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The Contribution of Status Lineages in the Rise of the State: A New Theory of State Formation

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THE CONTRIBUTION OF STATUS LINEAGES IN THE RISE OF THE STATE: A NEW THEORY OF STATE FORMATION

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DEDICATION

To my husband, Richard J. Chacon, without his caring support this project would have never come to fruition.

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ABSTRACT

In social theory, ancient societies are frequently seen as ‘traditional’ in the sense of being static. If static, there is a problem for theory for we know that, over time, societies have evolved to become more complex. This dissertation proposes a dynamic model for the social structure of the chiefdom based in a synthesis of anthropological and experimentally grounded sociological theory. Its purpose is to explain 1) why the chiefdom is an effective social structure in that it promotes collective action and 2) why the chiefdom becomes increasingly unstable over time. Because of that instability, the chiefdom may stand at the beginning point in the evolution of increasing social structural complexity. This work hypothesizes that attempts to rectify the internal instability inherent in the status lineage structure of the chiefdom lead toward larger and more complex structures including the paramount chiefdom and the state. This dissertation concludes by suggesting that circumscription alone does not produce warfare but rather, status lineages create the internal conditions spurring warfare along with internal transformations that may lead to more complex social organizations.

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CHAPTER 1

INTRODUCTION

The discovery of how state level societies developed remains a fundamental question among social scientists.¹ Efforts to understand how this transformation occurred have been the subject of considerable debate among scholars for many years (Spencer 1851, 1857, 1863; Tylor 1870, 1889; Morgan 1870, 1877; Ward 1883; Engels [1884] 1942; Weber [1896] 1988; Fried 1967; Steward 1953, 1955; Childe 1957; White 1957; Wittfogel 1957; Sahlins and Service 1960; Service 1960, 1962; Fried 1967; Carneiro 1970, 1981, 1990, 1998, 2012a, 2012b; Kottack 1972; Webb 1975, 1988; Webster 1975; Claessen and Skalník 1978, 1981; Hass 1982, 2001; Kirch 1984, 1988, 2010; Thapar [1984] 2005; Creamer and Hass 1985; Renfrew and Cherry 1986; Earle 1987, 1989, 1991, 1997a, 1997b, 2011; Roscoe 1988; Wilson 1988; Marcus 1992, 2008; Algaze 1993; Yoffee 1993, 2005; Redmond 1994, 1998; Stein and Rothman 1994; Berezkin 1995; Marcus and Flannery 1996; Blanton, Feinman, Kowalewski, and Peregrine 1996; Spencer 1997, 1998, 2007; Feinman and Marcus 1998; McIntosh 1999; Shady Solís 1999a, 1999b, 2009; Johnson and Earle 2000; Stanish 2001; Trigger 2003; Liu, Chen, Lee, Wright, and Rosen 2004; Spencer and Redmond 2004; Willer, Chacon and Chacon 2009; Abrutyn and Lawrence 2010; Emanuelson and Willer 2010, 2011; Stanish and Levine 2011; Kristiansen 2012; Price and Feinman 2012; Willer, Chacon, Chacon, Emanuelson,

¹The 'state' is defined as the organization that centrally rules coercively and monopolizes the means of violence – at least within its administrative system. Its sphere of control reaches the village but it does not necessarily extend to the level of the individual (Willer et al. 2013).

and Lewis 2013). While various theories, such as environmental circumscription, peer-polity interaction, wealth finance, dynamic cycling, multi-lineal evolution, inter-personal-group competition, perennial wartime leadership, and indirect coercion/status conflict (Carneiro 1970, 1998; D'Altroy and Earle 1985; Renfrew and Cherry 1986; Wilson 1988; Marcus 1992, 1993; Belkov 1995; Kradin 1995; Kradin and Lynsha 1995; Earle 1997a; Redmond 1998; Billman and Feinman 1999; Kradin, Korotayev, Bondarenko, de Munck, Wason 2000; Artemova 2003; Bondarenko and Korotayev 2003; Korotayev 2003; Bondarenko, Grinin, and Korotayev 2004; Grinin, Carneiro, Bondarenko, Kradin, and Korotayev 2004; Chacon 2007; Emanuelson and Willer 2011) have provided valuable contributions on the origin of social complexity, a completely satisfactory theoretical model that explains how advanced chiefdoms can become first generation states has yet to be put forth.²

Central to this dissertation is a model of chiefdom development that incorporates insights gained from sociological theories, many of which have been tested in the lab.³ Applying experimentally tested sociological theory, this research aims to understand the internal dynamics of status lineages.⁴ A status lineage is an organizational system that ranks actors in an ascribed hierarchy characterized by the downward mobility of all but

² With few exceptions, this topic has been addressed by anthropologists exclusively. For examples of some of these exceptions see: (Hui 2005; Abrutyn and Lawrence 2010; Emanuelson and Willer 2010, 2011; Willer et al. 2013).

³ Sociologists have applied theories tested in the laboratory to explain a variety of historical events (Bell, Walker, and Willer 2000; Chacon 2009; Emanuelson and Willer 2011; Willer and Walker 2007; Willer, Simpson, Szmataka, and Mazur 1996). See Appendix A for detailed information on sociological lab experiments.

⁴ "A lineage is a descent group whose members can usually trace or remember genealogical ties" (Bates and Fratkin 2003:188).

the senior lineage members.⁵ Moreover, this work seeks to understand how status lineages facilitate the pursuit of common or collective goals among members of the chiefdom (Hardin 1982).

Although none of these sociological theories were developed for explaining chiefdom structures, I hope their incorporation into this new model will enhance our understanding of social structural dynamics while broadening the utility of those theories by expanding their range of application. Like the ‘hard sciences,’ I combine experimental and non-experimental research, in this case to understand social phenomenon (Willer and Walker 2007).

Incorporating sociological theory, this dissertation focuses on the internal dynamics of status lineages and how these processes relate with external events such as conflict. Since chiefdoms, characterized by their status lineage structures, occupy an important stage in the advent of social complexity, their structures would have had an evolutionary advantage over other types of tribal systems (Carneiro 1970, 1981; Earle 2011).⁶ It seems that a pre-condition for the development of the state is the presence of status lineages as organizational structures. In this dissertation, I will suggest that primary states arose from the internal changes sparked by status lineage dynamics. Therefore, states did not arise from largely egalitarian social environments such as unsegmented or segmented egalitarian polities.⁷

⁵‘Status’ refers to an individual’s standing in the hierarchy of a group based on the prestige, honor, and deference rendered him/her by other members (Lovaglia and Houser 1996; Lovaglia, Lucas, Houser, Thye, and Markovsky 1998).

⁶ A tribe is defined as an “association of kin groups which are themselves composed of families” (Sahlins 1961:324).

⁷ See Berezkin (2000) who suggests that the absence of lineages (of any kind) hindered the development of the ancient state in the Middle East.

With regards to their internal organization, early societies can be differentiated into three types: (1) unsegmented societies, such as the Achuar of Ecuador (Chacon 2007), (2) segmentary lineage societies, such as the Nuer of Sudan (Evans-Prichard 1940), and (3) status lineage societies, such as the Futuna (Hayden and Villeneuve 2012).⁸ Unsegmented societies rely on an organizational system that lacks social structural ties beyond the local group (Kelly 2000; Marcus 2008).⁹ Unsegmented groups are the least socially complex of the aforementioned societies because they organize around familial ties but lack lineages. These societies tend to rely on a combination of kinship and achieved status to determine leadership (Marcus 2008). In these groups, an egalitarian ethos prevails which hinders individuals from exercising control over the group.¹⁰ A normative system that sanctions free riders seems to be sufficient for maintaining control of unsegmented group members. For example, a normative system operating among the Achuar of Ecuador permits them to live in small villages comprised of independent households (Chacon 2007).

In contrast, in addition to kinship ties, segmentary lineage societies rely on an organizational system based on lineages of equal status (Sahlins 1961). While these lineages are autonomous, they will unite when faced with an external threat (Sahlins

⁸ While Kelly (2000) used the term unsegmented in reference to Hunting and Gathering bands, I use the term to describe polities that lack lineages as their organizational structure irrespective of their subsistence strategy.

⁹ Kelley (2000) and Marcus (2008) distinguish between unsegmented societies according to their subsistence strategy (i.e. hunting and gathering).

¹⁰ Kelly (2000:254) claims that unsegmented societies are “essentially warless” because they lack lineage or other structures to organize intergroup conflict.

1961; Lindholm 1986).¹¹ The segmentary lineage system is a “mechanism for large-scale political consolidation in the absence of any permanent, higher-level tribal organization”

(Sahlins 1961:328 [italic removed]). For Sahlins (1961):

The segmentary lineage system consists of this: the focal lines of primary segments can be placed on a single agnatic genealogy that accounts for much...of the tribe. The closer the genealogical relation between focal lines, the closer their respective segments are on the ground. Primary (or “minimal”) segments whose focal line ancestors are siblings comprise a territorial entity of higher order, a minor segment, usually named after their common ancestor, the father of the siblings. They comprise an entity, however only with reference and in opposition to and equivalent lineage segment, one descended from the brother of their common ancestors. (P. 328)

In a segmentary lineage organization, when faced with an external threat, an influential man can lead a temporarily united military faction. However, as soon the threat disappears, the faction disbands and returns to the status quo (Sahlins 1961, Lindholm 1986).¹²

By contrast, status lineage societies are characterized by the ranking of all members of the lineage system. As previously stated, a status lineage ranks individuals in an ascribed hierarchy characterized by the downward mobility of all but the senior lineage members.¹³ This organizational ranked system facilitates collective action. For example, for Sahlins (1961), status lineage societies had a military advantage over

¹¹ According to Sahlins (1961:337), “The segmentary lineage system consistently channels expansion outward, releasing internal pressure in an explosive blast against other peoples.”

¹² Segmentary lineages groups tend to around individuals (i.e. prophets, who transcend the sectional opposition of lineage when confronting external threats (Sahlins 1961, Lindholm 1986).

¹³ In the following chapter, I provide extensive examples of societies with status lineage organizations.

segmentary lineage societies.¹⁴ In summary, recognizing the potentialities of the internal organizational structures of tribal societies is key for an evolutionary perspective in the development of social complexity (Sahlins 1961). As will be seen in the chapters to follow, the evolution from unsegmented, to segmented, to status lineage social structures are seen as theoretically necessary steps toward the development of the state.

This dissertation will take the following form. In chapter 2, I will put forth a dynamic model for the development of chiefdom structures. This model explains how the members of the chiefdom act together to pursue their common or collective goals (Harding 1982) and how the embedded instability of the status lineage increases over time, jeopardizing continuity. In Chapter 3, I put forth the Social Dynamics of Status Model to explain how the social dynamics of lineage structures may have played an important role in the advent of social complexity. Drawn from social-psychological theories, this model is comprised of three elements: (1) status influence, (2) indirect influence, and (3) status value. This model explores how the increasing instability of status lineage structures may prompt the adoption of additional social control mechanisms that may solve larger collective action problems in an expanding chiefdom. In Chapter 4, I link the Social Dynamics of Status Model with warfare to show how the transition from chiefdom to state may have occurred. I will explore how warfare temporarily helps to stabilize the status system and also how warfare eventually transforms influence relations based on status into coercive power relations that are characteristic of more complex structures. Then, I will propose a theoretic, grounded in

¹⁴ According to Sahlins (1961:342), “Limited economic coordination, the relativity of leadership and its absence of coercive sanction, the localized, egalitarian character of the polity, the ephemerality of large groupings, all of these would doom a segmentary lineage system if brought into conflict with chiefdoms or states.”

Weber ([1896] 1988), that traces paths to different forms of the state that radiate from status lineage chiefdoms.

CHAPTER 2

STATUS-INFLUENCE AND THE EVOLUTION OF CHIEFDOMS¹⁵

Grounded in a synthesis of anthropological and sociological theory, this chapter proposes a dynamic model for the development of chiefdom structures.¹⁶ Chiefdoms are a kin-based polity characterized by a status lineage structure in which the chief holds the highest position in the highest status line (Kirchhoff 1949, [1955] 1959; Oberg 1955; Sahlins 1958; White 1959; Kirch 1984; Widmer 1994; Hage and Harary 1996).¹⁷ ‘Status’ refers to an individual’s standing in the hierarchy of a group based on the prestige, honor, and deference rendered him/her by other members (Lovaglia and Houser 1996; Lovaglia et al. 1998).¹⁸

The model is purposefully simple, while still explaining how the members of the chiefdom can act together to pursue their common or collective goals (Hardin 1982). By building a simple model, the hope is to capture what is common across chiefdoms. This is not to say that all chiefdoms are alike. To the contrary, there are important differences and at least some of those differences reflect other social structural elements beyond the

¹⁵ Influence is defined as “a socially induced modification of an opinion, expectation, or decision” (Simpson, Willer and Ridgeway 2012:11; see also Willer, Lovaglia, and Markovsky 1997; Willer, Lovaglia, and Markovsky 1999).

¹⁶ In this paper, the term ‘the chiefdom’ refers to the theoretical construct, while the term ‘chiefdoms’ refers to empirical instances.

¹⁷ As previously mentioned, a lineage is a descent group whose members can trace or remember genealogical ties (Bates and Fratkin 2003).

¹⁸ For criticism of the use of typologies see Yoffee (1993, 2005).

simplest covered here. These additional social structural elements will be covered in later chapters.¹⁹

It may well be that comprehending chiefdoms is the key to understanding the development human social organization beyond its most simple form. At one time in human prehistory, chiefdoms were the most complex of all human social organizations (Carneiro 1981, 1988, 1998; Johnson and Earle 2000). Chiefdoms occupy an important stage in the development of social complexity (Carneiro 1970, 1981). For Carneiro (1998:37), “the rise of the chiefdom may well have been the single most important step ever taken in political evolution.” According to Carneiro (1998:37), “close on the heels of the first chiefdoms came a rapid series of developments leading...to the state.” Most likely primary states grew out of chiefdoms because

Once a chiefdom was established,...the doors were open for it to grow by the successive conquest and incorporation of surrounding villages and other chiefdoms. Indeed, it was by such serial conquests, followed by an elaboration of the internal structure now required to consolidate and integrate the growing polity, that the state ultimately emerged. (Carneiro 1998:36)

Having shown the anthropological components that give the main outlines of status lineages structures common to all chiefdoms, I turn to the issue of their stability.²⁰ This issue is not new. A number of authors have suggested that certain status lineage structures become less stable over time (Malo [1898] 1903; Kirchhoff 1949; Goldman 1955, 1957, 1958, 1960). Here I show that that instability is inherent in their structure,

¹⁹ As will be seen in later chapters, further elements function alongside the simple structure hypothesized here.

²⁰ All chiefdoms have status lineages but not all groups with status lineages are chiefdoms.

and how it increases over time jeopardizing the continuity of the structure. That is to say, lineage structures contain the seeds of their own destruction.²¹

One contribution of this and later chapters is to use experimentally tested theory to explain how social structures operate in the field.²² Since the structure of the lineage itself does not indicate how members of the lineage can pursue common goals in a coordinated way, for that explanation, I turn to recent developments in sociological theory, themselves grounded in extensive experimental research (Willer 2009; Simpson, Willer and Ridgeway: 2012). As I seek to show, the status lineage structures at the core of chiefdoms are theoretically similar to status structures studied extensively by sociologists, structures that have been shown to resolve the kind of collective action problems that must be solved in any collectivity (including chiefdoms).

The argument is presented in four sections. The first section (1) documents the widespread presence of status lineages, (2) reviews the main anthropological descriptions of chiefdoms' internal structures (Kirchhoff 1949, [1955] 1959; Goldman 1955, 1957, 1958, 1960), and (3) summarizes Hage and Harary (1996:113)'s "depth-first search method" which identifies an actor's status in a status lineage structure. Building on Hage and Harary (1996), the second section offers a new analysis of the internal dynamics of status lineage structures. It shows that, over time, all members of a status lineage structure, with the sole exception of those of the senior line, are downwardly mobile, a downward mobility that destabilizes the status lineage structure. The third section

²¹ In the following chapters, I suggest that, as status lineages become increasingly unstable, seeking stability, an array of further social control mechanisms linked to the lineage structure come to be adopted. One of these mechanisms functions only if the chiefdom becomes warlike. If so, the result is a more complex chiefdom. Nevertheless, even taken together, these mechanisms may not be sufficient for stability. If not, either the structure may fission or it may take a state-like direction.

²² Sociologists have applied models tested in the laboratory to explain a variety of historical events (Willer et al. 1996; Bell et al. 2000; Willer and Walker 2007; Chacon 2009; Emanuelson and Willer 2010, 2011).

incorporates insights gained from social theories that show how status organizes collective action (Willer 2009; Simpson et al. 2012). Finally, the discussion section asks what consequences flow from attempts to rectify the instability inherent in status lineage of the chiefdom.

ANTHROPOLOGICAL VIEW OF STATUS LINEAGE STRUCTURES

There has been some confusion among anthropologists regarding status lineages (Service 1985). On one hand, scholars have referred to what are here called status lineages using an array of terms.²³ On the other, it has not been clear how to best identify rank within the lineage (Service 1985).²⁴ Comprised of three parts, in this section I deal with those and other issues.

Where Are Status Lineages Found?

Status lineages have been found on all the inhabited continents (Sahlins 1968; Service 1985).²⁵ “The conical clan system is not in fact confined to Polynesia: it is widespread in Central Asia and parts of Africa; and it may have had a role in the making of Western society” (Sahlins 1968:24). Adopting Firth’s term “ramage” to designate status lineages, Service’s comparative study shows “the probable universality and the functional utility of...*ramages*, forms of kinship that involve the institutionalization of inequality by heredity” (Service 1975:212).

²³Terms used to designate status lineages (Goldman 1955, 1957, 1958, 1960) include: conical clans (Kirchhoff [1955] 1959), gens (Fustel de Coulanges 1864), ramage (Firth 1936), Gumsa (Leach 1954), and chiefdom (Oberg 1955; Sahlins 1968).

²⁴ I use rank as a synonym of status.

²⁵ In this work, I use the terms ‘status lineage structure’ and ‘conical clan’ interchangeably for it is evident that they refer to the same structure (Sahlins 1963; Johnson and Earle 2000; Hage 2003).

Though Sahlins (1968) and Service (1985) assert that status lineage systems are widely found, they offer no detailed evidence supporting the claim. Here, I provide that information in the form of examples from Europe, Asia, Africa, Oceania, North America, and South America.

Ancient Greek and Roman lineage structures or *gens* were status lineages (Service 1985). Fustel de Coulanges (1864) reported on the internal structures of Greek and Roman descent. He called those structures *gens*, structures that he analyzed as “a theocratic *hierarchical* organization arranged on the aristocratic principle of primogeniture as well as patrilineality” (Service 1985:114). Fustel de Coulanges (1864:101) also pointed out that each *gens* “had its chief, who was at the same time its judge, its priest, and its military commander.” He described the Greek and Roman *gens* as hereditary aristocracies with unequal control over landed properties (Fustel de Coulanges 1864).²⁶ Moreover, status lineage structures also characterized ancient Celtic peoples, Scottish clans, and European aristocratic classes (Kirchhoff [1955] 1959; Sahlins 1968:24; Service 1975:79).

The existence of lineage-based status is also documented in Africa (Sahlins 1964:618, 1968:24; Service 1975:106, 1985:330).²⁷ According to Smith, social status among the Hausa of northern Nigeria is positional and this “status gradient produced by rank and lineage is fine and steep. Obscure descent-lines are generally forgotten after one or two generations, and even descendants of dynasties may lose royal status in this way” (1959:241). Moreover, the conical clan is “a main strategy of chiefdom organization”

²⁶ For Morgan (1877), *gens* are egalitarian exogamous descent groups.

²⁷ Service (1985:124) points out that “Several British social anthropologists working in Africa have described hierarchical political systems and even focused on the aristocratic rankings within the clan.”

(Sahlins 1968:49). For example, the Bantu chiefdoms apparently have status lineages (Sahlins 1963, 1968). Among the Bantu, the “differential ranking of family members extends beyond the family to rank them and their descendants differently in the wider society” (Smith 1974:148). According to Hoernlé (1937), a strict hierarchy based on seniority prevails among the children of the southern Bantu which serves as a fundamental principle of their society. Among the Swazi, “pedigree is used to evaluate members on a social scale, and determines duties, privileges, and attitudes...birth overrides [individual variability]” (Kuper [1947] 1961:226). Moreover, the Nsaw, Zulu, and Bemba are differentiated in terms of seniority and rank (Smith 1974: 33-34).

The existence of status lineage structures has also been documented in Asia. Adams (1966) suggests the presence of conical clan structures in Mesopotamia. Researchers have reported the presence of status lineages during the late Ubaid and early Uruk periods (Friedman and Rowlands 1978; Frangipane 2007). Some scholars claim that status lineages may have been present among the Semitic tribes (Kirchhoff [1955] 1959; Sahlins 1968; Service 1985). Similarly, Thapar ([1984] 2005) describes the presence of status lineages in India’s Ganges valley prior to the development of the state. In Southeast Asia, Leach (1954) characterizes the Kachin of Burma as being a three-class society comprised of hereditary status lineage structures with distinct lineages of chiefs, lesser aristocracy, and commoners. In central Asia, Bacon (1958) documents the presence of the *okon* system that seems to resemble status lineage structures. In north China, lineages are characterized by a fixed genealogical mode of kinship (Cohen 1990). In this system, “patrilineal ties are figured on the basis of the relative seniority of descent lines so that the unity of the lineage as a whole is based upon a ritual focus on the senior

descent line traced back to the founding ancestor, his eldest son, and the succession of eldest sons” (Cohen 1990:510). According to Cohen (1990), northern Chinese lineages resemble the *zongfa* system of pre-imperial antiquity. Friedman and Rowlands (1978) also point out that some form of status lineage organization was present during the *Shang* and *Chou* periods.

Many societies of Oceania are characterized by a system of inherited ranks and statuses (Sahlins 1963; Service 1985; Hage and Harary 1996). Firth’s (1936) study of the Tikopia shows that this group had a system of inherited status positions and emphasized the importance of the ranking of their branches. He also highlighted the great importance attached to the seniority of the line and the chiefly bearer of the name (Firth 1936:367-372). Descriptions of Hawaiian social structures indicate the presence of status lineages (Malo [1898] 1903; Goldman 1955, 1957, 1958, 1960; Kirch 2010).

The existence of status lineage structures has been documented throughout the Americas. In North America, status lineages have been found among Pacific Northwest Coast groups (Drucker 1939; Sahlins 1963) and among Southeast Mississippian chiefdoms (Widmer 1994). In Mesoamerica, status lineages have been found among the Zapotecs of Oaxaca (Flannery and Marcus 1996). Researchers suggest that the Aztecs’ *calpulli* resembles status lineage structures (Jenkins 2001). In South America, status lineages structures have been documented among Andean Highland Indian communities. Researchers describe the Inka’s *ayllu* system as a conical clan (Kirchhoff 1949; Jenkins 2001). Moreover, Oberg (1955:484) identified structural differences between the “politically organized chiefdoms” of South American lowland tribes with the “homogeneous” and “segmented” tribes. Oberg noted chiefdoms’ centralized leadership

as a relevant characteristic for the classification of political organizations (Service 1985).

In chiefdoms,

Unity is achieved by federation, the acceptance of political authority resting on common interests and ultimately on the recognition of common tribal descent... Wealth in the form of property and slaves acquired through war, along with war honors, set the chiefs apart as a class with the highest status. The relatives of chiefs and outstanding warriors constitute a class with high rank, often described as a nobility, followed by the great body of common tribesmen. Slaves, as always, constitute the lower class. (Oberg 1955:484)

In summary, despite the various terms, status lineage structures seem to be, if not ubiquitous, then the most commonly found structure in all societies evolving from the tribal level (Service 1962; Sahlins 1965, 1968). Table 2.1, summarizes the main characteristics as well as the various terms associated with lineages and status lineages.

Table 2.1. Characteristics and terms associated with lineages and status lineages (based on Service 1985:130).

Lineage	Status Lineage
A named descent group that is <i>unilineal</i> , <i>unilateral</i> , <i>exogamous</i> , <i>egalitarian</i> by heredity, thus with <i>only ephemeral</i> (or “charismatic”) <i>leadership</i> , with <i>little or no emphasis on genealogy</i> for ranking purposes.	A named descent group that is <i>unilineal</i> (in only certain respects), <i>bilateral</i> , <i>agamous</i> , <i>hierarchical</i> by heredity, thus with <i>permanent leadership offices</i> , with <i>much emphasis on genealogy</i> for ranking purposes.
Morgan’s <i>gens</i> (1877) Lowie’s <i>sib</i> (1920) Lowie’s <i>clan</i> (1948) Leach’s <i>Gumlao</i> (1954) Kirchhoff’s equalitarian clan (1955)	Fustel de Coulanges’s Greco-Roman <i>gens</i> (1864) Firth’s <i>ramage</i> (1936) Leach’s <i>Gumsa</i> groups (1954) Oberg’s <i>chiefdom</i> (1955) Kirchhoff’s <i>conical clan</i> (1955)

Anthropological Descriptions of Status Lineages

Kirchhoff ([1955] 1959) recognized the evolutionary significance of status lineages, or what he called conical clans. For Kirchhoff, status lineages are characterized by the different standing of their members according to what he called “the degree of relationship” ([1955] 1959:266). That is, some members have higher standing than others.

For Kirchhoff ([1955] 1959), this process of status differentiation and the conflict resulting from it will eventually break-up the status structure. He noted that “Clan membership so-to-speak shades off the farther one is away from the center-line of the clan-the real core of the group” (Kirchhoff [1955] 1959:266). Hage and Harary (1996) agree. “Stratification by kinship has the potential for the formation of true social classes when the interests of the...upper strata...come into conflict with those of the lower strata” (1996:93). The process of differentiation overshadows “the old principles of clanship and finally leads to the break-up of [the] clan, first as the dominating form of social organization and then to its final disappearance” (Kirchhoff [1955] 1959:268-269).

Kirchhoff’s contribution to the understanding of status lineages has been extended by Goldman (1955, 1957, 1958, 1960) who proposed a theory for the cultural evolution in Polynesia based on status rivalry. For him, social structures “based upon the unity of lineage and graded hereditary rank evolve into new social systems in which lineage has been replaced by a territorial-political organization and rank has given way to social stratification” (1960:687). Polynesian lineage is neither patrilineal nor matrilineal “but a ‘Status Lineage’ in that it traces descent along status lines, usually through male seniority” (Goldman 1957:375-376). For Goldman, part of the status lineage’s instability

is “its hierarchical arrangement that determines its mode of evolutionary change” (1960:687).

According to Goldman, “social structures linked with a formally organized hierarchical system are fundamentally unstable” (1957:389). “Polynesian society rests upon an inherently dynamic type of lineage structure. Changes in this lineage structure provoke adaptation in the culture as a whole, and these, in turn, act upon the lineage structure” (Goldman 1958:242). Moreover, “no known hierarchical society has been able to devise more than temporary measures to insure its stability” (Goldman 1960:690). “[H]ierarchical structures tend to restore stability only within a pattern that was unstable to begin with...status inequality can evolve only new forms of status inequality” (Goldman 1960:690). “The psychology of status is such that inequality provokes rivalry, if not through the entire society then surely in its upper status ranges” (Goldman 1960:691).

Rivalry threatens the lineage from within and from without (Goldman 1957). Internal conflict either splits or weakens a lineage which makes it vulnerable to external attacks. Inter-lineage or inter-tribal conflicts are prevalent, especially those targeting weakened lineages. Moreover, warfare brings together chiefly ambitions and the status aspirations of lower-status members. Warfare affected Polynesian social structures not only through conquest but also through the internal rearrangements in the lineage, particularly the prominence given to warriors and strong leaders (Goldman 1955).

As the social bases of leadership changed, the character of the status lineage changed. It lost its patrilineal features, its kinship unity and eventually its economic, religious and social functions. In the end it fragmented; one section continued to define the royal lines, while the section in which the commoners had been included disappeared altogether and was

replaced by a kindred. The restricted functions of royal lineages do not in fact constitute a lineage structure either, so that, in a real sense, one may say that the Polynesian lineage eventually evolved itself out of existence. In the place of the lineage structure a political system based upon the organization of power within a territory irrespective of blood ties arose. This event, accompanied by economic stratification, marked a decidedly new face in Polynesian social and cultural evolution. (Goldman 1957:388)

While Kirchhoff ([1955] 1959) and Goldman (1955, 1957, 1958, 1960) described chiefdom's internal structures, Hage and Harary (1996) clarified how to identify a position's status in a status lineage structure.

Hage and Harary: Status Lineage Statics

Focusing on Oceania, Hage and Harary (1996) employed network models to clarify status lineage structures. The graph in Figure 2.1 is a "rooted tree" of height 2.²⁸ Trees, the most elementary of all graphs, are particularly useful in network analysis because they can "serve as models of...kinship groups defined by reference to an ego or an ancestor" or for "hierarchical classification systems headed by a unique beginner" (Hage and Harary 1996:3).²⁹ A rooted tree has a special node called its root, indicated in Figure 2.1 by an encircled node.

²⁸ "The *height* of a rooted tree is the maximum distance from the root to some other node" (Hage and Harary 1996:41 [italics original]).

²⁹ A tree is the most simplest of all graph theoretic models because it has no cycles (Hage and Harary 1996).

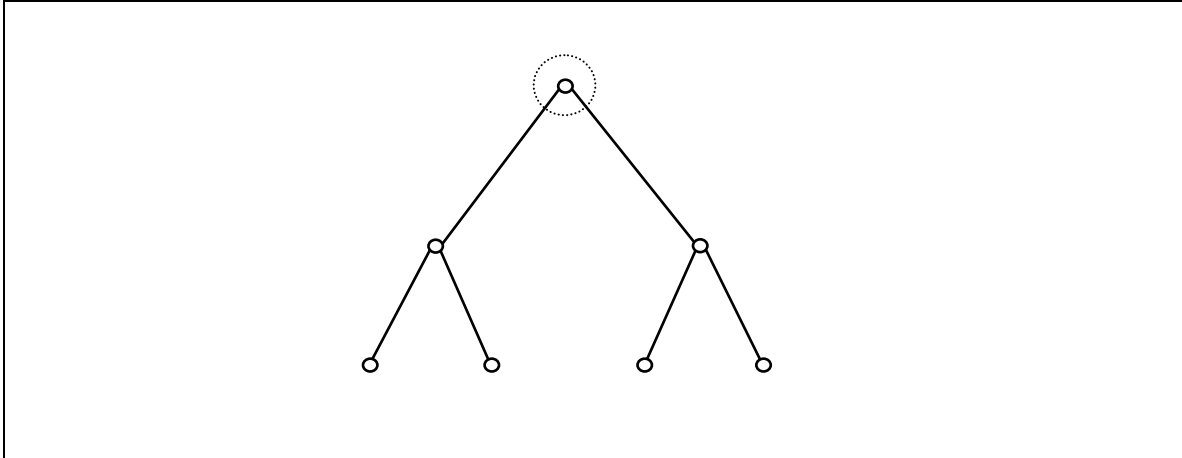


Figure 2.1. Rooted tree of height 2 (t_2) with the root indicated by an encircled node (based on Hage & Harary 1996:113).

For Hage and Harary (1996), the distinguishing feature of a status lineage is the ordering of its nodes. To order rank, Hage and Harary (1996) used the “depth-first search tree method” that I will explain using the next two figures. Figure 2.2 shows the details of a depth-first search. Searching a tree means tracing a path that always “visits” the root node first and then visits “each node exactly once until all nodes have been seen” and then returned (Hage and Harary 1996:111). As shown in Figure 2.2, one always descends from the root of the graph in a consistent direction - say, left - as far as possible. “When this cannot be done any longer, one backtracks until one can reach a new node by going down to the right and so forth” (Hage and Harary 1996:113). Once all nodes have been visited by going down to the right, one backtracks to the root and from there the search continues moving down to the next node, emphasizing as it is shown in Figure 2.2 “the tendency to move to the left” until this cannot be done any longer (Hage and Harary 1996:113). Then, one backtracks until one can reach a new node by going down to the right and so forth (Hage and Harary 1996). With the depth-first search tree method, each

edge of a graph is traversed exactly twice.³⁰ This is important because returning to the original starting point guarantees that no node and no edge have been left unvisited (Hage and Harary 1996). In a depth-first search tree, “the nodes are visited in an adjacently consecutive way” (Hage and Harary 1996:113).

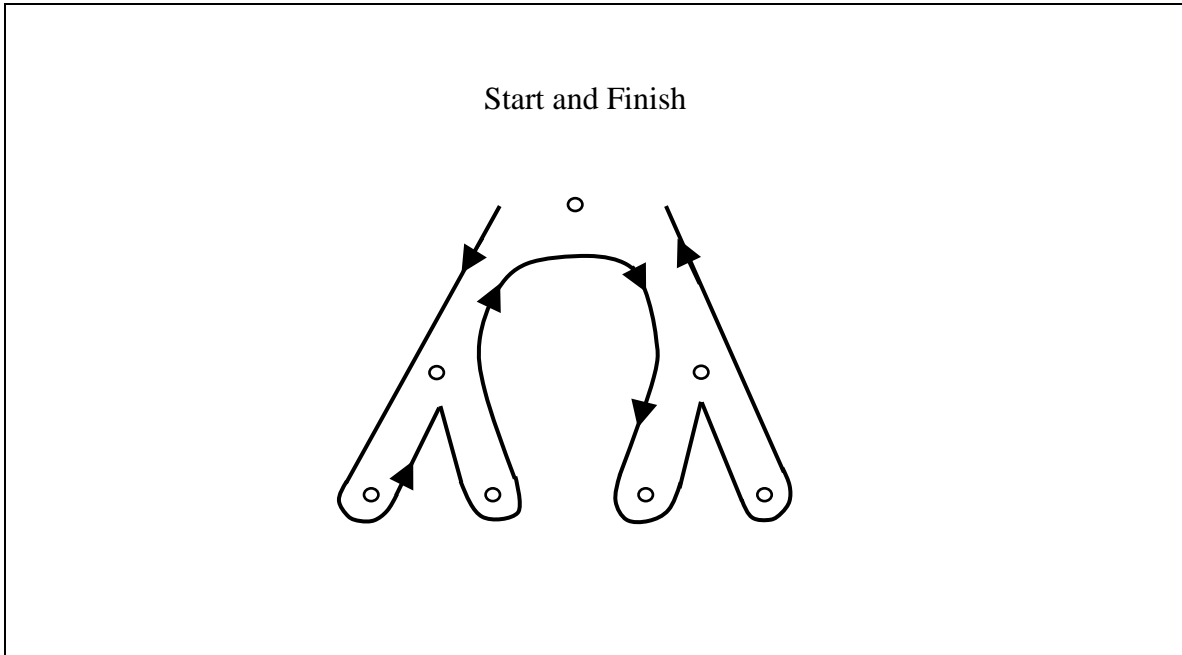


Figure 2.2. The details of a left-to-right depth-first search from Hage & Harary (1996:114).

The depth-first search tree method gives an ordered labeling of nodes. Searching conventions indicate that: (1) to search a given tree ‘T’ means to label its nodes $1, 2, \dots, p$. The search process means a visit to each node in the order of the labels $1, 2$, etc. (2) Node 1 is always taken as the root and is visited first. (3) A tree to be searched is always a rooted plane tree (Hage and Harary 1996:112). In Figure 2.3, a depth-first search of ‘ T_2 ’

³⁰ An “edge” or “branch” is the connecting line between of a pair of nodes (Hage and Harary 1996:23).

shows the ranking or labeling of the nodes of Figure 2.2 according to the depth-first search tree method.

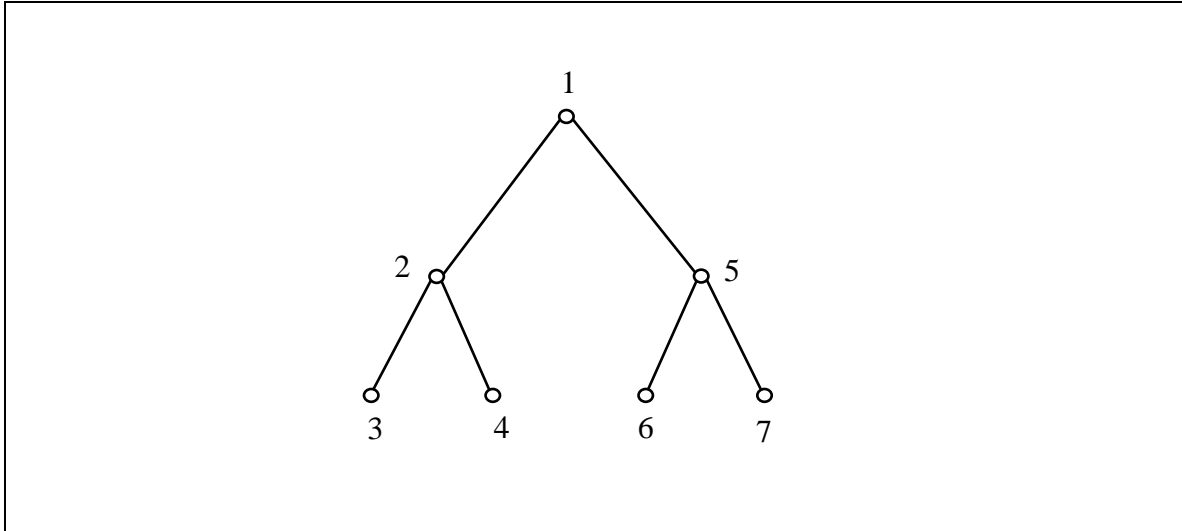


Figure 2.3. The depth-first search of t_2 from Hage & Harary (1996:113).

Hage and Harary (1996) used the left-to-right depth-first search tree method to identify rank in Polynesian status lineages. Most Polynesian lineages are patrilineal and based on primogeniture (seniority).³¹ Figure 2.4 shows Hage and Harary (1996:114) left-to-right depth-first search tree model of the conical clan in Polynesia, where rank is defined by primogeniture.³² In this graph, the root of the tree represents the founding ancestor and the nodes his descendants. The birth order of the sons of each father is from left to right, that is, the first-son is placed to the left and the second-son to the right. The founder and his descendants are ranked and labeled $1, \dots, p$ in accordance with the order in which they are first visited in the depth-first search tree (Hage and Harary 1996).

³¹ In a lineage, descent can be traced via the male line only (patrilineal) or along the female line only (matrilineal) or by choosing either the male or the female line (ambilineal) (Bates and Fratkin 2003). Some lineages trace descent by ultimogeniture, that is, through the last born child (Hage and Harary 1996).

Hage and Harary (1996)’s model of Polynesian conical clans helps to clarify how rank is identified in status lineages in general.³³ Their “search path” method consistently assigns statuses to positions in the lineage. Returning to Figure 2.3, contrary to some, the senior line, 1-2-3 is not “older” than the cadet line 1-5-6, nor is its sequence of nodes “closer” to the founding ancestor (Friedman and Rowlands 1978; Widmer 1994).³⁴ Instead, status is determined by closeness to the current highest status node. Having found how status is assigned, I now turn to the ‘lineage dynamics’ and how statuses change over time.

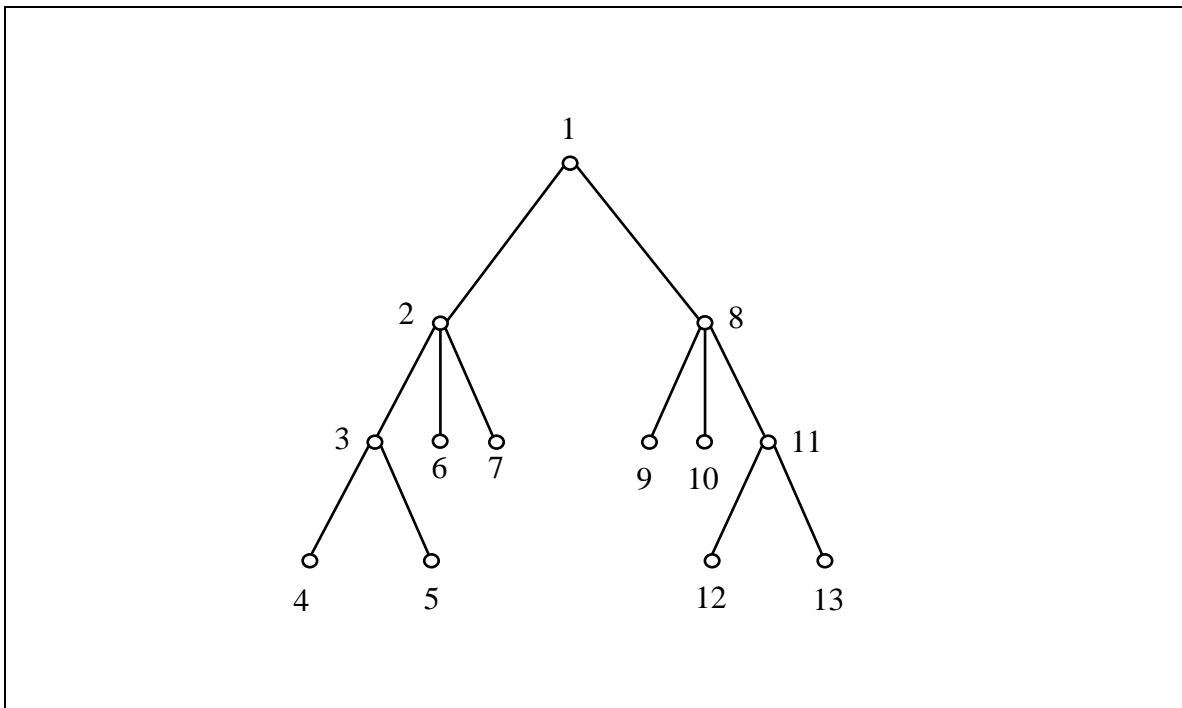


Figure 2.4. Hage and Harary’s (1996:114) model for Polynesian conical clan structures.

³³ The line by which descent is traced (i.e. patrilineal, matrilineal, or ambilineal) is theoretically irrelevant as far as the assignment of status within a lineage is concerned. Additionally, knowing the descent line does not explain how status is assigned to positions within the lineage.

³⁴ Even in contemporary society, high-status families claim to be older. That clearly, however, is untrue because *all* families descend from a common set of ancestors and are equally old.

STATUS LINEAGES INTERNAL DYNAMICS

Moving beyond Hage and Harary (1996), I present a model for status lineage that emphasizes the internal dynamic in the status lineage system. I will show that, over time, with the sole exception of individuals in the senior line, all members of a status lineage structure are downwardly mobile. Then, I show how this downward mobility contributes to the instability of the structure.

Figure 2.5 shows a three step model of a status lineage that uses the right-to-left depth-first search tree to identify rank. Following the right-to-left depth-first search, this model places the founder F at the root of the tree. Following birth order, the first-born are placed at right side forming a horizontal line while the second-born are placed below in a vertical direction. For these diagrams, vertical placement indicates relative rank.

In this model, the founder F holds the highest rank and his descendants are ranked and labeled $1, \dots, p$ in accordance with the order in which they are first visited in the right-to-left depth-first search tree. The senior line traces a horizontal line at the right side of the founder while the junior line traces a vertical line down from the founder. Over time, as the status lineage grows, more horizontal and vertical lines are added.

I now explain how the diagrams show that rank is constant for the senior line but is downwardly mobile for junior lines. Figure 2.5, step one, shows the founder F and one generation with the first-born 1 placed at the right of the founder and the second-born 2 placed below the founder. The second-born position has been enclosed by a rectangle here and in later diagrams to trace rank changes on this position.

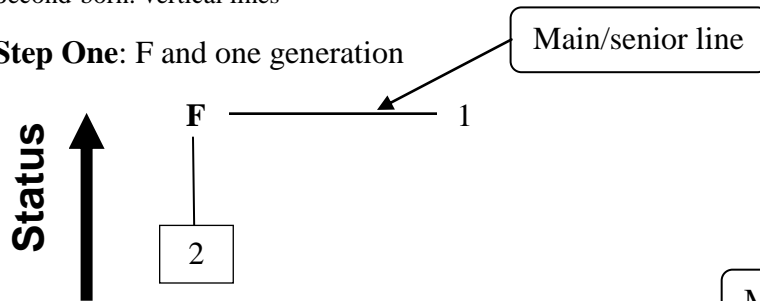
F: Founder

#: standing in relation to F

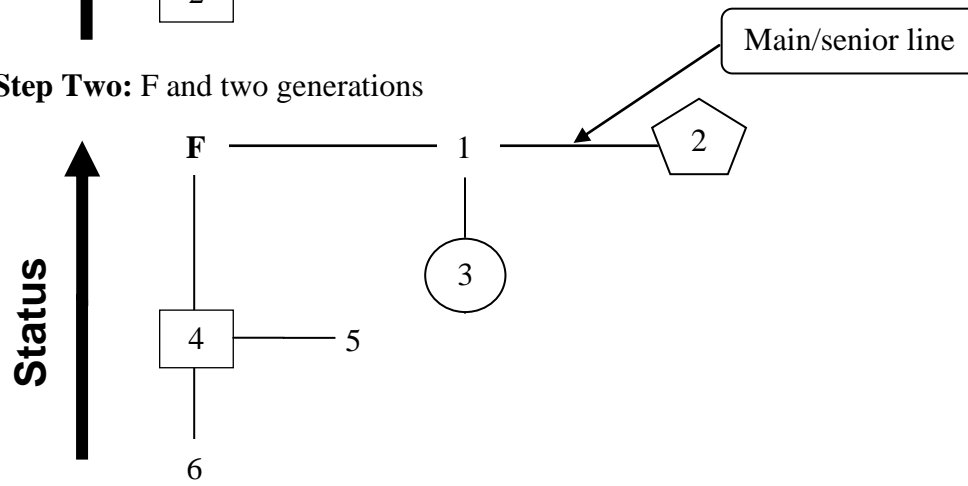
First-born: horizontal lines

Second-born: vertical lines

Step One: F and one generation



Step Two: F and two generations



Step Three: F and three generations

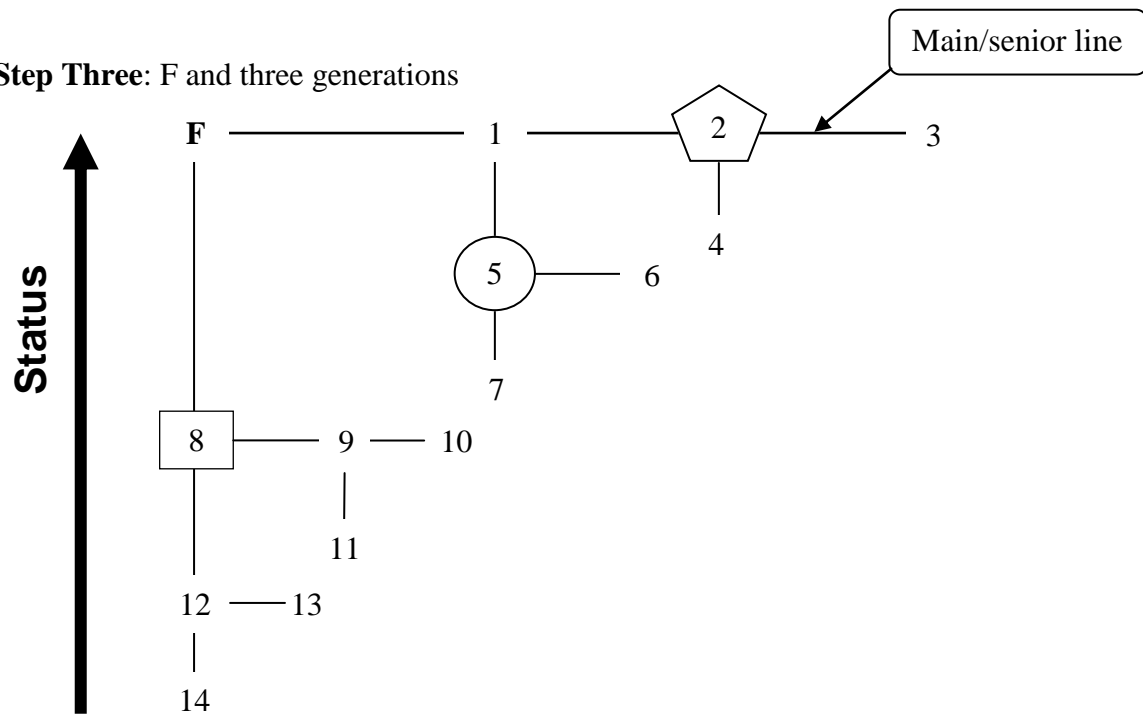


Figure 2.5. Three steps tracing ranking among senior and junior lines.

Figure 2.5, step two shows the founder F and two generations. The first-born's descendants 2 and 3 have been enclosed in a pentagon and circle respectively here and in the next diagram to trace further rank changes. Comparing step one and two, it can be seen that the senior line second generation outranks all members of the junior line. The rank of the founder's second-born, enclosed in a rectangle, has faded to 4. He has been outranked by 2 and 3, the first and second born of 1. However, the rank of the founder and his first-born are constant and always higher than any rank outside the senior lineage. Importantly, with the advent of the lineage's second generation, the status of the founder's senior child is maintained while the status of the junior child declines and with it, the rank of that junior line.

Figure 2.5, step three shows the founder F and three generations. With the addition of the third generation, 3 and 4 outrank 5 (enclosed in a circle) and the founder's second-born now number 8 (enclosed in a rectangle) and their descendants. The rank of the second-born of the founder's first-born (enclosed in a circle) has moved downward from 3 to 5, and the rank of the founder's second-born (enclosed in a rectangle) has moved down even further from 4 to 8. In contrast, the rank of 2 (enclosed in a pentagon) remains the same. With those changes, the rankings of all members of junior lines are downwardly mobile, while only the rank of the senior line has remained unchanged.

Figure 2.6 extends the analysis of Figure 2.5. While the rank of the senior line has now been constant over four generations, the rank of the founder's second-born (enclosed in a rectangle) has faded from an original position 2 to the 16th ranked position. Similarly, the rank of the first-born's second-son has faded from an original position of 3

to 9th ranked position. Again, it can be seen that, with the exception of the senior line, all members of a status lineage experience downward mobility.

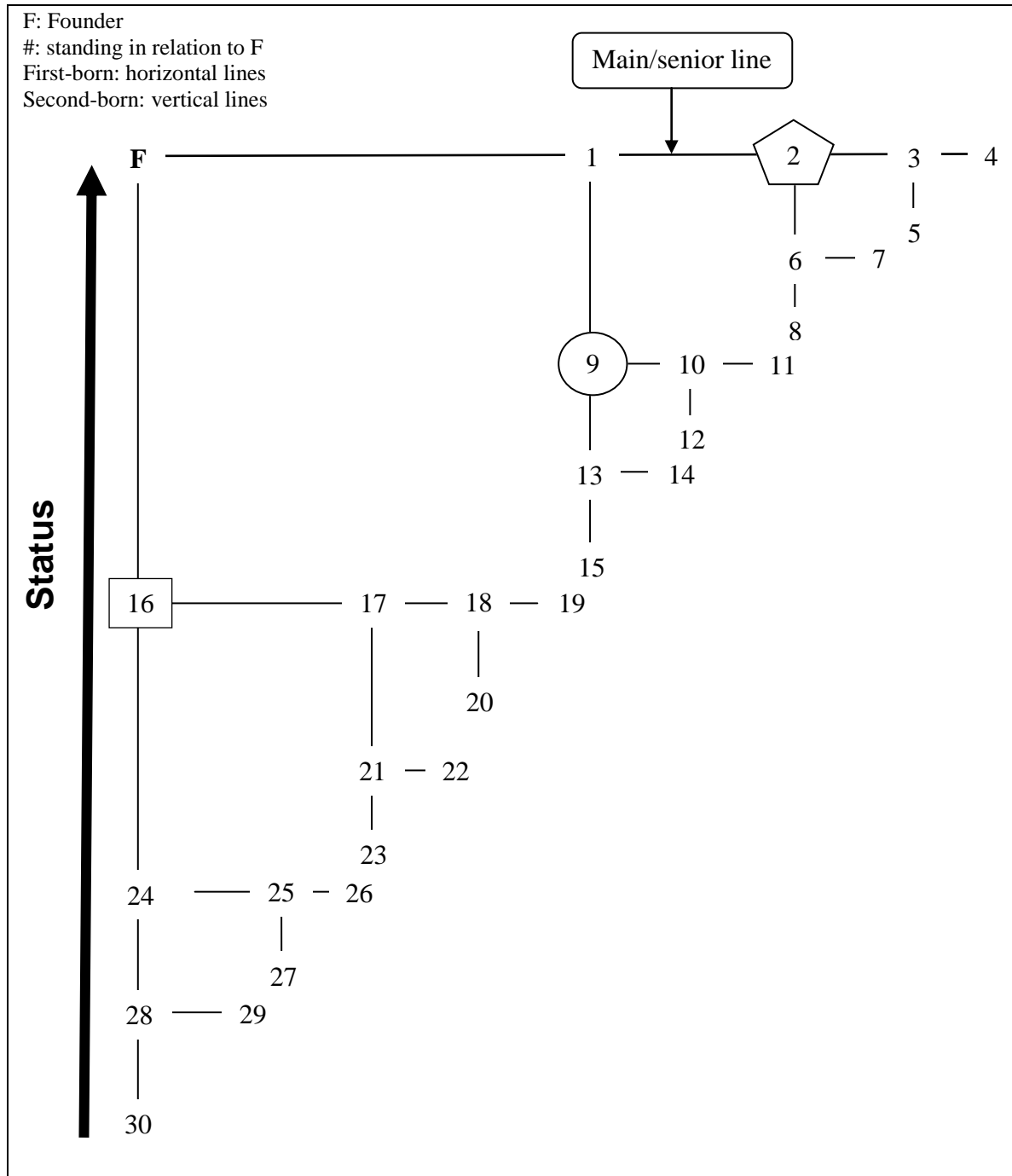


Figure 2.6. Simplified status lineage with founder and four generations showing the downward mobility of junior lines.

Because, over time, the status of all but the senior lineage declines, the status lineage structure contains the dynamic that all people in society, with the sole exception of those of the senior line, are downwardly mobile. Thus, as time goes forward, junior line members will be increasingly motivated either to modify their ancestral claims in order to improve their position in the lineage structure or to reject the structure wholly or in part. *Nevertheless, despite this built-in instability, as the status lineage system evolves, collective action problems continue to be solved.* Now, I turn to sociological theories that explain how status hierarchies may foster coordination that solve collective action problems.

STATUS STRUCTURES AND THE ORGANIZATION OF COLLECTIVE ACTION

Collective action refers to the coordinated actions of individuals toward a common goal (Hardin 1982). Examples of collective action include: 1) traditional Inuit foragers joining a seal hunting party; 2) workers organizing a labor union to seek benefits and 3) community members serving as volunteer firefighters. While in cases 1 and 2, successful organization of collective action results in individual goods that benefit each actor, in case 3, successful collective action results in collective goods that benefit the entire group. Whatever the outcome, organization is key to the success (e.g. the achievement of the collective good) of any collective action. Central to that success is coordination and individuals' contribution or *provision* toward the goal (Hardin 1982:19). When this contribution is onerous for actors (e.g. resources, time, labor, effort, etc.), they may fail to organize. It is in that failure that collective action problems arise (Hardin 1982).

One of the most persistent collective action problems is coordination (Simpson et al. 2012). Coordination problems arise in any collective action scenario where actors benefit only if sufficient numbers of others also act (Chwe 2001). That is, a minimum number of actors is necessary to reach the collective goal, a threshold that may be difficult to reach (especially in the early stages of collective action) (Oliver et al. 1985). Known as the start-up problem, it is a widespread obstacle in collective action situations (Macy 1990). The start-up problem refers to actors' reluctance to be the first to contribute toward the collective goal (Marwell and Oliver 1993).

Free riding is defined as the actors' withholding of contributions to collective efforts (Olson 1965). Free riding arises when individuals maximize profit by not contributing to the collective good, and instead choose to free-ride on the contributions of others (Olson 1965). The presence of many free riders hinders collective efforts and, as a result, the collectivity is worse off (Simpson et al. 2012). This strain between individual and group interests represents a social dilemma, in that "what is rational at the individual level, in the narrow economic sense, is irrational for the group as a whole" (Simpson et al. 2012:4).

The establishment of a sanctioning system fostering cooperation helps to solve collective action problems. However, the use of sanctions may result in the second-order free-rider problem (Oliver 1980, 1993). Maintaining a sanction system creates itself a new collective action problem in that "its benefits can be enjoyed by all members regardless of their contribution to its provision (Yamagishi 1986:110)."

Recently, sociologists have suggested that status differentials may serve to organize collective action (Willer 2009; Simpson et al. 2012). That is, status differences

my help to solve social dilemmas. Willer (2009) documents how newly evolving status hierarchies can contribute to solve collective action problems. For Willer (2009), a solution to the collective action problems is based on status as a selective incentive for contributions; that is, status is a reward. Actors who contribute to the collective good gain high status which, in turn, gives them influence (Willer 2009). Members who contribute large amounts to the collective action are granted greater benefits such as higher status. These rewards encourage greater contributions to the group in the future. Moreover, those who received higher status for their contributions subsequently contributed more and viewed the group more positively. Indeed, higher contributors to the collective action “*earned higher status, exercised more interpersonal influence, were cooperated with more, and received gifts of greater value*” (Willer 2009:23 [italics original]). In summary, Willer’s findings show that the allocation of status to contributors shapes “*group productivity and solidarity, offering a solution to the collective action problem*” in newly evolving status hierarchies (2009:23 [italics original]).

Extending the work of Willer (2009), Simpson et al. (2012) focus on how already existing status hierarchies help to solve the collective action problem by coordinating actors’ efforts. Status hierarchies organize behavior by solving the start-up problem. Status differences lead to initiation of collective action by high status actors. This in turn, helps to solve the free-rider problem, as high status actors influence low status actors to contribute at similarly high levels to the collective action (Simpson et al. 2012).

Here is the effect of status hierarchies on influence processes that coordinate collective action. Collectively oriented actors assess the input of other members in the successful completion of a task (Simpson et al. 2012). Actors who possess the high state

of a characteristic are expected to increase the probabilities of success in the task outcome (Berger et al. 1977; Simpson et al. 2012). Central for group success is taking a “*proactive rather than a reactive stance* towards the achievement of the collectively valued outcome” (Simpson et al. 2012:10 [italics original]). A proactive attitude of behavior is associated with high status actors (Conway, Pizzamiglio and Mount 1996; Simpson et al. 2012). Research in status characteristic theory has tied proactive profiles with both cultural beliefs about status and expectations for the performance of higher versus lower status actors (Wagner and Berger 1997; Berger, Ridgeway, and Zelditch 2002).

Following Berger et al. (1972, 1977), Simpson et al. (2012) suggest that status differences differentiate (1) action opportunities, (2) performance outputs, (3) evaluations of performance outputs, and (4) influence. High-status actors tend to initiate the organization of collective action and their actions are more favorably evaluated than those of lower-status actors (Simpson et al. 2012). Thus, high-status actors are able to influence lower-status actors enhancing group coordination (Simpson et al. 2012).

Status differentiation serves as an “endogenous solution to the start-up problem in collective action” (Simpson et al. 2012:13) in part because high status actors tend to set group’s agenda (Bachrach and Baratz 1962). Status differences promote initiation of collective action by higher status actors, thus, solving the collective action’s start up problem. Higher status actors are more likely to initiate a group’s collective action than low status actors. High-status actors also tend to have greater influence over group members than lower-status actors (Simpson et al. 2012). Lower status actors tend to follow higher status actors, thus facilitating organization. In contrast, low status actors

have less influence on group's members, thus, less effective organization (Simpson et al. 2012). Therefore, the presence of status differences enhances group organization.

In summary, it is very unusual for any set of people (i.e. collectivity) not to need organization that allows individuals to work together to achieve their goal. Only if organizational mechanisms function, is the goal achieved and the social dilemma solved. Because the status lineage organizes, it solves the social dilemma by providing the mechanism that coordinates along with minimizing the start-up and free-riding problems.

DISCUSSION

Organization through status lineage offers a competitive advantage over less effectively organized groups that might be selected in an evolutionary process. As Simpson et al. (2012) had shown, status solves collective action problems without producing second-order-problems such as freeriding. In these systems, high status members, including the chief, can initiate collective action thus solving the start-up-problem. Moreover, high status members influence lower status members. Therefore, status lineages will be more effective in achieving collective goals than societies which lack effective hierarchical structures.

Despite of the efficiency in solving collective action problems, as any status lineage grows, status differences increase suggesting that the structure becomes increasingly unstable. Three issues reflect instability: 1) as ranks proliferate, rank identification becomes increasingly difficult, and lower-status actors may seek to enhance their status by manipulating genealogies; 2) lower-status actors may defect from the status lineage to establish a new status lineage structure; and/or (3) internal conflict may

alter the status lineage. While genealogical manipulation upsets the status lineage structures, the defection of junior lines destabilizes the structure. These three endogamous factors within the status lineage spur changes that may contribute to fundamental social change including the rise of the state.³⁵

I suggest that in order to stabilize the status lineage system and also to reverse the effects of the above mentioned factors, other mechanisms of domination and social control come to be adopted.³⁶ For example, providing the possibility of upward mobility to lower-status members who contributed to the collective action, fosters cooperation and deters defection. However, this internal measure may also foment competition within the system, competition that may prompt higher-status members to seek support from individuals outside the status lineage system. If so, a rupture of lineage ties occurs.³⁷ Status lineage systems, that are characteristic of chiefdoms, may have experienced similar structural changes that eventually lead to the rise of the state. The following chapters explore those possibilities.

In summary, chiefdoms are widely distributed and characterized by status lineage structures, structures that solve collective action problems. I presented a model for chiefdom development that analyzed how instability is embedded in status lineage structures. That is to say, how they contain inherent potentialities for transformation. I showed how status lineage structures contain an internal dynamic such that, over time, all

³⁵ For Goldman “some social structures contain within themselves inherent potentialities for change” (1957:389).

³⁶ In the chapters to follow, I will seek to explain this and other mechanisms that may help stabilize the status lineage system.

³⁷ As in bureaucracies, mobility is an important factor fostering obedience (Willer 1987, 1999; Chacon 2009). Allowing upward mobility (i.e. achieved status) could be the first step toward building an administrative structure that solves collective action problems efficiently.

members of a status lineage structure, with the sole exception of those of the senior line, are downwardly mobile. This downward mobility can destabilize the status lineage structure. If so status lineages could produce internal structural changes that contribute to increased social complexity.

In the chapter that follows, I will analyze how the increasing instability of status lineage structures may prompt the adoption of further social control mechanisms that, in addition to status lineage structures, may solve larger and larger collective action problems in an expanding chiefdom.

CHAPTER 3

CHIEFDOMSHIP AND THE SOCIAL DYNAMICS OF STATUS LINEAGE STRUCTURES

This chapter seeks to understand how additional social structures might help to stabilize status lineages. To explain these social dynamics, I put forth a model drawn from social-psychological theories. While many of them have been tested in the lab, these theories were not developed for explaining the social dynamics of chiefdoms. Nonetheless, I hope that their incorporation into this new model will enhance our understanding of chiefdom social structures while broadening the utility of those theories by expanding their range of application. This is of methodological significance since, like the ‘hard sciences,’ this study combines experimental and non-experimental research to understand social phenomenon (Willer and Walker 2007).

The concepts of ‘power’ and ‘influence’ are fundamental in sociology (Willer 1999). Elementary Theory distinguishes ‘power’ from ‘influence’ while recognizing the impact of the latter on the former. While power is defined as “the structurally determined potential for obtaining favored payoffs in relations where interests are opposed,” influence refers to “the socially induced modification of a belief, attitude, or expectation effected without recourse to sanctions” (Willer et al. 1999:230-231). Using these definitions for ‘power’ and ‘influence’ bridges Elementary Theory and Status Characteristic Theory so that the two can be applied together (Willer 1999). Elementary Theory, a multi-level theory, offers explanations and predictions for actors’ interactions

within structural conditions (Willer and Anderson 1981; Willer et al. 1999), Status Characteristic Theory provides explanations and predictions on patterns of behavior among status differentiated actors within a group (Berger et al. 1966; Berger et al. 1972; Berger et al. 1977).

Linking Elementary Theory and Status Characteristic Theory, both Willer et al. (1999) and Thye (1999, 2000) connect status processes to power. Status influence theory offers an account of how influence is transformed into power, even in the absence of structural conditions of power (Willer 1999). Status value theory explains how an actor's status affects the value of his/her exchangeable items (Thye 1997, 1999, 2000).

The model put forth here consist of three components: (1) status influence, (2) indirect influence, and (3) status value.³⁸ Here I analyze how status influence is converted into power relations when high-status actors influence low-status actors' beliefs or expectations. Differential expectation results in actor's differential payoff, with high-status actors receiving larger payoffs (Willer and Anderson 1981; Willer 1999; Willer et al. 1999). Indirect influence affects both the setting of a normative system and the social exchange system.³⁹ Actors who set the agenda of the normative system and its sanctions can change the beliefs, attitudes or expectations of others. Thus, high-status actors exert indirect influence by (a) setting the social norms and their sanctions (both symbolic and material) and by (b) their capacity to influence lower-status actors to sanction third parties that have broken social norms. By altering the sanctioning of the normative system, indirect influence also affects social exchange systems. High-status actors can

³⁸ Status value refers to the worth, self-esteem or prestige that result from possessing an object or characteristic (Berger et al. 1972; Thye 1999, 2000).

³⁹ I define normative system as the set of informal norms enforced by the actors using either positive or negative sanctions.

influence, directly and indirectly, low-status actors so that low-status actors sanction the deviant. Finally, status value leads to power being exercised in two distinct ways: (1) by differentiating items' value and (2) by fostering resource accumulation.

I present the argument in three sections. The first section provides the theoretical background that summarizes Elementary Theory and Status Characteristic Theory, conceptualizations pertaining to this research. In the second section, I will introduce the Social Dynamics of Status System Model which aims to enhance the understanding of the internal structural processes of chiefdoms. Finally, in the third section, I will discuss how the combined effect of the accumulation of influence, power through influence, and resources, in the hands of few actors may eventually lead to the breakdown of the status lineage system and thus, sets the stage for the rise of the state. Now, I turn to an overview of the social-psychological theories on which this model is based.

BACKGROUND

Elementary Theory Overview

Elementary Theory (hereafter ET) is a theory of structural processes that grounds its inferences in the interrelation of actors' interests and structural conditions (Willer and Anderson 1981; Willer 1987, 1999). It provides basic concepts by interpreting network points and arcs, and derived concepts by integrating basic concepts (Willer 1987; Willer et al. 1996). In ET, sanctions are the "elements out of which actors, relations, and structures are composed" (Willer 1999:24). A sanction is a social action transmitted by one actor and received by another that alters the preference state of the receiver of the

sanction (Willer and Anderson 1981; Willer 1999). Generally, “actors prefer positive sanctions to no sanctions and no sanctions to negative sanctions” (Willer 1999:24).

In Figure 3.1, A and B represent actors connected by arcs which symbolize the “acts by A oriented to B” (Willer 1999:24). Actor A is the only one who can decide if the sanction is sent. The receiving of a sanction is expressed by a sign next to the actor and only “arcs with reception signs are sanctions” (Willer 1999:24). Sending and not sending a sanction reflect the differentiated states.

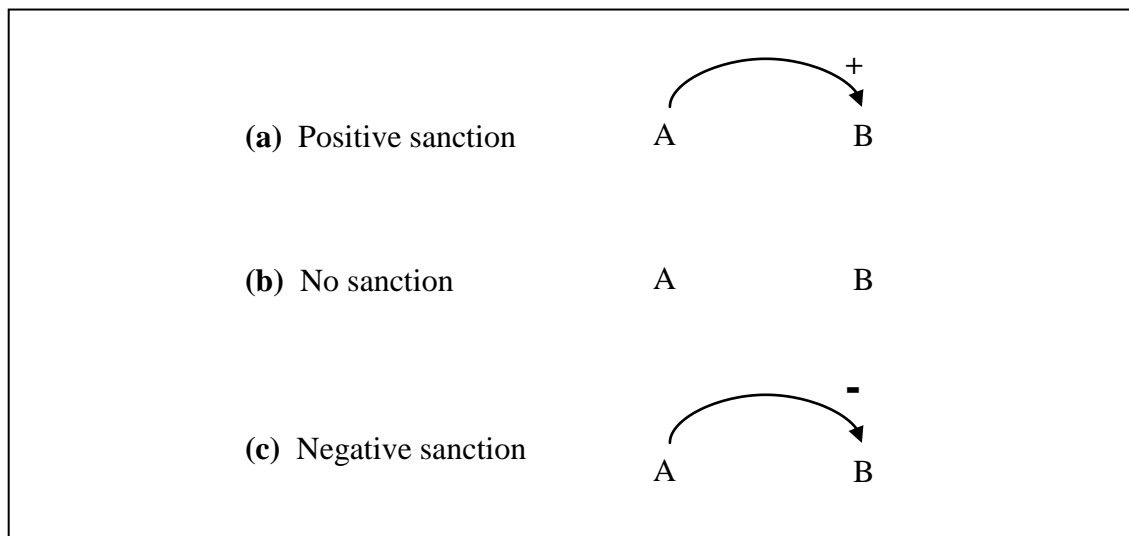


Figure 3.1. Types of Sanctions (based on Willer 1999).

Actors' preference states can be increased or reduced either by sending or stopping a sanction. A “sanction always links an objective act with a subjective effect” allowing complex social relations like exchange, conflict, and coercion to be identified (Willer 1999:25). In social relations, sanctions are paired to reflect the effect of actors' decisions on each other's preference state (Willer 1999).

Figure 3.2, shows complex relations such as conflict, coercion, and exchange, where actors are paired by connected social acts with flows of resources and/or information. The positive sanction included in the coercion and exchange “increases the preference state alteration of the actor receiving the sanction flow” while a negative sanction “reduces the preference state of the actors receiving the sanction flow” (Morris 1981:226). Conflict relations are composed of two negative sanctions. Coercion is composed of one positive and one negative sanction while exchange relations are composed of two positive sanctions. Since each actor’s decision affects the other’s preference state, this “separation of action and preference effect” is called “the joint action problem” (Willer et al. 1996:66).

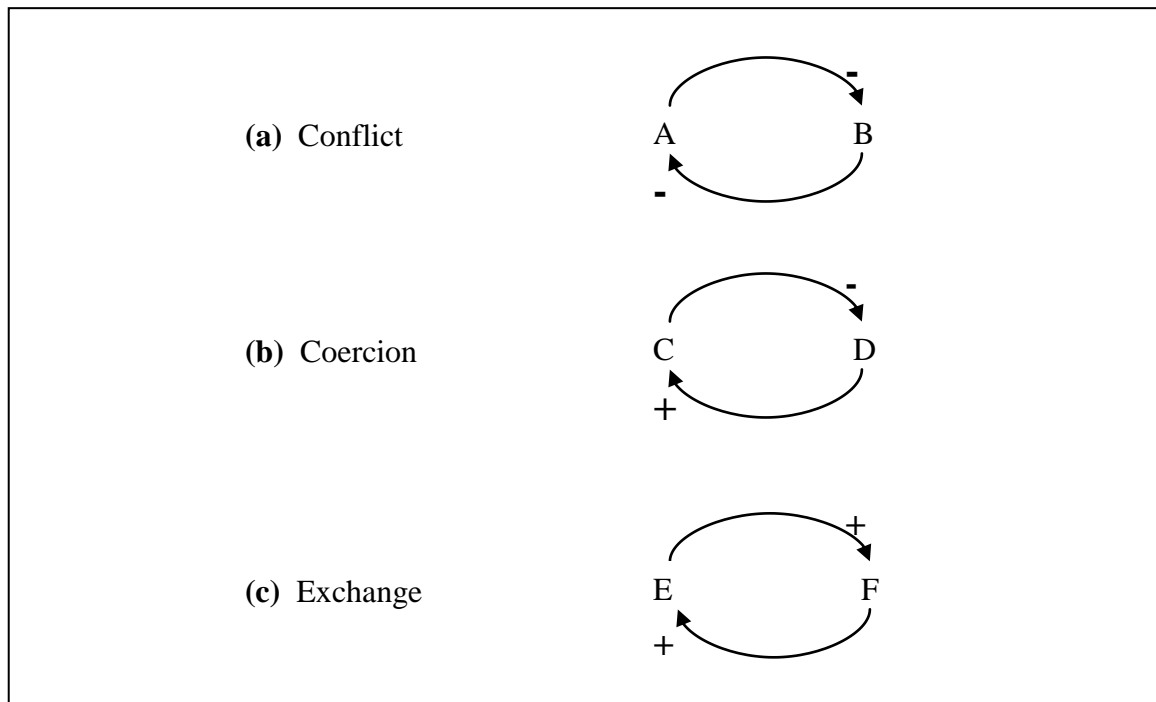


Figure 3.2. Three Types of Social Relations (based on Willer 1999).

In ET, actors' decisions and actions within the modeled structures are produced by applying two principles and resistance equations (Willer and Emanuelson 2006).

Principle 1: All social actors act to maximize their expected preference state alteration.

This principle states that social actors act rationally (Willer 1999). The actor's "best choice of action depends on the action he expects the other to take" (Schelling 1970:86). Since actors seek their own interests, their "opposed but complimentary interests" prompt the generation of preference systems (Willer et al. 1996:66). Then, actors generate "social rules which are offers, orders, threats or prices" in order to solve their joint action problems (Willer et.al., 1996:66).

Value systems can be expressed quantitatively as function of flows with the incorporation of quantitative sanction flows (Willer 1999). When sanctions flow and/or resources pools are divided, actors' preference state alterations will have a numerical value (Willer 1999). Thus, for any actor i , the value of the preference state alteration is P_i where P is the actor's payoff.

First Law: $P_i = v_{ri} x_{ri} = v_{ti} x_{ti}$

ET's first law is the formula for the payoff of an actor. An actor's payoff, P_i must take into consideration both, the receiving r and the transmission t of a sanction. Thus, the payoff formula includes the value per unit of the flow v and the quantity of any sanction flow x when receiving r and when transmitting t of a sanction. This law was used to construct the matrixes of Figure 3.3.

Second Law: $R_A = \frac{P_{A\max} - P_A}{P_A - P_{A\text{con}}}$

The resistance of an actor A is defined as the ratio of an actor's interests where $P_A \max$ is the A's best payoff for a given relation and $P_A \text{ con}$ is A's payoff at confrontation, when actors do not agree on a settlement (Willer 1999).

Principle 2: $R_A = \frac{P_{A\max} - P_A}{P_A - P_{A\text{con}}} = \frac{P_{B\max} - P_B}{P_B - P_{B\text{con}}} = R_B$

Principle 2 of ET states that agreements occur at the point of equal resistance for undifferentiated actors in a full information system. Thus, for two actors in negotiation, the point of agreement is met when their resistances are the same.

Let us assume that actors A and B are negotiating 10 resources. In this case, for both actors, P_{\max} is 9 units and P_{con} is 0. Since actors' payoff are linked, then $P_A = x - P_B$ and $P_B = x - P_A$ where x is the quantity of resources in negotiation. Thus,

$$R_A = \frac{9 - P_A}{P_A} = \frac{9 - (10 - P_A)}{(10 - P_A)} = R_B$$

$$P_A = 5$$

Hence, for two-actor isolated relations $P_A \max$ and $P_A \text{ con}$ are constant through the interaction. Importantly, the application of ET's resistance equations is not restricted to isolated relations (Emanuelson 2004).

Figure 3.3 shows how in two social relations, the payoff of two actors varies quantitatively. Figure 3.3a1 shows the payoff matrix of the exchange relation. A sanction transmitted by A represents a loss of one to A and a gain of one to B. While for each

sanction transmission by B is costless, it gives a payoff of ten to A. If B has one sanction to transmit and x is the number of sanctions transmitted by A then, the payoff matrix for the exchange relation follows the pattern of Figure 3.3a2 where the P_A and P_B varies inversely for a range $1 \leq x \leq 9$. However, if A and B do not reach an agreement, then the payoff at confrontation for both actors is zero.

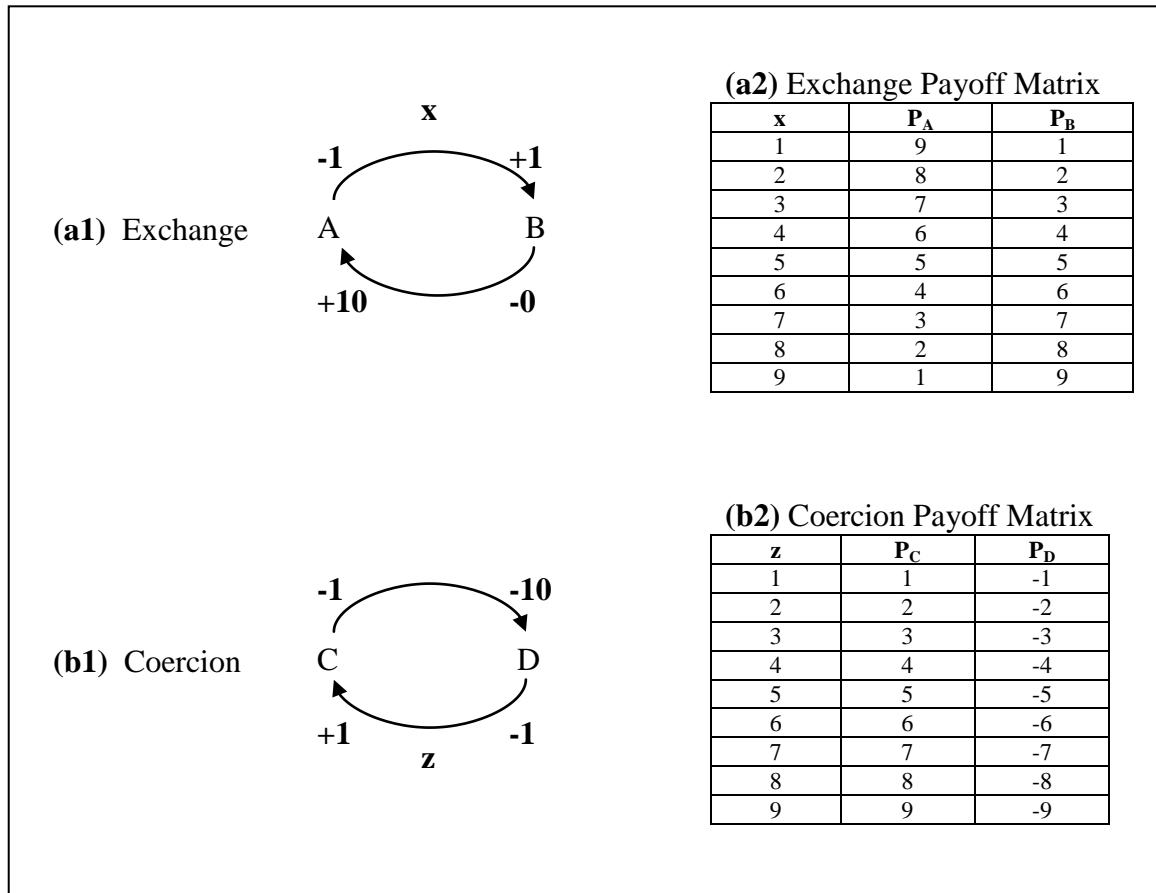


Figure 3.3. Two Types of Social Relations and their Respective Payoff Matrixes (based on Willer 1999).

Figure 3.3b1 shows the coercive relation. When C transmits a negative sanction to D, it costs one unit to C however, C gains one from each positive sanction transmitted by D. On the other hand, when D receives a negative sanction from C, D losses 10, however,

when D sends one sanction to C, it only costs one unit to D. In coercive relations, the issue is how many points C can extract by threatening D. Thus, if D agrees to send a number of positives to D, then, D does not transmit the negative sanction. Therefore, z is the number of positive sanctions transmitted by D upon agreement. Upon agreement, the payoff matrix for the coercive relation then follows the pattern of Figure 3.3b2.

Importantly, P_D is always negative while P_C is always positive. However, at confrontation, C sends the negative sanction thus, $P_C = -1$ while $P_D = -10$.

Status Characteristic Theory Overview

Central to Status Characteristic Theory (hereafter SCT), is the emergence of influence due to status (Berger et al. 1966; Willer 1999; Thye et al. 2006). SCT argues that performance expectations link valued status characteristics to hierarchical, status-based structures of power and prestige (Berger et al. 1972; Berger et al. 1977; Berger et al. 1980). SCT puts forward two types of status characteristics (SC): specific (C) and diffuse (D). Both C and D characteristics possess multiple states which are differentially evaluated (e.g. advantageous or disadvantageous) according to cultural parameters.⁴⁰ While, C characteristics only have specific expectation states associated to specific performance capacities and abilities (e.g. narrow ability or skill), D characteristics have both specific expectations (e.g. males are presumed to be better in mathematics) and general expectations (e.g. males are presumed to be more intelligent than females) (Berger et al. 1972; Berger et al. 1977; Berger et al. 1980, 2002).

⁴⁰ For example, in American culture, race, gender, age, education, and attractiveness are D characteristics while, a personal skill, such as math ability or language efficiency, is a C characteristic (if that skill is considered to be highly suited for the completion of a group's task).

SCT claims that “when the members of task groups are differentiated in terms of status characteristics external to the task situation, this differentiation determines the observable power and prestige order [OPPO → status indicators] in the group” (Berger and Webster 2006:271). That is, small task-oriented groups reflect the hierarchical structures of the societies from which they have been selected. According to SCT, when status differences occur, low-status actors modify their behavior to conform with advice of high-status actors since that consultation is expected to be competent and beneficial to the group (Willer et al. 1999).

Linking theoretical conceptualizations from ET and SCT, two formulations that connect status processes to power have been developed: (1) First, status value describes processes through which status affects power via the value of actors’ possessions (Thye 2000); status-value is defined as honor or esteem based on the possession of a characteristic or an object (Berger et al. 1972; Thye 1997, 1999, 2000).⁴¹ (2) Second, status-influence connects variations in status to changes in actors’ beliefs and expectations (Willer et al. 1999). These formulations relate influence and power effects (Walker et al. 2000).

Actors’ status-value characteristics affect the status-value of their exchangeable items/possessions (Thye 1999). The status-value of items affects their distribution in exchange because of their limited number. Therefore, the items of actors who possess positive status characteristics (e.g. being a member of the senior descent line in a status lineage) would be more valuable in exchanges.⁴² It follows that high-status actors have

⁴¹ See Berger et al. (1966) and Berger and Webster (2006) for detailed descriptions of SCT.

⁴² The application of Thye (1999)’s status-value theory does not negate the existence of items with intrinsic value that may increase the status of the individual who possess them.

advantages in exchanges with lower status actors (Thye 1997, 1999, 2000; Walker et al. 2000).⁴³

The theory of status-influence links status differences to changes in actors' beliefs that generate power effects. It asserts that high-status actors can change the beliefs of (influence) low-status actors more than low-status actors can change the beliefs of high-status actors. One measure of belief change is its effect on exchange ratios. Through their impact on belief, high-status actors should benefit more than low status-actors (Walker et al. 2000). That is to say, when actors of different statuses interact, influence produces power exercised through status-based expectancies even in the absence of the structural conditions of power (Willer 1999).⁴⁴ In summary, the linking of ET and SCT as well as status influence, and status value conceptualizations provide a foundation that can help to understand the internal social dynamics of status lineages as it will be shown in the next section.

THE SOCIAL DYNAMICS OF STATUS SYSTEM MODEL

The Social Dynamics of Status Systems Model is comprised of three components: (1) status influence, (2) indirect influence, and (3) status-value. The following sub-sections explain how each of those components work.

⁴³ See Walker et al. (2000) for a detailed description of status value theory's assumptions.

⁴⁴ STC provides expectation advantage coefficients that capture the biasing effect of status-based influence (Berger et al. 1977, 1992; Willer et al. 1999). In order to integrate this biasing effect with the resistance model, Willer et al. (1999) followed Balkwell's (1991) method for standardizing the presumed impact of expectation advantage on a 0-1 scale.

Status Influence to Power

Differential status generates influence relations that are transformed into power relations in the following way. Status affects the resistance of exchanging actors by altering the key parameters, P_{max} , the most preferred state for an actor and P_{con} , the least preferred state at confrontation (disagreement). It follows that any high-status actor can shift the point of agreement with any low-status actor by influencing that actor's P_{max} or P_{con} or both. That is, when actors of differential status interact, influence produces power through status-based expectancies. This differential expectation translates into actors' differential payoff (Morris 1981; Willer 1999; Willer et al. 1999).

Consider this example where a low-status actor believes that the high-status actor has alternative offers and thus, s/he could be excluded (Willer 1999). For example, influence transforms into power when in a high-value housing area, such as New York, a seller (high-status actor) claims to have multiple offers for a property, since the prospective buyer's chances of losing the deal appear to be high, the potential buyer (low-status actor) raises his/her offer. In this case, the seller has exercised power via influence, by leading the prospective buyer to believe that s/he can be excluded.

Contrastingly, in a low-value housing area, where there is an abundance of properties to choose from, the potential buyer (high-status actor) makes an offer that is below the asking price of the property claiming falsely that s/he has equally attractive alternative exchanges. To avoid being excluded from the deal, the seller (low-status actor) reduces the asking price. In this case, the potential buyer has exercised power via influence. It follows that 'power through influence' requires that low-status actors believe that high-status actors have 'real' alternatives. Thus, influence is transformed into power when

high-status actors change low-status actors' beliefs, this in turn results in higher payoff for high-status actors (Willer et al. 1999).⁴⁵

In status lineage systems which are characterized by downward mobility, over time there will be more a more differential statuses, increasing status influence, and consequently, greater power differences. These power differences will eventually affect an actor's payoffs and, as time goes on, what actors accumulate. The increasing status differences also impact the structure of normative control as is shown below.

Indirect Influence

Status differences also generate indirect influence. Indirect influence is defined as the socially induced change of a belief, attitude or expectation achieved by exercising greater control on the normative system and its sanctions. Indirect influence is reflected in high-status' actors superior control of social norms and their sanctions both symbolic and material (Willer 1999). Indirect influence is reflected in the capacity of higher-status actors to influence lower-status actors to sanction third party actors who the higher-status actors claim have broken the social norms. The following sub-section addresses how indirect influence may affect the setting of the normative system and how high-status actors may benefit from the enforcement of sanctions (Bachrach and Baratz 1962).

Indirect Influence and Normative Control

Social norms, whether formal or informal, prescribe or proscribe certain actions (Axelrod 1986; Ellickson 2001; Voss 2001). Social norms are "diffusely enforced by third parties

⁴⁵ See Willer (1999) for actors' preference states and beliefs.

other than state agents by means of social sanctions” (Ellickson 2001:35). Therefore, social norms are coercive in nature because actors fear the reception of negative sanctions and/or not receiving positive sanctions.⁴⁶

Social norms arise because the norm’s content generates benefits for some actors (Voss 2001).⁴⁷ That is, social norms develop and are maintained when “they promise to bring about efficiency gains to the beneficiaries” (Voss 2001:110).⁴⁸ As such, those who develop and maintain the norms also control agenda setting (Bachrach and Baratz 1962). In status lineage systems, high-status actors are more influential in setting the type of behavior to be sanctioned. Interestingly, even unpopular norms may be enforced by actors who do not believe or support them; which reflects the coercive nature of a normative system (Willer et al. 2009).

According to Voss (2001), social norms arise among rational actors in situations of a prisoner’s dilemma under the following conditions: (1) Norm deviations are easily and immediately detected. This condition can be more easily met in small groups or in simple societies than in large groups. (2) The beneficiaries use appropriate indirect or direct sanctions. (3) Sanctioning is costless or there is a sufficiently long shadow of the future. Costless sanctioning is “crucial if one accepts the rationality criteria of the credibility of threats” (Voss 2001:125). In regards to the shadow of the future, the expectation of recurrent interaction in social networks favors sanctioning. Also, compact social networks are more effective in promoting norms of cooperation than loose social structures (Voss 2001). (4) The enforcement of norms is based on the assumption of

⁴⁶ See Horne (2009) for similarities regarding the coercive nature of norms.

⁴⁷ These actors are called beneficiaries.

⁴⁸ But see Willer et al. (2009) on unpopular norms.

common cultural beliefs (Voss 2001). These conditions are present in status lineage structures.

For Willer et al. (2002:95), “status orderings resolve the second-order free rider problem without producing higher order problems.” According to Willer et al. (2002):

Normative sanctioning to enforce contributions to the collective good benefits each group member. Those who sanction free riders, because they further cooperation, will gain higher status than those who do not. Thus, over time, the status order will come to place those who enforce norms above those on whom norms are enforced. Those who neither enforce nor break norms fall in the middle of the order. It follows that, when standing in the status order is valued, norms will be enforced. For status orders to resolve the second order free rider problem, standing in the order must be continually achieved. Therefore, those with high status will sanction free riders or they will fall down the status order below those who do. With group members reordering status hierarchies as needed to correspond to members’ activity, the administration of second order incentives is either free or nearly so and always distributed throughout the group. Therefore, this solution to the second order free rider problem bypasses the infinite regress to higher level problems while asserting that status orders offer ongoing coordination for group activity. (P. 95)

Taking into consideration arguments made by Voss (2001), Willer et al. (2002) and Willer et al. (2009), it follows that in status lineages high-status actors influence the working of the normative system more than do low-status actors and, thereby, set agendas (Bachrach and Baratz 1962) that benefit them at the expense of low-status actors. Moreover, even when actors do not themselves believe in the norms being enforced, they may want to maintain valued relationships with high-status actors and thus, will enforce the norms.

In summary, indirect influence affects over whom a normative system exercises power. Social norms facilitate the control of a relatively small sized population where

sanctions are relatively costless. In these societies, the shared cultural beliefs and the constant interaction of their members help to detect and sanction norm breakers. In status lineages, high-status actors benefit from their influence in the setting of the normative system while middle- and low-status actors enforce the system to foster positive sanctions. Therefore, the normative system helps high-status actors maintain their status position in the system. Moreover, indirect influence also affects the social exchange system as it will be explained next.

Indirect Influence in Social Exchange Systems

In this section, I show how social exchange systems and their associated systems of social control can, in status lineage structures, come under the control of high status actors. To do so, I first review the workings of social exchange systems and how they are coercively enforce and then, connect their workings to influence following from the lineage structure.

As indicated in Figure 3.4a., in a social exchange relationship two actors transmit positive sanctions and that transmission is not a loss for them (Willer 1985, 1999). Thus, in a social exchange, the flow from A to B is a gain to B and also to A. Conversely, the flow from B to A is a gain to B and to A (Willer 1985). While in social exchange, flows go back and forth in the form of items and labor, this exchange is not governed by rules of reciprocity since no loss occurs, thus no balancing is required.⁴⁹ For example, most parents gladly care for their children without expecting reciprocity from them. Moreover, social exchange is characteristic in friendships where actors gladly help each other as an

⁴⁹ See Willer (1985) regarding reciprocity and social exchange relations.

expression of their affection/kindness for one another.⁵⁰ By contrast, when actors find themselves in economic exchange relations (see Figure 3.4b), balancing is required; their interests, and thus their interactions, are opposed (Willer 1985).

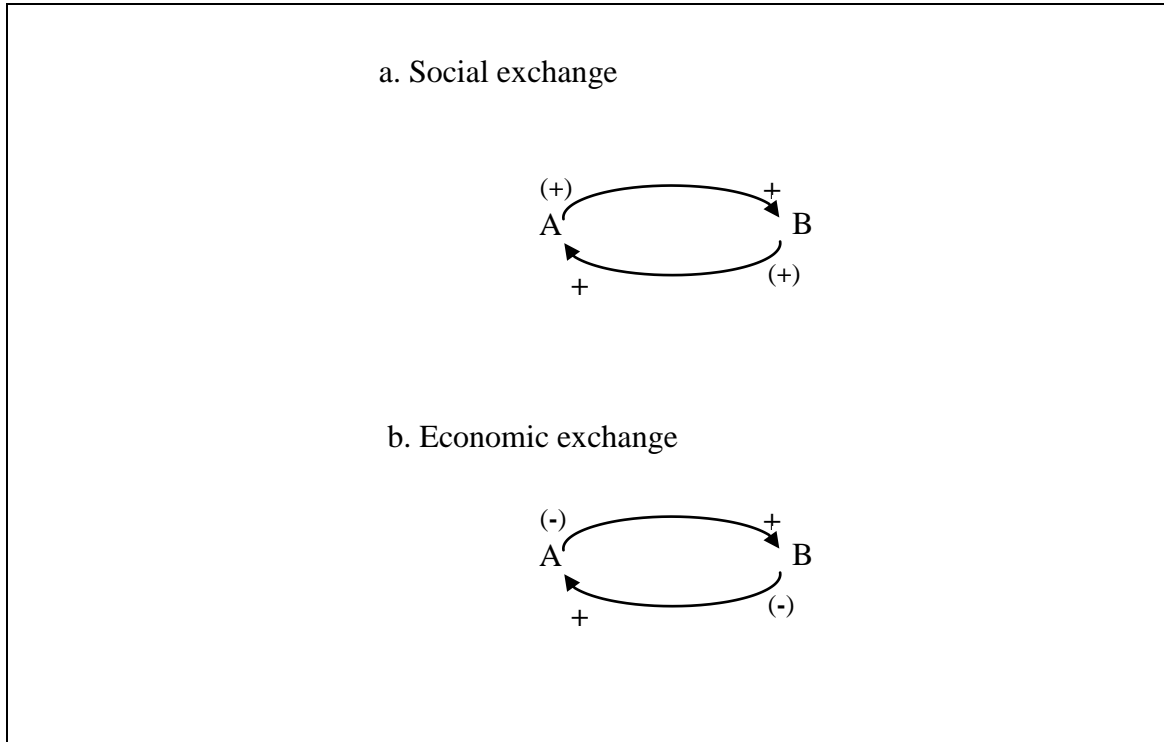


Figure 3.4. Two types of exchange relationships (base on Willer 1985, 1999).

In social relationships larger than a dyad with communal property, such as those occurring in bands and tribes, communal property rights must be enforced.⁵¹ Theoretically, in societies with communal property rights, no one has the right to exclude others from communal resources; therefore, no one can claim the right of appropriation.

⁵⁰ For Willer (1985) social exchanges among friends are expressions of generosity.

⁵¹ Private property rights include: exclusion, alienation, appropriation, and reciprocity (Willer 1985).

In these groups, transmissions of items occur but they are not loss-gain flows for the actors and so “no reciprocating acts of gain to balance the loss will occur” (Willer 1985:132). As a result, members engage in communal transactions as shown in Figure 3.5a. In some groups, there is a ‘pooling’ of items and labor, “such that no member of the group has a right to exclude from others his or her ability to work” as is illustrated in Figure 3.5b by a common property box (Willer 1985:132). Thus, the community as a whole, enforces communal property rights via a normative system as will be shown below.

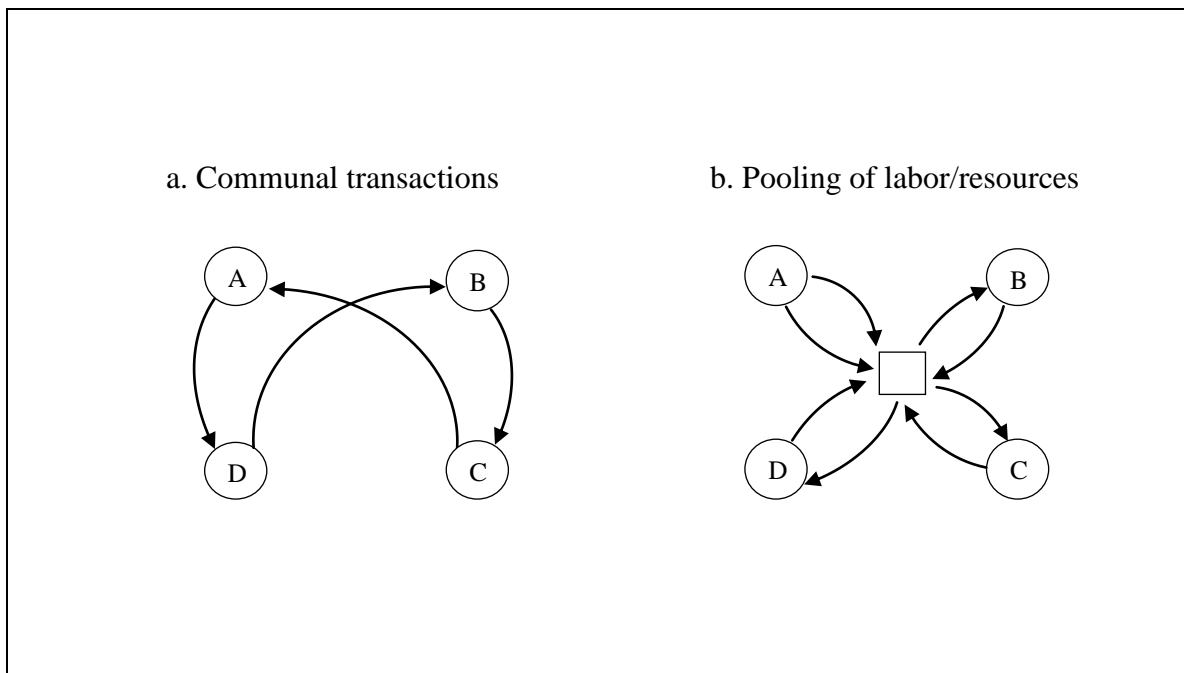


Figure 3.5. Communal property transactions (based on Willer 1985:131).

Social exchange systems have two main features.⁵² First, they have a “strong and effective normative system that is coercive insofar as each member is concerned” (Southard 1981:55). The effect of such normative system is clearly seen when actors violate the norms (i.e. free riding). Second, social exchange systems have one-way flows of goods, services, or assistance among members that may frequently shift. Basically, these are systems of sharing (Southard 1981). In short, social exchange systems are social acts subject to normative control.

Drawn from Southard (1981:56), the following models (see Figure 3.6) represent three different types of social control characteristic of normative systems without formal hierarchical centralization: shunning, negative convergence and expulsion (Willer et al. 2002). In Figure 3.6, actors A, B, C, and D exhibit two alternative patterns of behavior represented by the system states X and Y. In system state A, actors share goods and services, represented by positive flow sanctions. In system state Y, actor D violates the group’s norm. The response of the other actors (n-1) to actor D’s nonconformity is shown.

Figure 3.6, model 1 shows shunning. In the network to the left, D is engaged in social exchange system. When actor D fails to conform to the group’s norm, he is shunned by the others who continue exchanging among themselves as it is shown in the network to the right. The shunned actor, though excluded from normal interaction, is not expelled from the group (Willer et al. 2002). An example of shunning occurs when a fisherman who failed to meet his obligation of helping others in several fishing expeditions does not receive any share of the catch. Thus, no negative sanctions are sent to the norm violator but s/he is ostracized from the social exchanges.

⁵² Social exchange is similar to Sahlins (1965) generalized reciprocity.

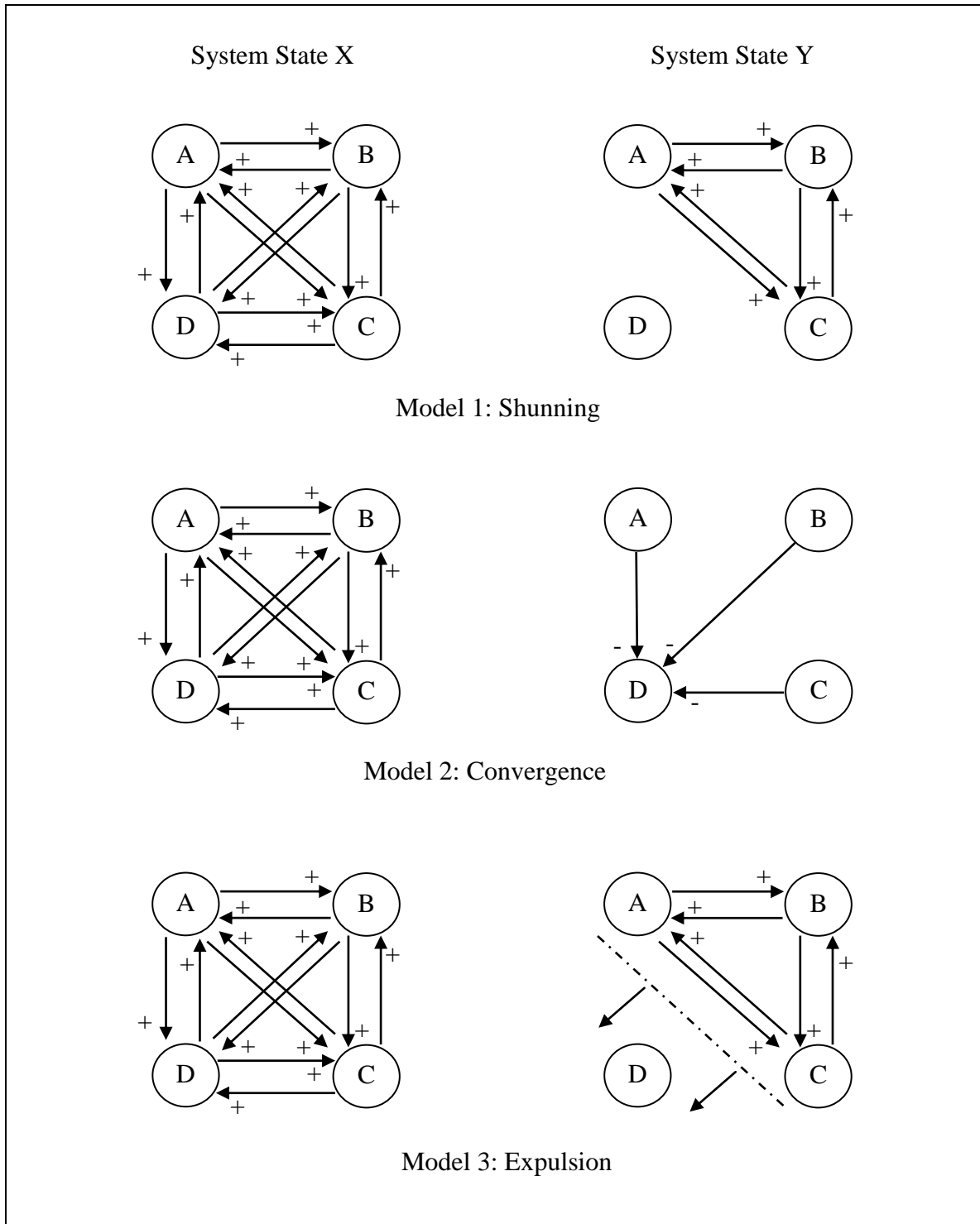


Figure 3.6. Models of social control in societies without hierarchical centralized structures (based on Southard 1981:56).

In negative convergence, the rule breaker is disconnected from exchanges and negatively sanctioned by multiple others (Willer et al. 2002). Negative symbolic sanctions might be accusations, insults or threats while material negative sanctions involve the use of physical force. In Figure 3.6, model 2 displays negative convergence. Again, in the network to the left, D is first engaged in social exchange. In the network to the right, D is disconnected from social exchanges and negatively sanctioned by multiple others. D's violation of a norm results in negative convergence by the other actors. Actors A, B, and C transmit negative sanctions, symbolic and/or material to D. An example of negative convergence is the "crime of Cephu," as described by Turnbull (1962:94-108). Cephu was caught violating an important norm regarding the placement of hunting nets and as a result, he was subjected to loud public reprimands from group members. Cephu's punishment was carried out through use of negative symbolic sanctions in the form of insults.

Expulsion is displayed in Figure 3.6, model 3. This drastic measure of social control entails physical as well as social expulsion from the group. In the network to the left, D is engaged in ongoing social exchanges. However, in the network to the right, D has been expelled from the network because of his violation. According to Willer et al. (2002:89), the severity of the expulsion is related to the value of the collective goods and the cost of exit compare with the quality of the environment outside the group. For example, Hoebel (1976, 1978) describes how a Cheyenne Indian, who showed disrespect by stealing meat and taking horses without permission, was expelled from the Bowstring band by tribal warriors. In this case, the violator of the norm was punished with material negative sanctions in the form of physical punishment but he was also expelled from the

community. Thus, not only was the rule breaker removed but he lost the group's protection.

As the above examples show, non-hierarchical social networks can have strong coercive normative systems that are effective in enforcing norms (Southard 1981; Willer et al. 2002). In non-hierarchical social networks, actors' differential ability to both violate the norms and to respond to the norm violations is crucial (Southard 1981). Actors' opposed but complementary interests would prompt them to either: (1) violate the norm if they can avoid the consequences of social control and to enforce the norms on others to maximize its benefits or (2) to comply with the norms and to enforce the norms on others to increase their benefits. If in non-hierarchical groups, actors show differential ability to avoid and to respond to sanctions, it follows that in groups with status differences such as status lineages, high-status actors are already located in an advantageous position to avoid sanctions and/or to sanction others regardless of their natural abilities.

In status lineage structures, the highest lineage will significantly increase its ability to exercise influence-based power through its increased control of the normative system (Willer et al. 2002; Simpson et al. 2012).⁵³ Systems of normative control are themselves controlled by the highest lineage because 1) having the highest status, they are the most influential and 2) as has been shown, influence can be converted into the capability to exercise power. For control of the normative system, it is important that higher-lineage actors have influence over lower-lineage actors, both directly and indirectly, through actors intermediate in status. Looking to Figure 3.6, if the actors' statuses follow alphabetical order from high to low, the highest status A controls

⁵³ While I am focusing on the effect of status lineage systems on the normative system, I acknowledge the existence of other social control structures.

shunning, negative convergence and/or expulsion of D by influencing the lower status B directly and the yet lower status C both directly and indirectly through B.

Moreover, in a status system where actors' statuses follow alphabetical order from high to low as shown in Figure 3.7, if actor C is the rule breaker in this instance, the highest status A controls shunning, negative convergence and/or expulsion of C by influencing the lower status B directly. Additionally, A controls lower status D, both directly and indirectly, through B. If C is expelled, D will benefit by moving up in the status system. Therefore, D is interested in monitoring those who are immediately superior to him/her in the status system.

Indeed, Willer et al. (2009) show that high-status actors can influence low-status actors to enforce norms that they do not privately endorse. In their experiments, they found that low-status actors will conform to social pressure and sanction norm breakers even when they themselves do not believe in the norms being enforced. Moreover, actors' relationships affect enforcement decisions (Horne 2009). It follows that, actors closer to the high-status lineage members are compelled to enforce the sanctions on the lower-status actors in order "to secure approval from those whose judgments carry great weight" (Willer et al. 2009:486). In status lineages, the normative system is already influenced by high-status actors who benefit the most from its enforcement through sanctions.

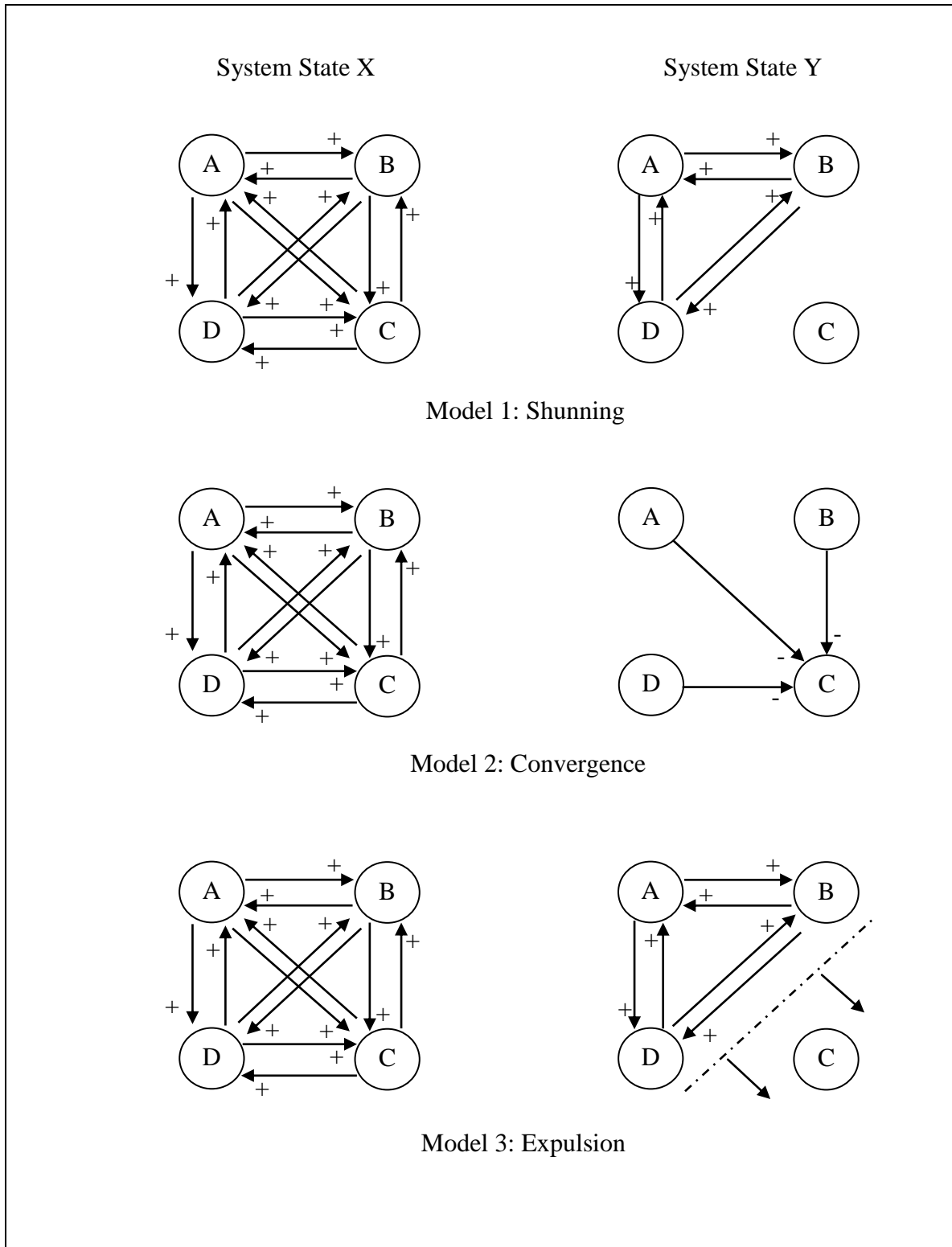


Figure 3.7. Model of social control in societies with hierarchical centralized structures.

When the high-status A breaks the norms, he/she can directly influence the lower status B and also the lower status C both directly and indirectly to reduce or eliminate the sanctions. Since A controls the normative system, A's indirect influence over the lower status actors is transformed into power relations.⁵⁴

In short, by affecting the sanctioning of the normative system, indirect influence also affects social exchange systems. Indeed, high-status actors' sanctions are heavily weighted. Moreover, high-status actors influence directly and indirectly low-status actors so that low-status actors sanction the deviant. Since high-status actors exercise control of the normative system, they can also affect the flow and value of resources for their benefit as will be shown in the following section.

Status-Value

Status-value leads to power exercise in two distinct ways: (1) by differentiating items' value and (2) by fostering resource accumulation. Status value refers to the worth, self-esteem or prestige that result from possessing an object or characteristic (Berger et al. 1972; Thye 2000).

Status-value will lead to power when the prestige or esteem associated with a high-status actor is transferred to objects held by that individual and those objects are exchanged (Thye 1999). The status value of those objects need not decay even when transferred to lower status actors as long as the provenance linking it to the higher status actor is maintained. Said somewhat differently, when status differences are present in exchange relations, "status value will spread from actors' valued characteristics to the

⁵⁴ High-status actors may usurp the communal rights by engaging in sanctioning among themselves. For example, in the Inka Empire, only ethnic Inkas could sit in judgment over other ethnic Inka but, they could also 'judge' any other ethnic groups (Chacon 2009).

nominally distinct goods they possess. This phenomenon is then linked to exchange processes and outcomes” (Thye 2000:413). As a result, actors with positive status characteristics have power advantages in social exchange relations with those of lower status (Thye 2000).

In social exchange relations between high and low-status actors, the former benefit more than the latter. Since high-status actors’ exchangeable items are considered to be more valuable, high-status actors receive advantageous exchange from low-status actors. Furthermore, having multiple low-status exchange partners, high-status actors have the opportunity to exclude some low-status exchange partners. Thus, low-status actors will compete to exchange such that the high-status actors will receive even more beneficial payoffs. Indeed, the presence of exclusive alternative exchange partners increases high-status actor’s *Pcon* (Willer 1999). Therefore, high-status actors can exercise power over low-status actors in social exchange relations. This advantageous exchange situation of high-status actors may be a source of surplus accumulation in status lineage structures.

DISCUSSION

The status differentiation of a status lineage structure affects the internal processes in a group in three ways. First, status differences generate status influence relations that can be transformed into power relations. Secondly, status differences generate power differences that benefit high-status actors indirectly through control of the normative system. High-status actors influence the normative system in two ways: (1) they control agenda setting, for example by determining the behavior to be sanctioned (Bacharach and

Baratz 1962) and (2) the sanctions (symbolic and material) of high-status actors, having higher status value, are more powerful than those of low-status actors. Third, status differences generate status value (material power) that favors high-status actors. High-status actors benefit from unequal exchanges.

Since, over time, status differences increase in lineage structures, there will be corresponding increase in the material conditions of social inequality. This increase may likely transform a society's political organization and this in turn, will take place if increasing social inequality stresses the existing system of social control (Engels [1884] 1942). The combined effects of these processes result in the stretching of the status lineage system to the point that high-status actors gain access/control of resources, and surplus.

In status lineages, the combined effect of status-influence, indirect-influence, and status-value result in the increased status differentiation. This may lead to more influence that could transform into power among status lineage members of the senior lines. Figure 3.8 explains how internal changes in status lineage systems operating in a group can set the stage for the subsequent development of chiefdoms.

As seen in Figure 3.8, the internal changes in the status lineage system are due to the combined effects of status differentiation processes. Status differences produce three distinct but related processes that, when combined, give rise to the development of chiefdoms. The figure shows that this inequality is compounded with the threat or the presence of warfare as will be discussed in the next chapter.

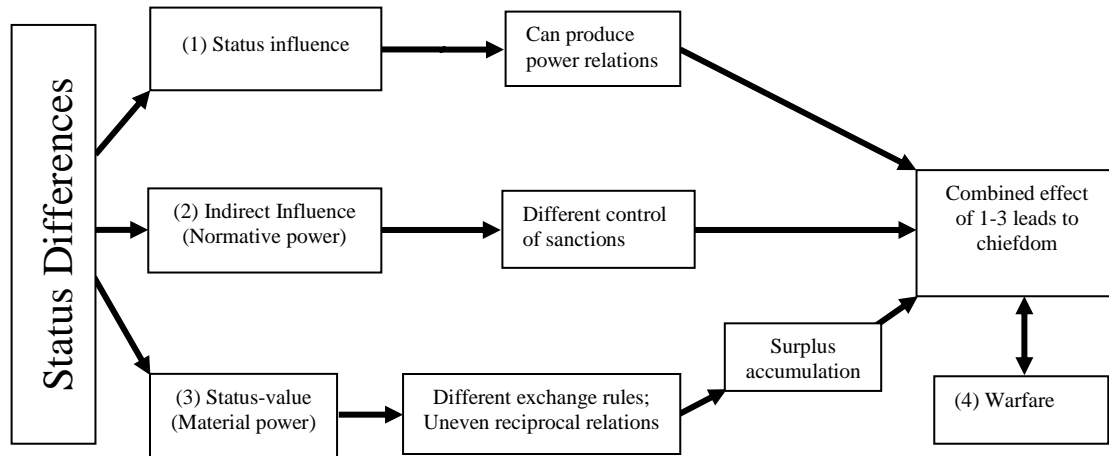


Figure 3.8. Combined effect of three internal social processes in status lineages.

In summary, using conceptualizations from Elementary Theory and Status Characteristics Theory this chapter has developed a model to explain how the social dynamics of lineage structures may have been related with the advent of social complexity. I have introduced the Social Dynamic of Status System Model. Comprised of three elements, (1) status-influence, (2) indirect-influence, and (3) status-value, this model traces systems of influence and power within status lineage structures foster increasing inequality. This model helps us to better understand the internal transformations and processes of developing chiefdom structures. The next chapter will explore the effects of warfare upon the above mentioned internal social processes.

CHAPTER 4

CONCLUSION

The previous chapters traced the transformation of the chiefdom from influence structure to indirect coercion to coercive power, developments that were necessarily conditioned by conflict. In this chapter, I link the previously explained Social Dynamics of Status Systems Model with warfare to show the transition from chiefdom to state. As previously mentioned, the ‘state’ is defined as the organization that centrally rules coercively and monopolizes the means of violence – at least within its administrative system. Its sphere of control reaches the village but it does not necessarily extend to the level of the individual (Willer et al. 2013). While explanations based on external conditions such as environmental circumscription, peer polity development and other macro-level processes have been favored by anthropologists and archaeologists to explain the rise of early states (Carneiro 1970; Feinman and Marcus 1998), explanations based on internal processes have been mostly absent (but see Thapar 1984).

Central to the model developed here and a salient characteristic of chiefdoms is their bellicose nature (Carneiro 1991; Earle 1991, 1996; Redmond 1998). Carneiro (1991:181) points out that “chiefdoms were born out of war, were powerfully shaped by war, and continued to be heavily involved in war as they evolved.” As will be shown, warfare stabilizes (i.e. maintains) the status lineage structure and intensifies the combined

effect of status influence, indirect influence, and status value.⁵⁵ It is through warfare that simpler chiefdoms evolve into paramount chiefdoms (Earle 1991).

This transition results from the fact that, though chiefdom structures based on status can solve collective action problems, through time status rivalries increase. In any status lineage structure, at any point in time, status is ordered without reversals, thus influence can solve collective action problems. Nevertheless, over time, downward mobility creates rivalries that set the cadet lines against the senior line, destabilizing the lineage and lines of influence. Subsequent attempts to manage this embedded instability with new control mechanisms can further transform the status structures into more complex entities such as states.

I argue that, along with warfare, the state results from the internal mechanisms utilized to stabilize chiefdom structures. But what kind of state results from this process? In fact, the development of the state can follow any one of multiple pathways (Willer et al. 2013). For example, branching from chiefdom structures, one path leads from paramount chiefdoms, to hegemonic states, characterized by coercive structures. Eventually hegemonic states may evolve into bureaucratic states. A bureaucratic state is defined as the formal organization, characterized by the separation of functions hierarchically centralized, that rules and monopolizes the means of violence (Willer et al.

⁵⁵ Warfare is defined as “armed conflict between societies with the goal of either exterminating the enemy group, driving them away or subjugating them and acquiring their resources” (Wendorf and Schild 2004:25). Hayden and Villeneuve (2012) point out the long term of conflict between two chiefdoms on Futuna Island. In this instance, two chiefs do not appear to have been mortal enemies but rather used warfare to foment strategic alliances with their concomitant feasts and benefits. Interestingly, “over the 3,000 years of occupation on such a small island, neither chiefly polity was able to triumph militarily or politically over the other and establish complete control over the island” (Hayden and Villeneuve 2012:130). If such an event would have taken place, then peace would have ensued and that would have eliminated the reason for forming alliances, feasting, and surplus production (Hayden and Villeneuve 2012). Hayden and Villeneuve (2012:130) surmise that “Futana elites may have realized this and used Machiavellian manipulations to maintain roughly equal balance of power and ensure recurring threats or incidences of armed conflict so as to secure their basis of power.”

2013).⁵⁶ Yet another path leads from chiefdoms to city-states (Weber [1896] 1988). A city-state is defined as the formal organization, characterized by the separation of functions non-hierarchically centralized, that rules and monopolizes the means of violence.⁵⁷

In the following sections, I will explore how warfare transforms influence relations based on status into coercive power relations characteristic of more complex structures, including the state. First, I will address how warfare stabilizes the status system by compounding the effect of the previously explained internal processes of: (1) status influence, (2) indirect influence, and (3) status value. Then, I will demonstrate how warfare transforms the status lineage structures resulting in new complex structures such as the paramount chiefdom and/or the state. Finally, I will discuss how chiefdoms bifurcate into (1) centralized bureaucratic-states, or (2) decentralized city-states.⁵⁸

WARFARE'S STABILIZING EFFECT ON STATUS LINEAGE STRUCTURES

While influence relations solve collective action problems, as time passes, the gap between the high status lineage (whose position is unchanged) and the rest of the lines in the structure increases. As the system grows, manipulations of genealogies and/or blatant disruptions of the system increase rivalries that destabilize the system. That is, internal conflict between the high status lineage and a challenging junior lineage creates

⁵⁶ A hegemonic state is characterized by a centralized coercive structure that extracts value but does not rule (Willer et al. 2013).

⁵⁷ As long as polities remain city-states, the power relations do not extend beyond adjacencies (David Willer personal communication, 2014).

⁵⁸ Feudal structures pose special problems for analysis that are beyond the limits of this dissertation. It may be that feudal structures never arise from pre-state structures such as chiefdoms. Looking at examples from China, Japan, and Europe, it seems that feudal structures appeared after the collapse of centralized structures (David Willer personal communication, 2014).

instability.⁵⁹ In order to re-stabilize the system, high status actors (i.e. chiefly lineage members) seek the support of lower-status actors (i.e. warriors) by rewarding them with status in exchange for military services.⁶⁰ These rewards can take different forms, from special clothing, land to high-status women. Thus, warfare serves an organizational tool to maintain the status quo.

In a chiefdom, the head of the senior line (chief) with the support of close kin and a cadre of loyal warriors, exercise control over the population. As warfare intensifies and the system expands, loyal warriors become upwardly mobile such that they and the highest status lines become alienated from the remainder of the lineage system. This fractures the status lineage structure in two.⁶¹ (1) One sector (the chiefly lineage and the loyal warrior caste) maintains the status-structure as its organizational system and (2) the other sector (comprised of low-status lineages) loses some or all of its status system thus, it becomes less effective in organizing against both internal and external threats.⁶² Despite this internal gap, united under a common ethnic banner, chiefdoms are more efficient than segmentary lineages (operating in egalitarian tribes) when engaging in

⁵⁹ This challenge is analogous to class struggle.

⁶⁰ For Fukuyama (2011:62), “war did not just make the state, it made the tribe as well.”

⁶¹ Fractures in status systems have been known to occur. For example, in India, “The difference between the rulers and the ruled is initially that between certain descent groups having access to power and others who are excluded and among whom are the non-kin groups, generally providers of labour” (Thapar [1984] 2005:79). Additionally, in Hawaii, despite having the same ancestors, some people were ennobled (made into *aliis*) whereas others were converted into subjects (Malo [1898] 1903). Malo speculates that in the past, all “people were *allis* and it was only after the lapse of several generations that a division was made into commoners and chiefs” ([1898] 1903:86).

⁶² In Hawaii, with the rise of the state, the ruling classes maintained their lineages and denied that those who had recently been subjugated were related to them or even had lineages of their own (Malo [1898] 1903). While I suspect that the destruction of lineages subordinate to the ruling class is not unique to Hawaii, the documentation of just how widespread this practice was is beyond the scope of this dissertation.

warfare.⁶³ The following section focuses on the compounding effect of warfare on status influence and how it helps to stabilize the chiefdom.

Warfare and Status Influence

Warfare stabilizes the status system in a number of ways. First, it provides the means for upward mobility to otherwise downwardly mobile actors. By allowing upward mobility, warfare stabilizes the status system through (1) expanding the organizational capabilities of status lineages by fostering the rise of a warrior caste interested in supporting the status system and (2) intensifying the transformation from influence to power by increasing the number of high-status actors capable of obtaining power through status-based expectancies and differential payoffs (Berger et al. 1972, 1977; Morris 1981; Wagner and Berger 1997; Willer 1999; Willer et al. 1999; Berger et al. 2002).

As loyal low-status warriors improve their positions, their capacity to transform influence into power increases (Willer et al. 1999; Thye 1999, 2000; Willer et al. 2002).⁶⁴ With the intensification of warfare, a larger number of loyal warriors are able to obtain beneficial payoff from lower-status actors (Willer et al. 1999; Thye 1999, 2000; Willer et al. 2002). Thus, the intensification of warfare fosters the establishment of a warrior caste

⁶³ Egalitarian tribes are tribes characterized for the lack of ranked societal structures. For Sahlins (1961), egalitarian tribes comprised of segmentary lineages, are less successful in warfare when in conflict with status lineage chiefdoms.

⁶⁴ Among Hawaiians, “The *ahu-ula* was a possession most costly and precious (*makamae*), not obtainable by the common people, only by the *alii*. It was much worn by them as an insignia in time of war and when they went into battle. The *ahu-ula* was also conferred upon warriors, but only upon those who had distinguished themselves and had merit, and it was an object of plunder in every battle” (Malo ([1898] 1903:106-107). Additionally, for the Inka, courage in battle afforded commoners the possibility of status mobility. Peasants who demonstrated bravery were rewarded with status items such as special insignia, land, and wives. Sometimes such individuals were granted privileged administrative positions (Trigger 1993, 2003; Chacon 2009; Chacon and Mendoza 2012).

that benefits from a new achieved high position in the system. Thus, warfare serves as a mechanism for upward mobility.

Warfare and Indirect Influence

Second, warfare intensifies the effect of indirect influence when warriors are rewarded with high status. The rewarding of warriors with status increases the number of high-status actors in the system which affects indirect influence in two ways: (1) upwardly mobile warriors can change beliefs, attitudes or expectations of low-status actors by exercising greater control on the normative system and its sanctions (Southard 1981; Willer and Anderson 1981; Willer 1999; Willer et al. 1999; Horne 2009; Willer 2009); (2) upwardly mobile warriors further expand the control in social exchanges by encouraging low-status actors to sanction deviants in social exchange relations (Horne 2009, Willer et al. 2009). Therefore, warfare facilitates the formation of a warrior caste that exercises power by influencing the normative system, a system that supports the status lineage structure.

Warfare's Effect on Status Value

Third, warfare stabilizes the chiefdom by rewarding loyal warriors with status items which enhance an actor's prestige in the system. Since in a status lineage, an item's provenance can be more significant than its use value, being rewarded with such prestige items enhances a warrior position in the system (Earle 1987, 1991, 1996, 1997a, 2000). Recognition of achieved status by the chief, as shown in granting benefits in the form of prestige items and high status wives, legitimates achieved status while building a warrior

caste (Earle 1987, 1991, 1996, 1997a, 2000; Willer et al. 2013; Willer 2009; Simpson et al. 2012).⁶⁵ Moreover, from this newly acquired social position, loyal warriors benefit from resource accumulation resulting from advantageous exchanges with low-status actors (Thye 1997, 1999, 2000; Willer et al. 1999; Willer et al. 2002). Therefore, it is in the warriors' interest to support the status system.⁶⁶

In summary, war stabilizes the chiefdom by sequentially substituting power relations for influence relations (Thye 1997, 1999, 2000; Willer et al. 1999; Willer et al. 2002). Warfare emphasizes the effect of: (1) status influence, (2) indirect influence, and (3) status value. Warfare provides cadet line members who are courageous warriors with pathways to higher status, thus temporarily reducing status rivalries. The intensification of warfare extends the lifespan of a status lineage by providing junior lines with an alternative to fissioning.⁶⁷ Nevertheless, cadet line members may contest, overthrow and, if successful, replace the high-status line, thus prolonging the status lineage system as an organizational tool.⁶⁸

Opposing a revolt is but one of a number of motives that can move those high in status to evolve beyond status-based influence to adopt further organizational and social control structures (Thye 1997, 1999, 2000; Willer et al. 1999; Willer et al. 2002).

Influence, being restricted to persuading those low in status that the demands of those

⁶⁵ The term 'caste' is sometimes used to designate a status group closed to outsiders. That is not what is meant here. The warrior caste includes high status warriors and warriors from lower status positions whose courage has been recognized and rewarded by the chief. I do not claim that these warriors were full-time soldiers as that would constitute the presence of an army.

⁶⁶ Recent experimental research has shown that the impact of prospective status loss is greater than that of status gain (Pettit, Yong, and Spataro 2010).

⁶⁷ According to Fukuyama (2011:90), "Human beings cooperate to compete, and they compete to cooperate."

⁶⁸ Another option by which junior lines may improve their position is to migrate and become the head of a new status system in a new area (Flannery and Marcus 1996).

high in status are in their interest, is a limited kind of control (Willer et al. 2013).⁶⁹

Beginning with the status lineage structure and its influence system, when a parallel power structure is built, power is centralized (Willer et al. 2013). When rivalries truncate the path through which influence flows, warfare sparks internal changes that transform the chiefdom structures into a more complex system as will be explained below.

FROM ASCRIBED TO ACHIEVED STATUS: AN EVOLUTIONARY PATH

Though much early research viewed the development of chiefdoms as primarily an economic phenomenon (Sahlins 1958; Service 1962), led by Carneiro (1970, 1981, 1998, 2012a), several anthropologists now place war at the forefront of their explanations of chiefdom and state evolution (e.g. Hass 1982; Earle 1991; 1997a). Indeed, evidence seems to show that chiefdoms are universally warlike (Carneiro 1998). Contrary to Carneiro, however, I suggest that the propensity toward war is not necessarily associated with over-population and/or land shortage. Instead, instabilities built into the status lineage system led to attempts to stabilize it through indirect coercion produced through war. Indirect coercion is a power relationship in which a beneficiary extracts resources from the coerced by offering protection from an external threat (coercer), real or imagined, that threatens negative sanctions *outside* of the exploitative relation (Emanuelson and Willer 2011). Indirect coercion along with the development of a status-motivated warrior caste, results in war as a permanent condition.

The mechanism of evolutionary transformation is war and the specific direction it takes is a result of the presence or absence of circumscription (Carneiro 1998). Following

⁶⁹ Chiefs' almost universal claims to generosity, that Hayden and Villeneuve (2012) see as false, should be seen in the context of influence. When chiefs assert that they are generous, they are claiming that they are acting in the interest of others, not themselves.

Carneiro, when there is space to expand, the system of chiefdoms expands due to war and indirect coercion without further internal change.⁷⁰ When the system of chiefdoms is circumscribed, some chiefdoms are subordinated to others as direct coercion develops and paramount chiefdoms arise. As will now be discussed, inter-chiefdom conflict can form a competitive and selective system through which smaller units come to be incorporated into paramount chiefdoms (Willer et al. 2013).⁷¹

From Chiefdom to Paramount Chiefdom

War opens the door for the achievement of status in a society otherwise pervaded by ascribed status. For the chiefdom, success in war increases status differences beyond that given by the lineage system through the differential allocation of resources to warriors. When the acquired resources assigned by status are land and slaves acquired through war, the ranked society moves toward a class system in which the means of production are allocated to the developing warrior class while commoners are separated from the means (Goldman 1955, 1957, 1958, 1960).

Constant warfare segregates the chiefdom into a chiefly lineage with a supporting warrior caste and commoners. Warfare intensifies an ethos of inequality already embedded in the status lineage system. Competition over higher positions and concomitant perquisites foster the formation of a warrior caste whose interests revolve

⁷⁰ Research findings indicate that often times, non-inhabited buffer zones appear between warring polities (DeBoer 1981; Martin and Szuter 1999; Kay 2007).

⁷¹ Conflict relations can form a competitive and selective system that leads toward monopoly of the means of violence. They will form such a system when the conflict is circumscribed (Willer et al. 2013). For example, in the 3rd century BCE, China's period of Warring States began with nine major states in intense war-based competition (Hui 2005:66). By the conclusion of the process, a single state had absorbed the others and came to dominate the area once ruled by the nine.

around warfare. Furthermore, the possibility of improving social status through combat performance connects status motives to fighting thus, leading to the intensification of war (Trimborn 1949).⁷² The resulting supporting warrior caste is comprised of individuals of noble birth along with ennobled commoners who have been rewarded for their fighting prowess (Malo ([1898] 1903)).⁷³ Either or both factions may harbor hostility towards the other as one faction may take pride in their high-birth status while the other may be proud of their fighting prowess. However, both factions are loyal to the chief because, standing above both, only the chief can resolve their hostility (Willer et al. 2013).⁷⁴ This is an early example of ‘divide and rule.’

As status as an organizational mechanism declines and the means of violence are centralized in the hands of the warrior caste, influence relations are transformed into power relations.⁷⁵ Warfare becomes the organizational tool that allows the expansion of the system beyond the local region. The chief, together with the warrior caste, controls non-lineage members (i.e. slaves, captives) and alienates lower status lines which are no longer considered part of the lineage. Thus, warfare helps to break the lineage ties that have supported the system until now. As these ties are broken, the nature of warfare also

⁷² See Chacon and Dye (2007) along with Chacon and Mendoza (2007a, 2007b) for documentation of the antiquity and widespread spatial distribution of warfare. See Chacon and Mendoza (2012) for battle participation enhancing warriors’ status.

⁷³ Malo ([1898] 1903:63) reports that special “feather cloaks...are worn by (the *aliis* as well as by) warriors as insignia in time of battle...”

⁷⁴ In a status lineage system, there is one head of the lineage. It may be that a different type of structure may have multiple chiefs, but in this dissertation I am only concerned with status lineage structures.

⁷⁵ In power relations, C deploys external sanctions to affect D’s behavior. When violence is monopolized, C exercises coercive power over D. However, the monopolization of violence occurs at the state level of organization as will be explained later. Monopolization of the means of violence is not necessary for ongoing coercion, however, concentration of the means of violence is sufficient (Willer et al. 2013).

changes.⁷⁶ Increasingly, the chief, with the support from the warrior caste, gains control over local feuds and expands his control beyond the local region.

From Status-Influence to Indirect Coercion

Recent theory and experimental research shows how indirect coercion can help stabilize the chiefdom by adding power relations to the already existing influence relations of the status lineage system (Emanuelson and Willer 2011). Indirect coercion relies on the threat of negative sanctions, real or imagined, where the negatives originate *outside* of the exploitative relation (Willer et al. 2013). This external threat serves as the coercive ‘monster’ facilitating the extraction of resources from the coercee by an indirect coercer as shown in Figure 4.1 (Emanuelson and Willer 2011). For example, indirect coercion occurs in the U.S. today when a President demands new laws centralizing power and higher taxes to defend against terrorists.

Figure 4.1 diagrams the indirect coercive structure displaying all potential sanction flows. D, the coercee sends positives in the form of valued resources to C, the indirect coercer who engages E the external ‘monster’ in conflict, thus blocking its negatives from reaching D. Alternatively, if D fails to send positives, C does not engage E in conflict and D receives the negatives from E. Unlike coercion, in indirect coercion, C sends no negatives to D. Instead, C is paid by D to threaten E, thus, saving D.⁷⁷

⁷⁶ Warfare changes from personal retaliation and blood feuds into warfare to extract booty and other resources from external enemies.

⁷⁷ The protection of sinners from the wrath of their god by priestly advice is also an example of indirect coercion, but that form of protection has a structure different from that diagramed in Figure 4.1 The priest extracts the sinner’s ‘contributions’ by advice alone. And unlike in Figure 4.1, the relation between the priest and his god is not conflict.

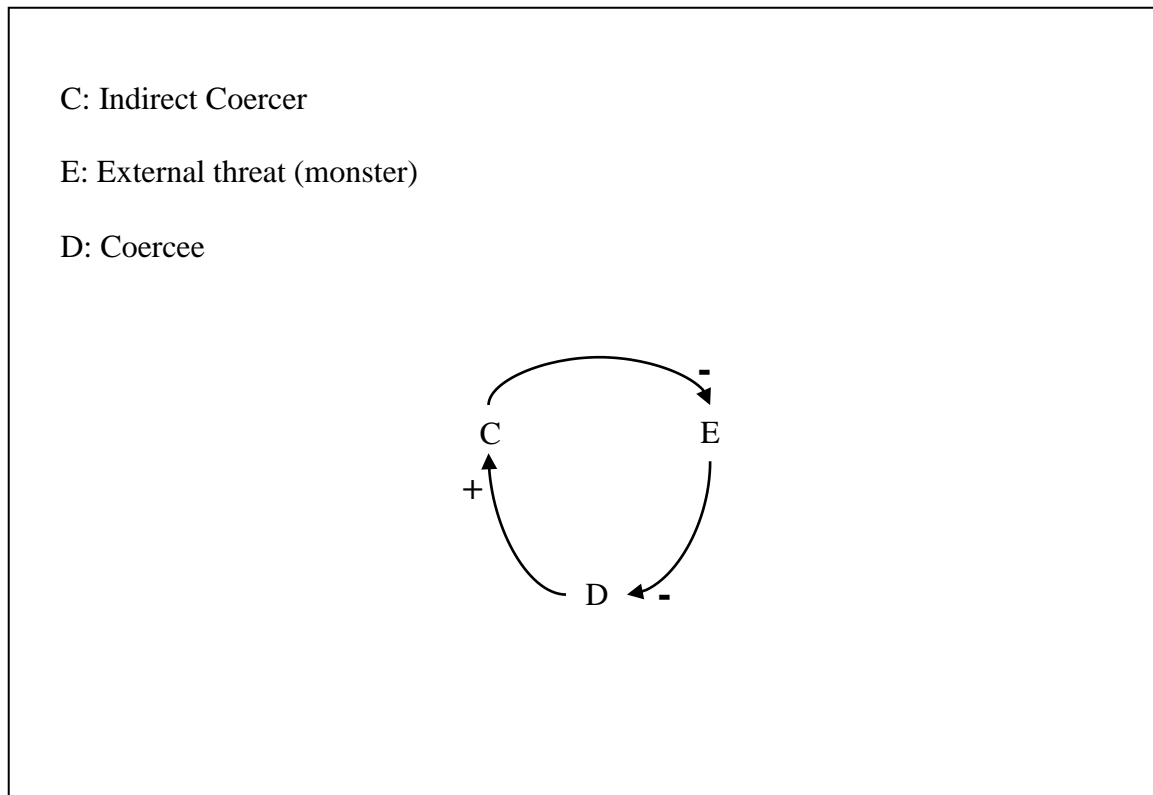


Figure 4.1. Indirect Coercion Relation (based on Willer et al. 2013).

External enemies allow the chief to exercise *indirect* coercion. In indirect coercion, those subject to the coercion support the one who claims to defend them from attack by a hostile external force (Emanuelson and Willer 2011). For example, the chief uses the threat of an aggressive outsider to demand support from commoners. Indirect coercion adds power relations but only if relations between the chiefdom and its neighboring chiefdoms are hostile and conflictive (Willer et al. 2013).

Importantly, for the development of power in the chiefdom, unlike coercion, indirect coercion does not require that the means of violence be either concentrated or monopolized (Willer et al. 2013). To the contrary, all that is needed is an external threat from which the chief and associated warriors can provide protection. In theory, indirect

coercion is not the simplest form that coercion can take, however, for chiefdoms, it is the easiest to institute. All that is needed is another chiefdom that is in hostile contact: that is threatening or can be made to appear threatening (Willer et al 2013).⁷⁸

Importantly, as diagrammed in Figure 4.2, pairs of chiefdoms can act as external ‘monsters’ for each other. When they do, each chief benefits by gaining the support of and extracting value from its coerced. Nor is the relation limited to pairs of chiefdoms. As seen in the case of the nearly 50 Cauca Valley chiefdoms in Colombia (Carneiro 1991), whole systems of chiefdoms can be in hostile contact with each other.

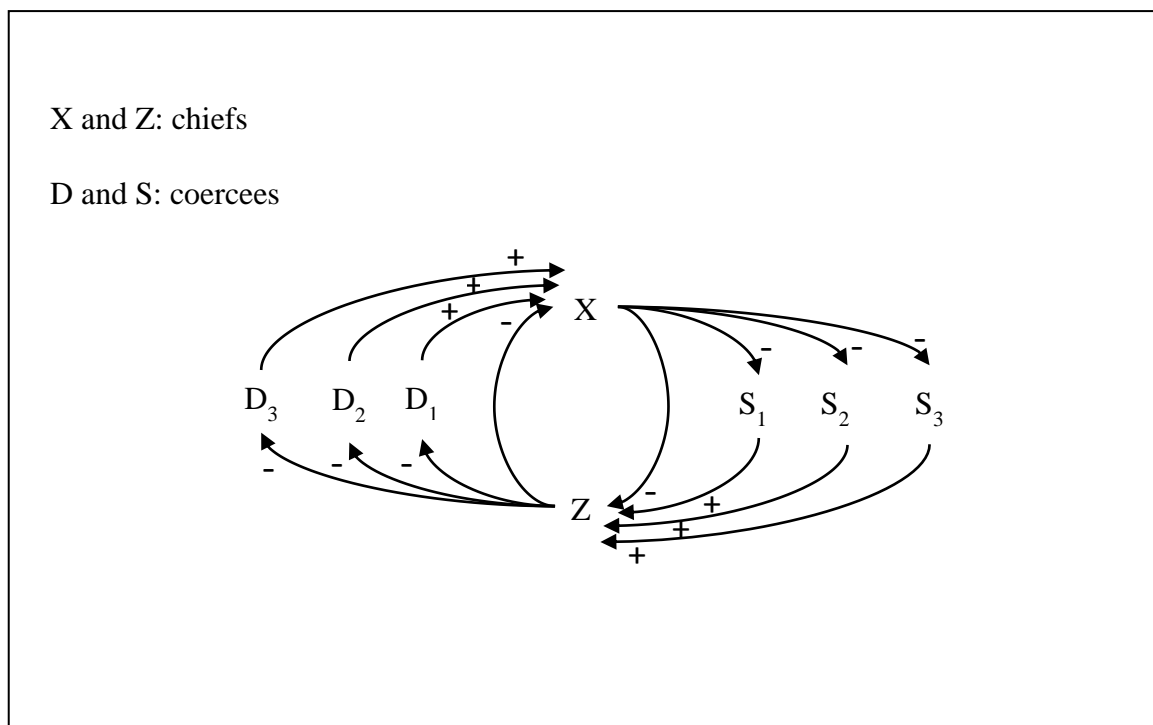


Figure 4.2. Indirect coercion among two chiefdoms acting as external coercers (based on Willer et al. 2013).

⁷⁸ See Willer et al. (2013) for an in depth explanation on how indirect coercion works.

In summary, while in the short term, warfare stabilizes chiefdoms, paradoxically; its intensification transforms the status lineage system by changing the means of organization. As the warriors become a caste and differentiate themselves from commoners, the means of violence becomes increasingly concentrated in the hands of a chief backed by a warrior caste and separated from the commoners.⁷⁹ As that separation progresses, the chief need no longer rule only by influence or by citing external dangers, but rules more and more by direct coercion. While this development has a strong stabilizing effect on the chiefdom, one should not think of the chief's rule as one of unlimited power. To the contrary, the rule of the chief is very much limited by the complete absence of an administrative system (i.e. bureaucracy), an officialdom through which the chief's coercive power could be directed.

DIVERGENT PATHS TO THE STATE

Although studies on sociocultural evolution date back to the nineteenth century (Spencer 1851, 1857, 1863; Tylor 1870, 1889; Morgan 1870, 1877; Weber [1896] 1988), it is not until the twentieth century that research on the development of the state benefits from ethnographic data (Fried 1967; Steward 1953, 1955; Sahlins and Service 1960; Service 1960, 1962; Carneiro 1970). Current studies of social evolution highlight the multiple paths and cyclical process leading to the development of the state (Marcus 2008). As Marcus (2008:252) points out, normally the development of the state sees the

⁷⁹ For example, courageous warriors in the Cauca Valley of Colombia enjoyed high status and thus distanced themselves from commoners (Trimborn 1949). In Hawaii, "An ahu-ula made only of niamo feathers was called an alaneo and was reserved exclusively for the king of a whole island, alii ai moku; it was his kapa wai-kaua or battle-cloak. Ahu-ulas were used as the regalia of great chiefs and those of high rank, also for warriors of distinction who had displayed great prowess. It was not to be obtained by chiefs of low rank, nor by warriors of small prowess" (Malo [1898] 1903:107).

“appearance of new forms of social or sociopolitical organization, without necessarily implying changes in overall culture or ethnicity.”

Assuming such continuity, I argue that the chiefdom is the point from which more complex organizational systems that lead to the state evolved. I theorize that direct coercion, and thus class stratification, steams from war and indirect coercion that, in turn, grew out of the instability of the status lineage system. With the development of direct coercion, the chiefdom is a relatively stable social structure built for war and justified through war.⁸⁰ If there is space for migration, given ongoing conflict, the chiefdoms that lose will move away such that the system of chiefdoms expands without internal change. However, if the system of chiefdoms is circumscribed, either geographically or socially, war as a competitive system produces internal structural changes.

Focusing on the organizational structures, here, I propose an evolutionary scheme that leads from status lineages to a variety of types of states. Though differing in detail, this scheme owes much to Weber ([1896] 1988). Figure 4.3 depicts the different paths to state development that branches from chiefdoms.⁸¹ One path moves from (1) chiefdoms to (2) paramount chiefdoms leading to (3) hegemonic states, to finally (4) centralized bureaucratic states. Another path moves from (1) chiefdoms to (5) chiefdom coalitions that lead to (6) city-states. In the following sections, I suggest how internal dynamics affect the different trajectories to the state.

⁸⁰ In the expanding facet, paramount chiefs, just as did chiefs before them, reward the warrior caste with booty and other perquisites obtained from a defeated group.

⁸¹ Importantly, while here I emphasize the possible transitional paths to more complex organizations that lead to the state, I acknowledge that societies may revert to less complex types of socio-political organization.

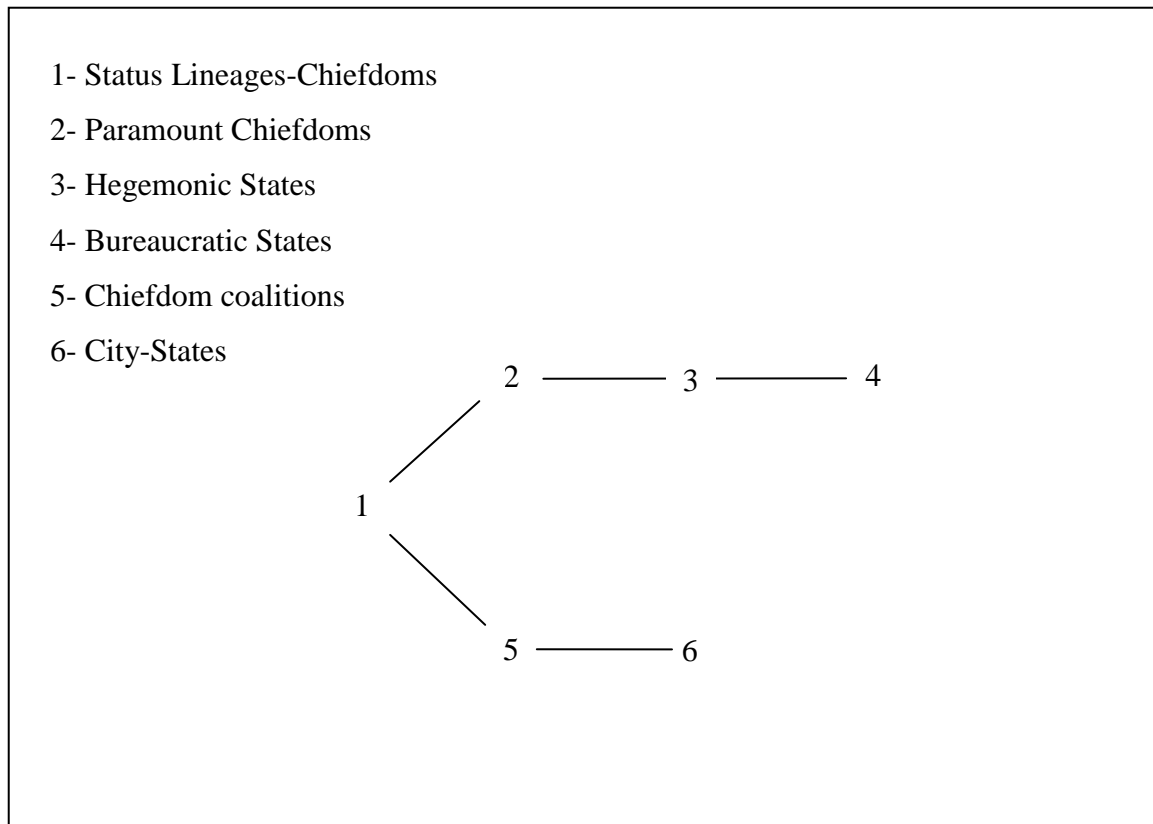


Figure 4.3 Alternative paths to the state from status lineages-chiefdoms (based on Weber ([1896] 1988)).

Path to Centralized Bureaucratic States

The steps of development from chiefdom to paramount chiefdom are the steps of development of a centralized power structure (Willer et al. 2013). As previously stated, paramount chiefdoms arise as some chiefdoms are subordinated to others. As a chiefdom successfully incorporates other groups, warfare transforms status relations into coercive relations that lead to a paramount chiefdom. Throughout indirect coercion and later direct coercion, the paramount chief and his supportive warrior caste oversee a larger territory with diverse populations. Though Marx said that history was not a history of taking, when production is slow and taking is quick, acquisition through warfare is a strong

incentive (Marx and Engels [1845] 1946:90).⁸² In this expanding process, a paramount chiefdom depends on the military caste.

As the chiefdom comes to be based on coercion it should be asked: Is status influence still functioning or is it superseded? Hawaii offers a clear answer to that question. According to Malo ([1898] 1903), as coercive power centralized, the chief and his supportive warrior caste came to deny that they were related in any way to commoners. In so doing, they cut-off relations of status influence and came to rely only on coercive power. Thus in Hawaii, status influence was superseded. But Hawaii may be a special case: all villages of the islands shared a single lineage structure and a single paramount chief (Willer et al. 2013).

Nevertheless, the paramount chiefdom is like a state in that the chief and his warrior caste seek to regulate their coercive relations to the governed (Willer et al. 2013). But the chief and his warrior caste do not seek to regulate all of the relations of the governed to each other. Nor can they because the dominant chiefdom does not have an administrative system (i.e. bureaucracy) beyond the status lineage structure of the chief and warrior caste.⁸³ One could say that paramount chiefs seek to reign but not rule. Extraction of resources, both material and labor, is sufficient. Control of the relations of the subordinated with each other need not be attempted.

Hegemonic empires, such as the Inka and British Empires, are ones in which the central power, while extracting value from those subordinated to it, make little or no

⁸² As a warrior ethos develops, theft through raiding and war can come to be seen as honorable in contrast to manual labor that comes to be seen as dishonorable and contrary to the warrior's lifestyle. See Weber [1918] 1968 for the concept of status group its ethos and lifestyle.

⁸³ Whatever their initial size, as chiefdoms evolve toward paramount chiefdoms, status lineage structures come to be found only within the warrior caste (Goldman 1955, 1957, 1958, 1960).

attempt to rule (Willer et al. 2013).⁸⁴ Likewise, the classical Chinese Empire had hegemonic qualities in that it did not attempt to rule at the local village level, but, instead, merely extracted value (Hui 2005). It follows that hegemonic empires are similar to paramount chiefdoms in that they extract without ruling.

However, hegemonic empires differ in one important regard from paramount chiefdoms, a difference that qualifies the former as states and the latter as not (Willer et al. 2013). Unlike paramount chiefdoms, hegemonic empires have formal administrative organizations. These organizations take the bureaucratic form in which there is a chain of command between the emperor and the units that are ruled. Moreover, in that chain of command, officials are separated from ownership of their offices. The Chinese Empire was bureaucratically organized and there were bureaucratic elements in the Inka and Aztec Empires (Chacon 2009; Hui 2005; Feinman and Marcus 1998; Trigger 2003).

Therefore, an important distinction between paramount chiefdoms from hegemonic empires is that in the latter, the state does not necessarily articulate with the whole society; nevertheless, it is the organization that centrally rules. Within that organization, the means of violence are monopolized. However, that organization does not necessarily extend to the level of the individual as it does in modern states. In hegemonic empires the state organization, within which violence is monopolized, stops at the village. The village is dominated by the state, but not ruled by the state. Said somewhat differently, the hegemonic emperor rules his bureaucracy, but only reigns at the village level (Willer et al. 2013).

⁸⁴ 'Hegemonic' and 'Bureaucratic' are distinct types of organizations; the classificatory terms used here reflect the extreme characteristics of those typologies. While ethnographic data show instances of micromanagement, such as in the case of Inka compelling marriage in order to collect labor taxes, generally, these organizations rely on indirect rule to control conquered population (Betanzos [1551] 1996; Kolata 2013).

With the advent of a formal bureaucracy, the ruling elite now controls an administrative system in which kinship and lineage ties are no longer as important as in the past. The importance of demonstrating courage in battle as a pathway toward social climbing may diminish in importance while other pathways, for example systems of examination for office, may be instituted. In fact, the ultimate head of the polity needs only control the non-kin-based administrative service and the warrior sector to exercise power over society (Thapar 1984). Thus, competition over the control of the military and the administrative system becomes the driving force in centralized bureaucratic states.

In summary, one path to social complexity leads from status lineages and paramount chiefdoms to hegemonic states which may, in turn, evolve into centralized bureaucratic states. Having expanded the status lineage organizational limits, warfare or the threat of warfare alone does not suffice for the control in the paramount chiefdom. Moreover, as the paramount system grows in size, continued support of a warrior caste becomes increasingly difficult. Unrest within the status lineage (i.e. aristocratic and warrior caste) ensues. In order to stabilize the system, a new mechanism to control the means of violence must be employed. Hypothetically, the paramount chief may seek foreigners from outside the society to organize resource/labor extraction from the population. Thus, an incipient administrative system, detached from the means of production and violence that leads to a hegemonic state and eventually to a centralized bureaucratic state can arise.⁸⁵ However, city-states lack that kind of centralization as will be discussed below.

⁸⁵ During the Inka's expansion, the ruling elite used non-Inkas that had been granted the status of Inkas-by-privilege as "the empire's administrators and colonists" (Malpass 1996:38).

Path to Decentralized City-States

The development of the decentralized city-state can also be traced to status lineage chiefdom structures. Experimental network research shows that coalition formation countervails power in coercive power structures (Willer 1999). Thus, an alternative to a coercive centralized structure is the formation of a coalition. Therefore, the steps of development of a decentralized power structure follow an alternative path that leads from chiefdoms with centralized power to power held jointly by a coalition of high-status actors. Following Weber, an example of this type of organization is the *hoplite polis*, an organization comprised of self-equipped landowning warriors (Weber [1896] 1988).⁸⁶ This coalition of high-status warriors can countervail the aspirations of individual actors to seize centralized control. Additionally, this system separates low status actors from the means of violence.⁸⁷ This separation further transforms status-influence relationships into power relationships based on exclusion, a potent structural power condition (Corra 2005).⁸⁸

Thus can a coalition of high-status warriors become the ruling stratum that controls the group's affairs. The organization of the city-state is intended to block a leader from taking power individually. Therefore, the warrior stratum takes measures fostering an egalitarian ethos among themselves. This egalitarian ethos dissipates

⁸⁶ For Weber (Weber [1896] 1988:74), "Participation in the city's military institutions was relatively democratized by the predominance of a hoplite army, while military service-and with it full citizenship-now became entirely dependent on ownership of land."

⁸⁷ See Corra (2005) for separation and exclusion as distinctly modern conditions of power.

⁸⁸ "Structural conceptions of power assert that actors that can exclude others from transactions are powerful relative to those that cannot" Corra (2005:59).

competition within the warrior stratum. Thus, this egalitarian coalition leads to a decentralized system.⁸⁹

While further explanation of this process is beyond the scope of this dissertation, the transition from status lineages chiefdoms to a non-centralized form of organization is an alternative path to the state. Suffice to say that the decentralized city-state “consciously did away with the institutions of earlier times” (Weber [1896] 1988:75).⁹⁰ I have examined the social structure of chiefdoms and it can be concluded that from chiefdom structures, at least two paths of development are theoretically possible. However, a detailed analysis of these trajectories is beyond the scope of this dissertation.⁹¹

When Politics Do Not Evolve: The Case of The Apa Tanis

I hypothesize that societies that lacked status lineage structures (i.e. segmentary tribes and unsegmented villages) do not develop into chiefdoms and subsequently to states.⁹² Rather than external conditions, it is the embedded instability of status lineage structures that sparks the societal transformations that led to more complex structures such as chiefdoms, paramount chiefdoms, and/or states. Furthermore, it is the organizational

⁸⁹ Among the ancient Greeks, in the hoplite *polis* the core of the army was recruited from the free citizen yeomanry (Weber [1896] 1988).

⁹⁰ The conditions for the transition from chiefdoms to city-states will be more fully addressed in a future work.

⁹¹ Future publications will provide a detailed analysis of these trajectories.

⁹² Berezkin (2000:351) points out that as far as we know “people of the Ancient Middle East had neither classificatory systems, nor clans, not to mention moieties. Would it be too bold to suggest that it was this original lack of, or underdevelopment of, a clan-and-moiety system that contributed to the more important role of personality that, in turn, had hindered the development of hierarchies?”

capabilities of the status lineage/chiefdom that pushes these changes forward. I offer the Apa Tanis of northeastern India to support my hypothesis.

The Apa Tanis of northeastern India are environmentally circumscribed yet their densely populated villages remain autonomous (Fürer-Haimenforf 1962; Berezkin 1995, 2000; Blackburn 2012; Carneiro 2012b).⁹³ Entirely ringed by mountains, according to the circumscription theory this area “has all the elements that should have led it to become politically unified, thus spawning a chiefdom” but it did not (Carneiro 2012b:164). Its several villages remained autonomous with no centralized authority (Fürer-Haimenforf 1962; Berezkin 1995).⁹⁴

Commenting on the Apa Tanis’ failure to develop a chiefdom, Carneiro (2012b:165[italics original]), explains that the “circumscription theory does not say that a circumscribed area *must* give rise to a chiefdom or as state” but rather, environmental circumscription facilitates the rise to a chiefdom. For Carneiro, “the presence of other auxiliary conditions will determine whether it actually does so or not” (2012b:165).

I hypothesize that the Apa Tanis did not develop a chiefdom because they lack status lineage structures. Instead, the Apa Tanis social structure is characterized by an egalitarian patrilineal lineage/clan system that lacks status differentiation (Fürer-Haimenforf 1962; Berezkin 1995, 2000; Blackburn 2012). According to Blackburn (2012):

[N]o clan claims special authority based on prior status or settlement. True, Apatani clans are divided sharply between

⁹³ The Highlands of New Guinea is another densely populated area with both environmental and social circumscription in which no chiefdoms or states emerged before the establishment of the modern Papua New Guinea state (Beliaev, Bondarenko, and Korotayev 2001).

⁹⁴ For Carneiro (2012b:165), the Apa Tani valley not only was densely populated but also contained the largest recorded autonomous village with a population of about 7,000 persons.

high status and low status, largely on the perception and partial reality that the low status clans contain neighboring tribesmen and women who assimilated into local society as slaves, servant or bondsmen and women. However, none of the high status clans –about 75% of the total population-asserts rights or privileges with reference to the past... While founder ideology and precedence are weak, genealogy is central to Apatani thinking. (P.21)

Moreover, despite their social and environmental circumscription, the Apa Tani developed a decentralized system that controlled large scale violence (Fürer-Haimenforf 1962). Thus, warfare was avoided by relying on decentralized clan councils that mediated disputes. According to Fürer-Haimenforf (1962):

Apa Tani villages lack a centralized authority, wielding power over all the inhabitants, but village affairs are managed in a somewhat informal manner by a council of clan representatives (*buliang*). These *buliang* are men of character and ability, drawn from among the members of a lineage which, owing to its wealth and status, always furnishes one or two *buliang*, or chosen on account of their personal standing in the community. (P.67)

The Apa Tanis had longstanding non-aggression treaties established between the valley villages (Fürer-Haimenforf 1962). While “no one remembers the circumstances which led to their formulation” they claimed that without these treaties, the Apa Tanis “could not live even for a month” (Fürer-Haimenforf 1962:101). Enforced by the clan representatives, these treaties did not prevent individual acts of violence or the formal organized armed demonstrations between villages, but, they helped “to keep such demonstrations within fairly narrow limits, and it is unusual for such a demonstration to result in a loss of lives” (Fürer-Haimenforf 1962:101). Despite their circumscription, the Apa Tani villages “offered their inhabitants a high degree of personal security, provided,

of course, they did not expose themselves to the attacks of ...raiders by venturing too far into the forest” (Fürer-Haimenforf 1962:100).

The Apa Tani case suggests that circumscription together with high population density do not inevitably result in increasingly intense warfare.⁹⁵ Instead, I hypothesize that circumscription together with status lineages are the conditions spurring increasingly intense warfare that leads to more complex societal organizations.⁹⁶

In summary, the Apa Tanis had a high population density that was subject to environmental circumscription. However, this society did not develop a chiefdom structure due to the absence of status lineages. Lacking the internal dynamics that spark status rivalries, the Apa Tanis developed non-violent protocols for conflict resolution. The establishment of non-aggression treaties enforced by a decentralized body of clan representatives secured internal peace among the Apa Tanis. Furthermore, while acts of individual violence and organized armed demonstration occurred, they were effectively controlled by the enforcers of the Apa Tanis’ normative system. Therefore, Apa Tanis seems to have been an “island of peace in a turbulent world torn by tribal feuds and savage raids” (Fürer-Haimenforf 1962:100). Thus, while circumscription is a necessary condition for the development of social complexity, it is the presence of status lineages

⁹⁵ The Apa Tanis case suggests that circumscription by itself is not a sufficient condition for the development of social complexity.

⁹⁶ Hawaii and New Zealand illustrate how circumscription and status lineages are both *necessary* conditions for the rise of the state. Both Hawaii and New Zealand were colonized during the 13th century A.D. by status lineage societies (Firth 1957; A Glimpse 2001; Wilmschurst, Hunt, Lipo, and Anderson 2011). However, Hawaii developed greater social complexity than New Zealand in roughly the same amount of time. I suggest that this development was due that Hawaii’s relatively small landmass of 16,558 sq. km, provided vanquished factions with limited options for flight (i.e. circumscription) (Mac et al. 1998:747). Contrastingly, New Zealand’s relatively larger landmass of 269,652 sq. km provided vanquished factions with more options for escape (i.e. less circumscription) (Mac et al. 1998:747; Statistic 2013). Thus, the Hawaii-New Zealand comparison clearly shows that ‘sufficient population density and circumscription’ along with ‘status lineage’ are both *necessary* conditions for the rise of the state. I suspect that future research will show that the two are *sufficient*.

that triggers the internal transformations that results in more complex forms of social organization.

CONCLUDING THOUGHTS

In the evolutionary path theorized in this dissertation, institutions fail when they are superseded by other institutions. The status-lineage chiefdom, that solves its collective action problems through influence alone, faces imminent failure because of rivalries triggered by the downward mobility of all members except those in the senior line. Failure is postponed by war that stabilizes the chiefdom by introducing power based on indirect coercion. But in that postponement, the earlier institutions are superseded and others are put in their place. Said somewhat differently, the earlier institutions of status-influence evolve through indirect coercion into direct coercion which in turn, transforms society into a paramount chiefdom.

This evolutionary path is not unilinear. To the contrary, the instability of the status-lineage society can result in a number of contrasting outcomes. When there is room to migrate, cadet lines which are decreasing in status are strongly motivated to leave and establish new independent populations. If the newly established populations continued with their status-lineage based organization, eventually, cadet lines can be motivated once again to migrate until all local space available is filled. This process might explain the great prehistoric migrations of populations across Eurasia and the Pacific.⁹⁷

It seems that a necessary condition for the evolution from chiefdom to paramount chiefdom is circumscription of the system exacerbated by competing chiefdoms that act as an external threat to each other. Circumscription, by blocking escape contains and

⁹⁷ While these migration are worthy of investigation, this analysis is beyond the scope of this dissertation.

maintains the instability such that, the only path toward stability is the evolutionary path traced in this dissertation.⁹⁸ But the evolutionary path to a paramount chiefdom is not mechanically fixed. Decisions must be made by individuals within the social structure to change it. That is to say, the conditions of instability must be recognized as problematic and the solutions chosen must be the ones delineated here for the evolution to occur.

Subject to further research are the conditions under which the internal transformations of the status lineages lead to a decentralized state that rules by committee rather than by a centralized bureaucratic organization. Network experimental research on coalition formation and exclusion may help us to better understand the consequences of an army of high-status actors with the capability to curtail single actors' ambition and the power, to exclude low-status actors from the decision making process that led to the development of the decentralized city-state.

Proposed here is a theory that, while far from proven, can initiate research that can either support or falsify it. Previous theorizing on the development of social complexity has focused on impact of conditions external to the evolving society. The theory proposed here concentrates first of all on internal dynamics and only then on external conditions including circumscription and war. Since it is the structure of the society that is changing, the theory proposed here suggests that, to explain that change, look first to the potential for change within the structure itself.

⁹⁸ In the case of the Cherokee for example, a 'paramount chiefdom' formed under threat from invading Europeans (Carneiro 1998). This type of 'paramount chiefdom' resulting from external threats is a dead end that does not lead to the state because, lacking both status lineages and circumscription, the structures of this polity did not undergo internal transformations. This type of polity, formed by segmented tribes to face external threats, dissolves when the threat is no longer present (Sahlins 1961).

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APPENDIX A

SOCIOLOGICAL THEORY DRIVEN EXPERIMENTS

Drawing heavily from Willer and Walker (2007), this section explains the protocols for theory based experiments in sociology and the application of experimentally tested theory on nonexperimental forms of controlled investigation. Experiments are a distinctive type of methodological inquiry in which the investigator controls the phenomena of interest and sets the conditions under which they are observed and measured (Willer and Walker 2007). Once the phenomenon of inquiry is selected, the researcher identifies conditions thought to be important for its understanding. Throughout the experiment, the researcher measures structures and processes, tracks changes, and records conditions.⁹⁹ These measures are used to produce data that must be analyzed and interpreted, and the findings compared with the ideas that shaped experimental design. The most important experiments are designed by theory to test theory (Zelditch 1969; Walker and Willer 2007; Thye 2007).

A theory is a set of interrelated, universal statements to which a set of rules of procedures can be applied to create new statements (Walker and Cohen 1985; Cohen 1989; Willer and Walker 2007).¹⁰⁰ Theories explain statements about relationships between phenomena and provide the ‘blue print’ for the design of experiments (Cohen

⁹⁹ “Measures are created by assigning qualitative or quantitative values to conditions” (Willer and Walker 2007:2).

¹⁰⁰ ‘Universal’ statements are not limited by time and place (Cohen 1989).

1989, Willer and Walker 2007).The following section explains how theory driven experiments are designed.

Willer and Walker (2007:65) state five maxims for building theoretically-driven experiments:

1. Derive one or more models from the theory to be tested.
2. Use the theory to generate predictions by linking initial conditions to end conditions.
3. Build replicas, set initial conditions, and observe the end conditions.
4. Compare results to predictions and decide whether the theory is supported.
5. Make inferences from theory with greatest confidence to instances most theoretically similar to experiments supporting the theory- but predictions are not formally limited by that similarity.

Theory to Be Tested

Experimental tests of theory require scientists to reproduce a structural similarity between lab and field (Willer and Walker 2007). For example, Willer and Walker (2007) study the relationship between exchange structures and action in mixed-motive bargaining situations from the Network Exchange Theory perspective. Network Exchange Theory (NET) uses the principle of rationality- all social actors act to maximize their expected preference state alteration (Willer 1999:30).That is, individuals have ordered preferences, and their actions are designed to achieve the highest ranking of those ordered states (Willer and Walker 2007).Thus, actors are connected in a mixed-motive social relation.

A mixed-motive relation occurs when both actors are driven by two contrasting motives (Willer and Walker 2007). In a mixed-motive relation, any agreement that is better for A is worse for B and vice versa. Moreover, for both actors, any agreement is better than confrontation (when agreement fails to occur). Thus, actors compete to obtain the best offer and cooperate to get an agreement. The models shown in Figure A.1 represent the mixed-motive relation between A and B.

Predicted Payoffs	Models
$P_A = P_B$	$0 \rightarrow A \xrightarrow{10} B \leftarrow 0$
$P_A > P_B$	$5 \rightarrow A \xrightarrow{10} B \leftarrow 0$
$P_A < P_B$	$0 \rightarrow A \xrightarrow{10} B \leftarrow 5$

Figure A.1. Models of Symmetrical and Asymmetrical Exchange Structures (based on Willer and Walker 2007:69)

In the three models depicted in Figure A.1, a pool of 10 resources is divided among actors. Actors A and B have a range of nine possible agreements. All agreements are preferred over the confrontation where A and B gain zero. Thus, the first resource pool relation is a symmetrical mixed-motive. The other two relations are also mixed-motive but they do have an alternative agreement possibility of five valued resources (Willer and Walker 2007). Therefore, models 2 and 3 represent asymmetrical mixed-motive relations with less possible agreements and uneven payoffs.

Experiment Implementation

The experiment designed to test the above mentioned theory will mimic the models in Figure A.1, both in shape and behavior. The experimental conditions should be a duplication of the models (Willer and Walker 2007). That is, the experiments should be “perfectly isolated with no payoffs directed from outside the modeled system and have no ‘side’ payoffs introduced by the subjects who we place in the A and B positions” (Willer and Walker 2007:69).¹⁰¹

The models in the experiment set the rationality principle and predictions. The predicted actors’ payoff for model 1, $P_A = P_B = 5$; for model 2, $P_A > P_B$; and for model 3, $P_A < P_B$.

The replica of such isolated models can be achieved by building a computer interface. The investigator should control that the subject not interact face to face but only thorough a computer monitor. This will limit subject communication to offers and agreements (Willer and Walker 2007). Additionally, the investigator has to motivate the subject to act according to the principle of rationality. This can be achieved by paying subjects according to the points earned during the experiment. Also, by explicitly instructing subjects to seek the best payoff. Placed in different rooms, subjects negotiate from either the A or B position for 10 trials.¹⁰²

The results of the experiments confirm the predictions of the theory. In the first experiment, the average payoff for A and B was 5 points which confirms the prediction of model 1, $P_A = P_B$. In the second experiment, A gained more than B, confirming the

¹⁰¹ Side payoffs are incentives that subjects make to others in order to get them to accept their offers (Willer and Walker 2007).

¹⁰² In order to avoid possible bias, both subjects see themselves in position A (Willer and Walker 2007).

prediction of model 2, $P_A > P_B$. In the third experiment, the results also supported the prediction that B gained more than A (Willer and Walker 2007).

The rationality principle could be applied to many models that are unlike the three presented in this section (Willer and Walker 2007). The next section will explore the application of theory to explain historical events.

HOW THEORY IS APPLIED IN HISTORICAL-COMPARATIVE RESEARCH

Theory can connect simple experimental models to complex historical and contemporary social structures (Willer and Walker 2007). It is the responsibility of social theorists to bridge the observations made in controlled laboratory environments to the world outside the lab (Willer and Walker 2007). There are two approaches to the application of theoretical models to historical events.

The first approach is to apply an already tested theoretical model to a particular historical event that resembles the model's characteristics. For example, Willer, Simpson, Szmataka and Mzur (1996) use Elementary Theory (ET) models of coercive structures to analyze the fall of the Roman Empire in the West. In this case, all comparisons are between an empirical case and a theoretic model. Thus the inferences are never from experiments to historical cases but rather only from experiments to models and from those models to historical cases (Willer et al. 1996).

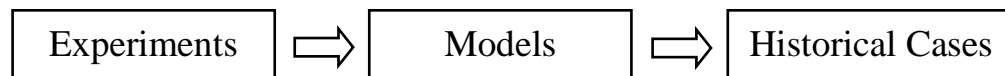


Figure A.2. Inferential path in the application of theory to historical cases.

The second approach is to begin with a historical case or cases and generate a model for their interpretation (Willer 1987). “Because this enterprise is not empiricist, the relation between experimental investigation and historical investigation lies not in the similarities of the cases studied but in the relations which can be drawn between them through theory (Willer 1987:254).¹⁰³ For example, Willer (1987) applies ET models to analyze the exchange network of a capitalist firm while Corra and Willer (2002:182) explore “examples of gatekeeping to discover their empirical significance and identify the conditions under which gatekeepers benefit.”¹⁰⁴

Theory can compose complex models to explain complex structures (Willer and Walker 2007). To explain major historical transitions such as from the slave to feudal mode of production, a massive theoretic elaboration and extensive historical research is required (Willer 1987). Fortunately, Elementary Theory and other sociological theories cumulate robust data to take on such an endeavor.

¹⁰³ The empiricist experimental method aims to discover empirical regularities in the laboratory and empiricist historical method aims to discover regularities in history (Willer 1987).

¹⁰⁴ Particularly, the Medici of Florence from 1400 to 1434 A.D. (Corra and Willer 2002:183).