrilocal). In a disharmonic regime where marriage classes are always defined, descent and residence are always in opposition (patrilineal/matrilocal or matrilineal/patrilocal). Harmonic regimes do not categorize marriage classes per say; rather, a particular kinship unit is prescribed usually in the form of the mother's brother's daughter or more rarely the father's sister's daughter. In disharmonic regimes, both cross cousins are categorized together which is easily adapted to a system operating on processes of division and separation (resulting from opposition between lineage and residence).

From a moiety system of dual organization, there develops the "Kariera" type system of four classes (ibid.: 159-62). Within every marriage class system (disharmonic regimes), there exists a particular type of economic exchange, that of restricted exchange. Restricted exchange is a closed cycle (A gives to B, B gives back to A) that always operates between units of two. The fundamental feature of disharmonic regimes consists of restricted exchange between pairs of marriage classes, and, because the functional nature of the system is constructed upon marriage classes, disharmonic regimes always practice bilateral marriage; all potential spouses are placed in the category of cross-cousin whether or not they exist on the father's or mother's side. To return to our earlier model of a four class system:



AX practices restricted exchange with BY, and BX with AY; half of the children produced by AX and BY naturally fall into the category of either BX or AY whereas the other half (the marriageable cross-cousins) fall into the opposite category, AY or BX respectively.

This system of marriage classes can undergo a constant division since it always operates with pairs. The system that naturally develops from the "Kariera" type of four classes is the "Aranda" type, one consisting of eight defined classes (ibid.: 162-67). If the categories of residence are divided in half (from four to eight), the categories of descent remain the same (four) and vice versa. For any eight class system the initial moiety division is retained, supporting a continual division in either the categories of residence or descent. For example, if both residence and descent are in a process of division, new systems would generate and lose their part within the overall functioning system.

Let W, X, Y, Z = four patrilocal categories and A, B, C, D = four matrilineal categories:

AW <------> BX
BW <------> AX
CY <------> DZ
DY <------> CZ

Thus we are not presented with an eight class system, but rather two four class systems or, if we continue the process of division, one sixteen class system. If there occurs a division in residence, descent remains the same and vice versa. The "Aranda" type of eight classes consists of the following:

Let X, Y = descent categories and A, B, C, D = residence categories.

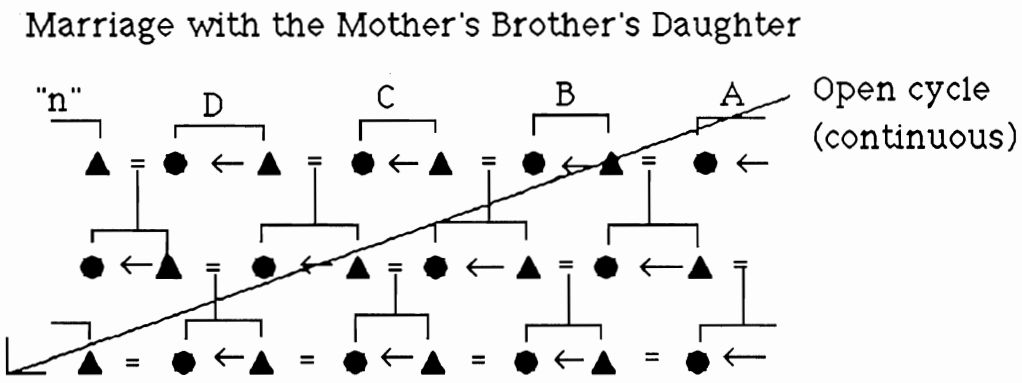
AX <------> BY
BX <------> AY
CX <------> DY
DX <------> CY

With the eight class system, a new division between cousins occurs. This system creates another division within the cross and parallel cousin category, separating primary cross cousins from secondary cross cousins and primary parallel cousins from secondary parallel cousins. Within the "Aranda" type of eight classes, the primary cross cousins are prohibited whereas the secondary cross cousins are prescribed as potential spouses.

The development of harmonic regimes occupies a middle ground between the "Kariera" type of four class system and the "Aranda" type of eight class system. Harmonic regimes do not function by way of marriage classes; a particular kin unit is either prescribed or prohibited. Harmonic regimes differentiate between the two types of cross cousins (mother's brother's daughter and the father's sister's daughter), which essentially is approaching divisions similar to that of an eight class system but on one side only (ibid.: 180, 216-17). Whereas in disharmonic regimes the system of exchange is restricted, in harmonic regimes the system of exchange is generalized (ibid.: 177-81; Fox ibid.: 218-21). Generalized exchange is a much more effective way for integrating a number of groups. A gives to B, B gives to C and, to close the process, C gives back to A; the values inherent within a generalized exchange system are essentially egalitarian, for the process is circular whereupon a rigid hierarchy could not exist within the overall system. This system is based upon trust, for A gives to B with the secure feeling that sometime in the future an [n] group will give back to A.

The fundamental difference between restricted and generalized exchange is determined by their processes of integration. The system of generalized exchange expands as more and more actors are integrated, whereas restricted exchange continues to reduce itself by multiples of eight. In generalized exchange, it is marriage with the mother's brother's daughter that creates the highest degree of integration among units. Marriage with the mother's brother's daughter is an asymmetric system that never allows for closure and is therefore constituted by a long, continuous cycle in one direction only (Levi-Strauss ibid.: 449-55; Fox ibid.: 208-14).

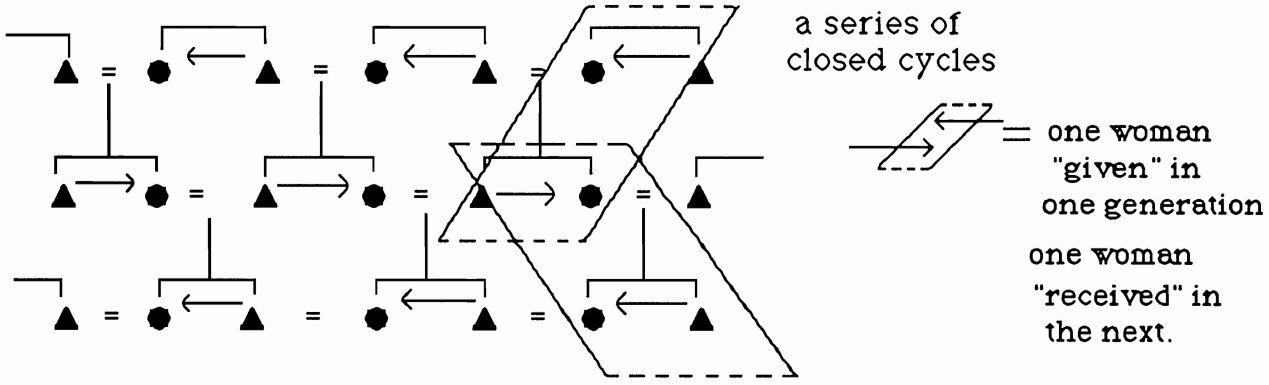
Asymmetric Exchange:



Why is marriage with the father's sister's daughter usually prohibited? Marriage with the father's sister's daughter constitutes a delayed restricted exchange, a series of closed cycles. Whereas marriage with the mother's brother's daughter is asymmetric, marriage with the father's sister's daughter reverses direction each time it is practiced on a new generational level.

Delayed Symmetric Exchange:

Marriage with the Father's Sister's Daughter



Essentially, a sister received in one generation is returned in the next; marriage with the father's sister's daughter is a delayed symmetric exchange by one generation (Levi-Strauss ibid.: 442-55, 464-65).

For a further summary of Levi-Strauss's "Elementary Structures of Kinship", see Josselin de Jong 1952, and for criticisms see Korn 1973.

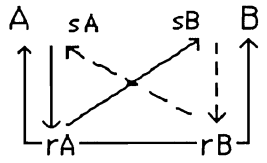
Appendix 3

The Social Exchange Theory of Jean Piaget

Piaget developed a social exchange theory which contains the same elements of distinction as the symmetric/generalized exchange theory proposed by Youniss (Piaget 1965(b):). Piaget describes a hypothetical exchange process between two actors [A, B] as consisting of an action [rA] performed by A which gives the second actor [B] satisfaction [sB]; this in turn obligates B to perform an action [rB] which would give satisfaction to A [sA]. (Piaget 1965(b): 113-16; Chapman 1986: 182-86; Kitchener 1981: 259-60, 1991: 424-25; Mays 1982: 33-40)

Thus:

Let ↓rA +↑sB +↓rB+↑sA = 0
where ↓ represents a subtraction of value
and ↑ represents an addition of value



Virtual exchange among two actors

--------- =
distinguishes B's action from A's

note:
our interpretation of the dotted line is that it distinguishes the quality and time occurence of B's exchange from A's

Although Piaget's exchange theory appears characteristically similar to symmetric exchange or the individualistic exchange theories of Homans and Blau (Ekeh 1974), it is in actuality oriented more towards the asymmetric theory of Levi-Strauss, with whose work Piaget was familiar (Piaget 1970(b):

106-25). Piaget distinguishes between actual and virtual exchange: actual exchange is the exchange of similar items in an immediate time sequence whereas virtual exchange acknowledges a receiver's debt which is repaid at a later time and in a different form. Virtual exchange presupposes a common scale of values upon which exchange, despite displacements of quality and time, can remain constant (Kitchener 1981: 260, 262). Piaget likens actual exchange to pre-operational intelligence, where the exchange is immediate and the items of exchange must be empirically visible (ibid.: 261); however, he wrongly cites the example of money transactions at a marketplace as depicting actual exchange, for money is a symbolic system which is precisely built upon the conservation of value (see Parsons 1977: 204-07). Just as conceptual skills requires conservation and reversible thought to develop, social exchange also requires conservation and reversible thought to maintain its functioning. Piaget suggests that social exchange is structured upon the conservation of value such that the exchange of commodities or even intellectual propositions are integrated onto a common scale or framework (Kitchener 1981: 262, 267). This is a necessary requirement for the maintenance of a virtual or generalized exchange; in fact, asymmetric exchange is a better example of virtual exchanges performed across a number of social actors, where conservation and reversible thought would be a necessary requirement.

A modification of Piaget's social exchange theory: