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IDENTIFYING GAME SPECIES WITH THE AID OF PICTURES IN PAPUA NEW GUINEA

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The author spent time among a Papua New Guinea tribal people, the Seltaman, studying their ideas regarding natural species. In the course of this work, she resorted to pictorial field guides to help identify the local avifauna and the local game repertory. This essay takes up the issues raised by using this mode of identification. One is the question whether--as some claim--preliterate peoples' are unable to "see" pictorial representations as Westerners do. The author explains that the sorts of difficulties she encountered in using pictures for species identification with the Seltaman were no different from the difficulties that emerge when unpracticed Westerners attempt to use pictures for identification purposes. These difficulties (which are surmountable) are most pronounced in regard to photographic depiction and are familiar to scientific illustrators. The author also deals with some of the taxonomic oddities that emerge in the course of identification. At the end of the essay, she offers "educated guesses" as to the mammal species familiar to the Seltaman people. It is hoped that this essay, by alerting other New Guinea researchers to avoidable confusions, will encourage them to attempt mammal identification with the use of pictures.

MY INTEREST in the birds and mammals of New Guinea developed in conjunction with research among the Seltaman people, a group of horticulturists-hunters of New Guinea's Central Ranges whom I first visited from 1987 through 1989. I came to realize that the more I knew about the fauna of the region, the more I understood about Seltaman life. Fredrik Barth, who studied the neighboring culturally similar Baktaman some twenty-three years earlier, has observed that the cosmology of the Baktaman-Seltaman region takes nature as its object (Barth 1987:66, 69), and thus any knowledge of the natural surroundings serves to fill out one's understanding of local belief. However, exploring this argument brought me up against an impasse frequently encountered by anthropologists in New Guinea: the diff-

culty of identifying the game mammals and birds. Birds, most of which are creatures of daylight, can be managed with a good pair of binoculars and a field guide (and diligence), but even under the best of conditions the mammals are daunting. Comprising an assortment of mouse-to-racoon-sized marsupials and rodents, most are nocturnal and cryptic in their habits. They spend their days sleeping in high tree holes or well-concealed burrows and their nights hidden in the foliage; one does not casually observe them in the wild. For most anthropologists, the arduousness of bush travel and bivouacking (particularly at night) and the amount of time that would be consumed in amassing a personal collection of local species rule out the mount-your-own-expedition approach, while enlistment of local hunters to bring one the specimens requires instituting a well thought out program at the beginning of one's field stay (if a reasonably extensive collection is to be obtained)[1] and may bring one up against etiquette problems flowing from the very cultural processes that make game species of interest in the first place.

Among the Seltaman, for instance, game consumption involves carefully engineered privacy. Showing a captured animal is tantamount to promising a share of it to the viewer, the viewer's protests notwithstanding. While certain of my Seltaman friends were willing to make this sacrifice for my sake, the idea of having to wake me in the middle of the night for this purpose with the risk of waking neighboring households in the bargain proved too great an inhibition. (I did ask, at one point.) Again, many game items are cooked shortly after capture at distant bush sites, so that often specimens arrive back at the village in already unidentifiable form. One's best bet is to institute the plan of collecting skulls (or at least teeth) after the feast is over (see Dwyer 1990; Morren 1989). But for the Seltaman, the offer of a bone from an animal that was not shared with the recipient would have been as socially embarrassing as showing the animal but not sharing it. And skull collecting entails a ticklish interference with Seltaman feasting habits. Seltaman typically give the heads of small animals to children, who (like adults) break up and partially consume the cooked bones, flipping the too-hard bits into the fire. Whether or not families would have been willing--and would have remembered--to delay a child's gratification in order to separate meat from bone is a matter over which I have my doubts. Had I made the demand as a new arrival and relative stranger, it might have worked, for during this honeymoon time of my fieldwork, the Seltaman were ready for the new and untried. But I did not, because those questions were not then on my mind.

This brings me to the means of identification that I wish to discuss here --the use of pictures and other nonspecimen evidence. It is a fallback strategy, and the identifications produced thereby cannot be accepted as defini-

tive. Nevertheless, for answering a number of types of cultural questions, the results can be quite adequate. In some research I was doing on food taboos, for example, I was able to determine that virtually every creature categorized as food for "women and children only" was either too small or too seldom encountered (or both) to become a reliable element in the meat-sharing practices that are so central to Seltaman adult male sociality. Discussion launched on the basis of pictures was sufficient to bring this trend to light and for me to assess its dimensions.

One distinct advantage in the use of pictures is that an illustrated inventory brings to viewers' attention a wider range of species than hunting efforts are likely to produce during the eighteen to twenty months that the anthropologist is--intermittently--in residence and provides a collection of creatures that can be compared on the spot. Such an inventory makes one aware of which creature names are (probably) alternate terms for the same thing and which names are most often used generically Along these lines, it was a revelation in my own research to discover that the Seltaman designations for two small tree mouse taxa used in a very hush-hush (though common) ritual sacrifice were terms that Seltaman comfortably applied to a number of depicted biological species, a finding that suggests that any uniqueness in detail of these creatures was not so important in their appointment as sacrifices as was the ready availability of their general type. Had I relied for my understanding on a sample of specimens trapped for a particular sacrifice, I could easily have concluded erroneously that only a certain pair of species was acceptable.

To enumerate other advantages to pictorial methods, the availability of the picture book or books attracts curious visitors, thus widening one's sample of opinions, and its standard inventory becomes a sort of benchmark against which to assess the scope of different informants' knowledge. Further, by introducing the book as a source of entertainment during slack moments, one can repeatedly refresh informants' interest in the topic and harvest new stories and explanations.

Naturally, I strove for as much precision as possible in my species identifications, and the information brought forth by pictures could in many cases be supplemented. I was able to see a modest number of mammals (a half-dozen species); and I had available to me some specimen-based identifications from the game lists of distant, culturally and linguistically related neighbors (Flannery 1990; Morren 1986, 1989; Hyndman 1979, 1984). These additional supports helped direct inquiry and narrow options. As I and the Seltaman progressed in our pictorial specification of local taxa, the information value of each new observation in turn progressed in a sort of snowball effect. The list of Seltaman game mammals that resulted from this

cumulative specification process, while it contains many educated guesses, is nonetheless the most comprehensive to emerge from this area of New Guinea.

It is in the interests of justifying this list and of enabling others to employ similar research methods that I wish, in the present essay, to spell out the details of this approach, clarifying its pitfalls and coming to terms with the sorts of controversy that will inevitably surround it. In what follows, I will deal first with the issue of "picture literacy" among the Seltaman, an area of potential controversy; second, with the supplemental information that I was able to bring to bear upon pictorial identifications; and then with the wrinkles of local folk taxonomy that were encountered among the Seltaman and that are often present in other New Guinea cultures. I conclude with the list of tentative game identifications.

Research among the Seltaman

For two years and two months I lived and worked among the Seltaman people, and spent time as well with their near-neighbors the Angkayak. Both are small horticulturist-hunter societies located in the Murray Valley District of the Western Province. Part of a large congeries of Mountain Ok-speaking groups, the Seltaman and their neighbors nowadays rely for meat more on domestic pig and tinned goods than they did in the past. Still, every capable man puts in a few days every month hunting in the traditional style, and every capable woman spends a comparable amount of time frogging, an engagement that may result in the capture of game mammals and (sleeping) birds as well. The topic of natural species always drew interest from the Seltaman, and I found that drawings and photographs of animals and birds, whether the creatures were local or foreign, were always avidly perused and discussed. I had not gone to the Seltaman with any particular intention of figuring out their faunal environment or any hope of being able to do so. However, for my own diversion, I took up bird-watching while there and had on hand Beehler, Pratt, and Zimmerman's guide to the birds of New Guinea (Beehler et al. 1986). The book was an instant hit with the Seltaman, so following the direction of their interests, I found myself trying to set down a record of Seltaman bird identifications. In the end, I had obtained names for over two hundred taxa of bird *(auon).* In time, I was able to confirm as local 113 of these, and I found that in-field identifications (including killed specimens shown to me) usually supported the identifications Seltaman had given of book illustrations.

When I returned home from Papua New Guinea in 1990, I found that Timothy Flannery's *Mammals of New Guinea* had been published. It is a

virtually complete inventory of New Guinea mammals, with most species photographically depicted and many, though not all, depicted against the background of their natural habitat. Finding that the writing I was doing on Seltaman food distribution and eating restrictions required a better identification of the Seltaman game repertory, and encouraged by my work with the bird manual, I returned to the Murray Valley for a two-month visit in 1993 and introduced the Seltaman to Flannery's photographs. My experience with these two books and with assorted magazine pictures and additional illustrations form the basis of what follows.

Seltaman Picture Literacy

One potentially controversial aspect of the pictorial approach is the question of the New Guinea peoples' competence with pictorial representation. I met a visiting ornithologist in Papua New Guinea who dismissed out of hand the possibility that Seltaman could recognize their familiar local bird species from pictures. To work out a taxonomy on the basis of this sort of evidence would be, in his estimation, simply to spin fantasies. Another quite prominent Melanesian ornithologist, Jared Diamond, who makes a practice of collecting local names and lore as he studies the birds of an area, admits to readily dispensing with the use of pictures for identification after he encountered some of the difficulties that I will discuss below. As I have remarked, ornithologists are at greater liberty to abandon the picture method in favor of in-field identifications, and I would certainly expect them to favor the superior method. But the dismissal of pictures is often as not accompanied by the attitude revealed in Diamond's parting shot: "The picture method's failures illustrate the risk of using our own perceptions to devise tests for the perceptions of another people" (Diamond 1991:84).

I would like to suggest that this "our culture versus theirs" polarization oversimplifies the actual perceptual situation and in doing so prematurely forecloses on a potentially useful methodology Reviewing the literature, I find that my own discipline, anthropology, may be in part responsible for this now widespread suspiciousness regarding the ability of non-Westerners to "see" pictures the way we do. Weighing in on the other side of this issue, I propose that while there may be occasional cases of unusual "picture blindness" among nonliterate peoples, the more usual sorts of picture difficulties that the visiting scholar encounters are indistinguishable from picture difficulties that occur in our own culture.

Anthony Forge's observations about the Abelam, that even after twenty years of contact most were not able to make heads or tails of photographs (including photos of each other in village surroundings), has, with miscella-

neous similar observations from certain Africanists (see, for example, Segall et al. 1966), formed the basis for a rather widespread scholarly distrust of any approach that takes as self-evident our (Western) way of seeing the depicted (Forge 1970). If photographs, which are to us the most veridical of all modes of depiction, can appear senseless to those whose eyes are untrained in picture gazing, we are even less inclined to trust identifications based on graphic illustrations, where the element of abstraction is even greater.

I found in the case of the Seltaman that such distrust was misplaced. Identification difficulties were plentiful to be sure. But upon examination, I could not trace these to any "picture blindness" peculiar to the Seltaman Rather, most difficulties were the same ones observable in our own culture among novice bird-watchers, for instance, or in anyone unpracticed in the use of pictures for any identification purposes other than the identification of ethnically familiar humans. Certain other identification problems were attributable to classification usages; these were difficulties for the anthropologist rather than for the Seltaman viewers. I will concentrate here on the seeing.

It became apparent early in my research that Seltaman with good eyesight were, for the most part, competent, even keen, with most available forms of depiction. While all had some prior exposure to Western pictorial representation, preeminently photography, few had the extensive experience that a Western child would have acquired by school age. This being the case, it was more to their visual credit that some individuals could even discern what was depicted in aerial photographs (culled from magazines). Nor did they miss any beats when it came to graphic illustration. Once when we were perusing a magazine ad that featured an enlarged drawing of a foreign banknote, a three-year-old boy picked out the picture of a bird hidden in the engraved margins of the banknote and, tapping it, murmured *auon* (bird). I would not otherwise have noticed it.

In fact, in comparing Seltaman abilities with the two creature books--Beehler et al. (1986), which is graphically illustrated, and Flannery (1990), which is photographic--the graphically illustrated bird manual appeared superior as a tool of identification. Of course, one can hypothesize reasons outside of the contrast between drawn and photographed why this might be the case. It has been suggested that New Guinea birds are easier to recognize because they are more often seen--alive and in daylight, posed (as in a good picture) and turning to present their different facets to the unhurried eye. The game mammals, by contrast, are most often seen dead, when seen in adequate light, and thus in the limp and misshapen posture of the killed. Their natural live posturings take place, for Seltaman eyes, fleetingly, behind foliage or in the depths of a tree hole, usually by moonlight or in the

distorting beam of a flashlight. Although there is merit to this argument, it is rather diminished when we consider the case of hawks, falcons, and kites. These birds are posers as good as any, they are varied in appearance in the Seltaman area, and most are large enough to present detail to the unaided eye. Yet they are the least differentiated of Seltaman birds. Most are lumped under the generic *auon nginaan* (the rough equivalent to our "hawk"). I surmise the reason for this is that hawks are the birds least often seen dead, or perhaps least often seen close enough to shoot; and that the greater individuation of other birds is the result of Seltaman routinely getting at close quarters with them--that is, shooting them and handling their dead bodies, as they do with the game mammals.

As for the contrast between graphic and photographic illustration, my finding of differing ease of use would have been anticipated by scientific illustrators. Roger Tory Peterson, designer and illustrator of the first systematically organized guide to North American birds, speaks of the "boiling down" (simplification and highlighting) process that the field-guide illustrator must execute with each depicted species, a process not as readily effected by the camera, which "does not intellectualize or edit" (cited in Devlin and Naismith 1977:170). Peterson perhaps exaggerates, since in the hands of someone like himself, the camera can attain to diagnostic depiction; yet-, in general his points hold. The difficulties Seltaman experienced with Flannery's book, which I will detail below, seemed largely attributable to camera artifact and the incommensurability of scale between the photographically depicted creatures. I should hasten to point out that Flannery seems to have intended the field-guide dimension of his work to be achieved primarily in his arrays of skulls and teeth at the back of the book, rather than in the photographed whole creatures. (My guess too is that a comprehensive graphic illustration of New Guinea mammals was ruled out by the lack of illustrators adequate to the task. There are five graphic illustrations included as it is.) Even so, the creature photographs did contain certain types of useful detail not normally present in illustrations. I will comment on this later.

Turning to the specifics of the Seltaman reactions to the two books, it appears that, like us, Seltaman oscillate between a global impression of the depicted creature, which launches the identification along a generic track (e.g., "It's a large rat-type"), and a finer pinpointing in terms of specific diagnostic features ("It has long whiskers and a white tail tip; therefore it's a such-and-such"). A graphic illustration intended as a guide to identification typically includes all essential visual details while eliminating the "noise"--strange light angles, ruffled feathers, and so forth--that a camera picks up. Furthermore, in guides, attention is paid to the relative size of different creatures, so that those depicted adjacently on the same plate are (usually)

depicted in accurate proportionate scale. Whatever loss of realism through stylization or poor color reproduction an illustration may suffer does not seem to override its ability to capitalize usefully on the oscillation between global and specific that eventuates in recognition.

Seltaman reactions to Flannery's photographs often indicated that this movement was being upset. A detail suppressed through cropping on shadow would alter the course of an identification. Many, for instance, hesitated or simply guessed the identification of the photograph of the feather-tailed possum (Flannery 1990:136), while responding immediately (with unanimous agreement on the name) to the illustration on page 139 of the same creature. The illustration foregrounds the peculiarities of the tail, which in the photograph is lost in shadow. Several Seltaman switched identifications of the common cuscus when they moved from the photograph on page 116, where the nakedness of the tail is cropped out, to the same expanded photograph on page 123, where a greater length of tail is revealed. In one case, the search for an elusive taxon, noted for its predilection for high tree holes, was concluded--wrongly--when viewers located a tiny creature (the long-tailed pygmy possum) photographed from below so that it appeared loftily out of reach. The very same species, on a following page, photographed face-to-face with the camera, was never identified as this taxon.

The disproportion of scale between photographs, which derailed Jared Diamond's attempts with pictures, frequently proved troublesome in my own work. Despite my frequent warnings to viewers that "the picture is big but the creature is truly small," some Seltaman when faced with an enlarged mouse, for instance, came up with guesses pertaining to much larger creatures. In two instances, Seltaman who moved from the smaller-scale photo of the northern brown bardicoot on page 84 to the larger scale of the same photo on page 87 exclaimed that the first was the smaller of two familiar subtaxa, while the second was the larger! I myself wrongly gauged the size of the pygmy ringtail on pages 156 and 170, and as a result misled some viewers into wild guesses; eventually one informant who was quite certain of her identification told me it was a lot smaller than I was letting people think.

To return to my point about the recognition process, inasmuch as a depiction deprived Seltaman viewers of the diagnostic details on which they rely, their identifications tended to remain global or, in some cases, to fail altogether. By corollary, when a camera artifact distorted some aspect of the overall gestalt of a creature--such as by greatly enlarging a small creature relative to other depicted species--but preserved a range of detail (e.g., the whiskers and white tail tip), Seltaman would often produce a specific but quite wrong identification.

I should add that, although these factors contributed to the general superiority of drawings to photographs, specific drawings could fall flat. In Beehler et al., Seltaman consistently passed over the two illustrations of their familiar New Guinea harpy eagle, and the illustrations of the brush turkeys left them arguing over which of the many depicted ones matched their three named types. Another important qualification, mentioned above, pertains to the "habitat" features that appear with the depicted creature and are themselves often helpful or even diagnostic. Many of Flannery's creatures are photographed against visible vegetation. One creature, the painted ringtail, as depicted on page 167, would often draw a hesitant response until the viewer noticed that it is traveling along a vine, at which point he would instantly call its name. In several other cases, Seltaman could tell me at what general elevation the creature was photographed because of surrounding vegetation. Elevation (of which I was informing them from the text in any case) is diagnostically important. In illustrated manuals such information is usually included in the text, but textual information, especially botanical information, may be compromised in usefulness if the Western interviewer has no means of translating Western terms into those of the local language. In this respect, Flannery's photographs carried with them an unexpected bonus.

Seltaman unfamiliarity with the conventions of book layout was the basis for a final area of confusion that affected use of both books, though the bird guide perhaps more than the mammal book. Sometimes a bird plate would be broken into two sections by a line. Seltaman rightly perceived that there was a meaning to this but often guessed the wrong meaning, for example, "All the ones on top are cold-place (high elevation) birds, and all the ones down below are hot-place (low elevation) birds." Also Seltaman often assumed that things depicted close to one another were related. In thumbing through issues of *Time* magazine, for instance, viewers strove to link together any two individuals depicted in sequence with no intervening photographs ("Here's the president and here's his wife," or "That's her child," and so on). As it happens, in both species books, creatures depicted in close association usually were zoologically closely related, so the Seltaman response was, unwittingly, appropriate. Nevertheless, the books' deliberate clusterings of zoologically related species furthered the Seltaman tendency to liken the propinquous to the point that many overinclusions resulted. Thus, for example, all the unfamiliar cuckoo-shrikes would be lumped with the familiar ones, as the informant would declare the entire plate of cuckoo-shrikes to be "all *buner.*" (These overinclusions were broken down by later, more leisurely analysis.) Conversely, Seltaman were puzzled by those few instances in Beehler et al.

where a female of a sexually dimorphic species is depicted on a separate plate from the male. They consistently failed to link the two together spontaneously.

The Seltaman tendency to relate two things depicted in close proximity could be glossed as a cultural difference between "us" and "them." But even here, the "cultural difference" idea promotes oversimplification rather than aiding analysis. This Seltaman tendency, it could be argued, is based on the Gricean principle of interpretation: two things close together are assumed--in any culture--to be somehow related unless an additional feature of the situation suppresses this implication. For the book-savvy Westerner, any intervening text tends to suppress the implication of relatedness between two photographs, and the reader looks instead to the nearby text to interpret the picture (Grice 1989:ch. 2). Nonliterate Seltaman have not learned to look for relatedness in the adjacent text rather than in the next available picture.[2] Differences of a similar contextual sort are also perceivable in my own obliviousness to the bird engraving in the banknote margin that the three-year-old Seltaman spotted. It is probable that the very young in Western culture too would stand a better chance of noticing the bird, since for them, as for the Seltaman child, the larger-meaning percept "banknote" does not as yet intervene to suppress any curiosity about the details of the engraving. Both of these examples encourage us to try to pinpoint more carefully the locus of differences between discrepant perceptual responses when these responses come from persons of different cultures. Often the difference is highly context-specific rather than widely ramifying, and a resort to sweeping contrasts of the "us/them" sort is thus inappropriate.

In overview, while Seltaman were rather more easily derailed by incommensurable pictorial size scales than are Westerners (and Westerners are not immune to this problem) and while their lack of experience with books and text caused differences in their assumptions about the relatedness of physically associated depictions, by and large their confusions with Flannery's mammal book were of the sort inexperienced Westerners too manifest when attempting to use photographic guides to species identification. These stem from the fact that the camera does not always preserve the particular balance between overall sense impression and diagnostic detail that characterizes the viewer's strategy of recognition. Their lack of photographic sophistication notwithstanding, Seltaman proved remarkably astute with visual guides of either the graphic or the photographic sort. It is perhaps time to dethrone the mystique that a different culture necessarily means a radically different way of seeing.

Other Dimensions of Species Identification

Decisions regarding the identities of Seltaman taxa involved much more than simply the naming of pictures. I asked Seltaman to describe the habits of a bird or animal, to imitate songs, calls, and other noises (they were startlingly good at this), and to characterize a creature's habitat. All these additional bits of information were matched against what I was able to learn from texts, tape recordings (of bird sounds), and in-field observations. Often the picture only set in motion a process that was completed, if it was completed--and many of my identifications are qualified, by the addition of some critical but nondepicted information.

Of the areas of additional information that fed into the identification process, the ones that Seltaman used most often were habitat, habits (especially diet and sleeping arrangements), and characteristic sounds. Secondarily, lengths of things (tail, feet, noses, whole bodies), odors, or peculiarities of a mammal's fur sometimes assisted in final determinations. Perhaps the single feature that repeated itself most often in the pinpointing of both bird and mammal taxa was the characteristic elevation range of the creature. The Seltaman live and do much of their gardening at 900 to 1100 meters. Higher elevations where temperatures are detectably cooler (say, 1300 meters or higher) are spoken of as "cold place" and lower elevations (say 700 meters or lower) as "hot place." "Cold place true" and "hot place true" are used for the greater extremes. Thus, in considering creatures, a Seltaman might say, "This one lives only in cold place true" or "Such-and-such is the only one of this type that you find in cold place and hot place both." Sometimes a combination of looks, elevation, and one additional detail would be sufficient to pin a taxon down. 'When you read to me that this one is cold place and it builds a little nest, then I knew it had to be X," the viewer of a picture might say.

Other than discourse with many Seltaman, the most important sources of additional information came from conversations with biologists James Menzies and Keyt Fisher, both at the University of Papua New Guinea, and from the publications by other researchers in the Mountain Ok area of partial lists of identified taxa from other Mountain Ok-speaking groups. Three researchers have published partial game mammal repertories for related Mountain Ok groups in which they match native taxa to Western species through collection of physical specimens: Timothy Flannery himself collected among the Telefomin and the Miyanmin, and his book contains many of their taxa terms; George Morren collected among the Miyanmin (Morren 1986, 1989), and David Hyndman among the Wopkaimin (Hyndman 1979,

1984). In some instances I have found useful supplemental knowledge (especially regarding game vocabulary) in the works or personal communications of other Mountain Ok anthropologists, in particular Fredrik Barth for the Baktaman, and Dan Jorgensen and Robert Brumbaugh for the Telefomin (Barth 1975; Jorgensen 1981; Brumbaugh 1980). Although there is naming variation from Mountain Ok group to Mountain Ok group and some variation within groups (judging from Seltaman examples), sufficient threads of concordance for mammals emerged to enable me often to narrow down greatly the possible (biological) identity of a Seltaman taxon by reference to the similarity of its Seltaman name with names of identified taxa in other groups. (I would not rely on this strategy in the case of birds, however, since name variation and thus nonconcordance across groups was much more common for birds.)

Again, in the case of mammals, where there are simply fewer species and native taxa than in the case of birds, a process of elimination could be instigated. When one very clear candidate for a name emerged, the name was assigned to it and the other possible candidates for that name were either routed to other names or scrutinized for indistinguishability from the lead candidate. For instance, field observations led me to fair certainty that the striped possum *(Dactylopsila trivirgata)* was present and called *ngarfem,* but Seltaman looking at the book used this name in regard to the related long-fingered triok *(D. palpator),* the great-tailed triok *(D. megalura),* and sometimes in regard to other stripe-faced creatures like the sugar glider *(Petaurus breviceps)* and the feather-tailed possum *(Distoechurus pennatus). P. breviceps* and *D. pennatus,* however, had other features (gliding and a feathered tail) that led Seltaman to other names, leaving only the closely zoologically related Dactylopsilae as belonging to a generic group, *ngarfem.* When Seltaman remarked that "some *ngarfem* have really big tails, and some have this longer finger," the inclusiveness of the term seemed beyond doubt. In the end of this elimination process for the entire list of Seltaman mammal taxa, some of my "leftover names" were tentatively matched with leftover creatures when additional evidence supported the guess; but more commonly, the leftover names emerged as alternates to a more commonly used term.

Seltaman Taxonomy

As identifications began to firm up, characteristics of the taxonomizing process came into view, and these must be taken into account as further attempts at identification proceed. The Seltaman taxonomy does not specifically match Western taxonomy, but this does not mean that the two have no

properties in common. Ralph Bulmer and Michael Tyler's path-breaking work on Kalam (also spelled Karam) folk taxonomies in the Eastern Highlands has established certain points about the correspondence between folk taxa and scientific taxa that are apposite to the Seltaman case. Briefly, Bulmer and Tyler write that Kalam taxa (creature names) refer *in the main* to recognized "natural kinds" logically comparable to and in many cases matching Western zoological species. At points where the Kalam taxa do not refer to such natural kinds, they are still "relatable to named or unnamed natural units which [the Kalam] recognize." For the Kalam, as for a naturalist, a "natural kind" (or, in Bulmer and Tyler's coinage, a "specieme") emerges, from observation and interaction, as a class "of creatures marked off from all other animals by multiple distinctions of appearance, habitat and behavior" (Bulmer and Tyler 1968:373, 349). This being said, the investigator still cannot tell from any lexical characteristic of a folk taxon, or even its position in a taxonomic hierarchy, whether it is one of the many that will match a Western zoological species (or genus) or whether it is one of those exceptions derived through a more complex move.

In considering the specifics of Seltaman bird and mammal taxonomy, I will confine myself to sketching certain saliencies (often found in other New Guinea taxonomies) that are likely to be encountered by the picture investigator. I list these under the headings (1) generics and specifics, (2) the multiplicity of usage, and (3) funny genders, ages, and stages.

Generics and Specifics

Seltaman taxonomy conforms to the generalizations about folk taxonomies made familiar by Berlin, Breedlove, and Raven (1973), and more recently by Atran (1990). Accordingly, despite its awkwardness, I will employ the terminology that these thinkers apply to the different taxonomic levels.

The highest named tier of Seltaman taxonomy is that of the life-form: *auon* comprise all birds and bats;[3] *nuk* comprise all furry wild animals;*feimkon*, all snakes; *ais*, all trees and large bushes; and so forth. Typically each life-form encompasses dozens or, in the case of birds and trees, hundreds of named types. There are, however, aberrant categories that behave like life-forms in not being subordinate to any other life-form, but like lower-level taxa in not encompassing many further distinctions. For Seltaman the forms *kung* (pig), *maan* (dog), and *bia* (cassowary) are aberrant in this way.[4]

The level of the taxonomy at which one encounters the majority of names, which in North American taxonomy would be the level of "maple, oak, pine" or "robin, blue jay, wren," is termed the "generic level" by Berlin et al. (1973:219). At the generic level, the Seltaman taxonomy, like most folk

taxonomies, exhibits mainly (though not exclusively) unanalyzable names--names that do not break down into further meanings. The Seltaman *nuk* (furry game mammal) names *ngarem, sop, kwemnok, deim,* and so forth, and the *auon* (bird) names *durem, fitfitop, saap,* and *karom* are genera names.

"Generic" as Berlin et al. use it does not necessarily mean inclusive (1973:223-224). Hereafter, I will resort to the coinage "generic-inclusive" when speaking of terms at the generic level that encompass named varieties. Typically, however, a great many folk genera have no further named subdivisions. Seltaman *kwemnok* and *ngarem,* for instance, are "terminal taxa." The Seltaman term *auon nginaan* (roughly, "hawk') too encompasses no further named distinctions, even though Seltaman will tell you that there are different kinds of *auon nginaan.* A minority of genera, however, do break down into further named subdivisions, and these subdivisions are termed "specifics." Commonly, specifics are coded with name-modifier combinations that incorporate the immediately superordinate term (the generic)--"scrub oak, post oak, and pin oak," for example. These form an exclusive contrast set; that is, all the elements within the set will be binomials built from the same superordinate term. In the Seltaman case, a common contrast set for furry game animals revolves around the terrestrial-arboreal contrast. For instance, the generic-inclusive name for one giant rat type, *dakhon,* breaks down into *kir dakhon* and *el dakhon,* which translate roughly "down below" *dakhon* and "up above" *dakhon*. The Seltaman *iram,* a generic-inclusive name for little tree mouse, and *takhein,* suspected to be a generic-inclusive name for two antechinus species, also have a *kir* (or *ki*) and *el* distinction.

It is not uncommon for one term of the "species" level contrast set to be simply the "generic" term itself, appearing as it were at both levels (Berlin et al. 1973:224). Thus the Seltaman *el iram* may be contrasted simply with *iram,* rather than *kir iram,* in which case the generic represents "just *iram"* or "any other *iram,*" not specifically "down below *iram.*" In the bird world, an example would be *saap,* a forest floor bird (possibly *Ptilorrhoa leucosticta*) whose alarm call is a brisk "whuit!" and *saap tong tong,* a slightly different forest floor bird that flushes with a sharp snapping couplet, heard by Seltaman as "tong! tong!" (very possibly *P. castanonotus*). The fact that the generic level is not distinct from one of the terminal taxa, *saap,* does not contradict the fact that a type versus subtype distinction is being forged at the specific level. Comparable examples from North American folk taxonomies would be rabbit versus jack rabbit or hawk versus chicken hawk, marsh hawk, and so on.

The taxonomic process of forging species contrast sets by using, for one species, the generic term most applicable to the class of creatures being dis-

tinguished could also be witnessed in spontaneous occurrence among the Seltaman. On a number of occasions, I observed a well-known "terminal" generic term suddenly become an encompassing (generic-inclusive) term when a speaker was faced with the classification challenge of a large book of pictures. Thus, all the depicted ratlike small mammals were glossed by some Seltaman with the term for the village rat, *senokiok,* which customarily applies to one biological species. For some Seltaman, all the cuckoo-shrikes on Beehler et al.'s plate 32 became *buner,* even though only a few cuckoo-shrikes are local; and for some, all carnivorous small mammals became *aboysep,* even though only the New Guinea quoll is widely familiar. The viewer in question would give away his or her conceptual process by then quickly shifting the generic-inclusive down to the specific level when confronted with a good representation of the familiar taxon the name of which he or she had been using. "Ah, here's the real *aboysep.*" Or "This one is *buner* straight, the others are kinds of *buner.*" While these spontaneous "speciations" of a generic term were not culturally uniform or stable--different Seltaman viewers might select different terms to extend--they exhibit momentarily the same taxonomizing practice that produces stable speciations such as *saap* versus *saap tong tong.*

In all of these observed instances, the creature whose name was turned into an encompassing term was one that was quite familiar to the viewer. Any line of similarity between it and the less familiar collection of creatures that the viewer was puzzling over seemed to serve as the grounds for extending the familiar creature's term. Typically, less knowledgeable Seltaman would extend the generic name of a familiar creature to other local creatures that more knowledgeable Seltaman recognized under different generic names. But those more knowledgeable Seltaman, when confronted with a book that covered nonlocal and thus unfamiliar species, would make the same sort of move in regard to these new unfamiliar-but-similar examples. In identifying game with the aid of pictures, one must anticipate this move.

A rather different type of unstable encompassment, one that need not reflect poor familiarity with the creatures, was the idiosyncratic attempts by some individuals to use one generic as a higher-order term, encompassing several other familiar generics. For instance, one woman argued that the term *et* covered several different kinds of burrow-dwelling, mouse-sized creatures that have various particular names like *ibiok, iram,* and *mankun.* A greater number of speakers, however, argued that *et, ibiok, iram,* and *mankun* were just alternate names for the same creature, or alternate generic-inclusives for the same unnamed assortment of creatures (in the fashion of *auon nginaan*). Typical remarks would be, "Oh, *et* and *ibiok* and that lot--

they're all the same." This sometimes meant, "There may well be some distinctions, but I can't tell them apart." Or it could mean, "You can use any of these names for a creature of this type, and I've heard various usages." Some speakers, however, saw these terms as differentiating a number of genera. From one man: "*Et* and *ibiok* are similar, but *ibiok* looks more ratlike. *Mankun* I think is something else."

In other words, the hierarchically inclusive relationship attempted by this woman collapses, in the hands of others, into an alternate-terms relationship, though the alternate terms may be conceived as alternate genera (there are different creatures with different names), as alternate generic-inclusives (there are different unnamed creatures that all may be lumped as *et* or *ibiok*), or as simply "different names" for a single genus. Whatever the argument, individuals will appear to hold their side of it with some conviction but have trouble marshaling any enduring collective agreement. In my opinion, this sort of taxonomic situation reflects diverse efforts on the part of speakers to systematize bits of the "hazy periphery" discussed below. It does not differ in kind from simple disagreement over names. Differing family usages and different individual histories with hunting may enter into an individual's idiosyncratic usage.[5]

The Multiplicity of Usage

Perhaps Mountain Ok-speaking groups will prove excessive in this respect, but one speaker's *ambion* (brush cuckoo) is another's *amdion* and yet another's *sangfongin.* Especially in the world of birds, there are often several names in vogue for the same creature or kind of creature, and it is difficult, in some cases impossible, to distinguish usage variation, which Seltaman recognize, from misidentification, which Seltaman also recognize and which is common. If enough time is available, repeated sorties through the book with various informants will enable one to winnow out those informants with a restricted range of knowledge or an indifference to precision, and this will cut down on some of the confusion. Nonetheless, even an informant of fine and discriminating knowledge may clash with another of equal authority over the correct name for the creature in view.

Some of the disagreement between informants can be chalked up to slight differences in dialect histories between individuals. Historically there has been a slow but constant circulation of personnel between the different dialect groups of the Mountain Ok region, which appears to have given rise, in any one group, to a buildup of alternate names for the same creatures. Some families favor one expression, others a different one, and there is little pressure toward uniformity. But this sort of naming disagreement is usually detectable. Someone will eventually point out, "You can call it either X or Y."

Real disagreement over categorization is evidenced when an informant argues that X (or Y) is ruled out as a name for a particular creature because the name rightly belongs to a different creature. To one hunter, a disputed name may associate with little greenish-yellow birds, while another claims it for small yellow-and-black-marked birds, leaving the little greenish-yellow birds open to a different designation. Not only is there "between-subject" disagreement in certain areas--particularly the area of small birds--there is also "within-subject" disagreement. That is, even knowledgeable informants may prove not averse to changing their opinions a year or even a week later.

It is in regard to this arena of real disagreement that the picture method reveals its worst weakness, especially in regard to the scarce-and-small. I discovered in the case of one or two small dicky birds that an intractable disagreement cleared up when an informant accompanying me for in-field sightings, sightings in which the entire "jizz" of the bird was available (its flight pattern, flocking pattern, behavioral and habitat gestalts, and so on), suddenly rearranged his understanding of what the pictures he had been looking at actually referred to. I feel fairly sure that in-field encounters with some of the more obscure small mouse types in the mammal repertory would bring greater clarity to the disputes here as well. (As it happens, bird disputes outnumbered mammal disputes because there are so many birds in the Seltaman ken and, accordingly, so many more less-well-known birds.)

One is likely to find, even under ideal identification conditions, that any given informant will have a core of certainty in his or her identifications surrounded by a hazier periphery. One will find as well that, within any group of informants, there will be a high degree of concentric overlap between people's "cores." Seltaman informants differed mainly as to how wide their core was in relation to their periphery, with individuals with highly comparable dwelling and foraging histories having the highest degree of concentric overlap. It is, understandably, within the overlapping "peripheries" of people's knowledge that classification disagreements occur. My findings with the Seltaman resonate well with Eleanor Rosch's seminal discussion of the formation of semantic category prototypes (see Rosch 1975; Mervis and Rosch 1981). Her suggestion is that statistically common cooccurrences of attributes (e.g., feathers with flight, sharp teeth with rodent shapes) provide the lines along which "prototypes" form in the mind, and prototypes underlie mental classification. Inasmuch as a creature falls between prototypes or becomes distant from the nearest one, subjects will begin to disagree with each other on its correct classification, hedge their classifications, and also change their minds concerning their classifications.

Illustrating these points within the large taxonomic arena of Seltaman birds again, I found that birds did not have to be commonly seen by the Seltaman to win a place in the "core," as long as they were physically distinc-

tive. Neither the pheasant pigeon *(Otidiphaps nobilis)* nor the various crowned pigeons (species of *Goura)* depicted in close association on Beehler et al.'s plate 15 were common in the Seltaman hunting range. Yet Seltaman viewers had no trouble distinguishing them, despite their close association on the page, and there was widespread agreement over their names. The gouras have the distinctive feathered crown, while the pheasant pigeon has no other ground pigeon of comparable size with which to contrast except the gouras. On the not very distinctive or poorly recognizable end of the scale, by contrast, there was considerable instability in the use of names for certain little mid- or under-story songbirds not infrequently encountered on the local trails, such as the female fairy gerygone *(Gerygone palpebrosa),* the canary flycatcher *(Microeca papuana),* and the white-faced robin *(Tregallasia leucops);* or in names for hard to see as well as hard to distinguish predominantly green fruit doves (species of the *Ptilonopus* genus). For certain sets of unrelated but not terribly distinctive birds, such as little flycatchers and whistlers, two sets might provoke from Seltaman a (probably) chronic vacillation in regard to which of two inclusive terms went with which.

Funny Genders, Ages, and Stages

The taxonomic "wandering" of attributes that relate together or split apart creatural types is the final, and probably least understood, of the issues that students of folk taxonomy encounter, whatever method of identification they use. I have devoted a separate publication to this matter (Whitehead 1994), and will only touch upon highlights here.

Intraspecies variability, developmental stage differences (such as that of caterpillar to butterfly), and sexual dimorphism in a (biological) species all provide opportunities for taxonomic distinctions--as when two or more variants of a species, two or more developmental stages of a species, or the two genders of a species are rendered as two or more separate folk taxa. Conversely, gender and sometimes age (or developmental stage) are notions that may be mapped onto two or more distinct biological species to render them taxonomically unitary. In North American folk biology, for instance, one might call to mind how commonly urban apartment dwellers gloss the smaller of their two species of cockroach as "baby cockroaches" or how, until rather recently, freshwater bass fishermen habitually referred to the largest specimens, which are typically female, in male-gendered terms: "Mr. Lunker" or "Granddaddy Bass."[6]

New Guinea peoples are often specialists at baffling species linkages and disconnections of this sort. Indeed, here is one area of dramatic diversity among New Guinea cultural groups, despite the extensive overlap from

region to region in the faunal and avifaunal repertory (see Dwyer 1976b; Diamond 1966; Bulmer and Menzies 1972-1973). I will confine myself mostly to the Seltaman's strange glossings that center on gender.

Seltaman are quite capable of making the male and female of a dimorphic species into separate taxa or of treating intraspecific variation as gender difference. Or they may treat two distinct species as simply males and females of a single taxon. We must distinguish here between individual Seltaman usage and more culturally standardized usage. One normally knowledgeable informant, grappling with Flannery's pictures, proved as an individual especially fond of explaining differences in terms of gender. He noted the differences between the various long-beaked echidnas photographed by Flannery, differences that naturalists explain in terms of intraspecies polymorphism, and argued that the noticeably more thorny and longer-beaked one on page 44 was the female, while the shorter-beaked, less thorny one on page 43 was male. He also tried to make the speckled dasyure on page 48 and the three-striped dasyure on the facing page into male and female of a single taxon. (The adjacency of the pictures in both cases seems to have encouraged these assimilations.) Other knowledgeable Seltaman did not make comparable moves when faced with the same pictures, but all were possessed of the general idea that the male and female of a taxon might differ in appearance.

Running in the converse direction, Seltaman uniformly would categorize the male of the sexually dimorphic common cuscus *(Phalanger orientalis)* as *deim* and the female as *arik.* Nothing in my first rounds of questioning indicated to me that my informants thought of *deim* and *arik* as related in any fashion. Indeed the enlarged picture of *P. orientalis* drew comments such as, "It's *arik,* but the tail is *deim,* so I'm not sure." It was only after I found no suggested *arik* or *deim* pictures other than that of *P. orientalis* that I remembered that the two sexes of this species are differently named in other Mountain Ok groups and began to probe for a relationship. Cautiously, I asked two informants whether there were any male *arik* or any female *deim.* No, they replied, only female *arik* and male *deim.* A third man informed me, "We have a story, told by the old folks, that *arik* is married to *deim.* She left her cold-place husband, *kayang* (the coppery ringtail, *P. cupreus,* whom she resembles), and came down to hot place to live with *deim.*" This evidence would seem to point to the nonrecognition of the unity of the two taxa. The sexual relationship between them is distanced: it is a "story" the old people tell. It is possible as well that for many Seltaman the fact that there are no females of a taxon or no males is of very little concern; it's just the way things sometimes fall out. Yet when the two men who reported there were no female *deim* and no male *arik* were later pressed with the question "*Arik*

and *deim* are the same *nuk,* aren't they?" they answered laconically, after a moment's reflection, "Well . . . yes." I speculate below that the same taxonomic divorcing of the genders applies to certain bandicoot species as well.

New Guinea provides us with many dramatic instances of sexual dimorphism in birds. Seltaman handle these dimorphisms variously. In the case of moderately dimorphic birds that fledge differently from the nest, such as the Papuan king parrot or certain fruit doves, Seltaman gloss the two sexes as naturalists would.[7] In the case of one radically dimorphic species, the eclectus parrot, in which the sexes are both equally decorative and fledge differently from the nest, Seltaman make the two sexes different taxa and say that they are *mom,* that is, mothers brother and sisters son, to each other. Finally, in the case of those sexually dimorphic species such as many of the *Paradisaea* genus in which juvenile males retain the drab, "female" plumage for one or more years past fledging, not developing their dramatic decorative plumage until later in life, the Seltaman reverse the genders, speaking of the highly plumaged males as the "big sisters" and the drably plumaged birds as the "little brothers." When pressed on this issue, they insist that the "big sister" is a true female and that she is the egg-layer of the pair; and most, though not all, seem to follow the corollary logic that the "little brother" changes gender in becoming a "big sister." Although interpretation of these novel linkages and disconnections is still undeveloped in the literature, investigators in any area should anticipate phenomena of this sort and be prepared to ask the sometimes counter-intuitive questions that are needed to surface the underlying concept fully. If one taxon is said to transform into another, do the two also interbreed or does each instead breed only with its kind? Are some taxa nonreproductive? Do all "X's" change into "Y's" or just some of them? And so on.[8]

Game Taxa of the Seltaman Hunting Range

The range of territory Seltaman exploit can be located in the southeast quadrant of the Telefomin Topographic Map.[9] Both Seltaman villages lie in the valley of the I ("ee") River (labeled Wangop on the map), a tributary of the Murray River (called Wangop by the Seltaman). Seltaman generally put their land boundaries "halfway" to the villages of any neighboring ethnic group, often using a creek judged to be halfway as the marker. Thus their range extends hallway to Selbang in the northwest, to Biangabip in the south, to Bolovip in the west, to Baktaman in the southeast, and to the Kasanmin villages in the north. The Murray River itself forms their eastern boundary. There is not much in this range lower than 600 meters or higher than 2800; most local hunting occurs between about 800 and 1800 meters.

However, Seltaman often visit Biangabip and occasionally Olsobip, and are acquainted with certain more lowland species from such visits. Movement toward Bolovip takes them to elevations as high as 2800 meters, "cold place true."

I have clustered their game taxa in terms of the clarity of meanings of the taxa terms, starting with the more certain cluster.

Fairly Certain Meanings

YAKHAIL: THE LONG-BEAKED ECHIDNA *(ZAGLOSSUS BRUIJNI).* There would be no dispute over the identification of this distinctive creature. The Telefol term is *egil* or *igil,* the Wopkai term *yakeil.*[10]

KITEM: THE SILKY CUSCUS *(PHALANGER SERICEUS).* I have seen this species twice. There was little disagreement among the Seltaman over the picture in Flannery or Flannery's characterizations. One or more *kitam* of the Wopkaimin have been positively identified as *P. sericeus.* The Telefomin have given *kutip* as a name for *P. sericeus* specimens.

SOP: THE PAINTED RINGTAIL *(PSEUDOCHEIRUS FORBESI).* I have twice been shown this species with its distinctively patterned face, and Seltaman agreed on the picture and gave supporting details. Telefomin call *P. forbesi* specimens *sobim;* the Eastern Miyanmin studied by Morren call it *tifon* or *sobim.*

KWEMNOK, KWIAM, KOYAM: THE GROUND CUSCUS *(STRIGOCUSCUS GYMNOTIS).* *Koyam* plays an important role in Mountain Ok mythology and ritual lore. The term is found in most Mountain Ok dialects in application to a large ground-sleeping but tree-climbing grey cuscus that is now, for the Telefomin and Wopkaimin, positively identified as *S. gymnotis.* The Seltaman *kwemnok* fits the portrait of *S. gymnotis* well, and there was little disagreement over the picture.[11] In the Seltaman area, *kwemnok* is the *nuk* taxon most taken by hunting dogs.

KAYANG: THE COPPERY RINGTAIL *(PSEUDOCHEIROPS CUPREUS).* The *kayang* I have seen matched the picture of this species well, and it was captured at an appropriate ("cold place") elevation. Wopkaimin *kaian,* Miyanmin *kiyong,* and Telefomin *kayang* specimens have been physically identified as this species. Less-sophisticated Seltaman often included the plush-coated ringtail *(P. corinnae)* under the name *kayang,* arguing when pressed on the point that there are some *kayang* that are smaller than others *(P. corinnae* is smaller than *P. cupreus).* More-sophisticated Seltaman gloss *P. corinnae* as *dafaam.*

DAFAAM: THE PLUSH-COATED RINGTAIL *(PSEUDOCHEIROPS CORINNAE).* Sometimes spoken of as a "smaller" *kayang* (see above). Seltaman who use

the term *dafaam* point out that it is a cold-place species that sometimes sleeps exposed on a tree branch; this fits the profile of *P. corinnae.* Some Seltaman gave *arukiok* as an alternate name for *dafaam.* The Telefomin call *P. corinnae* specimens *dabam,* the Wopkaimin *dawam.*

NGEREM, NEREM: STEIN'S CUSCUS *(PHALANGER VESTITUS). P. vestitus* is the primary recipient of these names, though it was not uncommon for Seltaman also to pick the picture of the similar *P. orientalis* as a *ngerem.* The Seltaman *ngerem* is the third most commonly caught large *nuk* taxon in the area (following *kwemnok* and *watom,* both of which are highly vulnerable to dogs). The abundance of *ngerem* in the area is also suggested by the fact that the previous inhabitants of the I River Valley, chased out by the Seltaman and the Baktaman, were called Ngeremkaakmin--"masters of *ngerem.*" This abundance raises the suspicion that the Seltaman are glossing more than simply *P. vestitus* with the term *ngerem,* and the likeliest second species is *P. orientalis,* which is more apt to be abundant in any given area than *P. vestitus* (hence its name "common cuscus"). It should be noted that the Wopkaimin at some point gave the term *nareim* for both *P. vestitus* and *P. orientalis* (Hyndman 1979), though later Hyndman narrowed the term to *P. vestitus* (Hyndman 1984).

Yet there is also fairly strong support for the idea that Seltaman culture forges a distinction between these two species, glossing the highly variable and sexually dimorphic *P. orientalis* as *arik* for the female and *deim* for the male. In discussion with Seltaman, *ngerem* is characterized as a middle to higher elevation taxon, and this characterization better fits *P. vestitus.* Meanwhile, the characteristics of *arik* and *deim,* the other two terms offered for the picture of *P. orientalis,* better fit *orientalis* (see next entry). The Telefomin use the name *nelem* for a species confirmed as *P. vestitus.*

ARIK AND *DEIM:* THE FEMALE AND MALE COMMON CUSCUS *(PHALANGER ORIENTALIS).* The picture of *P. orientalis* drew *ngerem, kayang,* and *ngorim* responses in addition to *arik* and *deim;* but it was the only picture drawing *arik* and *deim* responses (often with the informant vacillating between the two names), whereas the other names could persuasively be assigned elsewhere. As explained earlier in the text, it is common for *P. orientalis* males and females to be glossed separately in Mountain Ok cultures, a finding that is in concordance with naturalists' reports of its sexual dimorphism. The Telefomin use the terms *aligaan* and *ibim* for the two sexes, while the Miyanmin use *aligin* (or *ariken*) for the female and *ibim* for the male.[12]

On close questioning, Seltaman proved aware of the paired nature of *arik* and *deim.* Furthermore, they characterize *arik* and *deim* as middle to lower elevation dwellers, in contrast to *ngerem,* and as shorter-bodied. One knowl-

edgeable hunter responded strongly to the information that the depicted *P. orientalis* commonly carries twins, saying that this was the fashion of *arik.* All of these characterizations point in the direction of *arik* and *deim* being names for *P. orientalis,* with *ngerem* being the name for *P. vestitus.* I am quite ready to believe, however, that while Seltaman culture makes available a distinction between these two species, Seltaman people, in practice, may frequently conflate the two. On my first visit, I was shown--on separate occasions by the same hunter--first a creature called *deim* and then a creature called *ngerem*. My on-the-spot descriptions of these would support the opposite conclusion from what I am writing here.

NGORIM, NUK MASEM: THE MOUNTAIN CUSCUS *(PHALANGER CARMELITAE)* AND/OR THE TELEFOMIN CUSCUS *(P. MATANIM).* Both species of phalanger are called *matanim* by the Telefomin. Knowledgeable Seltaman knew that what the Telefomin call *matanim* is their *nuk masem. Ngorim* is the no longer very secret name for *nuk masem* and the one more often used by my informants. *P. carmelitae* alone has been nominated by the Wopkaimin for what they call *norim.*

Flannery does not provide a picture of *P. matanim,* and all Seltaman had trouble deciding the identity of his picture of *P. carmelitae* on page 126. They agree that *ngorim* has a white belly but said that the rest of the fur on the depicted animal "looked wrong." It is conceivable that the main Seltaman *ngorim* is the undepicted *P. matanim* but more likely that it is the more common *P. carmelitae.*

KWIAMFIIK: THE FEATHER-TAILED POSSUM *(DISTOECHURUS PENNATUS).* All using this name responded strongly to the drawing on page 139 depicting the tail. Most commented that the creature has an unpleasant odor. Even women do not eat it, although they would be permitted to do so under the food taboo system. Some Seltaman used the name *kiinfiik* mistakenly for this creature, probably because of the sound similarity of the two names. A possibly geniune alternate name is *babiyomnok.* I can find no counterpart terms in other Mountain Ok game vocabularies.

KIINFIIK, KIINFEIK: THE PYGMY RINGTAIL *(PSEUDOCHEIRUS MAYERI).* After learning that the pygmy ringtail is of a certain size, will sleep in tree forks, and is a cold-place taxon that "makes a little house," Seltaman saw the picture of *P. mayeri* as an acceptable *kiinfiik.* Otherwise they, and I, mistook the picture for something larger than the typical *P. mayeri.*

An Angkayak informant recognized the Telefol term *dom* as designating the taxon she--and Seltaman--call *kiinfiik. Dom* is the term given by Flannery for *P. mayeri.*

SARIP, DIONIM, TABAN: THE SPOTTED CUSCUS *(SPILOCUSCUS MACULATUS)* AND THE BLACK-SPOTTED CUSCUS *(S. RUFONIGER).* Both species were

nominated as *sarip,* with *dionim* and *taban* offered as alternate names. As speculated in note 5, *dionim* may once have distinguished *S. rufoniger* from *S. maculatus,* whereas *taban* may once have singled out the all-rufous adolescent *S. rufoniger.* Another possibility is that the two alternate terms may have discriminated variants within the species *S. maculatus,* which is notorious for its polymorphism. James Menzies argues that the Seltaman are unlikely to be acquainted with *S. rufoniger* at all (pers. com., 1993).

WATOM: The regionally common small dorcopsis (wallaby), very likely *Dorcopsulus vanheurni.* Telefomin call this particular species *autom.*

NGARFEM, NGARFEMNOK, FIOK: Generic-inclusives covering the striped possum *(Dactylopsila trivirgata),* the long-fingered *triok (D. palpator),* and the great-tailed *triok (D. megalura).* One man gave an alternate name, *titok,* for the great-tailed. The three Seltaman whom I questioned about the rarity of the great-tailed had all seen examples, once to three times in their lives. One argued that the larger tail simply indicates a "male" *ngarfem.* I have seen one striped possum.

Interestingly, the Telefomin, in a fashion parallel to the Seltaman, encompass these three species under the term *triok,* while also providing an alternate specific name, *defem,* for the great-tailed. The Wopkaimin gave Hyndman *galwem* for *D. palpator* and *dubem* for *D. trivirgata.*

ABOYIM, ABOYSEP: Any carnivorous *nuk* but preeminently the New Guinea quoll *(Dasyurus albopunctatus).* Other dasyures were classed as *aboysep* when people heard that they were carnivorous. Without this information, the other depicted dasyures tended to be seen as some version of rat or bandicoot. It is possible that there are two local but so far unidentified dasyures that go under the names *el takhein* and *kir takhein* (see below). *Aboim* is the Wopkai term given Hyndman for the New Guinea quoll. *Kutinim* is the Telefol name given to Flannery for the New Guinea quoll; there is no term resembling *aboyim* in his Telefol listings.

AKHEIM, AKHEIMNOK, AREIM, ARIAM: Any water-dwelling *nuk,* with the common water rat *(Hydromys chrysogaster)* and the earless water rat *(Crossomys moncktoni)* being repeatedly singled out for this name. Flannery was given *ayam* for *H. chrysogaster* by both the Telefomin and the Miyanmin. The Telefomin are said to call the earless water rat *ogoyam,* but this may simply be elaborated pronunciation of a word that sounds, in contracted form, like the Seltaman *akheim.*

FAPKOYOK, FAPKIOK: Any glider. The picture picked spontaneously was that of the northern glider *(Petaurus abidi),* but it is unlikely that this one is local. The only other--and likeliest--candidate, the sugar glider *(P. breviceps),* was usually misidentified as a striped possum until Seltaman were told it glides. On closer questioning, one knowledgeable Seltaman claimed that

their glider does not have a striped face. The sound reported for *fapkoyok* is a noisy squawk. The term *fapkoyok* has no clear correspondence to other published Mountain Ok game vocabulary. The Telefomin call *P. breviceps* by the term *silek*, the Wopkaimin call it *slakim*.

ET, KOMEI: Any small tree mouse, melomys, pogonomys, or pogonomelomys that nests in ground burrows, especially around gardens. Among those nominated by Seltaman, the likeliest local candidates are the chestnut tree mouse *(Pogonomys macrourus)*, the grey-bellied tree mouse *(P. sylvestris)*, the large tree mouse *(P. loriae)*, the mountain melomys *(Melomys rubex)*, and Ruemmler's pogonomelomys *("Pogonomelomys" ruemmleri)*. The picture of the lesser tree mouse *(Chiruromys vates)* drew a strong *et* response, but Flannery does not report it as living in burrows. Among Seltaman the term et is the more commonly used, *komei* being recognized as a borrowing from the neighboring Angkayak. I could find no counterpart to either term in other Mountain Ok game vocabularies.

DUBOL: DORIA'S TREE KANGAROO *(DENDROLAGUS DORIANUS)*. The somewhat more common and familiar of the Seltaman's two tree kangaroo taxa. The Telefomin one is positively identified by Flannery as Doria's. A pet Doria's in the town of Tabubil was singled out as *dubol* by Seltaman. There is a *dubol* in most Mountain Ok game vocabularies.

AKHUNIOK, AKHUNI, A'UNI: It became apparent after a number of sorties through the photographs that Seltaman will nominate as *akhuniok* any tree kangaroo not identifiable as *dubol*. In fact no tree kangaroo is common any longer in the Seltaman hunting range, and their lack of familiarity shows in Seltaman attempts to classify pictures. Fortunately, there are tree kangaroos kept as pets in Tabubil, the mining town that Seltaman often visit and where some of them work. The two available species of pets were Doria's *(Dendrolagus dorianus)*, which they identified as *dubol;* and Goodfellow's *(D. goodfellowi)*, which they identified as *akhuniok*. One young hunter, who had killed three *akhuniok* near Biangabip in the past three years, was an enthusiastic nominator of the pet Goodfellows as *akhuniok*. The presence of Goodfellow's in or even near the Seltaman hunting range has not been confirmed, but it is not ruled out.[13]

This does not quite settle the matter, however. Seltaman lore about *akhuniok* is suggestive of another candidate: *D. spadix*, the lowland tree kangaroo. This species is depicted inadequately in Flannery (a top view, page 102), because only a dead specimen was available. Seltaman speak of *akhuniok* as more long-bodied than *dubol* and as a "hot place" (low elevation) taxon. Indeed, most of the Biangabip area, site of the three recent kills, is below 600 meters. Both the long body and low elevation attributes fit Flannery's characterization of *D. spadix* and fail to fit the characterization of

D. goodfellowi. Though rare, *D. spadix* is reported for the Strickland River area (Flannery 1990:103), placing it close to the Seltaman and Biangabip hunting ranges. Menzies is of the opinion that it could be familiar to Seltaman (pers. com., 1993). Further lore about *akhuniok,* which I mention for what it may be worth, is that the creature is extremely fast and virtually impossible to catch without a dog; that it will feint to jump, throwing off the hunter's aim; and finally that its hind feet resemble the feet of a human child.

I can find no counterpart terms to *akhuniok* in other Mountain Ok game vocabularies. The Telefomin and the Miyanmin call *D. goodfellowi* by the term *timboyok,* with an alternate Miyan name being *yemma.*[14]

SENOKIOK, SENOK: The village- and garden-invading rat of the area. Seltaman will often correct their term *senok* to *senokiok* (a diminutive) to emphasize that they are speaking of this rat rather than the bandicoot *nuk senok* (below). They will also use *senok* very loosely in application to any hard-to-place kind of rat or bandicoot. This does not mean, however,. that any of these terms are true generic-inclusives.

The dozens of *senokiok,* or village rats, I have seen appeared of a single kind and most closely resembled the depicted large spiny *(Rattus praetor)* except for being smaller. Quite possibly I was seeing the small spiny rat *(R. steini).*[15] *R. steini* is reported for the Telefomin and the Miyanmin. where it is called *senok.*[16]

Complex Uncertain Meanings: The Bandicoots

Seltaman distinguish four generic taxa of bandicoot, one of which, *bakhonkaak* or *kayaar,* has three kinds that may be glossed differently or simply lumped as *bakhonkaak/kayaar*.

To begin with the smallest of their taxa, *waar* is described as a very high elevation dweller. For *waar,* Seltaman either found no picture or favored the picture on page 68 of the striped bandicoot *(Microperoryctes longicauda)* in which the facial stripe is quite noticeable.

The next size up is *nuk senok,* described as being like *waar* and living at high elevations but less extreme ones than *waar* For *nuk senok,* Seltaman favored either the picture of the striped bandicoot on page 76 or the picture of the Raffray's bandicoot *(Peroryctes raffrayana)* showing a white belly on page 70. *Nuk senok* is most commonly taken by discovering its short ground-vegetation burrow, then poising one hand over one entrance while making a disturbance at the other: the creature flees into the waiting hand.

The third bandicoot, called *kimisok* or *dein,* competes with *nuk senok* for the *P. raffrayana* picture, and its characterization is closer to *P. raffrayana*

That is, it is a heavier, middle elevation species. Seltaman usually picked the picture of *P. raffrayana* held by a boy on page 68. I have seen one *kimisok* and would choose this picture myself. The long-nosed echymipera *(Echymipera rufescens)* on page 83 was also denominated as *kimisok,* but it is unlikely to be local.

The various *bakhonkaak* are described as more short-tailed than the other bandicoots and as middle to lower elevation dwellers. Seltaman favored pictures of the northern brown bandicoot *(Isoodon macrourus),* which is almost certainly not local; the spiny *(Echymipera kalubu);* and the dimorphic *(E. clara).* The spiny, *E. kalubu,* is very likely to be one of the Seltaman *bakhonkaak,* but neither Menzies nor Flannery encourages me to include the dimorphic, *E. clara,* as a candidate. Seltaman characterizations of the different *bakhonkaak,* however, leave a tempting slot for *E. clara.* They say that the largest *bakhonkaak* type, called *wok ngerewaak,* is "always a male" and is generally caught only at middle elevations far from the village. I can find no good candidates for this taxon other than the male of *E. clara,* about which Flannery writes, "The males and females of *E. clara* differ so greatly in appearance that they could easily be mistaken as a distinct species" (1990:82).[17]

Summing up, my guesses are as follows:

WAAR, WAARIIM: MICROPERORYCTES LONGICAUDA VAR. This is a smaller and higher elevation variety of the striped bandicoot, *M. longicauda dorsalis.* (Higher elevation specimens of many New Guinea species are smaller.)

NUK SENOK: A somewhat larger on average and less high elevation variety of this same species. A Wopkai term for this species is *sanok;* a Telefol term is *warem* (note the resemblance to *waar, waariim*).

KIMISOK, DEIN: RAFFRAY'S BANDICOOT *(PERORYCTES RAFFRAYANA).* It is possible that the small females of this species are sometimes glossed as *bakhonkaak* or as *nuk senok.* A Miyan term is *duwin;* a Telefol term is *ibin.*

WOK NGEREWAAK: A large male *Echymipera* type. The Angkayak variant is *wok gerewaal;* I know of no counterpart terms in other dialects. While in Seltaman dialect wok means "water," Seltaman assured me it does not have this meaning in the creature name *wok ngerewaak.* It is possible that wok is a corruption of *nuk* here. Note that the Miyanmin recognize *E. clara* under the name *no kiyok;* the sound of this name could be elaborated into wok *ngerewaak* (Morren 1989:124).

BAKHONKAAK, KAYAAR: ECHYMIPERA KALUBU, probably of both sexes. If *E. clara* is present, the females would probably be classed as *bakhonkaak.* Very small *bakhonkaak* may be called *bakhonkaak senok* but are distinguished from true *nuk senok* by a shorter tail. Another term for the small ones is *man am.* Flannery was given *aiyal* as both the Telefol and Miyan

terms for *E. kalubu* and the Miyan term for *E. rufescens.* The Miyanmin gave *kiyok* for *E. clara.* Hyndman was given *kaial* for *E. kalubu.*

Complex Uncertain Meanings: The Giant Ruts

The zoological portrait of the giant rat species isn't all that clear, and neither is that of the Seltaman. They possess seven terms, but these overlapped in use and two or three appear to be alternate inclusive terms. One reason for vagueness is the lack of "hands on" experience among Seltaman hunters. Two of the terms used inclusively, *mein* and *dakhon,* apply to seldom-caught creatures. Six proficient hunters, upon questioning, reported zero to two captures of these types per lifetime. The taxa called *somin* and *wares* were somewhat more frequently caught. Only *kuter* appeared to be commonly taken, but since the term *kuter* was readily applied to any brown giant rat type known to specialize in eating pandanus, it may encompass several species.

Despite lack of direct experience, the Seltaman seem to be in possession of a transmitted lore in which certain distinctions are embedded. Sufficient bandying about of giant rat 'terms brought some of these distinctions to mind. The term *mein,* for instance, while often used inclusively--or just loosely--was also used more specifically to refer to a deep-bush, arboreal, large, and often black rat that is adept at crossing from tree to tree. The portrait matches quite well that of the dusky black-eared giant rat *(Mallomys rothschildi).* One hunter captured a *mein* during my second visit, though I failed to get a look at it. He described it as black with a white band around it, like the *M. rothschildi* depicted on page 213, but he favored the picture of the grey black-eared *(M. aroensis)* on page 210. Although the depicted *M. aroensis* was not as black as his specimen, it looked closer to the right size (that is, bigger). It was found up a tree.

A linkage between *M. rothschildi* and *M. aroensis* is also suggested by Seltaman use of the inclusive *dakhon. Dakhon* breaks down into two taxa: *el dakhon* ("high *dakhon"*), an arboreal giant rat, and *ki dakhon* (or *kir dakhon*), a very similar terrestrial cousin. Both are deep-bush, "cold place" dwellers. Again, the best candidate for the arboreal one is *M. rothschildi,* and the pairing of this with a very similar terrestrial dweller makes an intriguing match with the habitat contrast between *M. rothschildi* and *M. aroensis* (the grey black-eared), which, according to Flannery, are often sympatric and often confused by naturalists (1990:210-214).[18]

My tentative giant rat guesses are these:

MEIN OR *EL DAKHON:* THE DUSKY BLACK-EARED GIANT RAT *(MALLOMYS ROTHSCHILDI).* One man offered *ngatip* as an alternate name for the

brown version of *M. rothschildi,* shown on page 212. This is similar to the giant rat term *ditip* that the Telefomin apply to *Uromys caudimaculatus,* also brown. Telefomin call *M. rothschildi* by the term *resen.* The Wopkaimin call it *frim.*

KI DAKHON: THE GREY BLACK-EARED GIANT RAT *(MALLOWS AROENSIS).*

FARENKI, FARENKIOK: An alternate generic-inclusive for the *mein* and *dakhon* class of giant rat.

KUTER: Any midsize brown, sharp-toothed rat that specializes in eating pandanus (nut or oil pandanus). *Kuter* are found at all elevations, according to the Seltaman. Both the black-tailed giant rat *(Uromys anak),* which the Telefomin call *kutel,* and the uneven-toothed rat *(Anisomys imitator)* drew *kuter* responses. The undepicted mottle-tailed giant rat *(Uromys caudimaculatus),* which the Miyanmin call *quaterip,* also fits the *kuter* portrait. One hunter interviewed after recently taking a *kuter* favored the picture of the rock-dwelling rat *(Xenuromys barbatus).* The latter is probably not local but is said to resemble the undepicted *U. caudimaculatus.*

WARES: Described as on the small side for a giant rat, brown with a white tail end. It dwells at somewhat higher elevations and stays on the ground. It is not known to specialize in pandanus, though it may eat it. A likely candidate is the white-eared giant rat *(Hyomys goliath).* The picture drew some wares responses. The Telefol term for *H. goliath* is *trossin.*[19]

SOMIN, SOM: The mystery rat of the area. This is the only giant rat that is a regular and virulent garden invader, according to the Seltaman, and the only other *nuk* besides the village rat, *senokiok,* that is an enthusiastic consumer of raw native taro. *Somin* is a "cold place" taxon. It is described as being large and terrestrial. The only picture in Flannery that consistently drew *somin* responses, and strong ones at that, is the picture of the young black and white *M. rothschildi* on page 212. This picture would be greeted by remarks like "Ha! *Somin!*" But, except for being a higher elevation species, *M. rothschildi* fails in every other way to fit the portrait of *somin.*

Simple Uncertain Meanings: Miscellaneous

SUMOLIIM: All agreed that this name applies to a particularly large kind of *watom* (wallaby type). Informants disagreed over whether there are any *sumoliim* in Seltaman territory, most thinking not and arguing that it is found mainly "around Telefomin." Many chose pictures of the dusky pademelon *(Thylogale brunii)* or the grey dorcopsis *(Dorcopsis luctuosa)* as candidates. Either is a possibility, according to Fisher and Menzies. Flannery reports that *T. brunii* is called *simulim* by the Telefomin and *sumul* by the

Miyanmin. Hyndman also found familiarity with *T. brunii* among the Wopkaimin but was given the name *watom.*

BANEPSA, ARUKIOK, MASEM: If we work by elimination, this is probably the lowland ringtail *(Pseudocheirus canescens).* It is characterized as a ringtail type similar in size to *sop, P. forbesi,* but dwelling at lower elevations. For the most part Seltaman could not find a good *banepsa* in the book, though the picture of *P. canescens* was deemed possible. Three hunters preferred the name *arukiok* for this picture but then deferred to the opinion of a fourth who said that *arukiok* is the male, while *banepsa* is the female. One notes the parallel here to *arik* and *deim.* One is reminded too that some Seltaman considered *arukiok* to be the alternate name for the similar-appearing pseudocheirid *dafaam,* or *P. corinnae.*

The Seltaman who suggested the alternate name *masem* stressed that he was not confusing this taxon with the more familiar *nuk masem (Phalanger matanim* or *P. carmelitae).*

MITUUM FASIIN, KAIPMITMITOK, BILBILIOK, FUN-FUN: All agreed these names denote a creature that lives near water, and most felt that they are alternates for a single creature. If so, the waterside rat *(Parahydromys asper),* with its peculiar heavy muzzle, is an excellent candidate. Many singled out the picture of *P. asper* for *mituum fasiin,* which means "swollen nose"; *kaipmitmitok* is a play on the word for "nose." I did not sense that Seltaman had any great familiarity with this taxon, however, and many used the name *bilbiliok* as a generic-inclusive for any water-associated *nuk.* It should be noted that Hyndman has identified a Wopkaimin *bibilok* as *P. asper:*

IBIOK: Like *et/komei, ibiok* is a melomys or pogonomys (small tree rodent) type. Some Seltaman consider *ibiok* simply an alternate name for the et class of creature, but others insist it is not an *et,* merely similar. Pictures chosen for *ibiok* (even by those who swore by its distinctiveness) overlapped heavily with those chosen for *et.* They were large tree mouse *(Pogonomys loriae),* long-footed tree mouse *(Lorentzimys nouhuysi),* mountain melomys *(Melomys rubex),* and chestnut tree mouse *(Pogonomys macrourus).* Because of its commonness in the Central Ranges, the black-tailed melomys *(M. rufescens)* should probably be listed as an *ibiok* candidate, though oddly I got no responses to its picture or text.

IRAM, EL IRAM, NUK EM, BRUSEK: Because this variously named small tree rodent is an important and highly secret sacrifice in cult ritual, we struggled to find a good candidate in the book. It was determined that there are two or more kinds of *iram,* just as there are different kinds of *et.* All are distinguished from *et* by being true bush creatures, not likely to be found in and around disturbed areas. Of the various *iram,* one type (or one type in

the Seltaman view) habitually nests in high tree holes and is called *el iram* ("high *iram*"). This is the one sought for ritual (it is never sought for human food). Women seldom see this kind, and when they do, they call it simply *nuk em* ("sacred *nuk*"). Men know where to find them (having memorized likely tree holes) and refer to them by the secret name *brusek.* Perversely, I never thought to ask that one be found for me.

A number of male informants went for the picture of the long-tailed pygmy possum *(Cercartetus caudatus)* on page 140, because it is seen perched aloft. But a picture of the same species viewed face-to-face on page 142 never elicited this response, and the text on *C. caudatus* does not fit *el iram.* The other candidates, selected spontaneously from the pictures, were all candidates for *et* or *ibiok* as well. These were chestnut tree mouse *(Pogonomys macrourus),*[20] large tree mouse *(P. loriae),* and lesser tree mouse *(Chiruromys vates).* Menzies points out that, of these, *Chiruromys vates* seems to be the one most associated with tree holes (pers. com., 1993).

ABEROK: The long-tailed pygmy possum *(Cercartetus caudatus)* may be a better candidate for the elusive taxon *aberok,* a small creature whose distinctive trait for the Seltaman is its penchant for sleeping in the holes of desiccated tree ferns *(aber).* Only one man, an Angkayak, nominated any picture as *aberok,* and this was the picture of *C. caudatus* on page 140.

Is *C. caudatus* associated with tree ferns? Flannery cites Peter Dwyer as having taken most of the eighty specimens found on Mount Elimbari from nests in *pitpit* (an edible grass) or beneath the fronds of pandanus (Flannery 1990:142), but elsewhere Dwyer himself reports that in the Etolo region of the Papuan Plateau, *C. caudatus* seemed to spend their days nesting in old tree fern trunks, and that is where the Etolo looked for them (Dwyer 1990: 101). Bulmer and Menzies also report the Kalam pulling *C. caudatus* from tree fern holes (1972-1973, part 2:92).

KUKHUN: This taxon is described as a "mainly hot place" small marsupial with large protruding ears and a tail rather like a rat. It sleeps in "tree houses" and eats fruit. It may enter a bush house, but never a village house, at night looking for food. The only likely picture, or characterization, in Flannery is the short-furred dasyure *(Murexia longicaudata),* but Seltaman deny that *kukhun* is a predator.

TAKHEIN: El takhein and *kir takhein* are described as two similar smallish creatures, not of the tree rodent type. Both are high elevation dwellers. One is smaller and is found up in trees *(el takhein),* while the larger one *(kir takhein,)* "stays on the ground." Pictures favored were those of the black-tailed antechinus *(Antechinus melanurus)* and the three-striped dasyure *(Myoictis melas),* which is called *tangtangibo* by Morren's Miyamnin informants. Possible other candidates are the undepicted antechini *A. wilhel-*

mina and *A. naso.* The speckled dasyure *(Neophascogale lorentzii),* called *tning* by the Telefomin and *takinok* by the Wopkaimin, might be considered another candidate because of name similarity to *takhein.*

UBIL, UBAAR, UWAAR: Any small tree rodent or melomys that makes nests in the fronds of pandanus. Candidates are Shaw Mayer's pogonomelomys *(Pogonomelomys mayeri)* and the white-bellied melomys *(Melomys leucogaster).* James Menzies argues against the presence of the latter (pers. com., 1993). Similar Mountain Ok names from other groups are the Wopkaimin *abilim,* identified as *Melomys rubex;* and the Miyanmin *abul,* identified by Morren as *M. rufescens.* (In Telefol, many species of the pogonomelomys are called *kalung.* There is no Seltaman counterpart to this name.)

Angkayak informants tell me *markiik* is their alternate name for *ubil.*

BAMNAIN: This name was offered by one Seltaman man and one Angkayak woman for the black-tailed antechinus *(Antechinus melanurus).*

BATUKIN, KIMIN KAROM: Names for hydromines. *Batukin* was the name offered by one Seltaman man for the short-haired hydromine *(Paraleptomys wilhelmina)* and by another for the long-footed hydromine *(Leptomys elegans); kimin karom* was offered by a third man for *L. elegans.*

MANKUN: Seltaman knew-this name but never spontaneously applied it to anything. The name belongs to a melomys/pogonomys type.

Simple Uncertain Meanings: Bats

I include bat species here because of Western classification rather than Seltaman: the Seltaman classify bats as birds because they fly. They are aware of their distinctiveness vis-à-vis other birds, however, explaining, "*Pisin tru* ["real birds"] have a kind of wing with bones and feathers, but [bats] have something like an umbrella."

YOM, YOMNOK: Yom is any large flying fox or fruit bat that roosts in trees and has some yellow chest or neck fur. The depicted variable flying fox *(Pteropus hypomelanus)* was considered a good example. Another candidate is the greater flying fox *(P. neohibernicus). Yom* do not live in Seltaman territory but only in "hot place true."

SINGAAM: Any dark midsize cave- or rock-roosting bat or flying fox. *Singaam* are found at all elevations. The depicted Bulmer's fruit bat *(Aproteles bulmerae),* called *sikkam* by the Wopkaimin, was considered a good exemplar of the type, though this species is unlikely to be familiar to the Seltaman. The main candidate for the local *singaam* would be the bare-backed fruit bat *(Dobsonia moluccensis),* which the Telefomin call *segam.*

DIRIL: Most tiny bats, other than the more distinctive *tirimin* below. *Diril* are associated with cave or stone roosts but may also be found suspended

under foliage during the daytime. The picture of the moss forest blossom bat *(Syconycteris hobbit)* was considered a good picture example. Other candidates are the western horseshoe bat *(Rhinolophus arcuatus)* and the Telefomin horseshoe bat *(Hipposideros corynophyllus),* which lives in small groups and is exclusively cave-dwelling.

TIRIMIN, TRIIMNOK, TIMINIM, TIIMNOK: An even smaller bat than *diril.* It comes at night to drink banana nectar, emitting a high-pitched "tiii-tiii-tiii" as it does so. (I heard these frequently in the banana trees next to my house.) A good candidate is the common blossom bat *(Syconycteris australis),* called *timinim* by the Telefomin and the Miyanmin. It occurs from sea level to 2000 meters. Another candidate is the diadem horseshoe bat *(Hipposideros diadema),* called *tibinim* by the Miyanmin.

Summary

Ideally, the investigator interested in a New Guinea people's interaction with and understanding of their wildlife would command a wide physical sampling of local species, accompanied by a wide canvassing of local opinion as to name, traits, and position in the environment. But the typical anthropologist will not have such a command or anything close to it. The next best and certainly more feasible approach, now that both an extensive mammal guide as well as a complete bird guide are available, is an initial wide canvassing of opinion through the use of pictures. The usefulness of this technique for exploring the indigenous taxonomy alone makes it worthwhile; and once the investigator attains some mastery of the indigenous taxonomy, any nailing down of a local species through physical evidence becomes that much more informative. Thus, when any physical sampling is available or becomes feasible, even if it is rather spotty and even if it comes from neighboring areas, it sends ripples of clarification through a system that is already partway toward coherence. By vectoring back and forth between available physical evidence and named pictures, the anthropologist can educate his or her guesses as to the presence of any given species, achieving virtual certainty for some, while at the same time learning for each taxon term and its attendant rules and beliefs the type of creature that is at issue.

NOTES

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1. In regard to the adequacy of hunting samples, it should be noted that Ralph Bulmer and James Menzies, working on the small-mammal repertory of the Kalam people of the upper Simbai and Kaironk valleys, found that Kalam hunters produced only a selective sample of the small mammals present in their hunting range. The researchers' own trapping methods, in turn, provided a different but also highly selective sample. Finally, examination of sooty owl pellets revealed yet another selective sample. Only in the concatenation of all three samples did Bulmer and Menzies feel they had obtained a representative view. Their work still stands as the model for this kind of research. But this model far exceeds what most anthropologists are equipped to undertake (Bulmer and Menzies 1972-1973; see also Bulmer and Tyler 1968).

2. I am indebted to Bruce Mannheim for bringing Grice's essay on "implicature" to my attention.

3. Seltaman explain that bats and birds are both *auon* because they fly, but are quite aware that there is a difference. They consider the ones with feathered wings more representative of *auon,* as evidenced by their resort to expressions like *singaam auon,* "a [bat-type] kind of *auon,"* when explaining where bat-types fit in the life-form system. When challenged on the point that gliders are classed as *nuk* rather than *auon,* even though gliders appear to fly, they retort, "Gliders don't fly, they jump!"

4. The Seltaman term *auonuk auonauk* (literally, "bird-mother") for the nonlocal lowland cassowary suggests it could affiliate to the *auon* or, through folk etymology, even the *nuk* life-form. And in fact there is a tug in the direction of the *auon* life-form. One in-married Angkayak woman argued that cassowaries are indeed *auon,* and she reported an old-folks tale to the effect that the cassowary once was able to fly up into trees. But other informants tended to sputter when asked, "What kind of thing *is auonuk*?" One said, "It's a kind of *maruk,*" using the Neo-Melanesian Pidgin for "cassowary." Another said, "It's a kind of *bia* [the mountain cassowary]."

5. These naming variations might provide clues to historical change in people's relationship to game species. It seems possible in some cases that alternate names for a single creature, traceable to different Mountain Ok dialects present within a community, may over time become distinct names for two distinguishable creatures. The man above who thinks that "*mankun* is something else" shows himself ready to apply this term to some creature distinguishable from what he calls either *et* or *ibiok.* Conversely, distinct names for distinct but similar creatures may, over time, become simply alternate names for the more familiar of the two or alternate names for what is thought of as a collection of subvarieties.

It is possible that the latter sort of drift, that is, a loss of prior distinctions, has affected Seltaman terms for the spotted cuscus *(Spilocuscus maculatus)* and the black-spotted cuscus *(S. rufoniger),* which naturalists distinguish. Present-day Seltaman, examining pictures, call both *sarip,* adding that one can call them *taban* or *dionim* as well. *S. rufoniger,* which is a deep-bush species rarely found close to human populations, is probably almost never encountered by present-day Seltaman, while *S. maculatus* is encountered mainly at the peripheries of the Seltaman hunting range. Why the wealth of generics for these two? I was intrigued that one older Seltaman man, whose habit has long been to spend about half of each year at remote, lower-elevation gardens, argued that the term *dionim* should

be applied only to those types caught at this remote location, while *taban* applies to the entirely rufous kind. Could it be that this man encountered *S. rufoniger* more often than other contemporary Seltaman and was using *dionim* to distinguish *S. rufoniger* from *S. maculatus (sarip),* while using *taban* to single out the all-rufous adolescent phase of *S. rufoniger?* Although it is impossible to know, note that in Fredrik Barth's report on the Baktaman, who share a common terminology with the Seltaman but who were studied twenty-three years earlier, *dionim* and *taban* are also distinguished from *sarip* (Barth 1975:182).

6. I am indebted to Susan Gelman for the cockroach example.

7. The plates in Beehler et al. indicate the gender of depicted birds with the male and female biological symbols, but Seltaman were unfamiliar with these, and I never explained them to my viewers.

8. One Seltaman informant who was highly knowledgeable about birds in general recognized that, in the case of birds of paradise, there were both male and female "little brothers," According to him, only the female "little brothers" will grow into "big sisters." I failed to inquire whether the untransformed females could mate and lay eggs.

9. The two Seltaman villages are located at WK92-0-02-07 and WK91-0-03-02 (Royal Australian Survey Corps 1979).

10. Most dialects of Mountain Ok contain a "soft *g*" sound, which I have transcribed as *kh.* Telefol ethnographers and linguists use *g;* others sometimes use *k.*

11. Oddly, the interesting piece of information on *gymnotis* given by Flannery, that it secretes a creamy white, strong-smelling liquid from its cloacal glands, drew a complete blank with all Seltaman informants, including ritual experts.

12. Flannery received one alternate name for *P. orientalis* from the Miyanmin: *maetol.* Flannery published *ibim* alone as the Telefol term, but Robert Brumbaugh tells me there is a phalanger species in which the two sexes are called *aligaan* and *ibim.*

The English *r* and *l* sounds are not distinctive in the Mountain Ok dialects. Nor are certain voiced and unvoiced consonants distinguished when the consonant appears in medial position. Thus the spellings *ariken* and *aligen* are simply alternate English spellings of the same word.

13. Somewhat misleadingly, Flannery reports in *Mammals of New Guinea* that *D. goodfellowi* is not found south of the Sepik, and certainly the Seltaman hunting range is south of the Sepik. Elsewhere, however, he and Seri open the door to a more southerly possibility by commenting that decorative material incorporating *goodfellowi* tails came to them from the area of the Om River Valley, north of Telefomin (Flannery and Seri 1990:185). The Om River flows southward; in fact it becomes the Strickland. Fisher and Menzies were of the opinion that *goodfellowi* could be present in or near the Murray Valley (K. Fisher, pers. com., 1993). Tabubil, where the pets were located, is considerably south of the Sepik, but the keepers of the pets, who bought them at the local market, did not know their points of origin.

14. More familiar under the name *yema,* at least for Morren's Miyanmin, was the Huon tree kangaroo, *Dendrolagus matschiei.* Morren collected five complete specimens and some crania. Four of the five completes were from above 2000 meters in the Donner Range: not a lowland type! (Morren 1989:128-129). Flannery acknowledges a great similarity between Goodfellow's and the Huon, but never mentions that the Huon might be found elsewhere than around Huon Bay.

15. An earlier name for *R. steini* was *R. ruber:*

16. *Praetor* is the main *sanuk* of the Eastern Miyanmin area; it is reported to have an overwhelming food preference for fresh taro (Morren 1989:132).

17. Menzies mentions an *Echymipera* unlisted in Flannery, *E. echinista,* but it is not particularly large (J. Menzies, pers. com., 1993).

18. A very parallel taxonomic and descriptive situation for giant rats is reported by Bulmer and Menzies for the Kalam of the Eastern Highlands. The Kalam have two terms *(mosak* and *alon)* that are used both as generic-inclusives and as specifics, with one of them *(mosak)* often being broken down into a light-colored terrestrial type *(mosak kloy)* and an "ordinary *mosak,*" which is arboreal and black-furred. At the time of Bulmer and Menzies's research, *M. aroensis* had not been recognized as distinct from *M. rothschildi.* The one specimen of *mosak* trapped while visiting the Kalam was typed at the time as *M. rothschildi* (Bulmer and Menzies 1972-1973, part 2:89-90).

19. The *tr* of *trossin* is simply another way of representing the initial flap in Telefol, often represented with *r, ur,* or *dr.* I speculate that the terms *trossin, resen, ureseen* (a giant rat name given by Telefomin to Dan Jorgensen), and *wares* are all transforms of one another. This does not mean they inevitably signify the same giant rat species.

20. This is called *idam* by Morren's Miyanmin (1989:133).

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FOLK PLANT NOMENCLATURE IN POLYNESIA

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This article reviews Polynesian linguistics as it relates to folk names of plants. Before the seventeenth century and over a period of about two thousand years, almost all of the inhabitable islands of the vast area defined as Polynesia were colonized and then became virtually isolated from each other, resulting in the development of twenty-eight recognizable languages. The Polynesian colonists carried with them many of their cultural plants, and they recognized identical or similar species in their new homes. The names for these plants now vary from each other, but their differences are often predictable using linguistic tools. The regular name changes and other irregular name changes resulting from a variety of factors are discussed and tables are provided. Tables of widespread folk names and their cognates are also provided, as well as ones comparing related Micronesian and Fijian names.

THE PACIFIC OCEAN is the largest feature on the face of the earth. Across this vast expanse of water are numerous small tropical islands that are divided into three cultural and geographical regions: Melanesia, which comprises most of the islands from Indonesia to Fiji; Micronesia, which comprises several archipelagoes, including the Marianas and the Carolines, mostly north of the Equator; and Polynesia, which comprises the islands within the triangle whose corners lie at Hawaii, Easter Island, and New Zealand. Polynesia is sometimes further divided into western Polynesia, comprising mostly Tonga, Samoa, Tokelau, Tuvalu, Wallis and Futuna, and Niue; and eastern Polynesia, comprising all of the other islands to the east (as far as Easter Island), north (Hawai'i), and south (New Zealand).

The inhabitants of Polynesia, who are now collectively known as Polynesians, share a cultural and linguistic heritage that dates back to antiquity.

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They originated somewhere in South Asia, and during a sporadic migration over centuries of time, they eventually reached Polynesia. During these migrations through Melanesia, they interacted with previously established Melanesian cultures but managed to maintain their cultural, genetic, and linguistic identity, although they undoubtedly added Melanesian elements of all of them to their distinctive character.

The first landfall (presumably Tonga) for these seafaring people (probably sailing from Fiji) occurred more than three thousand years ago, and over the next two thousand years the Polynesians discovered and colonized virtually every inhabitable island east of Fiji. After the initial colonization from one archipelago or island to another, and until the arrival of the firs Europeans in 1596, the Polynesians were living in nearly complete isolation from the rest of the world. An exception was in Samoa and Tonga, which had periodic contact up until the European era. Tonga apparently conquered and occupied Samoa for several hundred years and supplied mercenary soldiers to endless Fijian civil wars until after European contact. The Lau Islands of Fiji today show the linguistic and physical signs of these ancient interactions.

Like people of all other cultures, the Polynesian explorers had their own traditional plant folklore comprising the names and uses of plants found on their islands. However, the homogeneous nature of the folklore of the earliest Polynesians underwent a diversification as the distant islands were discovered, colonized, and subsequently lost contact with each other.

The native plants of the newly discovered islands were usually very similar to those of the homeland of the colonists (except in Hawai‘i, which has a very high rate of endemic species and genera, and in New Zealand, which has an entirely different, temperate flora). The traditional plant folklore enabled the colonists to use the similar and identical plants in their new home in the ways to which they were accustomed. However, many of the plants the colonists encountered were new to them, and many of the useful plants important to their culture and even critical to their survival were absent. The majority of the most useful plants, including virtually all the staple food crops, such as taro, breadfruit, yams, and sweet potatoes, are not native to the region and had to be carried by canoe from island to island across the Pacific. Of the approximately seventy-two plants intentionally introduced to western Polynesia (Samoa and Tonga) before the European era, only about twenty-eight successfully reached Hawai‘i on the eastern side of the region (Whistler 1991b:44).

The new plants the colonists encountered, at least the notable or useful ones, were nameless and had to be given names. A general rule of folk plant nomenclature (the system of naming things) is that plants with uses or

remarkable characteristics acquire names, whereas those without either usually remain nameless. The useless or unremarkable plants are often lumped into broad categories such as “vine,” “grass,” “weed,” or “fern,” if they are recognized at all.

Compiling Local Plant Names

The study of ethnobotany involves not only describing uses of plants, but also the recording and compiling of local plant names. Local or vernacular names are useful for ethnobotanists, medical researchers, anthropologists, agriculture specialists, and other scientists working in the field. If, for example, a potentially useful medicinal plant has been identified only by its local name, the easiest way for a medicinal researcher to determine its scientific name would be to look it up on an already existing list (and later verify it with a voucher specimen). The list from one Polynesian archipelago can also be useful in other archipelagoes. Many names that vary between islands differ in predictable ways, and by comparing the name of an unidentified plant in one archipelago with the names from another, it is sometimes possible to come up with a correct identification. Such names that are similar in two languages and share a common origin are known as cognates. The comparison of plant names in two languages works only with cognates.

A second reason for studying local plant names is that they are useful to linguists who are compiling dictionaries or doing historical and comparative studies. A third reason is that the preservation of plant folklore is important for cultural reasons, and the use of vernacular names rather than English or scientific names can facilitate these studies in non-English-speaking cultures.

Of the two basic methods of compiling plant names, the most obvious is to go into an area and elicit information from inhabitants. This may be done just for plant names, as is practiced in ethnobotanical or medicinal plant studies, or it may be done by linguists preparing vocabularies or dictionaries. However, if the researcher is not a botanist and does not collect voucher specimens, the information obtained may be vague or inaccurate.

The second method is to compile names from previous literature in the field, and the best sources for this are often dictionaries or anthropological studies. Some of the dictionaries upon which the plant names in the following text are based are Milner (1966) for Samoa, Churchward (1959) for Tonga, Rensch (1984) for Wallis Island, Rensch (1986) for the Home Islands, Savage ([1962] 1980) for the Cook Islands, Davies (1851) for Tahiti, and Pukui and Elbert (1971) for Hawai‘i. Anthropological studies often include many plant names and uses; the most useful of these studies include

those, such as Hiroa's (1930) for Samoa, published by the Bernice P. Bishop Museum during the middle part of this century.

Other valuable sources include books, letters, and ships' logs written by early visitors to the islands. One of the most useful of these other sources is the account of the Cook expeditions based on the logs of Captain Cook and his officers (Beaglehole 1961, 1967). Another useful method of gathering plant names is to look at local floras to see if any vernacular names are listed. However, most floras do not include names with cited voucher specimens, which can mean that the authors of the floras were simply repeating names given in the previous literature. One way to get around this is to search herbarium collections to see if the botanists recorded the names on the specimens. The Bishop Museum is particularly useful for this purpose, since it has the best Polynesian collections of any herbarium.

The most accurate way to conduct ethnobotanical studies is to combine a literature review with fieldwork and herbarium studies, a method I have been employing over the last decade. This has resulted in publications on plant names and uses in Samoa (Whistler 1984), Tokelau (Whistler 1988), the Cook Islands (Whistler 1990), and Tonga (Whistler 1991a).

The Polynesian Languages

The Polynesian languages are part of a broad linguistic group known as the Austronesian language family. It is believed that all Polynesian languages are derived from an ancestral, now extinct language known as "Proto-Polynesian" that was spoken by the first settlers of Tonga (Bellwood 1978). The number of Polynesian languages currently recognized is about twenty-eight (Figure 1). What was once a single language proliferated into many related languages over the last three thousand years because of the geographical isolation of the various islands that were settled in the Pacific; all of the major islands of Polynesia have been inhabited for over a thousand years.

Differences between the various Polynesian languages are also reflected in changes in plant names. The most important changes in plant names (as well as in other words in the languages) are (1) phonological changes, (2) coining new names for new plants, and (3) coining new names for old plants.

Linguistic Changes

Two major phonological changes contribute to the variation of Polynesian plant names: losses of sounds and changes in sounds (i.e., changes in pronunciation). Changes in sound show up today in differences in spelling, but one has to keep in mind that the Polynesian languages were not written until

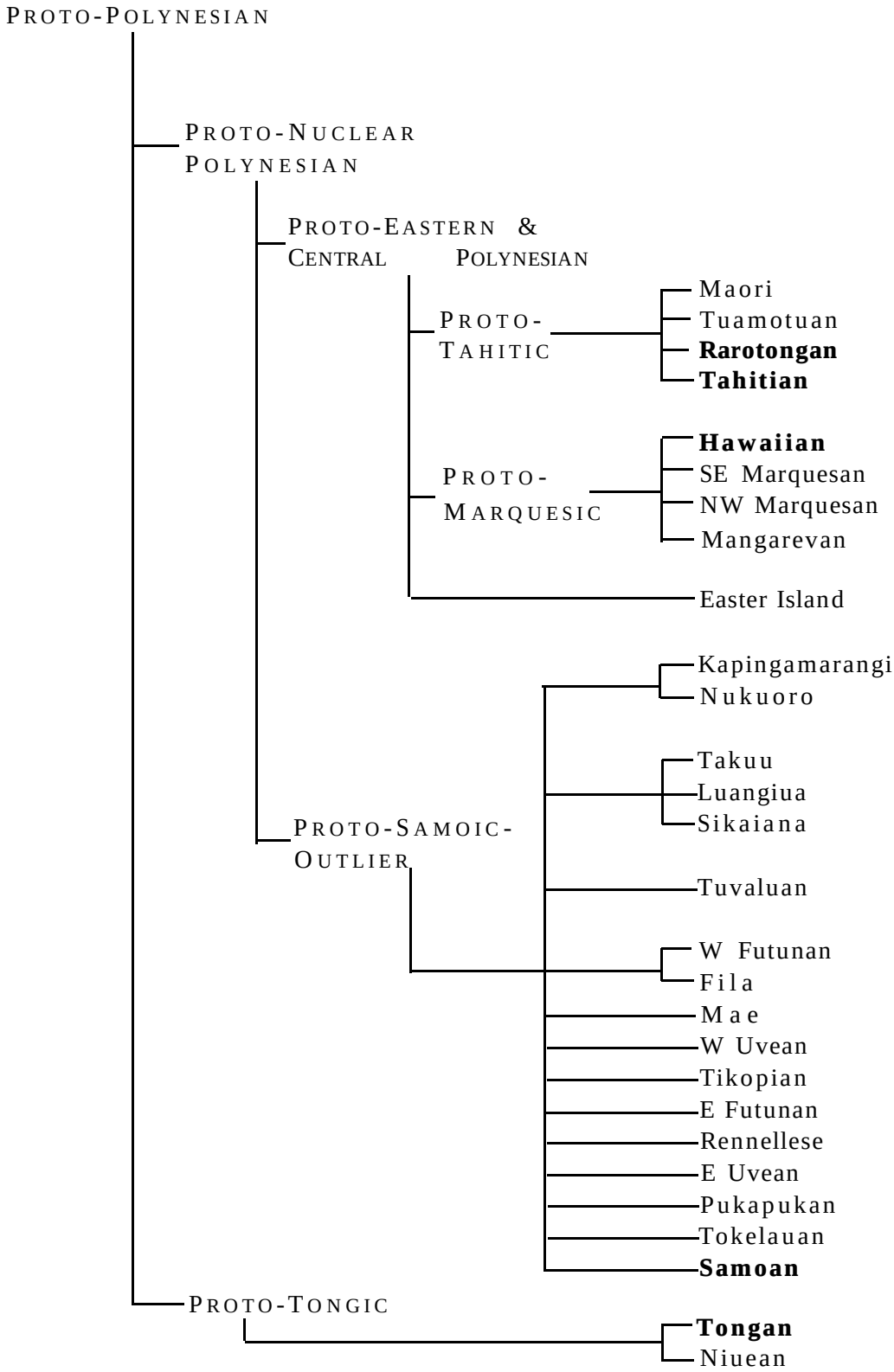

FIGURE 1. **A family tree of Polynesian languages, with those emphasized in this article shown in boldface.** (Adapted from Bellwood 1978:127)

the arrival of the first European and American missionaries less than two hundred years ago.

Regular changes in sounds resulted when the various Polynesian populations became geographically isolated. For example, some Polynesian languages have an / l / sound, which corresponds to an / r / in others. In some languages the / ŋ / sound (phonetically a velar nasal as in the *ng* in "song") is present along with an / n /, but in others, such as Hawaiian, the / ig / has fused with the / n / so that only one sound exists where previously there were two. Interestingly enough, the opposite change is currently taking place in Samoan: the / n / is now usually pronounced as an / ŋ /. At the same time, the Samoan / t / is usually replaced by / k /, a change that has already occurred in Hawai'i.

The other phonological change that contributes to the variation in Polynesian plant names occurs when a sound is dropped from a language. The Hawaiian name *'awapuhi* (but pronounced *'avapuhi*), for example, is a cognate of the Samoan name *'avapui* (*Zingiber zerumbet,* the shampoo ginger). In this case, the / h / sound is entirely lost, but in most cases it is converted to what is called a "glottal stop." (To the layperson this looks just like the loss of a sound, but to a linguist it is the change from one sound to another. The original sound is represented by a letter in our alphabet, the changed sound is a glottal stop, for which our alphabet has no symbol, but which is nowadays written as a reverse apostrophe.) Thus, in one Polynesian language breadfruit is called *kuru* (in Rarotongan, for example), while in another where / k / has changed to a glottal stop, it is called *'ulu* (as in Samoan). The presence of the glottal stop is more noticeable to the lay ear when it occurs within rather than at the beginning of a word. A word like *fa'i* ("banana" in Samoan), pronounced "f a-ee," is entirely unrelated to *fai* ("to make" in Samoan), which is pronounced to rhyme with "by."

Even the glottal stop can be lost, as shown by certain Samoan words that are identical to Tongan words except for the absence of the glottal stop, such as the Tongan name *feta'u (Calophyllum inophyllum),* which is a cognate of the Samoan name *fetau.* When the glottal stop is between two identical vowels, the vowels merge and are pronounced as a long vowel. In Polynesian-language words, the stress is usually on the penultimate syllable. Thus the Tongan plant name *mahoa'a* (Polynesian arrowroot, *Tacca leontopetaloides)* is a cognate of the Samoan name for the plant, *masoa,* which has a stress on the final vowel. Glottal stops are critical to the pronunciation of Polynesian words, but unfortunately they are often not written, even by the Polynesians themselves, who are raised speaking the language and find no need to note them.

Spelling may also vary between Polynesian languages, because the differ-

TABLE 1. **Sound Correspondence in Five Polynesian Languages**

	Tonga	Samoa	Tahiti	Rarotonga	Hawai‘i
Total	17	15	14	13	15
	a	**a**	**a**	**a**	**a**
	e	**e**	**e**	**e**	**e**
	f	f	f / h	‘	h
	ng	ng (g)	n	n	n
	h	s	h	‘	h
	i	**i**	**i**	**i**	**i**
	k	‘	‘	k	‘
	l	l	r	r	l
	m	**m**	**m**	**m**	**m**
	n	**n**	**n**	**n**	**n**
	o	**o**	**o**	**o**	**o**
	p	**p**	**p**	**p**	**p**
	t / s	t	t	t	k
	u	**u**	**u**	**u**	**u**
	v	v	v	v	w / v
	‘	‘	‘	‘	‘

Sources: For this and following tables, Churchward 1959; Milner 1966; Davies 1851; Savage (1962) 1980; Pukui and Elbert 1971; Whistler 1984, 1988, 1990, 1991a, 1991b.

Note: Letters in **boldface** represent phonemes that are constant throughout Polynesia.

ent missionary groups who established the various written Polynesian languages did not all use the same conventions. For example, in the Tongan language the velar nasal / ig / is written as *ng,* while in Samoan it is written simply as *g.*

A comparative summary of five of the major Polynesian alphabets--Tongan, Samoan, Rarotongan, Tahitian, and Hawaiian--is shown in Table 1. This table shows sound correspondences between the languages. The immutable consonants are *m, n,* and *p; v* might also be included here except that in Hawaiian it is sometimes pronounced (and always spelled) as a *w,* as in “Waikiki.” Unlike consonants, vowels are quite constant throughout Polynesia. Vowel changes in plant names from one island to the next are unusual. An exception is the name for *Morinda citrifolia,* the Indian mulberry, which in western Polynesia is *nonu,* in Tahiti and the Cook Islands is *nono,* and in Hawai‘i and the Marquesas is *noni.*

A comparison of each of the variable consonants--*f, g, h/s, k, l/r,* and *t*--in the same five Polynesian languages is shown in Tables 2 to 7. The words listed in these tables are all examples of cognates of ancient or original plant names. Cells with dashes are those where no word at all could be found. The letters in boldface are the consonants combined with the five vowels in each

TABLE 2. **The Proto-Polynesian *F***

Tonga	Samoa	Tahiti	Rarotonga	Hawai‘i	English
fa	**f**ala	**f**ara	**‘**ara	**h**ala	pandanus
kof**e**	‘of**e**	‘of**e**	ko**‘e**	‘o**he**	bamboo
‘u**fi**	u**fi**	u**fi**/u**hi**	u**‘i**	u**hi**	yam
foe	**fo**e	**ho**e	**‘o**e	**ho**e	paddle
fue	**fu**e	**hu**e	**‘u**e	**hu**e	vine

TABLE 3. **The Proto-Polynesian *G (= Ng)***

Tonga	Samoa	Tahiti	Rarotonga	Hawai‘i	English
hi**nga**no	si**ga**no	hi**na**no	i**na**no	hi**na**no	pandanus fl.
ngatae	**g**atae	**‘a**tae	**nga**tae	—	*Erythrina*
e**nga**	le**g**a	re**‘a**	re**nga**	‘ole**na**	turmeric
‘olo **nga**	so**g a**	ro**‘a i**	‘oro**nga**	‘olo**na**	*Pipturus*
—	—	—	—	—	
ngi**ngi**e	—	‘a**‘i**e	nga**ngi**e	—	*Pemphis*
la**g i**	la**gi**	ra**‘ i**	ra**ngi**	l a**n i**	sky
ngongo	**gogo**	—	**ngo**io	**no**i o	noddy
ngutu	**gu**tu	**‘u** t u	**ngu**tu	**nu**ku	village

TABLE 4. **The Proto-Polynesian *H***

Tonga	Samoa	Tahiti	Rarotonga	Hawai‘i	English
ma**ha**me	ma**sa**me	ma**ha**me	ma**‘ a**me	me**ha**me	*Glochidion*
—	na**se**	na**he**	‘ana**‘e**	—	*Asplenium*
hingano	**si**gano	**hi**nano	**‘i**nano	**hi**nano	pandanus fl.
a**hi**	a**si**	a**hi**	a**’i**	ilia**hi**	sandalwood
hoi	**so**i	**ho**i	**‘o**i	**ho**i	bitter yam
ka**ho**	‘a**so**	a‘e**ho**	kaka**‘o**	‘a**ho**	a reed
i**hu**	i**su**	i **hu**	—	i **hu**	nose

TABLE 5. **The Proto-Polynesian *K***

Tonga	Samoa	Tahiti	Rarotonga	Hawai‘i	English
ka**k**ute	**‘**a**k**ute	**‘**a**k**ute	**k**a**k**ute	—	hibiscus
ka**l**a**k**a	**‘**a**l**a‘**a**	—	**k**a**r**a**k**a	**‘**a**l**a‘**a**	*Planchonella*
ka**v**a	**‘** a**v**a	**‘**a**v**a	**k**a**v**a	**‘** a**w**a	kava
ke**l**e**k**e**l**e	**‘**e**l**e‘**e**le	**‘**e**r**e‘**e**re	**k**e**r**e**k**e**r**e	**‘**e**l**e‘**e**le	dirt
ki**e** **k**i**e**	**‘**i**e**‘**i**e	**‘**i**e**‘**i**e	**k**i**e** **k**i**e**	**‘** i**e**‘**i**e	*Freycinetia*
ko**f**e	**‘**o**f**e	**‘**o**f**e	**k**o‘e	**‘** o**h**e	bamboo
tō	**to**lo	**tō**	**tb**	**k o**	sugarcane
ku**m**ala	**‘**u**m**ala	**‘**u**m**ara	**k**u**m**ara	**‘**u**a**la	sweet potato

TABLE 6. **The Proto-Polynesian *R***

Tonga	Samoa	Tahiti	Rarotonga	Hawai‘i	English
la**l**u	**l**a**l**u	**r**a**r**u	**r**a**r**u	**l**a**l**u	leaf
mai**l**e	lau mai**l**e	mai**r**e	mai**r**e	mai**l**e	*Alyxia*
enga	**l**e**l**ga	**r**e‘ a	**r**e**r**nga	**‘oil**e**l**na	turmeric
le**l**va	**l**e**l**va	**r**e**r**va	**r**e**r**va	—	*Cerbera*
‘u**l**i	u**l**i	u**r**i	u**r**i	u**l**i	black
po**l**o	p o**l**o	‘opo**r**o	po**r**o**r**o	popo**l**o	*Solanum*
ua	**l**u**l**a	**r**u**r**a	**r**u**r**a	**l**u**l**a	two

TABLE 7. **The Proto-Polynesian *T***

Tonga	Samoa	Tahiti	Rarotonga	Hawai‘i	English
ta**t**lo	**t**a**t**lo	**t**a**t**ro	**t**a**t**ro	**k**a**k**lo	taro
ta**t**manu	**t**a**t**manu	**t**a**t**manu	**t**a**t**manu	**k**a**k**mani	*Calophyllum*
kau**t**e	‘au**t**e	‘au**t**e	kau**t**e	—	hibiscus
si	**t**i	**t**i	**t**i	**k**i	ti plant
si**t**ale	**t**i**t**ale	**t**i**t**are	**t**i**t**are	—	gardenia
ma**s**i	ma**t**i	ma**t**i	ma**t**i	—	fig
to**t**a	**t**o**t**a	**t**o**t**a	**t**o**t**a	**k**o**k**a	ironwood
to**t**u	**t**o**t**u	**t**o**t**u	**t**o**t**u	**k**o**k**u	*Cordia*
tu**t**i**t**u**t**i	**t**u**t**i**t**u**t**i	**t**u**t**i**t**u**t**i	**t**u**t**u**t**i	**k**u**k**u**k**i	candlenut

TABLE 8. **Traditional Plant Names Widespread in Polynesia, by Island Group**

Species	Tonga	Samoa	Tahiti	Rarotonga	Hawai‘i
Alyxia spp.	maile	laumaile	maire	maire	maile
Angiopteris evecta	—	nase	nahe	‘āna‘e	—
Amorphophallus paeoniifolius	teve	teve	teve	teve	—
Barringtonia asiatica	futu	futu	hutu / hotu	‘utu	—
Bischofia javanica	koka	‘o‘a	koka	koka	—
Cananga odorata	mohokoi	moso‘oi	moto‘i	mata‘oi	—
Casuarina equisetifolia	toa	toa	toa	toa	koa[1]
Colocasia esculenta	talo	talo	taro	taro	kalo
Cordyline fruticosa	sī	ti	ti	ti	ki
Cucumis melo	‘atiu	‘atiu	‘atiu	—	—
Dendrocnide spp.	salato	salato	halato[1]	—	—
Dioscorea alata	‘ufi	ufi	u‘i	ufi / uhi	uhi
Dioscorea bulbifera	hoi	soi	hoi	o‘i	hoi
Eugenia rariflora	unuoi	unuoi?	nioi?	ni‘oi	nioi
Fagraea berteroana	pua	pua lulu	pua	pua	—
Ficus tinctoria	mati	mati	mati	mati	—
Gossypium hirsutum	vavae	vavae	vavai	—	—
Ipomoea batatas	kumala	‘umala	‘umara	kumara	‘uala
Macropiper spp.	kavakava ‘ulie	‘ava‘ava aitu	kavakava i ra‘i	kavakava atua	—
Morinda citrifolia	nonu	nonu	nono	nono	noni
Piper methysticum	kava	‘ava	‘ava	kava	‘awa
Pipturus argenteus	‘olongā	soga	ro‘ā	‘orongā	‘olona[1]
Pisonia grandis	puka	pu‘a vai	pu‘a tea	puka tea	—
Planchonella spp.	kalaka	‘ala‘a	—	karaka[1]	‘ala‘a
Premna serratifolia	volovalo	aloalo	‘avaro	—	—
Santalum spp.	ahi	asi[1]	ahi	a‘i	iliahi
Schizostachyum glaucifolium	kofe	‘ofe	‘ofe / ‘ohe	ko‘e	‘ohe
Solanum americanum	polo	polo	‘oporo	poroporo	popolo
Spondias dulcis	vi	vi	vi	vi	wi
Syzygium malaccense	fekika	fi‘afi‘a	ka‘ika	ka‘ika	‘ahi‘a
Tournefortia argentea	touhuni	tausuni	tahinu	tau‘unu	—

[1] Name applied to a different genus.

of the five island groups. A list of traditional plant names that have cognates extending throughout most of Polynesia is shown in Table 8.

The formation of cognates, that is, the change of a plant name into a similar but nonidentical form in another archipelago, has occurred naturally over the three thousand or so years of Polynesian history, aided by the isolation of the islands from each other. However, a few names that resemble

TABLE 9. **Polynesian Plant Names Derived from English Names**

Tonga	Samoa	Tahiti	Rarotonga	Hawai‘i	English
‘apele	‘apu	‘apara	‘apara	‘apala	apple
‘avoka	‘avoka	‘avota	‘avota	**pea**	avocado
kapisi	kapisi	**pota**	kapati	kapiki	cabbage
manioke	manioka	maniota	maniota	manioka	manihot (cassava)
kofi	kofe	taofe	kaope	kope	coffee
koane	**saga**	**tb papa‘a**	koni	kulina	corn
kiukamapa	kukama	totoma?	kukama	ka‘ukama	cucumber
kuava	ku‘ava	tuava	tuava	kuawa	guava
lemani	—	raimene?	remeni	lemi	lemon
lile	lili	riri	riri	lilia	lily
mango	mango	**ve popa‘a**	vi mango	manako	mango
meleni	meleni	mereni	mereni	**ipu**	melon
onioni	aniani	oniani	‘oniani	**‘aka‘akai**	onion
pasiole	patiale	—	patiore	—	patchouli
piini	pi	pipi	pi	pi	pea
pinati	pinati	**aratita**	**‘aratita**	pineki	peanut
fala	**fala**	painapo	**‘ara**	**hala kahiki**	pineapple
pateta	pateta	putete	pitete	**‘uala kahiki**	potato
hina	mauteni	mauteni	motini	**pala‘ai**	melon
tamaline	tamalini	tamareni	tamereni	**wi ‘awa‘awa**	tamarind
temata	tomato	tomati	tomati	kamako	tomato

Note: Names in **boldface** are not cognates and have a different origin.

original cognates have been formed recently, in a single stroke of the pen, based on borrowings from non-Polynesian languages (usually English) when new plants are introduced from other countries. Linguistically, these derived names are not actually cognates and do not indicate any similarity between the two languages. The fact that the Tongan *pulukamu* is derived from the English name “blue-gum” *(Eucalyptus)* does not indicate similarity between the two languages.

Derived names may occasionally be taken from other Polynesian or Melanesian names: the *bele* of Fiji has become the *pele* (*Hibiscus manihot*, spinach tree) of Tonga and Samoa. There is at least one documented case of a Polynesian name being derived prehistorically from a South American language. The name for the sweet potato *(Ipomoea batatas)* throughout Polynesia is *kumara* and its cognates, and these appear to be derived from its name in an American Indian dialect of Peru or Ecuador. A list of Polynesian plant names that are derived from English names is shown in Table 9.

An interesting variation of cognates are plants that are called by one name or its cognates in eastern Polynesia and by another name or set of cog-

nates in western Polynesia. Few plant examples are found that extend across the whole region, but one is *Guettarda speciosa,* which is called by cognates of *puapua* throughout western Polynesia, but by cognates of *tafano* throughout eastern Polynesia. Another example is *Cassytha filiformis,* which is called by cognates of *fetai* in western Polynesia, but by cognates of *taino'a* in eastern Polynesia.

For most of these plants with different sets of cognates in western and eastern Polynesia, the western Polynesian names are considered to be closer to the names in Proto-Polynesian. These names were apparently taken to eastern Polynesia, where they were replaced by another name before being carried to other islands of the region. An exception is *Tacca leontopetaloides* (Polynesian arrowroot). Its eastern Polynesian name *pia* appears to have been the original one, since it is a cognate of the Fijian name for the plant, *yabia.* Apparently the name changed on one island of western Polynesia, and this change somehow spread to the other islands of this area.

Another interesting variation in Polynesian plant names is intrageneric name change. There are a few examples of Polynesian genera where the name of one species in western Polynesia is applied instead to another species of the same genus in eastern Polynesia. In western Polynesia, the forest tree *Calophyllum neo-ebudicum* is called *tamanu,* but the species is not present in eastern Polynesia. However, the name is present there, applied instead to a different species of the genus, *C. inophyllum.* In western Polynesia, this latter tree is called *fetau* or *feta'u,* a plant name apparently without cognates in eastern Polynesia.

A second example involves the genus *Cordia.* In western Polynesia *C. aspera,* a rare forest tree, is called *tou,* but the species is not found in eastern Polynesia. However, the name is present in eastern Polynesia, where it is applied to the widespread littoral tree *C. subcordata,* which is called *kanava* and its cognates in western Polynesia.

The comparison of cognates is a useful tool for determining the geographical source of a plant. For example, the rare Polynesian melon *Cucumis melo* is (or was) called *'atiu* in Samoa, *'atiu* in Tahiti, and *katiu* in the Marquesas. The presence of the *k* in the Marquesas name is to be expected because the / k / sound has been preserved in Marquesan, and the glottal stop in Samoan and Tahitian is consistent with these two languages that lack a *k.* What is not expected is the now all-but-forgotten Tongan name *'atiu,* which would be expected to be *katiu* in Tongan, which like Marquesan, has preserved the *k.* The Tongan name may indicate a more recent introduction of the melon, along with its name, to Tonga from Samoa, after Samoan had already lost its *k.* Rensch similarly explored the origins of the sweet potato in Polynesia (1991).

Coining New Names for New Plants

The second source of variation in plant names in Polynesia is the coining of new names for new plants. When Polynesian voyagers discovered and settled uninhabited lands, the notable plants that were new to them required new names. If a plant was unique to the island or archipelago, then its name would likely remain only there and would not be spread to new areas discovered (unless it was applied to another species reminiscent of the first one). These locally derived names do not have cognates in other Polynesian languages. The determination that a name is local may sometimes be misleading, however, because some names that appear to be restricted to one island or archipelago may have been lost elsewhere or may not yet have been recorded from related languages.

An interesting case of a locally coined name is illustrated in the genus *Diospyros*. In western Polynesia, the two most common species, *D. samoensis* and *D. elliptica*, are called *ʻauʻauli* (Samoan) or *tutuna* (Tongan) and *ʻanume* (Samoan) or *kanume* (Tongan), respectively. In Hawaiʻi, however, the two native species of the genus are called *lama*, a local name with no cognates elsewhere in Polynesia (although *rama* is used for an unrelated species in the Northern Cooks). Because the genus is absent between Niue and Hawaiʻi, the western Polynesian names were long forgotten before Hawaiʻi was discovered.

The case of *Myoporum* in Hawaiʻi is a contrasting example. Since the genus is absent from the two archipelagoes believed to have contributed to the settlement of Hawaiʻi (i.e., the Society Islands and the Marquesas), a newly coined local name is to be expected. However, the Hawaiian name for *M. sandwicense* is *naio*, which is a cognate of *ngaio* that is applied to the genus in the Cook Islands, the Austral Islands, and New Zealand. Perhaps there were some immigrant Cook Islanders on the voyage of discovery from Tahiti to Hawaiʻi, or perhaps the tree was recognized from some traditional Tahitian chant, but both of these suggestions are just speculation. (Another possibility is that the tree once grew in the Society or Marquesas Islands and then become extinct, but this is unlikely.)

Coining New Names for Old Plants

The third source of the variety of plant names in Polynesia is the coining of new names for old plants. The utility of making up new names for well-known plants and the mechanisms involved are not readily apparent. One likely cause occurs when a plant name (or other word) is similar to the name or title of a person who has become sacred or prestigious; in such a case, the person’s name or title is taboo and a new name is chosen for the plant.

TABLE 10. **Polynesian Plant Names with Local Changes, by Island Group**

Species	Tonga	Samoa	Tahiti	Rarotonga	Hawai'i
Acrostichum aureum	hakato	sa'ato	**'aoa,** pi ha'ato	pia hakato	—
Aleurites moluccana	tuitui	**lama**	**ti'airi**	tuitui	kukui
Alocasia macrorrhiza	kape	**ta'amu**	'ape	kape	'ape
Caesalpinia spp.	talatala-'amoa	**'anaoso**	tataramoa	tataramoa	kakalaioa
Calophyllum inophyllum	tamanu	tamanu	**'ati**	tamanu	kamani
Cocos nucifera	niu	niu	**ha'ari**	nu	niu
Cyathea spp.	ponga	**olioli**	**mama'u**	panga	—
Cyrtosperma chamissonis	**via**	pula'a	**ma'ota**	puraka	—
Dioscorea pentaphylla	**lena**	pilita	**patara**	pirita	pi'a
Erythrina spp.	ngatae	gatae	'atae	ngatae, 'oviriviri?	**wiliwili**
Ficus prolixa	**'ovava**	aoa	**'ora'a,** 'aoa	aoa, **ava**	—
Glochidion spp.	**malolo**	masame	ma'ame	mahame	mehame[1]
Hernandia nymphaeifolia	**fotulona**	pu'a	**ti'anina**	puka	—
Hibiscus tiliaceus	fau	fau	**purau**	'au, **purau**	hau
Inocarpus fagifer	ifi	ifi	**mape**	i'i	—
Oxalis corniculata	kihikihi	'ii	**patoa**	koki'i	'ihi
Scaevola taccada	ngahu	**to'ito'i**	naupata	nga'u	naupaka
Thespesia populnea	milo	milo	**'amae**	miro	milo
Vitex trifolia	lalatahi	**namulega**	—	rara	—
Zingiber zerumbet	**angoango**	'avapui	**re'a moeruru**	**kopi 'enua**	'awapuhi

Note: Names in **boldface** are the new names.

[1] This name applies to a similar related genus, since *Glochidion* is not found in Hawai'i.

In Tahiti, the word for water, *vai,* was changed to *pape* when a person of high rank took on the name Vaira'atoa (and consequently the capital of the Society Islands is now Pape'ete instead of Vai'ete). Tahitian names such as *ha'ari* (coconut, called *niu* in most of the rest of Polynesia) and *aito* (iron-wood, called *toa* elsewhere) may also have originated in this way. However, a cognate of *ha'ari* in the Cook Islands, *'akari,* refers to coconut oil. A list of examples of local names changed from their widespread cognates is shown in Table 10.

Other, Minor Causes of Variation

The vast majority of the variation in plant names between different islands of Polynesia can be attributed to the three causes already discussed. However, there are a few causes of minor importance that should be mentioned. One example is on the island of Niuafo‘ou, where the name for *Laportea interrupta* is not *hongohongo* as in the rest of Tonga, but *ngohongoho,* which is formed by a reversal of syllables. Other examples of plants with a similar change, called “metathesis” by linguists, are hard to come by in Polynesia.

Another interesting example is the regular change in vowels. In Tonga, and apparently nowhere else in Polynesia, plant names (and other words) that normally would contain two *a*’s often have the first one changed to an *o.* This shows up best in names involving reduplication, a doubling of syllables; the Samoan plant names *puapua, aloalo, nu‘anu‘a,* and *fu‘afu‘a* are in Tongan *puopua, volovalo, nukonuka,* and *fukofuka,* respectively.

A third minor cause of variation in Polynesian plant names is the misapplication of names. Sometimes for reasons that are not always readily apparent, a plant is called by a name that should be applied to another plant present. In the Cook Islands, *karaka* is applied to *Elaeocarpus tonganus.* Elsewhere in Polynesia this name and its cognates usually apply to the genus *Planchonella,* which is also present in the Cooks. In most of Polynesia, the name *olongā* applies to *Pipturus argenteus,* whose bark is used to make fishing lines and nets. In Hawai‘i, however, the name *‘olona* is applied to the genus *Touchardia,* and the native species of *Pipturus* are called *mamaki.* In this case, the fibers of *Touchardia* are better for making cordage than *Pipturus,* so the name change is based on plant usage rather than appearance.

This change of name based on ethnobotanical use is not unique. The name in western Polynesia for turmeric *(Curcuma longa)* is *ago (ango),* but in eastern Polynesia it is *lega* and its cognates. The latter name is derived from the Proto-Polynesian word for “yellow,” which is the color of the dye obtained from turmeric. The general Polynesian name for the candlenut tree *(Aleurites moluccana)* is *tuitui* and its cognates, but in Samoa it is *lama* and in the Marquesas it is *‘ama.* The latter two names mean “torch,” a use to which the nuts of the tree are put.

Classification of Polynesian Plant Names

Polynesian plant names can be put into categories in a number of ways other than distinguishing ancient versus modern names and cognates versus local names as described above. Another way is to categorize them into proper names and descriptive names. Proper names are used almost exclusively for

a certain plant, rather than being words with other meanings. Descriptive names are typically based on some characteristic of the plant, such as place of origin, uses, habitat, and so forth.

Most proper names are ancient in origin, but descriptive names are often applied to introduced plants. Many descriptive names are modified, and if they are not, then the reference to the plant is obvious by the context of the sentence. The existence of a plant name that also refers to something else usually indicates that the object and the plant so named have something in common.

The use of modifiers points out another way to categorize plant names, a distinction based on complexity; names are either simple (unmodified) or compound (with modifiers). Unlike in English, Polynesian modifiers follow the word they modify. The modifiers most commonly used in Polynesia indicate: colors, uses, habitat or distribution, physical characteristics (taste, smell, texture), similarity to other plants, country of origin, source of introduction, commemorative quality, and comparison to animals.

Color is one of the most widely used methods of modifying Polynesian plant names. The most common color modifiers are "black," "red," "white," and "silver." *Vao ʻuli* in Samoan, for example, means "black weed," *mataʻura* in Tahitian means "red eye," and *talo tea* in Tongan means "white taro." The cognates *sina* and *hina* are widely used to describe plants shiny white or silver in color.

Plant name modifiers based on the uses of the plant are less common than colors. Examples include the Samoan name *fanamanu (Canna indica),* which means "to shoot birds" (the seeds are used for pea shooters), and the Hawaiian *ʻohiʻa ʻai (Syzygium malaccense),* which means "edible *Syzygium* species."

Some of the most common plant name modifiers deal with whether the plant is found on the shore *(tai, tahi, taʻatai, kahakai),* inland *(ʻuta, uta, mauka),* or in the "bush" *(vao)* rather than in cultivated areas. These modifiers are usually applied to groups of related plants that are distinguished mainly by where they grow. Plant names are often modified based on physical characteristics, most commonly the texture of the leaves, their smell, or their taste. Sedges with sharp-edged leaves, for example, are called *selesele* ("cut-cut") in Samoa and *ʻotiʻoti* (same meaning) in the Cooks, while the red chili pepper is called *polo fifisi* in Tonga and *polo feu* in Samoa, both of which mean "hot" *polo* (herbs related to tomatoes).

Some plants that have a resemblance to others are called by names that have the name of the other plant as a modifier. Large leafed grasses (typically *Oplismenus compositus*) are called *mohuku laukofe* in Tonga, *koʻekoʻe* in Rarotonga, and *ʻoheʻohe* in Tahiti, based on their similarity to the Polyne-

sian bamboo (called *kofe, koʻe,* and *ʻohe* in the three, respectively). Also, sometimes the plant is given an unmodified descriptive name based on some other plant that is known, but does not occur, in the country, such as *oke* and *paina* for oaklike and pinelike plants in Tonga and Hawaiʻi, respectively. Most of the plants named in this way are introduced species.

The country of supposed origin is a commonly used modifier, and this obviously applies to introduced plants. Perhaps the most common modifiers distinguish between plants that are local in origin and similar ones that are introduced. For plants designated as "local," the modifiers are usually the name of the local country, such as the Tongan *(siale Tonga)* and Samoan names *(pua Samoa)* for the Tahitian gardenia. In Tahiti and the Cook Islands, the modifier is usually the name for the local people, such as the Rarotongan name *tiare maori* or the Tahitian name *ʻaute maohi.* The Rarotongan modifier *ʻenua* ("of the land") is used in the same sense. The opposite to these modifiers, meaning the introduced or European type, is *palagi* or *papala(n)gi* in Samoan or Tongan (which uses an *ng* instead of a *g*), *popaʻa* in Tahitian, *papaʻa* in Rarotongan, and *haole* in Hawaiian. "China" or "Chinese" is also a popular modifier, *tinito* in Tahitian, *taina* in Rarotongan, *saina* in Samoan, and *siaina* in Tongan.

A few plant names are modified by the names of individuals who are thought to have introduced the plant to the island (as we do in English with names like "Koster's curse"). These names may be simple as well--by just using the person's name for the plant. In Samoa and Tonga, the ladyfinger banana is named after the missionaries who apparently introduced the plant--*misiluki* (Missionary Luke) and *misipeka* (Missionary Baker), respectively.

Names in the commemorative category are coined because of some perceived similarity of the plant to some historical or mythological character. *Matamoso* and *matamoho,* for example, mean "the eyes of Moso" (Samoa) or Moho (Tonga), a Polynesian demigod. Sometimes the names are taken out of the Bible, such as the Rarotongan palm *nu tamara,* named after the biblical character Tamara.

Animal names or animal products are also commonly used modifiers. For example, *fulu lupe* (pigeon's feathers) is a plant name in Tonga; the unmodified Samoan name *mamoe* (sheep) is applied to *Celosia argentea* because of similarity in looks to sheep. The modifiers often take the form of the local word for excrement, indicating that the plant is of little use. This is particularly common in Tonga, where *teʻe* (excrement) is modified by *hoosi* (horse), *lango* (fly), *pulu* (bull), *manu* (bird), and *kosi* (goat), and the resulting names are applied to various weeds. The Samoan *tae,* the Rarotongan and Tahitian *tutae,* and the Hawaiian *kukae* are used similarly. Sometimes

TABLE 11. **Fijian Cognates of Polynesian Plant Names**

Species	Fiji	Tonga	Samoa
Alphitonia zizyphoides	**ndoi**[1]	**toi**	**toi**
Alpinia spp.	**tevunga**	**tevunga**	teuila?
Balaka spp.	**niuniu**	—	**maniuniu**
Bambusa vulgaris	**mbitu**	**pitu**	‘ofe
Barringtonia asiatica	**vutu**	**futu**	**futu**
Benincasa hispida	**vango**	**fagu**	**fagu**
Bischofia javanica	**koka**	**koka**	**‘o‘a**
Calophyllum neo-ebudicum	**ndamanu**	**tamanu**	**tamanu**
Cananga odorata	**makasoi**	**mohokoi**	**moso‘oi**
Centella asiatica	**totondro**	**tono**	**togotogo**
Cerbera spp.	**rewa**	toto	**leva**
Citrus spp.	**moli**	**moli**	**moli**
Cocos nucifera	**niu**	**niu**	**niu**
Colocasia esculenta	**ndalo**	**talo**	**talo**
Cordia aspera	**tou**	**tou**	**tou**
Cordia subcordata	**nawanawa**	**puataukanave**	**tauanave**
Curcuma longa	**thango**	**ango**	**ago**
Cycas rumphii	**longolongo**	**longolongo**	lau pama
Decaspermum spp.	**nunganunga**	**nukonuka**	**nu‘anu‘a**
Dendrocnide harveyi	**salato**	**salato**	**salato**
Dendrolobium umbellatum	**ndrala**	**lala**	**lala**
Dioscorea alata	**uvi**	**‘ufi**	**ufi**
Diospyros maba	**mamba**	**mapa**	—
Diospyros samoensis	**kaukau loa**	tutuna	**‘au‘auli**
Eleocharis dulcis	**kuta**	**kuta**	**‘utu**
Entada phaseoloides	**walai**	**valai**	fue inu
Epipremnum pinnatum	**yalu**	**alu**	fue laufao
Erianthus maximus	**vitho**	—	**fiso**
Euodea hortensis	**uthi**	**uhi**	**usi**
Fagraea berteroana	**mbua**	**pua**	**pua lulu**
Gardenia taitensis	**mbua**	siale	**pua**
Geophila repens	**totondro**	**tono**	**tono**
Gossypium spp.	**vauvau**	**vavae**	**vavae**
Guettarda speciosa	**mbuambua**	**puopua**	**puapua**
Gyrocarpus americanus	**wiriwiri**	**pukovili**	**vilivili**
Hernandia moerenhoutiana	**pipi**	**pipi**	**pipi**
Hibiscus tiliaceus	**vau**	**fau**	**fau**
Inocarpus fagifer	**ivi**	**ifi**	**ifi**
Intsia bijuga	**vesi**	**fehi**	ifilele
Ipomoea batatas	**kumala**	**kumala**	**‘umala**
Lumnitzera littorea	**sangali**	**hangale**	—
Metrosideros collina	**vunga**	**vunga**	(no name)
Musa paradisiaca	**vundi**	**fusi**	fa‘i
Musa troglodytarum	**soanga**	—	**soa‘a**

(continued)

TABLE 11. **Continued**

Species	Fiji	Tonga	Samoa
Neisosperma oppositifolium	**vaoko**	**fao**	**fao**
Pandanus spp. (weaving kinds)	**kiekie**	**kie**	**lau'ie**
Parinari insularum	**sea**	**hea**	**sea**
Pemphis acidula	**ngingie**	**ngingia**	—
Phaleria disperma	**sinu**	**huni**	**suni**
Pipturus argenteus	**rongā**	**olonga**	**soga**
Pisonia grandis	**mbuko**	**puko**	**pu'avai**
Planchonella grayana	**ngalaka**	**kalaka**	**'ala'a**
Polyscias spp.	**ndanindani**	**tanetane**	**tagitagi**
Premna serratifolia	**yaro**	**volovalo**	**aloalo**
Pritchardia pacifica	**viu**	**piu**	**piu**
Pueraria lobata	**yaka**	**aka**	**a'a**
Rhizophora spp.	**ngongo**	**tongo**	**togo**
Santalum yasi	**yasi**	**asi**	—
Sesbania coccinea	**vaivai**	**'ohai**	—
Solanum spp.	**mboro**	**polo**	**polo**
Syzygium malaccense	**kavika**	**fekika kai**	**nonu fi'afi'a**
Syzygium spp.	**yasiyasi**	fekika	**asi**
Tacca leontopetaloides	**yambia**	**(pia)**[2]	**(pia)**[2]
Thespesia populnea	**mulomulo**	**milo**	**milo**
Trichospermum spp.	**mako**	—	**ma'o ui?**
Veitchia joannis	**niusawa**	**niukula**	—
Vigna marina	**ndrautolu**	**lautolu**	fue sina

Source: Names from Fiji were taken from Smith 1979-1991; for Samoa, Whistler 1984; for Tonga, Whistler 1991a.

Notes: Names in **boldface** are cognates. A dash indicates the plant is not present there.

[1] The *nd, mb,* and *ng* of Fiji are pronounced this way but are usually written as *d* and *b,* respectively.

[2] The *pia* in Tonga and Samoa is the old name for *Tacca leontopetaloides.*

the modifier "rat's" or "pig's" is used in a similar fashion to denote a useless plant.

Comparison to Other Pacific Languages

The utility of comparing Polynesian plant names also applies to other non-Polynesian Pacific languages, particularly Fijian, especially when compared with Tongan names. A list of cognates shared by Polynesian languages (Tongan and Samoan) and Fijian is shown in Table 11. The Fijian names were taken from Smith (1979-1991).

However, farther from Polynesia the usefulness of plant name comparisons decreases. There is much less similarity between Micronesian and

TABLE 12. **Micronesian (Kiribati) Plant Name Cognates**

Species	Kiribati	Tonga	Samoa
Alocasia macrorrhiza	**kabe**	**kape**	ta‘amu
Artocarpus altilis	**mai**	**mei**	‘ulu
Colocasia esculenta	**taororo**	**talo**	**talo**
Cordia subcordata	**kanawa**	**puataukanave**	**tauanave**
Cordyline fruticosa	**rau ti**	**lau ti**	**lau ti**
Curcuma longa?	**renga**	**ango enga**	ago
Gardenia taitensis	**tiare**	**siale**	pua
Hibiscus tiliaceus	**rao, rau**	**fau**	**fau**
Inocarpus fagifer?	**ibi**	**ifi**	**ifi**
Ipomoea batatas	**kumara**	**kumala**	**‘umala**
Morinda citrifolia	**non**	**nonu**	**nonu**
Neisosperma oppositifolium?	**bao**	**fao**	**fao**
Pemphis acidula	**ngea**	**ngingie**	(no name)
Pisonia grandis	**buka**	**puka**	**pu‘avai**
Rhizophora spp.	**tongo**	**tongo**	**togo**
Solanum viride	**boro**	**polo**	**polo**

Source: Thaman 1987.

Notes: Cognates are in **boldface,** Scientific names followed by question marks are not certain, but the Kiribati name is a cognate.

Polynesian names, for two major reasons. The most important reason is probably that most of Micronesia comprises atolls with impoverished floras. Because many fewer species are present, there are fewer plants to share names. The other reason is that historically there was relatively little contact between Polynesia and Micronesia, except at their interface, that is, between Kiribati (formerly called the Gilbert Islands) and Tuvalu (formerly called the Ellice Islands). A list of cognates between Kiribati (Thaman 1987) and Polynesia is shown in Table 12.

One other name should be mentioned, the Samoan *ifilele (Intsia bijuga).* Its names in Fiji and Tonga are different (*vesi* and *fehi,* respectively), but the Guamanian name *ifil* is a cognate. Few if any other Samoan names show this kind of affinity with Micronesia rather than similarity to the rest of Polynesia.

The comparison of plant names to support theories of colonization in Polynesia is sometimes possible, but it often produces contradictory evidence and is thus considered beyond the scope of this article.

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THE EXCEPTION, NOT THE RULE: A COMPARATIVE ANALYSIS OF WOMEN'S POLITICAL ACTIVITY IN PACIFIC ISLAND COUNTRIES

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An examination of overall trends in women's political participation in twenty-one Pacific Island states shows that, apart from Guam, women's electoral success is very low when compared with international figures. Using the concepts of supply and demand to examine why this is so, analysis points to traditional and cultural constraints as key factors that restrict women's participation. However, at the same time there is evidence of a considerable groundswell of women's political activity in nongovernment organizations and community groups.

ALTHOUGH IT IS MORE than one hundred years since women gained the vote in New Zealand, many of the women who live as our closest neighbors in the Pacific region have not shared the same basic human right. For many of our Pacific Island sisters, the right to vote and the right to be elected as political representatives are relatively recent events. It is only over the last forty years that some Pacific Island women have had the opportunity to participate politically as voters and candidates; for others it is even more recent. And their success in gaining elective office has been minimal.

Comparative research at an international level into the extent of women's participation in representative government and political party activity shows that, despite some improvement in the last decade, women are still profoundly underrepresented. As this article will show, for women in the Pacific region the picture is worse. In most cases they have yet to see evidence

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of the acceptance of women's role in political activity within their own societies. These facts have attracted very little attention from political analysts and this inattentiveness promotes the continued invisibility of Pacific women. The New Zealand South Pacific Review Group summed matters up well in their 1990 report on the South Pacific when they claimed that "Pacific women are a neglected human resource."[1]

My own research looks at women's political participation in the countries of the Pacific within the context of their political structures and asks why women have had so little electoral success. Information on women's involvement as elected members of legislatures, as candidates, as voters, and in women's organizations has been gathered and examined. In this article I discuss the circumstances that contribute to variations in participation as well as the barriers to greater involvement in order to provide some understanding of women's position within these communities.

I start with the big picture: the figures on women's political representation in national and, in some cases, local governments. I then consider these figures within an analysis of factors influencing political participation, such as political party activity, attitudes toward human rights, and cultural barriers. Finally, I consider current policies and women's activities that are promoting women's interests and involvement.[2]

The area covered in this research spans the twenty-one island groups of the Pacific area from Palau and Papua New Guinea in the west, the Northem Marianas in the north, French Polynesia in the east, and Tonga and New Caledonia in the south. In many areas information on such things as recent election results is minimal.[3]

The Number of Women in Pacific Island Governments

When compared with the politics and population size of other regions of the world, twenty-one governments in an area occupied by about six and a half million people is significantly high. Furthermore, the Pacific region displays uniqueness and diversity with respect to political status and structure (i.e., the formal context under which the various island governments operate). These polities range from independent states, territories of larger countries, associated states, and a commonwealth, all except one with some form of parliamentary or presidential government. Few of these governments have ever had women members. As Table 1 shows, of the twenty-one entities in the region, just over half had elected women representatives as of 1995; in the majority of these, however, only one woman has ever been successful in winning a seat in the legislature. The only exception to the rule is Guam.

TABLE 1. **Women's Political Representation in National Legislatures in Pacific Island Countries, 1994**

Country	Year All Women Were Eligible to Vote and Stand for Legislative Body	Legislative Seats Available[a]	Women Elected		Year of Latest Election
			No.	% of Total	
Micronesia					
Northern Marianas	1965	23	2	9	1993
Palau	1965	32	0	0	1992
Guam	1931	21	6	29	1994
FSM	1965	14	0	0	1991
Marshall Islands	1965	33	1	3	1991
Kiribati	1967	39	0	0	1994
Nauru	1951	18	0	0	1992
Polynesia					
Tuvalu	1967	12	1	8	1993
Western Samoa	1991[b]	47	2	4	1991
Wallis & Futuna	1961	20	2	10	1992
American Samoa	1957	40	1	3	1992
French Polynesia	1953	41	0	0	1993
Niue	1960	20	1	5	1993
Cook Islands	1957	25	0	0	1994
Tonga	1960	30	1	3	1993
Melanesia					
Fiji	1963	71	3	4	1994
New Caledonia	1957	36	0	0	1989
Vanuatu	1975	46	1	2	1991
Solomon Islands	1967	47	1	2	1993
Papua New Guinea	1964	109	0	0	1992

Sources: Based on information cited in the country-by-country discussion. Suffrage dates from Peter Larmour, "A Foreign Flower? Democracy in the South Pacific," *Pacific Studies* 17, no. 1 (March 1994): 54-56.

Note: Tokelau, a dependent territory under New Zealand administration, is not included in this table as it does not have a directly elected national legislature. Nevertheless, discussion of Tokelauan developments forms part of the subsequent analysis of women's political activity.

[a] In most instances all available seats are included, whether elected or appointed, whether in unicameral or bicameral houses.

[b] Before universal suffrage there were two seats for which some women (i.e., those on the Individual Voters roll) could vote and stand for election.

Because of the large area covered in this research, a descriptive country-by-country overview proceeds from each entity's geographical position in the Pacific rather than its political structure or colonial experience, although affiliation with other countries, either in the past or at present, will be noted where appropriate.

Micronesia

At the northernmost point of the Micronesian islands in the Pacific region, the Northern Marianas has two women representatives at this time. In the 1993 elections Malua T. Peter, a former Board of Education member and women's affairs officer, was elected, as was Ana S. Teregeyo (who had already had one term in office).[4] These were the first women candidates to gain election since some initial success by women about fifteen years earlier. Following a lengthy period of colonial rule, first by the Spanish, then the Germans, after them the Japanese, and finally the Americans, a referendum strongly approving a Commonwealth of Political Union with the United States, held in 1975, led to self-government. Strong interest in this referendum resulted in a growth in political activity, and a small group of young, educated women formed the Saipan Women's Association (SWA) to stimulate meaningful political dialogue on the issues involved. As McPhetres observed, "In a traditionally male-dominated society the emergence of the SWA as a political entity was an almost revolutionary event."[5] This activity translated into success in the 1977 elections, the first to be held under this new constitutional arrangement, when two women became members of the legislature. However, this success was short-lived; although each of the political parties of the Northern Marianas endorsed a woman candidate in the 1981 elections, neither was elected.

Palau has no elected women representatives in its national legislature, despite a record number of women candidates standing for the most recent elections in 1992, four for the senate and one for the vice-presidency.[6] There has been a traditional reluctance among Palauan voters to support women because of a belief that politics is men's business. Although it gained independence only in 1994, Palau has since 1980 had a bicameral legislature made up of a House of Delegates, comprising one delegate from each of the sixteen states, and an elected Senate of fourteen members. The president and vice-president are also elected at national elections, although the cabinet is appointed by the president. Before the 1992 elections, two women had been appointed to the cabinet, Dilmeii Olkeriil, minister of community and cultural affairs, and Sandra Pierantozzi, minister of administration. Pierantozzi went on to be the first woman candidate for the vice-presidency, in the 1992 election, but she was unsuccessful. All states have separate constitutions and a governor, with some being elected and others chosen on the basis of their traditional status. In 1992 Theodosia Blailes, the first woman governor, was elected in the Angaur State.[7] And of four women candidates who ran for state seats in 1980, one was successful.[8]

Guam, an unincorporated territory of the United States, stands out in

stark contrast to the rest of the Micronesian group, as it has the highest number of women elected to any Pacific Island government, representing 29 percent of the legislative membership. This success has been long-term; the first two women were elected in 1954. Their number has grown, particularly since the 1980s; four women were elected in 1983 and 1985, seven in 1987, 1989, and 1991, and six in the 1992 and 1994 elections, many of these women holding their seats over several elections. Furthermore, a woman, Madeleine Bordallo, was elected to the post of lieutenant governor in the 1994 elections.[9]

No woman in the Federated States of Micronesia (FSM) has ever run as a candidate for a seat in the FSM legislature. A self-governing federation of four states, Yap, Truk, Pohnpei, and Kosrae, the Federated States of Micronesia is governed by a fourteen-member national Congress that includes a president and a vice-president. Despite the small size of the population in the four states, the largest 48,000 and the smallest 7,300, each elects its own legislature as well. In 1992 a woman senator was elected to Pohnpei's twenty-three-member Legislature, the first woman representative in the state's history.[10]

In the Marshall Islands, however, there is one woman senator in the thirty-three member legislature, the Nitijela, which governs all the many islands in this group. Evelyn Konou is serving her second term in office, having first been elected in 1987.[11] The president, elected as head of state and head of government, also appoints a cabinet of ministers, and a woman minister of social services, Antonio Elio, is part of this cabinet.[12] Each of the Marshalls' twenty-four inhabited islands has a local government. One of the largest islands, Majuro, has a woman mayor, Amatlain Kabua, who is related to the country's president.[13]

Although Kiribati does not have a woman representative in government at this time, this has not always been the case.[14] Before independence in 1979, when Kiribati was part of the Gilbert and Ellice Islands, there was one woman member, Tekarei Russell, who had been a government minister. Women clearly were seen to have had a legitimate role in the establishment of independence, a reflection perhaps of their community activity, as a constitutional convention held in 1977 to develop the basis of an independence constitution included representatives from women's groups.[15] Following the 1991 elections, a woman was elected at a by-election for a parliamentary seat. Nei Koriri Teaiwa stood as a candidate after her husband had been disqualified on bribery charges. Although her election was seen as "a pleasant surprise to the nation" in a predominantly male-controlled community, it was also seen as a measure of support for her husband. Following her election, however, Nei Koriri Teaiwa was also disqualified on similar grounds.[16]

Although three women candidates stood for the 1992 elections in Nauru, none was elected. However, one woman, Ruby Dediya, had been a member of Parliament for the previous two terms, from 1986 to 1992. Nauru gained independence in 1968 after having been administered by Australia since the First World War. It now has a government of eighteen members. Voting is compulsory for all Nauruans over twenty years of age, with 1,365 women registered as voters in 1991. Nauru also has a Local Government Council of nine members, one of them a woman.[17]

Polynesia

Women in Polynesian countries have clearly had the most electoral success overall in the Pacific area.

There is one woman member in Tuvalu. Naama Latasi, who was the first woman to be elected, held the position of minister for health, education, and community services in her first term, but since the 1993 elections she has been on the back bench. Her husband is the prime minister.[18] Tuvalu, one of the world's smallest countries, gained independence from Britain in 1978. Its population of about eight and a half thousand is now governed by a single legislature of twelve elected members.

The smallest Pacific Island entity, Tokelau, which has a population of sixteen hundred, is a non-self-governing territory of New Zealand. It has no central parliamentary government, although it does have a form of village- and family-based elected local government. As a paper presented at the Women in Development Workshop for Pacific Island leaders held in New Zealand in 1993 succinctly puts it, "Women in politics is nil."[19]

There are presently two women members of Parliament in Western Samoa, Matamumua Moana Vermullen and Fiame Naomi Mata'afa, the latter having become minister of education, youth, sports, and culture following the 1991 elections. Mata'afa is the daughter of Western Samoa's first prime minister and was a leader in the movement for universal suffrage. At the time of gaining independence in 1962, Western Samoa opted for an electoral system in which only *matai* (title chiefs) could vote and stand as candidates for the legislative assembly. Although the passing of the Electoral Amendment Act in 1990 introduced universal suffrage, the right to stand for election has remained with *matai.* Only a few women are *matai,* and although the *matai* system has been seen to work against women and their interests, seven women *matai* have been elected to Parliament since 1972. The 1990 legislation is seen as a step toward changing the wider political scene for women. Before the 1991 elections, commentators suggested that the indifference of Western Samoa's members of Parliament to women's issues could only continue at their peril.[20]

For the first time in the history of Wallis and Futuna, two women were recently elected to the twenty-seat Territorial Assembly, the legislative governing body of this French territory Although other women have stood as candidates in the past, Malia Moefana, a school teacher, and Maketalena Pilioko, an accountant, are the first to succeed.[21]

In American Samoa, the other United States territory in the Pacific, women do not share the unique level of electoral success achieved by the women of Guam. This fact was highlighted in a summary of elections held in the American territories, which reported that, despite the varied quality of candidates in Guam and Hawai'i, "with men and women running for office, there is no such scene in American Samoa."[22] Despite these evident disparities, one woman, Fiasili Haleck, was reelected in 1992 to the twenty-seat House of Representatives, and she was nearly joined by a second woman, Faga S. Fuala'au, who lost by only one vote. Another woman came to political prominence before the elections when, following the death of the lieutenant governor, his wife was appointed to fill out the remaining few months of his term.[23] American Samoa elects its House of Representatives and its executives (governor and lieutenant governor), while its Senate, of eighteen members, is chosen by *matai.* There are no women in the Senate; as in Western Samoa, few of the territory's women hold *matai* titles.

Another island group in Polynesia that continues to have constitutional ties to a metropolitan power is French Polynesia, a department of France. At this time there are no women elected to the Territorial Assembly that governs French Polynesia, although there is one appointed woman minister, Haamoetini Legarde, the minister of agriculture, environment, and women. One woman has been elected in the past, Huguette Hong Kiou, who served in the assembly between 1984 and 1992.[24] The French Polynesian capital, Papeete, elected its first woman mayor, Louise Carlson, in 1993.[25]

In Niue women have had greater success at the polls. From the time of the first elections following self-government in 1974, women have stood as candidates for the Legislative Assembly This twenty-seat chamber is made up of six common roll seats and fourteen village constituencies, the latter being subject to more traditional processes for selection of candidates. Consequently, women have had a greater chance of being elected to common roll seats and have often topped the polls in elections, two being elected in 1975, three in 1978, one in 1981, two in 1990, and one in 1993. Veve Jacobsen, elected in March 1993, has become the first female cabinet minister in a cabinet of four and has responsibility for community affairs, tourism, broadcasting, health, and education. Women have also been very successful in local government in Niue: seventeen women were elected to the fourteen councils in the last elections.[26]

Like Niue, the Cook Islands is self-governing in free association with

New Zealand, New Zealand retaining some delegated authority for foreign affairs and defense while guaranteeing New Zealand citizenship and associated rights to the islands' residents. The Cook Islands has an elected government of twenty-five members. There are no women representatives at this time, although there have been in the past. Margaret Storey was speaker for about thirteen years before 1978, when her brother, Sir Albert Henry, served as the Cook Islands' first prime minister.

Tonga has had one elected woman representative since the elections in 1993. 'Ofa ki 'Okalani Fusitu'a is the first woman to be elected in the last twelve years, She is one of the nine people's representatives in the Legislative Assembly elected by universal suffrage. This assembly also includes a cabinet selected by the king as well as nine nobles elected by the thirty-three nobles of Tonga. In the 1970s two other women gained election as people's representatives, Princess Mele Siu'ilikutapu and Papiloa Foliaki[27] At the local government level, district and town officers are elected, but to date no women have gained one of these positions.[28]

Melanesia

Like their counterparts in Micronesia (with the exception of Guam), women in Melanesian countries have had little success at the polls.

In elections held early in 1994 in Fiji, three of the ten women candidates succeeded in being elected to the seventy-one-seat Parliament, the highest number to do so at one time. Two of these women, Adi Samanunu Talakuli and Seruwaia Hong Tiy, were elected for the first time. Talakuli, who was made minister of Fijian affairs, is the eldest daughter of Fiji's late governor-general and paramount chief Ratu Sir George Cakobau, while Hong Tiy, who has become minister for health and social services, is a businesswoman whose husband is an appointed member of the Senate. Taufa Vakatale, in her second term, having been first elected in 1992, was reappointed minister of education. She had previously been a teacher and a prominent civil servant.[29] Before 1992 only six women had sat in the House of Representatives or the Senate since Fiji gained independence in 1970.[30] One of these women, Irene Jai Narayan, was in Parliament for nearly twenty years before the 1987 coup, and following the coup she was appointed to the position of minister of Indian affairs, the only Indian representative in Fiji's interim government.[31] At the same time Adi Finau Tabakaucoro was appointed minister of women's affairs, and following the 1992 elections she was appointed to the Senate.

New Caledonia, a French department like French Polynesia, is another country with no women representatives either in its Territorial Assembly (of

thirty-six members) or in the provincial assemblies, following elections in 1989.[32] There is no evidence of women's electoral success in the past.

Although gaining only minimal electoral success, women in Vanuatu have contested national elections since the move to independence. As one woman who has been prominent behind the scenes, Grace Molisa, puts it, 'Women and men were united in the bid for independence, and women along with men have had equal rights to exercise the power of their vote to determine Vanuatu's government system."[33] But this power has not been translated into electoral success. A woman candidate stood for election in 1975 and another in 1979, the latter only missing out by five votes. The first women members of the forty-six-seat Parliament, Hilda Lini and Maria Crowby, were not elected until 1987. Crowby lost her seat in 1988, but Lini went on to become minister of health and rural water supplies in 1992 and held the position for a year before being dismissed.[34] Women have had more success at the local government level: four women have been elected to the Malakula Council in the last four years (Malakula is the largest island in Vanuatu). Two women were also elected to the Port Vila Municipal Council in March 1993.[35]

Since independence in the Solomon Islands in 1978, women have also actively sought election to a seat in the National Parliament. In the most recent elections in 1993, there were ten women candidates, a significant increase from 1989, when there were only three. Women also contested the 1984 elections. However, only one woman has won a legislative seat. Mrs. Hilda Kari, a prominent public servant, was first elected in a by-election in 1989; she was reelected in 1993.[36] There is also a record of women being elected to the provincial government in 1985.[37]

Despite being the largest country in the Pacific Islands region and having the largest number of parliamentary seats, Papua New Guinea has no women representatives. Maria Kopkop, president of the National Council of Women, described the result of the 1992 elections as a disgrace, declaring that "it is a sad day for women of Papua New Guinea that our womenfolk, who make up half of the country's population, cannot occupy any of the one hundred and nine seats in parliament and play an active role in making important decisions about the future of this nation."[38] Eighteen women candidates stood for election to the 109-seat National Parliament in 1992, the same number having stood unsuccessfully in 1987. Only three women have been elected to the PNG Parliament in the past. In 1972 Josephine Abaijah, one of four women candidates, won a seat, and in 1977 she was joined by Waiyato Clowes and Nahau Rooney, these women having been three of the ten women candidates at that election. In 1982 there were seventeen candidates, with only Rooney being successful.[39]

This overview provides a clear picture of the elective performance of women in the Pacific region. In just under 60 percent of legislatures there is at least one woman member, although, except in Guam, this membership amounts to less than 10 percent. So why are there so few women? To attempt to answer this question we need to examine the factors that determine women's participation in political life.

What Determines Women's Political Participation?

The underrepresentation of women in positions of political power is a reality worldwide. Explanations range from the degree of industrialization a country has experienced, political ideology, the type of electoral system used, and the length of time in which women have had the right to vote. Randall identifies the constraints on women's political participation by using the concepts of supply and demand: the supply of women politicians is determined by factors including socialization and the situational limitations within their lives caused by such things as their roles as mothers and homemakers; the demand side comprises the political and institutional factors that control participation in political elites.[40] Randall's concepts of supply and demand will form the basis of my analysis of women's political participation in the Pacific. I will also attempt to explore apparent differences between women's experience in the Pacific and elsewhere.

Supply Factors

It would be a mistake to suggest that, for women living in the Pacific, life is uniformly similar. In fact the region is culturally heterogeneous and physically isolated in a way that creates and sustains variation in life-style. However, similarities and uniformities exist within the region as in other predominantly patriarchal communities. On the surface women have the same legal right as men to participate in the process of democracy Women in Pacific polities have the right to vote, as recognized in their countries' constitutions, and--except in Western Samoa, one of the two legislative chambers in American Samoa (which is reserved for *matai*), and some parliamentary seats in Tonga (set aside for nobles)--they have an equal right to seek elective office.[41] But, as the data on electoral performance clearly establish, in practice these formal entitlements have not been translated into effective representative participation. As Crocombe et al. point out, "Merely giving women a constitutional right to equality (which most Pacific constitutions provide) may not overcome cultural barriers to equality's full achievement."[42]

Randall's research suggests that the supply of women is linked to their roles within society and the way in which they have been socialized, which can impede women's access to political office. Within Pacific societies women's status and activities are primarily linked to the duties of mother and housewife.[43] Several historical factors have entrenched these roles. Despite women's status being, in some cases, quite high prior to colonization, male colonial rulers "sought generally to impose the patriarchal, nuclear model with which they were familiar."[44] Postindependence governments have not remedied this, instead pursuing strategies for development that have had little to do with gender equity.

As a result of these strategies, today's women are faced with what Schoeffel Meleisea succinctly describes as "the reconciliation of old political traditions with new forms of democracy."[45] She notes that conflicts between customary law and constitutional law may lead to discrimination against women, citing as an example citizenship rights in Nauru. Women in Nauru who marry foreigners often have to leave the country, as, under Nauru's matrilineal line of inheritance, foreign men could otherwise gain rights to land and phosphate income through marriage. Changes made to customary law under colonialism may now be seen as "tradition," particularly in circumstances where matrilineal lines have been replaced by patrilineal systems. In Palau, for example, highly ranked women previously had considerable power. This position has not been translated into political power for women in the Paluan National Congress, however, as "women have been in the background, taking care of the home and clan affairs."[46]

The influence of Christianity has also had long-term effects on Pacific power relationships and gender. The Christian model of the family and the status of women generally bore little resemblance to traditional life. While women's status was very low in some Melanesian societies, the converse was often the case in Polynesian societies. Therefore, "Christianity liberated Pacific women from one set of customs, which in some societies oppressed women but in others gave women high status or independence, only to replace them with another set of imported customs. These emphasised a woman's primary value as a mother and wife, her primary place in the private domestic sphere, and excluded her (or reinforced her seclusion) from the public sphere of political and ritual action."[47] Although detail on women's lives in the Micronesian group is somewhat scarce, information from Nauruan women cites male dominance, discrimination, and government regulation as restraints on women.

Existing research into the situational and structural barriers to women's political participation identify educational opportunities, occupational status, and levels of income as determinants of participation.[48] Education

and employment opportunities can be the biggest forces of change in a woman's life, influencing her life chances and her exercise of rights, both legal and political. Educational opportunities for children in many Pacific Island countries have been limited, with illiteracy rates being very high among rural women. It appears that some girls have seldom received more than primary schooling, although there are differences between Melanesia, on the one hand, and Polynesia and Micronesia, on the other. For example, in Enga Province in Papua New Guinea only 9 percent of thirteen- to sixteen-year-olds attended high school in 1981 and 22 percent of these students were female. These young women were actively discouraged from schooling, a process culminating in harassment and sexual abuse from male students at tertiary education levels.[49] In other countries, particularly in Polynesia, the picture is rather different. In Western Samoa research shows that in the mid-1980s 99 percent of females between the ages of ten and fourteen attended school as did 84 percent between the ages of fifteen and nineteen.[50] For women in Melanesian countries educational opportunities at the tertiary level have also been low, numbers only reaching about 17 percent overall in Vanuatu, the Solomon Islands, and Papua New Guinea in 1987. In Polynesian countries women comprise between 30 and 50 percent of university students. By contrast, in Guam women students constituted more than half--57 percent--of all university students.[51]

Employment and income-related opportunities follow a similar pattern, partly as a result of education levels. Although Pacific women make an important contribution to food production in family and traditional village life, these activities do not generate a regular cash income. Although participating in high numbers in subsistence and traditional agricultural sectors, women's labor force participation rates are not as high. Results from a 1986 census in the Solomon Islands, for example, showed that 71 percent of women were listed as economically active, doing unpaid village work, as compared with 51 percent of men. Among those in formal paid employment, women were only 17 percent: 83 percent of those receiving a cash income from employment were men.[52] A 1987 study into Pacific Island women's participation in their countries' economies found overall that the rate was very low--10 to 15 percent--with the rate in the Cook Islands, New Caledonia, and Niue reaching about 30 percent.[53] The rate of economic participation was higher still in some Micronesian countries including the Northern Marianas, where it was 40 percent, and in Guam, where 1990 census figures for paid employment showed that women comprised 32 percent of the work force.[54]

While some change may be slowly beginning to happen, traditional and colonial expressions of patriarchal domination continue and are expressed in

various forms. They are manifested, for instance, in the levels of violence found in many Pacific Island communities. In Fiji reported rapes doubled following the 1987 coup, while in Papua New Guinea three-quarters of the women murdered over a three-year period were killed by their husbands. As Grace Molisa puts it, women in her country "remain colonised by the Free Men of Vanuatu."[55]Other barriers to opportunities for women include their strong ties to cultural attitudes and values. An indigenous study of women in Melanesian countries in 1988 found that women interviewed were not necessarily concerned about the relatively low status of women, as they regarded their ascribed roles as being divinely sanctioned. Even those women who have rejected a lower status were reluctant to promote change, a predisposition possibly attributable to their relative isolation from developments elsewhere.[56] But as Schoeffel Meleisea points out, these women have been given the role of "keepers of traditional culture" and may be criticized when accepting change. As she puts it, 'While men may freely embrace modem economic activities, education, political institutions, mores and fashions, women must do so with caution, particularly in Melanesia."[57]

Demand Factors

The participation of women in political circles is clearly controlled by political and institutional factors. The right to vote, the nature of electoral competition, political recruitment processes, the electoral system, and barriers to advancement within the legislature itself are among the factors having an impact on women's successful involvement in the political system. All women in the Pacific Islands have the legal right to vote, even if this right may be very recent for some. But is the exercise of the franchise always an act of freedom? It would appear that for some women it is not. Women in Papua New Guinea have reported that they have been expected to vote for the candidate chosen by their husband or the community, or face the consequences. A woman who was divorced by her husband when she voted for the candidate of her choice described the beating she received as a result and her subsequent removal from her home. In an effort to counter such actions, before the 1992 elections the Papua New Guinea Women and Law Committee issued pamphlets and organized workshops informing women of their rights.[58]

The nature of the electoral competition can also serve to exclude women. As Randall points out, 'Women who seek political power are operating within an entirely different political context than when they simply join in grass-roots political activity"[59] In a few Pacific Island countries, this difference is exacerbated by the practice of treating or bribery by candidates for

political office. Although this practice can often be passed off as part of the process of campaigning, it can lead to the election of a candidate who can exploit the needs of communities. In one case in Papua New Guinea, the candidate the village had chosen to support was "a person who had given us bags of rice, canned fish and money."[60] In the Northern Marianas, election campaigns mean entertainment, free food and drink, with vast amounts of money being spent to attract voters.[61] These practices inevitably harm the prospects of women, who may have little or no access to the funds needed to campaign in this way. In Western Samoa the common practice of treating or bribing voters may have been weakened at the 1991 elections, the first at which there was universal suffrage. It was apparent that policies had more impact on many voters, as giving gifts did not gain votes despite this having been successful in the past.[62]

The biggest barrier to women's participation in the Pacific, as elsewhere, lies with political parties and their candidate selection processes. International research has found that "it is not the electorate that does not want women, so much as the 'selectorate.' "[63] The main areas from which candidates have generally been recruited include office holding and service in the political parties themselves, local government positions, and trade unions. Is this also true in the Pacific? In many Pacific Island countries political parties are still relatively new phenomena, as the Western style of political competition is still coming to terms with traditional loyalties in which clan and local interests have tended to overshadow broader interests and claims. In many cases it is the younger generation that has been advocating change. Political party membership and activity is an area as yet not subjected to detailed research. As a result, there is little authoritative information about the role of Pacific Island women in party activity and candidate selection processes. The records of elections and other community activities form the primary source of evidence at this stage.

In the Micronesian group the Northern Marianas, Palau, and Guam each have had two parties, reflecting the party system in the United States, although the influence of the system has varied. In Palau traditional authority has remained strong; in Guam it has not, perhaps mainly because less than half of the island's population is indigenous (i.e., Chamorro). In Palau an analysis of the 1980 elections reports that of the three women candidates who missed election, one was "criticised by some for tainting god-given hereditary authority through participation in back-room political maneuvering," another "did poorly because she ran against the wishes of a politically powerful close relative," and the third missed out because a male relative had been chosen by the political powers of her area.[64] Family and tribal influences are also factors influencing election prospects. For instance, it

has been suggested that the new president of the Federated States of Micronesia was elected because he had the backing of local customary chiefs unhappy with the way the defeated president had run the government.[65] In the Marshall Islands, Kiribati, and Nauru political parties have only recently emerged. In the campaign for recent elections in the Marshall Islands, the president of the Government Party "criticised the Ralik Ratak Democratic party for its lack of links to traditional leaders."[66] In Nauru it is clear that the growth of political party activity is frowned upon by the government. The newly formed People's Movement Association, set up by Ruby Dadiya and mainly made up of women members, has already run into problems. Protests by the association against government expenditure on a London musical and the amount spent on running the 1993 South Pacific Forum meeting in Nauru led to Dadiya's dismissal from her job as a midwife as well as an ultimatum to other members that they would also lose their jobs if they continued to demonstrate against government actions. Information about candidate selection in Nauru suggests that candidates for political parties are nominated by groups who support particular parties and that women candidates are not actively recruited within this process.[67]

Among the Polynesian islands Tuvalu, Niue, and Tonga provide examples of the tension between entrenched traditional loyalties and contemporary electoral politics. In Tuvalu tradition remains strong, the strength of ties to family and land being evident when candidates are nominated. Candidates are seen as representing a particular family, and if two close relatives stand for election, "voters may be more inclined to stay at home than to cross a clear 'blood line' on polling day."[68] Whereas Tuvalu's women welcomed Naama Latasi's historic election in 1989, many men felt that "the precedent set could be seen as the beginning of the breakdown of traditional values in the Tuvalu society where women have always played a subordinate role and their place is at home."[69]

In Niue two (or, at times, three) sides form at election time; party labels have existed for the last two elections. The women who have been elected so far have been elected on the islandwide common roll seats, as villages tend to select only males for the fourteen village seats. Women's organizations have put forward candidates for election.[70] In Tonga pressures for change are more striking. The 1990 elections had a political awareness about them that was absent previously. The push for more democracy in Tonga has polarized people into groups that have become well organized. As a result, the battle for the nine "commoners" seats was "no longer just a desire by individual candidates to secure a seat in the House, but it was [a] confrontation of ideals between groups of like-minded candidates who drew the kingdom closer to party politics."[71]

The other Polynesian islands as well as the Melanesian states have political party systems, many of them quite fluid. There are similarities among French Polynesia, New Caledonia, and Wallis and Futuna, reflecting their relationships with France. Support for women candidates in France has not been high, only reaching 5.5 percent electoral success in the 1986 elections. Randall argues that the power of the Catholic church has had an impact on voting choices, and this appears to be an influence in the French territories in the Pacific as well. Here the multiparty systems range between conservative and reformist factions. In New Caledonia there is evidence that women are active as members of the Kanak movement, which has a women's group; however, "in the movement women are expected to be secretaries, cooks, cleaners and mistresses while the men make all the important decisions."[72]

In the Solomon Islands, Papua New Guinea, and Western Samoa, parties tend to shift alliances around prominent individuals. In the Solomons the role of traditional chiefs and leaders is still important, and political support is usually built around local ties and personal relationships. Political parties approach potential candidates to stand for election, and they have begun to see the importance of involving women as a way of attracting the women's vote. Many candidates for office are senior public servants who have to resign their jobs to run for election, reapplying if defeated. This presents a particularly difficult dilemma for women, as there are very few women in senior government positions and, not surprisingly, they are reluctant to give up their positions to face an electorate whose voters still traditionally support male candidates.[73]

Papua New Guinea has a multiparty system, with recent governments formed from coalitions among several parties. The very high number of candidates standing for election in each electorate--forty candidates for one seat, for instance--means that a candidate can win by a very small proportion of the vote, which leads to a high turnover of members of the National Parliament. "A candidate from a substantial tribe or clan inevitably enjoys a staggered start."[74] With a couple of exceptions, all women have stood as independent candidates, campaigning on women's issues and their lack of parliamentary representation. One woman elected to Papua New Guinea's Parliament in the 1970s suggests that this focus may be a problem, arguing that women candidates might have more success if they focused more on community and national problems. However, she does acknowledge that the traditional concept of politics as a male profession and the expectation that women vote according to their husbands' preferences are more compelling obstacles.[75]

Conservative ideology also under-pins the ruling party, the Human Rights Protection Party, in Western Samoa. As noted, parliamentary seats can only

be contested by *matai.* Although competition for seats is now the norm, the Samoan candidate selection process has always been based on the *matai* in an electorate assembling to agree on a candidate, one who is "usually a much respected high chief, or one who has served his people well or is believed to have made his village or region well known in the country or overseas through outstanding achievements (in sport or the professions, for example)."[76] Fiame Naomi, one of Western Samoa's two incumbent woman members of Parliament, suggested at a recent Women in Politics seminar that there are two major problems for women entering parliamentary politics in Samoa, the first occurring at the entry point and the second being staying power. She suggested that, in order to increase the numbers of women in national politics, women must obtain a *matai* title for use as a power base, gain an understanding of the political system, and become economically independent with a solid support base while remaining clear about their goals--all outcomes that are likely to be unattainable for all but a handful of Samoa's women.[77] Following the change to universal suffrage, there were obvious effects on election strategy at the 1991 elections, as both major parties sought to capture support from the newly enfranchised women. In particular the governing Human Rights Protection Party ran a Mother's Day event, introduced an annual one-day holiday in honor of women, and pledged to set up a women's affairs department that would work closely with village-based women's committees.[78]

As an American territory, not surprisingly, American Samoa has a political party system that, at least in its broad outlines, corresponds to that found in the United States. In other words, there are two parties, the Republicans and the Democrats, and the candidates for positions in the territorial government and, for that matter, as representatives in the U.S. House of Representatives carry these party labels.

In Vanuatu two women have been prominent in political party activity for a long time, Grace Molisa and Hilda Lini, the latter now an elected member of Parliament. Lini had been an activist in the Vanua'aku Party for almost two decades, setting up a women's wing as well as raising a family and pursuing a career as a journalist. Despite her background of party service and anticolonial struggle, when she first stood as a candidate, she was obstructed by men in the party who used other women to oppose her candidacy.[79]

For women in Fiji, the two 1987 coups led to a deterioration in economic, political, and social status, a setback that was fueled by Christian fundamentalism and traditionalism. The 1987 election, which preceded the coup, had seen women's issues placed prominently on the political agenda for the first time, with both major political parties being forced to address issues related to women's inequality. At the same time, the Fiji Women's

Rights Movement had been established to lobby the government for legislative changes. However, according to Lateef, the coups generated a reemphasis on structural inequalities and an ideology that stressed that "Pacific women are essentially different from Western women and therefore have no need for feminism, which is after all a foreign Western concept."[80] One of the results was that following the coup the then minister of women's affairs stated publicly that she would "not push the cause of women at the expense of the national interest."[81]

Despite these reversals, women have been very active in political parties. The Fiji Labour Party was led by Adi Kuini Bavandra following the death of her husband and subsequently by Jokapeci Koroi. The governing Soqosoqo ni Vakavulewa ni Taukei (SVT) party has selected several women candidates in parliamentary elections, while a new party was formed by Marama na Ka Levu Bulou Eta, who had previously been part of Soqosoqo ni Vakavulewa ni Taukei.[82] This activism produced results, as the number of women elected in Fiji's 1994 snap election increased, when, for the first time, three SVT party women were successful.

A common thread in the different islands is the strength of traditions that either impede the development of political party activity or have considerable power within political parties. These traditions obstruct, in most cases, women's political advancement. In addition, in some countries, particularly those in Melanesia and much of Micronesia, there remain effective barriers to equal access to education, employment, and income, impediments that impair women's opportunities to participate fully in political and electoral matters. This assessment is compatible with the information about Guam, where women have had more success at the polls, as the island has had strong Western acculturation, has a higher number of Westerners than indigenous peoples, and is characterized by women enjoying greater access to education and employment opportunities. Although Crocombe et al. suggest that territories under the influence of major powers are more likely to have higher rates of participation by women in politics, apart from Guam and, to an extent, Niue, this has not become apparent to date.[83]

So What Political Activity Are Women Involved In?

It would be a mistake to assume that the underrepresentation of women in national legislatures means that women are not politically active in Pacific societies. On the contrary, there is a groundswell of activity throughout the Pacific that is linked to government, nongovernment, and community-initiated activity. It would be a disservice to Pacific Island women to accept the national election results as a complete portrait of women's action and suc-

cess (or lack thereof) in the political arena. We need to examine other areas of women's political activity in the Pacific.

The international decade for women appears to have acted as a catalyst for change among Pacific women's organizations, as their focus shifted away from a specific concentration on family concerns to broader issues related to the status and safety of women and the need for a greater involvement by women in formal decision-making roles. This move has not been an easy one, as the establishment of strong national councils of women has been criticized as challenging the few resources available to long-established church and traditionally focused women's groups, who fear the diminishing of their values. This situation has been reflected in the minimal support given by government agencies to national women's agencies. For example, there are only seven established women's affairs offices or departments in the region--in the Northern Marianas, Guam, the Marshall Islands, Western Samoa, Tonga, Fiji, and Vanuatu.

In the Northern Marianas the Women's Affairs Office monitors and initiates legislation on the rights of women, encourages women to run for elective office, nominates women for appointment to government agencies, and actively promotes networks for information sharing among women.[84] In Guam a Bureau of Women's Affairs in the governor's office runs an annual conference for women (attended by approximately five hundred women from throughout the island) that makes recommendations on concerns and issues including environmental matters, women's roles, gender equality in employment, and violence affecting women. The bureau's chairperson at the 1992 conference challenged those attending to "break all barriers, all predisposed notions of the separate roles of women, and transcend the boundaries set forth by tradition to create a world in which women partake in all roles."[85]

The Western Samoa Women's Affairs Ministry was set up in 1991 almost immediately after the elections, fulfilling a campaign promise. It is clear that much progress has since been made on women's issues, despite the small number of staff and the slim budget allocated to the department. The ministry's Action Plan includes providing information on women's political and voting rights as a way of improving the results for women at the polls. The plan also aims to widen training and career opportunities for women, to find funds for development projects for women, and to provide a focal point for women's concerns.[86]

Tonga is in the process of setting up a Women's Affairs Unit within the Office of the Prime Minister and a National Committee on Women's Affairs. A women's policy is to be developed as well. These developments reflect pressure from Tongan women for promotion of women's interests. Even

Queen Halaevalu Mata'aho has publicly spoken of her disquiet over the failure to make women's affairs a priority.[87]

Fiji has a Department of Women, Culture, and Social Welfare that before the 1992 elections networked widely throughout the country, particularly on women's rights issues, legislation, and resources available to women.[88] Vanuatu also has a Women's Affairs Office, although policy development has been hampered "by the continuous changes to Ministries responsible for women and the lack of commitment by government to provide the necessary resources to support development programmes and the establishment of support services for women."[89]

As an alternative to a separate women's affairs office or department, some governments have appointed women's officers or established bureaus within existing state departments, often as a result of strong lobbying by women's groups. Women in the Federated States of Micronesia urged the government to establish a ministry for women and set a national policy, and although this has yet to happen, a national women's interests officer was appointed in 1993 within the Department of Human Resources and a National Women's Advisory Council was also established.[90] The Ministry of Health, Family Planning, and Social Services in Kiribati developed a women's section within its Social Services Division in 1991.[91]

When Naama Latasi was Tuvalu's minister of health, education, and community affairs, she had responsibility for the development of programs for women. Although she advocated women's participation in the changes happening in Tuvalu society, she stressed that this must happen in harmony with men. In particular she emphasized "that our concept of women's development is not what it may be in some western cultures. We wish to raise the status, the contribution and participation of our women in national development within the parameters of our culture and traditions."[92] In Tokelau the Department of Education at the Office for Tokelau Affairs has a liaison officer for women's affairs, one of her responsibilities being to strengthen training opportunities for women. In the Cook Islands a Women's Development Division in the Ministry of Internal Affairs is responsible for coordinating development programs for women in government departments and nongovernment organizations.[93]

New Caledonia has six territorial delegates for the rights of women, two for the northern province, one in the south, and three for the Loyalty Islands. The Solomon Islands has a Women and Development Division within the Ministry of Health and Medical Services. In Papua New Guinea a specific women's section has been set up in the Home Affairs Department.

Almost all of the countries in the Pacific have a variety of active nongovernmental organizations, some of them reflecting women's political needs

and aspirations. Nongovernmental organizations in Micronesia include a National Council of Women in the Northern Marianas, established in 1990, and Otil A Belaud, a women's organization in Palau with a strong environmental focus concentrating on upholding the country's constitution, particularly its nuclear-free clause, as well as monitoring legislation, enhancing networking among women, and promoting education on electoral issues.[94] Both the Marshall Islands and Kiribati have national women's federations, the WUTMI in the Marshalls, which has responsibility for a task force that has developed the first-ever women's policy for adoption by the government, and the National Women's Federation of Kiribati, formed in 1982 and known as AMAK, which has taken a lead in skills training for women and representing women's interests and concerns to government.[95] Nauru has several women's organizations including two that are church-based, another that focuses on cultural activities, and the Nauru Women's National Council, which is a strong consciousness-raising group, their theme being "Equality, Development, and Peace" and their major target being to establish a women's welfare bureau in government.[96]

Among the Polynesian states, Western Samoa's National Council of Women has been established for about forty years, its focus changing in more recent times away from health and welfare to wider issues such as nuclear testing in the Pacific, legal rights, and violence against women.[97] By contrast there is no nationally organized coordination of women's activities in American Samoa.[98] Wallis and Futuna is another Polynesian entity with a long-established national council of women, although the organization has been inactive during the past few years.[99] In Niue a National Council of Women, which receives some government funding, provides skills training for village-based activities.[100] A third of the population of Tokelau belong to the Tokelau National Women's Association, Fatupaepae, which works to unite the women of Tokelau's three atolls. Allocated a small budget, the association also generates its own funds through the sale of vegetables and baking goods, enabling workers to be paid. Although focusing on women's development programs that are home- and family-related, and acknowledging the limitations of tradition and culture on their roles as women, the association also acknowledges the need to keep up with changes in Tokelau society and involve its members in decision making.[101]

Despite having a minister of women's affairs, French Polynesia does not appear to have established a government department or an officer within a department with special responsibilities for women's issues. However, there are women's organizations that have focused in more recent years on circulating family planning information to both women and men in response to the high number of births, particularly among women under twenty years of

age.[102] The Cook Islands women's organizations also appear to be quite single-issue focused, at least for the moment, concentrating on the increase in violence through a high-profile information campaign to fund a women's crisis center.[103]

In Tonga there is a nationally based Council of Women, the Laugfonua a Fefine Tonga. In addition, village-based women's groups flourish, with a main focus on production of handicrafts for sale. Women in these groups have been concentrating on developing their business and marketing skills.

Although their predecessors were based on religion and tradition, newer women's groups in Fiji have focused on issues such as violence and women's rights. The Women's Crisis Centre, opened in 1984 and affiliated to the National Council of Women, arranges temporary accommodation for women who have been abused. The center also provides information on rights and related legal and social issues. Another organization set up in 1984 is the Women's Wing, which focuses on women's rights in the workplace including maternity leave and minimum wage levels.[104] In Contrast, women in New Caledonia remain firmly within more traditional roles, notwithstanding a high level of activity in community projects. Under French law women's groups can only receive state support and participate in provincial and territorial projects for women if they form an association under a law enacted in 1910. The only women's group formally established under this legislation is the Evangelical Church women's group.[105] However, among recent signs of change was the establishment in 1992 of a new association, SOS Violences Sexuelles, to deal with growing problems of sexual abuse. As reported in a women's newsletter, "Such is the scale of the problem of sexual violence in the territory that unity has overcome traditional barriers."[106]

Like many other Pacific countries, Vanuatu has a National Council of Women, formed in 1980 in response to the need for a clear policy on women. The council has had problems getting legislative change for women. For example, it lobbied for legislative change on marriage, divorce, and custody practices, but the legislation that resulted proved inadequate to solve the problems.[107] The Solomon Islands also has a government-funded National Council of Women, which has prepared a national policy for women that is still to be approved by government. There are also several church-based women's organizations, and cultural norms that enforce women's subordinate role remain strong despite some signs of change.[108] A National Council of Women was legally established in Papua New Guinea in the mid-1970s, but women's groups have had difficulty in accommodating "their differences, and this has hampered effective mobilisation and co-ordination of their interests from the village level up."[109]

Overall, therefore, there is considerable women's political activity on gender-related concerns throughout the Pacific, some still clearly within the confines of tradition and culture but much that has moved on from these boundaries. In many communities violence against women appears to have been a motivator for this change along with women's rights, family planning, and environmental issues.[110] These changes have no doubt been aided by the strong networks that have developed throughout the Pacific, networks that have to an extent politicized women. The Pacific Women's Resource Bureau, which was established within the South Pacific Commission in the early 1980s, has taken a lead in providing women throughout the region with information on women's activities, progress, and successes, and it has coordinated women's activities and networks through newsletters and conferences held in the region. One such meeting, held in Guam in 1991, saw four hundred women from Pacific Island countries meet to establish "ties of solidarity and understanding."[111] These activities have led to regional meetings such as one held in Pohnpei in 1992 for women in the Micronesia area, with two hundred women attending from five of the seven countries.[112]

Another outcome of this networking is the annual celebration of International Women's Day; the *Women's News* newsletter reports on celebrations and activities held throughout the Pacific. Intraregional contacts among Pacific Island women have raised the profile of human rights for Pacific women, many of whom have held regional meetings to discuss the United Nations Convention for the Elimination of Discrimination against Women (CEDAW), ratified only by Niue and the Cook Islands (and then only "by virtue of a declaration made at the time of New Zealand's accession").[113] A seminar held in Rarotonga in 1991 forwarded several recommendations to the South Pacific Forum later that year. Although these were not acted on by the forum, action has since been taken to provide Pacific Island women with information on CEDAW.[114] Other initiatives include a "Mainstreaming Women in Development Planning Project," which aims to accelerate national development by promoting women's participation in economic terms.[115]

Conclusion

Women's political participation in many Pacific countries shows marked similarities with early political activity in New Zealand, the first to give women the vote in national elections. The parallels include the fact that many women stood as candidates over a long period before the first woman was finally elected; the election of women first to seats that had been held by other family members; and political movements that were activated and

strengthened though violence and alcohol issues, with their disproportionate impact on women. A further resemblance is found in the growth in the number of women's organizations and the gradual acceptance of women in some areas of local government.

Randall's concepts of supply and demand, which draw attention to many of the factors influencing women's political advancement in the Pacific, make it clear that overcoming traditional and cultural constraints is the key to women's greater political participation.[116] However, along with the shift to democratic systems of government, with its tensions with traditional and tribal sources of power, in many cases there is a move toward the political right. This move corresponds with changes in governments bordering the Pacific and with the increasing political influence of business worldwide. Unfortunately, the conservative ideology that accompanies such political developments often further obstructs women's political advancement. Despite this conservative trend, there has been some slight increase in women's political participation in Pacific Island legislatures as well as a phenomenal increase in their political activity in organizations, particularly those that are not tied to island governments beyond at times receiving some financial assistance from public funds.

The push for basic human rights may herald further change in the future, as it is apparent that in some cases public support for women is being undermined by private opposition. An increase in educational, employment, and income-generating opportunities is likely to lead to an erosion of this difference.

Further research into women's political participation needs to consider more thoroughly the impact of the associations women have with male politicians through their family and marriage relationships, as it would appear that a significant number of Pacific women in political positions are wives, daughters, and sisters of other political figures. There is also a need to refine this study, adapting it to distinctive cultural and political environments, to clarify the informal networks of power that women exercise in family, village, regional, and national settings.

A more systematic study of political recruitment would also explain the correlations between women's participation at the local government level and their moving on to central government positions. There is not enough clear information on the numbers and structures of local authorities in many Pacific communities as yet, although it is clear that in Niue over a period of time, the high number of women in local government has contributed to women's active pursuit of political seats at the national level. The impact of electoral systems on women's political success also needs more rigorous treatment. Research suggests that the party-list system of proportional rep-

resentation may be more favorable to women's electoral success than the single-member, first-past-the-post electoral systems found in Westminster models (adopted, in turn, by many states emerging from British, Australian, and New Zealand rule).[117] The majority of the relatively new evolving Pacific democracies have the first-past-the-post system, which is less conducive to an expanded political representation of women.

A final cautionary note with respect to research on Pacific women and politics may be in order. There is unfortunately very little information on what is actually happening politically for women in many areas of the Pacific, particularly Micronesia. It is essential that women's activities be made visible, through the mainstream Pacific news media, as an acknowledgment and endorsement of what they are doing. That it is only in a women's newsletter that much information on women's political activity is reported only prolongs the invisibility of women.

There are some clear signs of strength and political awareness among women in the Pacific, most apparent in nongovernment women's organizations but not as yet reflected in national legislatures or executive branches. Laura Torres Souder summarized the challenge to Pacific Island polities in a speech to Micronesian women in 1991: 'We are the women of yesterday's tomorrow. Our time is here and now. We choose to define our reality in view of our sense of what must be done to shape a better world. We do not want men to choose without us what must be done that will have an impact on what we are all to become. But if we remain normal by traditional scripts, we will be left out."[118]

NOTES

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1. Vicky Randall, *Women and Politics: An International Perspective,* 2d ed. (London: Macmillan Education, 1991); United Nations Centre for Social Development and Humanitarian Affairs, *Women in Politics and Decision-making in the Late Twentieth Century: A United Nations Study* (Dordrecht: Martinus Nijhoff, 1992); and South Pacific Policy Review Group, *Towards a Pacific Island Community* (Wellington: n.p., 1990), 154.

2. The relevance of formal participation by women in legislative activities is discussed by Anne Phillips in *Engendering Democracy* (Cambridge: Polity Press, 1991).

3. As part of the research for this article, a questionnaire was sent in 1993 to women's organizations throughout the area. Information provided from respondents has been supplemented by secondary sources.

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5. Samuel McPhetres, "Elections in the Northern Mariana Islands," *Political Science* 35, no. 1 (July 1983): 112.

6. "Nipped at the Polls in Palau," *Women's News* 8, nos. 1-2 (May 1993): 18.

7. "Premier Palauans," *Women's News* 8, nos. 1-2 (May 1993): 4.

8. Donald R. Shuster, "Elections in the Republic of Palau," *Political Science* 35, no. 1 (July 1983): 117-132.

9. David North, "Democrats Make Clean Sweep in US Territorial Elections," *Pacific Islands Monthly,* December 1992, 21; "Democrats Sweep through the Islands," *Pacific Islands Monthly,* December 1994, 49; and "Women in Guam Legislature," *Pacific Daily News,* 3 January 1994, 1.

10. "Woman Senator," *Pacific Islands Monthly,* February 1992.

11. "No Changing of the Old Guard," *Islands Business Pacific,* February 1992, 30.

12. "Micronesia under the Microscope," *Women's News* 6, no. 3 (September 1991): 4.

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16. Roniti Teiwaka, "Kiribati," *The Contemporary Pacific* 5, no. 1 (Spring 1993): 148-149.

17. Information from Pamela A. Scriven, Nauru Women's National Council, who responded to my questionnaire.

18. Diana McManus, "A Woman's Champion," *Pacific Islands Monthly,* May 1990, 56; and Vasiti Waqa, "House of the Family: A Parliament Where the Prime Minister's Wife Is Also a Member," *Islands Business Pacific,* September 1994, 31-33.

19. Maseleisa Simi and Teresa M. Pasilio, "Country Paper: Tokelau" (paper presented at the Women in Development Workshop for Pacific Leaders, 21 June-2 July 1993), 3. It is worth noting that the 1993 *Report of the* (New Zealand) *Administrator of Tokelau* (Wellington: House of Representatives, 1994) to the New Zealand government acknowledges the need to enhance the status of women in decision making (p. 19).

20. Ulafala Aiavao, "Wooing the Women Voters," *Pacific Islands Monthly* 60, no. 12 (December 1990): 16.

21. "Womenpower in Wallis," *Women's News* 7, no. 2 (April 1992): 12.

22. David North, "The Chase Is On: American Territories Face Fierce Elections in the Race for the Top Jobs," *Pacific Islands Monthly*, October 1990, 21.

23. North, "Democrats Make Clean Sweep in US Territorial Elections," 21. Note that the 1994 election results have not been included in this study.

24. "French Polynesia," *Women's News* 7, no. 2 (April 1992): 3, and information from Lucette Taero, director of the Centre Territorial d'Information des Droits des Femmes et des Familles, Papeete, who responded to my questionnaire.

25. "Female Firsts--Mayoral Debut," *Women's News* 8, nos. 1-2 (May 1993): 2.

26. Information from Mrs. E. F. Talagi, director of community affairs, government of Niue, who responded to my questionnaire, and from a paper presented at the Women in Development Workshop for Pacific Women Leaders held in Wellington between 21 June and 2 July 1993.

27. "Tongan Surprise," *Women's News* 8, nos. 1-2 (May 1993): 10.

28. Mosikaka Moengangongo, "Tonga," in *Pacific Women: Roles and Status of Women in Pacific Societies*, ed. Taiamoni Tongamoa (Suva: Institute of Pacific Studies, University of the South Pacific, 1988), 62. See also Stephanie Lawson, *Tradition versus Democracy in the Kingdom of Tonga* (Australian National University Department of Political and Social Change, Research School of Pacific and Asian Studies, 1994), 20, 27; Christine Ward Gailey, *Kinship to Kingship: Gender Hierarchy and State Formation in the Tongan Islands* (Austin: University of Texas Press, 1987).

29. "Women Add to House," *Islands Business Pacific*, April 1994, 22-23; "Fiji's Family Team," *Islands Business Pacific*, November 1994, 70; and "Winners and Losers in the Big Race," *Islands Business Pacific*, June 1992, 19.

30. Jesse Tuivaga, "Fiji," in *Pacific Women: Roles and Status of Women in Pacific Societies*, ed. Taiamoni Tongamoa, 6.

31. "The Indian Who Sits with the Fijians in the Seat of Power," *Islands Business*, January 1991, 18.

32. Note that 1994 election results are not included in this article.

33. Grace Molisa, "Vanuatu Women's Development since Independence," in *Women in Development in the South Pacific--Barriers and Opportunities: Papers Presented at a Conference Held in Vanuatu from 11-14 August, 1984* (Canberra: Development Studies Centre, Australian National University, 1985), 215.

34. David Robie, "Hilda: A Lini in a Woman's World," *Pacific Islands Monthly,* September 1991, 14; Robert Keith-Reid, "Maxime Carlot Comes in from Cold," *Islands Business Pacific,* January 1992; information from Grace Molisa, who responded to my questionnaire; and Ian Williams, "Hilda Lini Speaks Out," *Pacific Islands Monthly,* December 1993, 27.

35. Letter to the editor by Madlaine Regenvanu, women's affairs officer, Norsup, Malekula, Vanuatu, *Women's News* 7, no. 4 (October 1992).

36. "One Out of 10 Women Win Parliament Seat," *Solomon NIUS,* 30 June 1993. In an interview with Alice Puia, general secretary, National Council of Women, Ministry of Home Affairs, Solomon Islands, information was provided on another woman, Lily Biznanski, who was elected in the past, although the dates are unknown.

37. Alice Pollard, "Solomon Islands," in *Pacific Women: Roles and Status of Women in Pacific Societies,* ed. Taiamoni Tongamoa, 46.

38. Eileen Kolma, "PNG Election: Bad News for Women," *Women's News* 7, no. 3 (July 1992): 4.

39. Nahau Rooney, "Women and National Politics in Papua New Guinea," in *Women in Politics in Papua New Guinea,* Department of Political and Social Change Working Paper, no. 6 (Canberra: Research School of Pacific Studies, Australian National University, 1985), 39-48. For further information on women in Papua New Guinea, see Ann Turner, *Views from Interviews: The Changing Role of Women in Papua New Guinea* (Oxford: Oxford University Press, 1993).

40. Vicky Randall, *Women and Politics: An International Perspective,* 2d edition (London: Macmillan, 1991), 122.

41. Stephen Levine's *Pacific Power Maps: An Analysis of the Constitutions of Pacific Island Polities* (Honolulu: Pacific Islands Studies Center for Asian and Pacific Studies, University of Hawai'i at Manoa, 1983) outlines many constitutions of Pacific Island countries that, although paying special attention to customary laws and traditional rights, also emphasize equality. For instance, the Solomon Islands constitution states: "We shall uphold the principles of equality, social justice and the equitable distribution of incomes" (p. 7), while the Kiribati constitution declares that "the principles of equality and justice shall be upheld" (p. 6).

42. Ron Crocombe, Uentabo Neemia, Asesela Ravuvu, and Werner Vom Busch, eds., *Culture and Democracy in the South Pacific* (Suva: Institute of Pacific Studies, University of the South Pacific, 1992), 246. There are, of course, significant differences in the historical content of custom and tradition between and within Melanesia, Micronesia, and Polynesia. For one overview see Douglas L. Oliver, *Oceania: The Native Cultures of Australia and the Pacific Islands,* vol. 2 (Honolulu: University of Hawai'i Press, 1989).

43. This is not to deny the importance of women as producers of subsistence and cash crops as well as the many other roles they fulfill.

44. Randall, *Women and Politics,* 175.

45. Penelope Schoeffel Meleisea, "Women and Political Leadership in the Pacific Islands," in *Suffrage and Beyond: International Feminist Perspectives,* ed. Caroline Daley and Melanie Nolan (Auckland: Auckland University Press, 1994), 107.

46. Elicita Morei, "Working for Change in Belau," *Tok Blong SPPF,* August 1992, 32.

47. Schoeffel Meleisea, "Women and Political Leadership," 111.

48. *Women in Politics and Decision-Making in the Late Twentieth Century: A United Nations Study* (Vienna: Martinus Nijhoff Publishers, 1992).

49. M. J. Meggitt, "Women in Contemporary Central Enga Society, Papua New Guinea," in *Family and Gender in the Pacific,* ed. Margaret Jolly and Martha Macintyre (Cambridge: Cambridge University Press, 1989), 143-144.

50. Peggy Fairbairn-Dunlop, "Women, Education and Development in Western Samoa" (Ph.D. diss., Philosophy, Macquarie University, 1991), appendix 2.

51. Ron Crocombe, *The South Pacific: An Introduction* (Suva: University of the South Pacific, 1989), 60.

52. "The Role and Status of Women in the Solomon Islands and Key Issues of Concern to Them: A Country Paper" (paper presented at the Women in Development Workshop for Pacific Women Leaders, 1993).

53. Carol B. Hetler and Siew-Ean Khoo, *Women's Participation in the South Pacific Economies,* Islands/Australia Working Paper, no. 87/4 (Canberra: National Centre for Development Studies, Australian National University, 1987).

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55. Grace Molisa, *Colonised People* (Port Vila: Black Stone Publications, 1987). For discussion on domestic violence, see *Domestic Violence in Oceania,* special issue of *Pacific Studies* 13, no. 3 (July 1990).

56. Taiamoni Tongamoa, *Pacific Women: Roles and Status of Women in Pacific Societies* (Suva: Institute of Pacific Studies, University of the South Pacific, 1988), 89-90.

57. Schoeffel Meleisea, "Women and Political Leadership," 115. See also Evelyn Hogan, "Controlling the Bodies of Women: Reading Gender Ideologies in Papua New Guinea," in *Women in Politics in Papua New Guinea* (Working Paper No. 6, Department of Political and Social Change, Research School of Pacific Studies, Australian National University, 1985).

58. "PNG Women at the Polls," *Women's News* 7, no. 2 (April 1992): 10.

59. Randall, *Women and Politics,* 131.

60. *Women's News,* April 1992, 10.

61. Samuel McPhetres, "Elections in the Northern Mariana Islands," *Political Science* 35, no. 1 (July 1983).

62. Fata Sano Malifa, "Why Tofilau Won, Tupua Lost," *Islands Business Pacific,* April 1991; and Peter R. Leitch, "The Introduction of Universal Suffrage in Western Samoa: An Analysis of the Plebiscite and the 1991 General Election" (M.A. thesis, Victoria University of Wellington, 1992).

63. Randall, *Women and Politics,* 140.

64. Shuster, "Elections in the Republic of Palau."

65. "Beaten by Customary Chiefs," *Islands Business Pacific,* April 1991, 19.

66. John Connell, "No Changing of the Old Guard," *Islands Business Pacific,* February 1992, 28.

67. Information provided by Pamela A. Scriven, Nauru Women's National Council.

68. Barrie Macdonald, "Tuvalu: The 1981 General Election," *Political Science* 35, no. 1 (July 1983): 73.

69. Milosi Manoa, "Why Tuvalu Women Are So Ambitious?" *Review* (School of Social and Economic Development, University of the South Pacific) 13, no. 20 (4 October 1993): 87.

70. Information from questionnaire filled in by Mrs. E. F. Talagi, director of community affairs, Community Affairs Department, Niue.

71. Pesi Finua, "Victory for the People," *Pacific Islands Monthly,* March 1990, 16.

72. Susana Ounei, "Kanak Laments French Ploy," *Pacific Islands Monthly,* May 1992, 9.

73. Information from interview with Alice Puia, Solomon Islands, 1993.

74. Rowan Callick, "The Powers in Their Hands," *Islands Business Pacific,* June 1992, 22.

75. Rooney, "Women and National Politics in Papua New Guinea," 39-48.

76. Leulu Felise Va'a, "General Elections in Western Samoa," *Political Science* 35, no. 1 (July 1983): 80.

77. Speech by Hon. Fiame Naomi, M.P., at the Women in Politics Seminar held in Westem Samoa by the National Council of Women, 1991.

78. Ulafala Aiavao, 'Wooing the Women Voters," *Pacific Islands Monthly,* December 1990, 60.

79. Robie, "Hilda: A Lini in a Woman's World," 14.

80. Shireen Lateef, "Current and Future Implications of the Coups for Women in Fiji," *The Contemporary Pacific* 2, no. 1 (Spring 1990): 122. See also an unpublished paper by Deborah Garrett, "Violence against Women: A Study of the Political Behaviour of Women's Groups in Fiji" (Victoria University of Wellington, 1993).

81. Lateef, "Current and Future Implications," 125.

82. Deryck Scarr, "Fiji and the General Election of 1992," *Journal of Pacific History* 28, no. 1 (1993): 75-92.

83. Crocombe et al., *Culture and Democracy in the South Pacific,* 246.

84. "Marianas in Action," *Women's News* 8, nos. 1, 2 (May 1993): 15.

85. Senator Marilyn Manibusan's address to the Second Annual Governor's Conference for Women in Guam, reported in *Women's Perspective* 1, no. 3 (July-October 1992): 1.

86. "The Position of Women in Western Samoa" (country paper for Women in Development Workshop for Pacific Women Leaders, Wellington, 1993).

87. "Tonga," *Women's News* 7, no. 2 (April 1992): 5, and 8, nos. 1-2 (May 1993): 7.

88. "Fiji," *Women's News* 7, no. 2 (April 1992): 4.

89. "Summary of an Integrated Programme for the Development of Women in Vanuatu" (paper presented at Women in Development Workshop for Pacific Women Leaders, 1993), 1.

90. "Spotlight on Micronesia," *Women's News* 8, nos. 1-2 (May 1993): 14.

91. Country paper, Republic of Kiribati, presented at the Women in Development Workshop for Pacific Women Leaders.

92. Diana McManus, "A Women's Champion," *Pacific Islands Monthly,* May 1990, 56.

93. Mrs. Mii Rairi and Ms. Nga Teao, "Cook Islands Country Paper" (presented at the Women in Development Workshop for Pacific Women Leaders, 1993).

94. Elicita Morei, "Working for Change in Belau," *Tok Blong SPPF,* August 1992.

95. "Credit to the Marshalls," *Women's News* 6, no. 3 (September 1991): 4-5.

96. Information from questionnaire returned by Pamela Scriven, Nauru Women's National Council; and "Looking Forward in Nauru," *Women's News* 7, no. 3 (July 1992): 5.

97. "How Do You Farewell a Woman Like This?" *Pacific Islands Monthly,* January 1990, 21.

98. "American Samoa," *Women's News* 7, no. 3 (July 1992): 7.

99. "Wallis and Futuna," *Women's News* 8, nos. 1-2 (May 1993): 10.

100. "Niue," *Women's News* 7, no. 4 (October 1992): 5.

101. Paper on Tokelau presented to the Women in Development Workshop for Pacific Women Leaders by Maseleisa Simi and Teresa M. Pasilio, 1993.

102. "French Polynesia," *Women's News* 6, no. 1 (March 1991), and 7, no. 2 (April 1992).

103. Ngapoko Short, " 'Aware March' in the Cooks," *Women's News* 6, no. 3 (September 1991): 3.

104. Jessie Tuivaga, "Fiji," in *Pacific Women: Roles and Status of Women in Pacific Societies,* ed. Taiamoni Tongamoa, 11.

105. "PWRB Makes Contact with New Caledonia's Island Women," *Women's News* 6, no. 1 (March 1991): 6.

106. "SOS in New Caledonia," *Women's News* 7, no. 3 (July 1992): 4.

107. Kathleen Rarua, "Vanuatu," in *Pacific Women: Roles and Status of Women in Pacific Societies,* ed. Taiamoni Tongamoa, 86.

108. "The Role and Status of Women in the Solomon Islands and Key Issues of Concern to Them: A Country Paper" (paper presented at Women in Development Workshop for Pacific Women Leaders, 1993).

109. Tony Deklin, "Culture and Democracy in Papua New Guinea: Marit Tru or Giaman Marit?" in *Culture and Democracy in the South Pacific,* ed. Ron Crocombe et al. (Suva: Institute of Pacific Studies, University of the South Pacific, 1992), 43.

110. The growing level of political activity demonstrated by women's organizations throughout the Pacific raises the question of whether their focus on social issues will have a long-term impact on public policy.

111. *Women's News* 7, no. 1 (January 1992): 2.

112. "Spotlight on Micronesia," *Women's News* 8, nos. 1-2 (May 1993): 12. Note that women from Kiribati and Nauru did not attend.

113. *Women's News* 5, nos. 2-4 (December 1990): 13.

114. "Whatever Happened to CEDAW?" *Women's News* 7, no. 4 (October 1992): 15.

115. ". . Putting Gender on the Map," *Women's News* 8, nos. 1-2 (May 1993): 19.

116. Some issues relating to the tension between tradition and democratic values, and their implications for the position of women, are explored in Stephanie Lawson, "The Politics of Tradition: Problems for Political Legitimacy and Democracy in the South Pacific," *Pacific Studies* 16, no. 2 (June 1993). Other studies dealing with inequality, culture, and gender issues within a Pacific regional context include Marilyn Strathern, ed., *Dealing with Inequality: Analysing Gender Relations in Melanesia and Beyond,* essays by members of the 1983/1984 Anthropological Research Group at the Research School of Pacific Studies, the Australian National Library (Cambridge: Cambridge University Press, 1987); and Jocelyn Linnekin and Lin Poyer, eds., *Cultural Identity and Ethnicity in the Pacific* (Honolulu: University of Hawai'i Press, 1990).

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118. Keynote speech given by Laura M. Torres Souder, "Conflict Management by Micronesian Women: A Strategy for Progress," at Palau-Pacific Women's Conference held in Koror, Palau, 8 July 1991. See also her *Daughters of the Island: Contemporary Chamorro Women Organizers of Guam,* 2d edition (Lanham, Md.: University Press of America, 1992).

PRINCIPLES, PRACTICES, AND CONFLICTS OF CUSTOMARY LAND-USE RIGHTS: EMERGING SOCIOECONOMIC EXCHANGE SYSTEMS IN PAPUA NEW GUINEA

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This article explores traditional land-use rights by both clan members and non-clan members in modem Papua New Guinea. The land being the basis of livelihood, those with proprietary rights generally had a traditional obligation to grant usufruct rights to those in need of land. The use of such lands hinged on mutual respect and the reciprocation of feasts and the social exchange of foodstuffs and assistance. The article highlights conflicts between principles and practices of these traditional obligations regarding access to land. However, with the introduction of a cash economy in recent times, land has acquired monetary value, which was hitherto unknown. A new form of social exchange system is increasingly being manifested as traditional landowners persistently press for monetary compensation for usufruct rights of their lands. The article argues that the increasing pressure to exploit land resources is likely to produce fundamental changes in the system of ownership of customary land. As pressure increases and subsistence dependence gradually shifts toward a market "money" economy, the survey and registration of customary lands will eventually lead to the individualization of land, that is, private ownership.

THIS ARTICLE IS EXPLORATORY, and for this reason it does not examine in detail a specific village or society. Indeed, such a detailed study would be very valuable in delineating past, present, and perhaps future land-tenure systems. This article takes an overall view, examining the gradual but substantial changes in customary land-tenure systems in Papua New Guinea.[1] It first examines traditional principles and practices that have governed the ownership of and access to land. It then highlights the conflicts inherent in

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the principles and practices. Only after a careful examination of traditional land tenure is it possible to propose the form future land-tenure systems will take. Thus, the article first traces the importance of landholding prior to the contemporary large-scale exploitation of land resources. As suggested by Fisk, subsistence farming does not put considerable pressure on the land (1971). With the introduction of cash crops, such as coffee, tea, copra, and palm oil, as well as cattle projects the need to individualize traditional lands--register it under an individual's or family's name--has intensified. Mining and forestry operations as well have increased the value of the land, whereas collective ownership of the land has impeded economic development.

Before the present period, traditional landowners never sought to derive monetary benefits from their lands. Traditionally, anyone could gain usufruct land-use rights on customary land through well understood and prescribed procedures. These procedures are, however, no longer sufficient. Almost everywhere land has acquired new economic value as opportunities to use and exploit the riches of the land resources have become greater. Increasingly, land is being commoditized. It will be shown that as a country moves from subsistence farming to a market economy, corresponding changes in the traditional system of feasts and social exchange will also take place. Presently, claims for land compensation must be seen as new ways of reinforcing and maintaining the traditional system of social exchange of feasts, albeit in the "modem" monetary system.

The Importance of Land

In Melanesia and Papua New Guinea in particular, land is a cultural anchor of the people and still is the main source of material wealth. It provides both a support and security to the bulk of the population (Kaitilla 1993). Its distribution and use are therefore vitally important. In many subsistence economies, people have had little or no experience of social survival detached from the land--"it is the productive basis of social life" (Lederman 1986:216).

For about 85 percent of the four million people of Papua New Guinea, livelihood basically depends on the land as a major source of food, water, firewood, and building materials for housing (Crocombe 1987b:4), as well as a place of repose of ancestral spirits. Most people spend considerable time in their gardens, to which they also develop deep bonds of affection. This affection derives from the simple fact that gardens inherit the soul of their owners after death (see, among others, Zorn 1991:15; Lederman 1986:34). Rowley highlights the importance of land when he says:

> The New Guinea villager shares with most others that special attachment to the land characteristic of those whose land rights are their hold on life itself. These rights are based on the tradition of inheritance, which may be matrilineal or patrilineal. The ancestral spirits may help him to guard the land; at times, jealous of the living, they may interfere with the enjoyment of it, and their attitudes may need to be controlled through proper ritual. (1965: 115)

Meggitt observed an incident in Enga where a *kiap* (a government official) was reported to threaten landowners with jail sentences. One of the landowners stood up and had this to say: "You can put me in jail many times, you can kill me, cut off my head if you wish, but my body will walk back to that land--it is ours" (1977:205). For the Engans, land was the basis of everything important in their lives. According to Meggitt, a clan whose territory was too small could not expect to survive or to be able to defend itself (1977:182-183). Land was needed not only to grow garden produce, but also to raise pigs needed for bride-price and other ceremonial rites. Similar sentimental attachment to land has been echoed by national scholars, among them Bernard Narokobi, who writes that "the concept of land goes beyond human existence, for while a person is a transient, land is permanent, irredeemable and non-disposable. Land is the link between the earth and the sky, the sea and the clouds, the past and the future. Because land is eternal, *it is owned in a sacred trust for the succeeding generations*" (1988:5, emphasis added).

The land played a significant role, whether real or perceived, in mediating between the living and the dead. The garden was freed of the spirit of the deceased after a transmigration ceremony was performed on a newly born child. Through this ceremony it was expected that the child would draw from the deceased's life force and at adulthood care for the garden (Schwimmer 1973:92). The concept of landownership among Papua New Guineans as belonging to the dead, the living, and the unborn has been underlined by many scholars (Zorn 1991:15-16; Narokobi 1988; Rowley 1965). This concept imposed an obligation of stewardship toward the land (Coombs et al. 1989:39). The concept of stewardship, the obligation to protect and care for the land, had much in common with contemporary principles of sustainable development.

Traditional Systems of Land-Use Rights: Principles, Practices, and Conflicts

The Western concept of landownership is radically different from that understood by traditional landowners in developing countries. In the West-

em sense, ownership of land implies exclusive enjoyment of all the real economic rights and all privileges and pleasures associated with ownership (Young 1988:209). On customary land, however, both security and ownership of land were and to date remain complex and precarious. Despite the apparent complexity of land-tenure and ownership systems, common principles, practices, and problems allow for some generalizations.

Often clan members enjoyed exclusive, albeit not permanent, land-use rights to their traditional lands. In many areas non-clan members were also permitted reasonable access to such lands. Generally, four or five, or even more, different levels of land-use rights existed, and some continue to exist today (see Zorn 1991:15; Cooter 1989:2; Schwimmer 1973). Figure 1 is a simplified diagrammatic representation of these levels. Almost everywhere access and rights to landownership followed both genealogical (corporate social groups) and nongenealogical lines (Grossman 1984:40).[2] Genealogical or descent lines were either patrilineal, as in most parts of the highlands, or matrilineal, as is common in island communities of Papua New Guinea. Where the patrilineal system was dominant, children inherited the father's clan land and therefore gained associated land-use rights. In the matrilineal systems, however, children commonly inherited the mother's brother's land (Jackson 1991).

These corporate social groups--that is, unified bodies of individuals who form a blood-related genealogical lineage, usually clans, tribes, or village communities--enjoyed recognized land-use rights, although these were by no means indisputable. Within the corporate social groups, clans, subclans, or families enjoyed individual proprietary rights to particular pieces of land within the tribal territory (Young 1988; Hutchins 1980). According to Du Toit, customary land among the Akuna of the Arona Valley was primarily of three types: (1) land around the village, (2) fallow gardens, and (3) the true bush (1975:167). The land surrounding villages was, and still is, privately owned by individual families who have prior claim to it. As long as the gardens remained fenced and tended, ownership belonged to individual families (Du Toit 1975:90). It was common for people to refer to these lands by either clan names or individual family names of the *papa bilong graun* (landowners) when ascertaining ownership (Schwimmer 1973; Hogbin 1978:33; Josephides 1985:18; Zorn 1992:3). It is clear from Du Toit's description that traditional land-use practices supported and encouraged the individualization of land tenure among clan members. A garden that was left to fallow and whose fence was no longer maintained could be taken by another member of the clan. But the rights over trees on the garden so abandoned remained with the previous owner of the garden (Du Toit 1975:92). This means that each family had the right to use the land belonging to its clan, and these rights lasted while they were maintained. The true

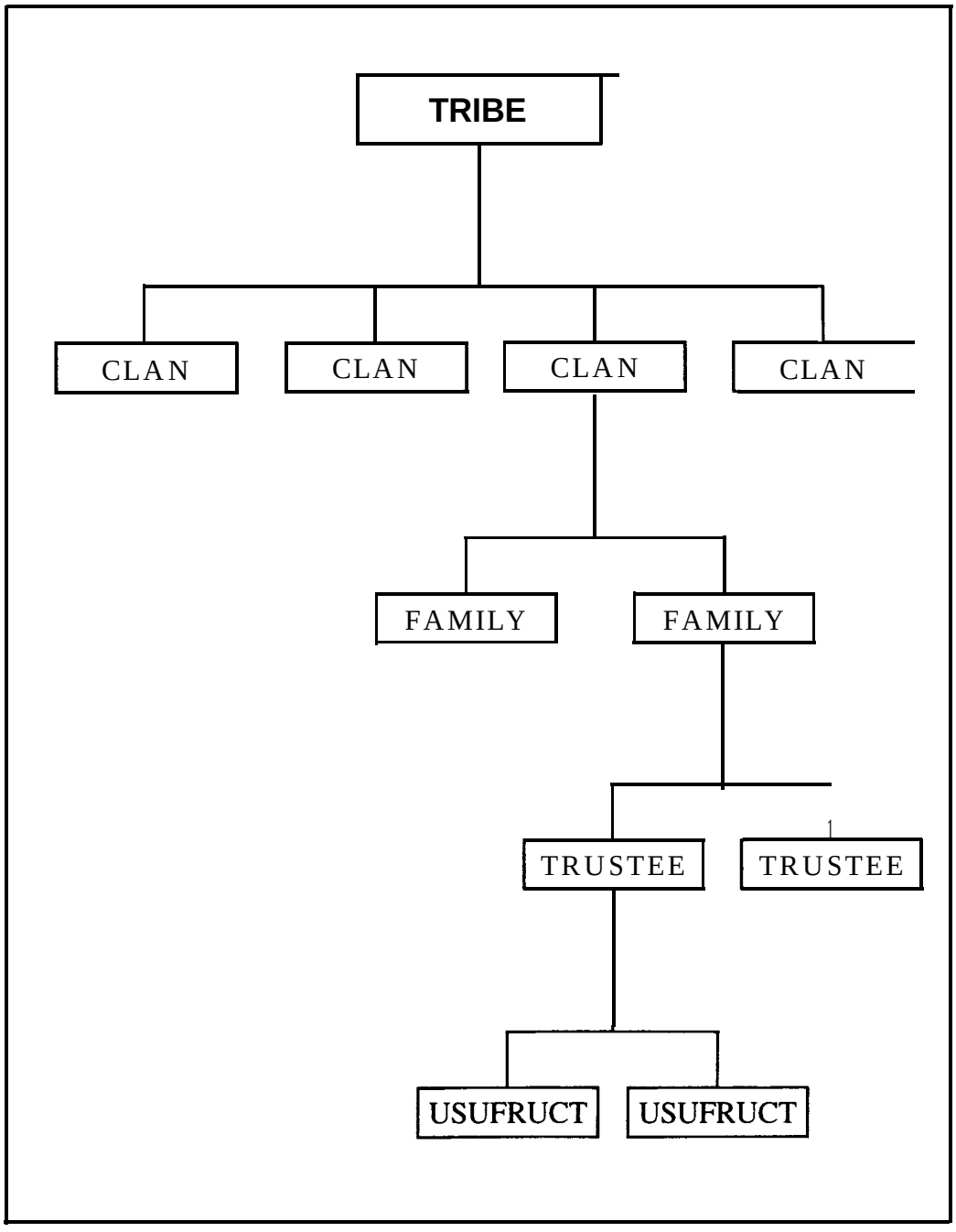

FIGURE 1. **Five levels of clan and nonclan land-use rights.**

bush was where there were no signs of any previous gardens. These were usually large tracts of land belonging to the whole clan. Any member of the clan could stake out claims if he or she cleared and erected a fence. Hence such a person would have established full rights over the piece so cleared (Du Toit 1975:90).

Departure from this general corporate group membership system was

not unusual. Nongenealogical means of acquiring land include adoption, borrowing, loan gifts, or intermarriage (Narokobi 1988:8). For example, *tambus,* or in-laws from other tribes, are known to have gained land-use rights to other tribes' or clans' lands. According to Giddings, clans with proprietary rights over large tracts of land were traditionally obliged to grant usufruct rights to members of other clans in need of land. A person who offered a favor to another expected something in return in the form of a gift or loan of land (Giddings 1984:156). For example, 25 percent of nearly four hundred gardens surveyed by Rappaport among the Tsembaga were mainly used by people other than clan members (1984:20-21). The land received on a usufruct basis usually reverted to the owner once it was no longer needed or if the reciprocal relationship or relationship of respect with the donor ceased (Narokobi 1988:28).[3] The receiver of the land was expected to offer regular feasts to the *papa bilong graun* as a show of appreciation. In addition, the receiver was expected to take care of any ancestral spirits on the land. Since land transfers were for usufruct only, they did not necessarily result in the reduction of the amount of land belonging to the *papa bilong graun.* The transactions involving land gifts and social exchanges of feasts or foodstuffs were not meant as an outright sale or purchase of the land except among close relatives (Narokobi 1988:26).[4] Nor were the transactions necessarily economically motivated. But the maintenance of these obligations relied heavily on garden production, as Lederman has rightly argued (1986:219). Many of the traditional land transfers were also meant to strengthen social relations between neighboring communities.

Intertribe wars, as a form of social relations, were an important source of new alliances, migration, and population distribution (Grossman 1984:39-40; Brown 1972:57). Social relations between many tribes consisted of a permanent state of enmity. Many people were in constant fear of being ambushed at short notice. Ability to defend the welfare of a clan during intertribal warfare was vitally important in ensuring the clan's unity, security, and continuity. Intertribal war was also a source of personal prestige and, at times, a means of acquiring land from fleeing tribes (Meggitt 1977), although this was by no means always the case (Rowley 1965:41; Narokobi 1988:25). A tribe that was unable to defend its land would flee to neighboring tribal communities, where often they would be generously received and steadily absorbed (Hogbin 1978:57).

Yet, individual family rights coexisted with rights of others in the larger community, whereby other clan members or even neighboring non-clan members also enjoyed reasonable land-use rights on the same land (Grossman 1984:39; Du Toit 1975:167). In these common lands everyone was free to hunt, gather forest produce, collect water, cut timber for housing, or even

garden without encountering hindrance (O'Faircheallaigh 1984; Tompson 1976). Non-clan members enjoyed usufruct rights provided the stewardship to the land was not compromised. Any alienation of or encroachment on traditional land would normally have caused a bloody hostility (Du, Toit 1975:91). These usufruct land-use rights and obligations were by no means identical to those enjoyed by clan members. And even within the same clan, land-use rights and obligations varied widely among clan members. For example, women among the Kewa had full rights to their crops and enjoyed economic benefits from them, but they never owned land (Josephides 1985:92). As noted above, if a garden was left to go fallow, the trees on it continued to belong to its previous owner although the garden could be tended by another person.

In some societies, however, a general agreement from all clan members was required before individuals could exercise these rights (Brandewie 1981:153). In others, any person who had been tending a garden could transfer usufruct rights to another person either on loan, as a gift, or for services rendered (Hutchins 1980). Often group consent was, and still is, vested in clan leaders.[5] In most areas, leadership was based on achievement rather than hereditary. As all leaders were men, the person selected was often a senior wise person or a war hero (Rappaport 1984:28-29; Du Toit 1975:74-77). The extent of powers given to the leaders was not clearly defined. Leaders allocated lands to both clan members and non-clan members. The apportioning of land was done at times after consulting with clan members, but often as they found fit. They even appointed trustees or custodians as caretakers of distant tribal lands (see Schwimmer 1973:105). Brookfield and Brown observed in Chimbu that an "unambitious man disregards his potential land claims. . . . An ambitious man maintains an active claim to all his inherited land and assumes custodianship over uninherited land in the territory of his subclan or subclan section. He then grants use of his surplus to those men he can attract as followers and adopts young kinsmen and affines" (1967:130).

It was the responsibility of the trustees to see that no encroachment on the clan land took place. However, leaders and trustees slowly began to misuse powers vested in them (Newton 1985:82-83). They have steadily become real *papa bilong graun*, landowners as understood in the Western sense. Grossman's work in Kapanara, Eastern Highlands, has uncovered similar practices there (1984). Land is now used by those to whom custodianship was bestowed for personal gains, such as winning social status and political support.[6] The evidence suggests that the complex system of customary landownership is not totally harmonious, and no doubt traditional principles have always conflicted with practices (Brookfield and Brown

1967), particularly when individual interests involving land conflict with group interests. New patterns of production and new social relationships in particular cannot be supported effectively by traditional landownership systems. It will be shown that participation in modern forms of production is incompatible with the traditional subsistence economy and favors the individualization of land.

The Pressure for Land

The pressure for land in Papua New Guinea can be traced back through the history of the country. Archaeological evidence shows that pressure on the land has existed in some parts at least for thousands of years.[7] A new and a more intense form of pressure followed the establishment of European-style settlements and commercial developments.[8] The problem of land ownership and availability for development has been recognized for many years.[9] For example, land as a commodity was the subject of great interest among the first European settlers of the early twentieth century (Young 1988:34-35; Quinn 1981). The colonial government granted research funds for systematic investigations into the native ownership of land, which was already a contentious topic causing serious problems to the colonial administration: "Land and order, property ownership (especially land) and labour (including servants) were a tangle of linked issues which perennially warmed after-dinner conversation on the planters' and mission house verandahs. And they likely sparked the most heated arguments, generating the most ideological obfuscations, and fuelled the most blatant racial bigotry" (Young 1988:34-35).

Political and economic pressure on the land increased toward the advent of independence in the mid-1970s (Meggitt 1977:187).[10] A series of land bills were tabled in the House of Assembly In justifying the introduction of the bills, Director for Lands, Surveys and Mines Don Groves claimed that "traditional land tenure must be changed because it is holding up development, it dampens the individual initiative of traditional owners, leads to dispute between them and makes them reluctant to transfer surplus land to those willing and able to use it effectively."[11]

The government was determined not only to individualize customary land tenure and to survey and register the resulting titles, but also to maximize the economic exploitation of the land's natural resources. First, the government saw land as *the* major resource to raise internal revenue for the maintenance of public expenditure. Second, the administration at the time was keen to reduce the Australian subsidy to Papua New Guinea (O'Faircheallaigh 1984; Meggitt 1977). Besides cash cropping and cattle raising,

mineral exploitation and forestry operations offered perhaps the best potential for achieving both aims. But more important, all of these compete for the use of customary land. In terms of revenue the *Post-Courier,* for instance, reported that the Ok Tedi mine alone was expected to earn the PNG government a total of K750 million.[12] K120 million would go to the Western Province and K20 million to the landowners. Also, Bougainville Copper Limited, during its operation, contributed 16 percent of the internally generated income and 44 percent of its export income. About 60 percent of Bougainville Copper benefits went to the national government and 5 percent to the provincial government (Connell 1991:55; Jackson 1991:19). Besides compensation claims, landowners received a total of K17 million in royalty payments between 1978 and 1987 (Connell 1991). Although the landowners' proportion was very small (0.2 percent), this amount was substantial for people without prior experience with money and for people who would not have had any cash income at all had the mine not been established there. Other mining and forestry operations throughout the country brought similar returns. Many of these operations also brought with them social services, such as schools and hospitals, and infrastructure development, such as roads and bridges, to underdeveloped areas.[13]

For many people who relied on the land for a subsistence livelihood and never sought cash income, the provision of social services and infrastructure was a significant development in the absence of government funding.[14] According to Brookfield and Brown, the Chimbus, for example, had no notion of land value in monetary terms, although any breach of custom drew strong resentment from all clan members (1967:140; see also Crocombe 1987b:4; Giddings 1984; Du Toit 1975). Rowley claims that before European contact there was no concept of individual landownership or of land as a commodity (1965). Traditionally, it was taboo to acquire or exchange land in the same way one would exchange ornaments, such as arm-shells, boars' tusks, dogs' teeth, or pigs (Kaitilla 1992; Schwimmer 1973:103).

Although individuals continue to derive economic value from the sale of garden produce such as *kaukau,* tapioca, betel nut, casuarina, or pandanus, mature *diwais* (trees) grown on the land could not outrightly be bought or sold (cf. Josephides 1985:48). According to Brown, mature *diwais* in a garden are properties with permanent economic value (1978:114). Some individuals use the sale of *diwais* to imply a permanent transfer of the ownership of the land to the buyer. The presence of *diwais* on borrowed land, or even on land given as a gift, has been a source of great tension and land disputes between clan members and non-clan members (Zorn 1992:5, 20; Gaudi 1991; Hutchins 1980; Brookfield and Brown 1967). Because trees remain the property of the person who planted them even after the land has

reverted to the owner, mature trees are often used as evidence to reinforce claims of ownership over a piece of land. Ownership of trees, in some cases, is equated with the ownership of the land (see also Giddings 1984; Ward 1981).

For these reasons, houses generally carry little or no commodity value in many rural areas (Kaitilla 1992). This point has also been underlined by Narokobi, who emphasizes that members of other clans cannot build houses on lands that do not belong to them unless prior permission is sought and granted (1988:15). This has again been stressed by Cleland, who wrote that "there is a fundamental difference in the concept of land, what land is and what man can do about it. . . . No Papua New Guinea[n] ever thinks of the land itself as saleable commodity. It's not something that can be sold any more than the wind or air. What is sold is the trees growing on the land, or the right to use the land for one purpose or another. . . . The land itself is part of the very soul of the clan" (1981:133).

Significant changes in the traditional social exchange relationships have begun to appear as many *papa bilong graun* demand monetary returns and land users no longer offer traditional feasts in exchange for the land. The land, which was once recognized as a fundamental resource for human survival and continuity, has rapidly been transformed into a commodity. Before, the only source of money for many villagers was through contract labor away from home. Lands that were initially neglected because they were agriculturally unproductive or distant immediately became potential sources of easy money (Zorn 1992:8; Crocombe 1987a:390; Crocombe 1987b:16; Josephides 1985:50). Similar examples can be found throughout Papua New Guinea (see, for example, Oram 1974).

Several factors are responsible for this change. First, the imposition of head and hut taxes spurred not only wage labor but also a desire to earn cash income. Also, mining and forestry operations have appreciated the value of the land. These factors, the absence of land registration, and rapid population growth account for an urgent land transformation into individual commodities (see, among others, Zorn 1992:26; Josephides 1985:18).[15]

Customary landowners are pressing extraordinarily huge demands for the use of their lands; and often what they seek is monetary returns (Schwimmer 1973).[16] Although any sale of customary land to foreigners is generally forbidden, land "sales" are now normal occurrences in both formal and informal economic activities (Zorn 1992:8; Cooter 1991:44).[17] Or-am argues that the desire to receive cash has often overwhelmed many landowners' sense of responsibility toward clan land (1974:172; see also Ward 1981). Money has become an important component of marriage, gifts, social exchange, gambling, and beer drinking. Newton, for example, argues that

money is a prerequisite for raising one's status as well as a means of making one's life physically easier (1985:165; see also Grossman 1984:31-32). Grossman describes the importance associated with money among the Kapanarans, and probably the whole of Papua New Guinea:

> People do not accumulate money for hoarding or purchasing substantial amounts of material goods for themselves. They channel much of their income, either as cash or goods purchased with the money, into the system of reciprocal exchange, in which generosity is highly valued. The more money an individual has, the greater is his potential to give to others. Contributing to another's bride wealth payment, helping a relative with a feast for his affines, giving generously in exchanges, and providing plentiful food to guests are manifestations of such valued behavior. In addition, giving to others creates an obligation for reciprocation. If an individual has several others in his debt, he is able to call upon them for help in certain endeavors designed to increase his prestige. (1984:32)

Since the nature of social relations in many areas is based on the conspicuous display of wealth, cash-crop plantations and cattle rearing are visible evidence-with which to impress others (Grossman 1984:33). Also, almost everywhere, dependence on a subsistence diet is quickly being replaced by dependence on money to buy foodstuffs such as tinned fish from 'Western" supermarkets (Christie 1980; Connell 1991:59; Connell 1988:80). In the past, exchange of goods was the principal form of acquiring foodstuffs and goods of traditional value. Almost every trade store now reinforces this dependence, whereby Western goods have become everyday necessities. More and more people are likely to consume store-bought foodstuffs rather than garden produce as a symbol of status and prestige.

In areas such as the highlands, where the cash economy has gained a stronghold, the need for more land is greater than ever before. The apportioning of pieces of land to non-clan members by traditional landowners in return for manual labour is becoming increasingly popular. Elsewhere, as traditional landowners assume more individual rights from group control, the "sale" of traditional land for mining and forestry operations, plantation, commercial and industrial, or even housing activities has intensified.[18] In the last decade individuals have been profiteering from what was once communal land under customary ownership (Cooter 1991:38-39).[19]

The commercial value attached to land has also been exacerbated by continuous claims for land compensation. Most claims demand the payment of money for the use of the land or for damage to the environment. It is not

uncommon for clans to press for "reversionary" claims for lands already compensated for (see Lakau 1990; Ward 1991:177). For example, recently the *Post-Courier* reported: "Traditional landowners from Ukarumpa village have been seeking compensation for the land which was bought by the government in 1930. The claim . . . alleges there were inconsistencies in the original sale . . . which has resulted in the traditional landowners seeking additional compensation."[20]

Scholars have put forward a variety of reasons to explain the basis of reversionary claims. Schwimmer, on the one hand, argues that reversionary claims are unforeseen increases as the value of the land appreciates (1973:106; see also Cleland 1981:132). Cleland offers a useful insight into such land dealings:

> In the past, their fathers were quite happy to sell their lands to the Germans but they did not know what they were doing. They were very pleased to get the axes and the red cloth and other presents and quite happy for the Germans to grow crops but they did not know their land had gone for ever. And now they and their sons and their grandsons wanted the land back. Their families had grown, and the land was worth far more than axes and red cloth the Germans had given their grandfathers. (1981:132)

Such owners may refuse further reuse of their land unless the rewards are reviewed upward (Ward 1981). According to Gerristen and McIntyre, on the other hand, reversionary claims are meant to reinforce perpetual landownership by customary landowners (1991:49). This is because custom does not allow permanent alienation of land, as doing so would imply alienating people's identity. According to Rowley, no right of a person to dispose of land was recognized, for the ancestral spirits must have their place and the unborn generations must be provided for (1965:115). Traditionally, land belonged to the whole clan, and individual rights were those of user only,

It is perhaps because of these deep-rooted sentiments that landowners are increasingly drawing whatever economic benefits and political strengths they can from the ability to bargain with developers or even disrupt development initiatives, even causing, for example, the closing of airports.[21] The closure of the Bougainville Copper mine can partly be seen in the same light (see Zorn 1995:11). Huge compensation claims are often directed toward forestry and mining operations, electricity, water, and Posts and Telecommunication radio repeater stations.[22] Collectively, traditional landowners have repeatedly pressed, without success, for compensation for the lands currently occupied by towns and cities across the country (see Maribu 1994;

Oram 1974:171). Presently, the economic returns to the government from urban lands are small compared to those accruing from forestry and mining exploitation. For this reason, land requirements for urban development have not, as yet, received significant government attention.[23]

Recently, further pressure is coming from other countries whose resources have begun to dwindle. For example, export demand for PNG timber has grown rapidly as supplies from Southeast Asian timber-exporting countries have substantially diminished and hostile antilogging campaigns limit supplies at home in places such as Australia. The forestry and mining sectors are seen as having the potential to make a significant contribution to the overall development of Papua New Guinea. These sectors are expected to generate continued export revenue, provide new employment opportunities,[24]and provide for greater rural infrastructure development. The fact that these sectors are replete with corruption suggests the kind of money associated with the exploitation of timber and mining resources. The forestry industry alone contributes nearly K70 million annually to Papua New Guinea in export earnings and an extra K 200 million in levies and taxes.

Since the benefits that accrue to the government from exploitation are far greater than those to the traditional landowners, many of them are now seriously considering direct participation in these operations. Many people cannot understand why resources on and under their lands should belong to the government (Crocombe 1987a:392; Connell 1991:56). They also cannot understand why the government should impose conditions for the exploitation of their own resources. The fact that legislation vests ownership of all minerals to the government has been rejected by traditional landowners in Bougainville and elsewhere in Papua New Guinea (O'Faircheallaigh 1984).[25] Claims for compensation have also been made for environmental damage resulting from these economic development activities. According to traditional principles and practices, not only the landowners but also others who hold potential interests in the land are victims of economic development. A substantial compensation is often claimed for mining, as the damages it incurs permanently deprive the local people of their livelihood.[26] It is questionable whether any compensation can ever substitute for the damage inflicted on both the environment and the social life of the people in respective project areas.

Landowning clans are encouraged to form incorporated groups under the Land Group Incorporation Act, chapter 147. A group so incorporated has the power to use and manage its land or even to enter into land agreements with other groups. This act is an attempt to discourage the individualization of traditional lands by the powerful few. It was stressed in the Report of the Commission of Inquiry into Land Matters that actions contrary to this

TABLE 1. **Alienated and Traditional Lands by Province: Papua New Guinea**

	Land Area		Alienated Land		Customary Land	
Province	Ha	% of Total	Ha	%	Ha	%
Total	47,614,900	100	1,322,873	2.78	46,292,027	97.22
Bougainville (N. Sol.)	956,000	2.01	40,972	4.29	915,028	95.71
Central	3,020,000	6.34	408,533	13.53	2,611,467	86.47
Chimbu	656,000	1.38	2,061	0.31	653,939	99.69
East New Britain	1,498,000	3.15	125,735	8.39	1,372,265	91.61
East Sepik	4,426,000	9.30	38,841	0.88	4,387,159	99.12
Eastern Highlands	1,114,000	2.34	16,602	1.49	1,097,398	98.51
Gulf	3,508,000	7.37	25,100	0.72	3,482,900	99.28
Madang	2,894,000	6.08	48,315	1.67	2,845,685	98.33
Manus	212,000	0.45	11,842	5.58	200,158	94.42
Milne Bay	1,449,900	3.05	94,365	6.51	1,355,535	94.49
Morobe	3,490,000	7.33	106,916	3.06	3,383,084	96.94
New Ireland	980,000	2.06	54,102	5.52	925,898	94.58
Northern (Oro)	2,220,000	4.66	112,303	5.09	2,107,697	94.91
Southern Highlands	2,190,000	4.60	7,661	0.35	2,182,339	99.65
West New Britain	2,045,000	4.29	136,477	6.67	1,908,523	93.33
West Sepik	3,730,000	7.83	8,993	0.24	3,721,007	99.76
Western	10,800,000	22.68	19,735	0.18	10,780,265	99.82
Western Highlands	2,426,000	5.10	64,320	2.65	2,361,680	97.35

Source: Adapted from Aland 1977, cited in Freyne and Wayi 1988:table 1, p. B75.
Note: Western Highlands includes what is today Enga Province.

act would make many people landless (Ward 1981). At the same time, small block holders are benefiting from other land arrangements such as those under the Private Dealing Act, chapter 217. Although this act specifically deals with timber rights, customary landowners may sell or otherwise dispose of the timber to any person. This latter act, therefore, paves the way for customary land groups to deal directly in land and land-related resources.[27]

Experience elsewhere shows that when dealings in land reach this stage, pressures will compel further transformations in the traditional land-tenure system (Tompson 1976:225). In Java for example, the introduction of a cash economy also saw a steady erosion in the control of customary land (SKEPHI and Kiddell-Monroe 1993:235). Work by Grossman in the Eastern Highlands clearly shows how commodity production can undermine subsistence production on which people have relied for many years (1984). Data on informal land dealings in Papua New Guinea are still very scarce, but a fair estimation is that these activities have proliferated substantially, especially where little customary land has been alienated by the government. Table 1

TABLE 2. **Agricultural and Pastoral Land Leases by Province: Papua New Guinea, 1984**

Province	Agricultural Leases		Pastoral Leases		Total Leases	
	No.	Area (ha)	No.	Area (ha)	No.	Area (ha)
Total	7,752	259,194.8	41	113,521.3	7,793	372,716.1
Bougainville (N. Sol.)	93	5,699.1	0	0.0	93	5,699.1
Central	880	54,828.0	8	7,108.7	888	61,936.7
Chimbu	11	555.1	0	0.0	11	555.1
East New Britain	604	19,186.4	0	0.0	604	19,186.4
East Sepik	175	6,295.8	1	696.0	176	6,991.8
Eastern Highlands	160	17,422.1	0	0.0	160	17,422.1
Enga	21	558.4	0	0.0	21	558.4
Gulf	84	4,503.7	1	0.4	85	4,504.1
Madang	152	12,672.4	6	3,151.6	158	15,824.0
Manus	179	2,642.8	0	0.0	179	2,642.8
Milne Bay	205	17,493.4	5	196.1	210	17,689.5
Morobe	326	20,180.6	14	94,111.2	340	114,291.8
Natl. Capital District	19	491.4	2	59.6	21	551.0
New Ireland	237	17,715.5	0	0.0	237	17,715.5
Northern (Oro)	966	21,714.7	0	0.0	966	21,714.7
Southern Highlands	36	4,724.4	0	0.0	36	4,724.4
West New Britain	2,862	33,480.9	1	7.6	2,863	33,488.5
West Sepik	82	890.5	0	0.0	82	890.5
Western	8	799.0	0	0.0	8	799.0
Western Highlands	652	17,340.6	3	8,190.1	655	25,530.7

Source: Adapted from Freyne and Wayi 1988:table 2, p. B76.

gives the proportion of both alienated and customary land by province. Table 2 shows the distribution of agricultural and pastoral lands by province in 1984. Of the total alienated land leased by the government to the private sector, nearly 90 percent was leased for agricultural purposes. The accuracy of these figures is questionable but will suffice to indicate the amount of land belonging to traditional owners and the provinces in which informal dealings in land are likely to be highest. Provinces with the highest percentage of alienated land, such as East and West New Britain, experienced the introduction of cash crops such as copra and oil palm plantations. In provinces such as Western, Southern Highlands, and Chimbu, with little alienated land, cash crops such as coffee and tea were introduced at a later stage. It is in these provinces that pressure for land is most likely to be acute as people strive toward a cash economy. When figures in Tables 1 and 2 for Eastern Highlands Province are compared, it becomes clear that more land is devoted to agricultural activities than is alienated. In forestry operations 3.7 million

hectares (or 7.87 percent of the land mass) of forest land had been negotiated with landowners since 1950. Of this, nearly 60 percent had been allocated to companies or land groups for exploitation (Komtagarea 1988:B11).

The evidence presented here strongly suggests that customary tenure is dynamic and constantly evolving. Indications suggest that this will finally lead to a greater concentration of land rights in individuals with a corresponding loss of group control. As people have begun to assume or seek individual land control, they will deprive clan members of spiritual and socioeconomic benefits arising from what were once communal lands. Other countries whose land was once owned collectively have passed through the same phases of alienation of customary lands. The Kikuyu of Kenya are one example. Slowly, individuals began to appropriate more and more land for individual use (Tompson 1976:226). The desire for permanent and individual land as a commodity is likely to increase economic competition between individuals and groups of individuals (Grossman 1984:33). The popular image of many people in the villages in Papua New Guinea involves competitive ceremonial social exchange and feasts of Western goods. Where desire for such things is high, collective ownership of land will be seen to impede their acquisition. Although national and provincial governments have virtually no power of land allocation over 97 percent of nearly 476,000 square kilometers of the land mass, landownership in Papua New Guinea is gradually but steadily undergoing significant changes. The promise of land as an economic resource is slowly destroying the traditional concept of clans as custodians of ancestral land. Although these changes are slow, they are significant enough to make headway for major land reforms.

Conclusion

As long as landowners accept the inevitability of economic development, Papua New Guineans will not escape the commoditization of customary land. In arriving at this conclusion, I have traced systematically the changing importance attached to land. The following arguments have emerged from the article:

- Indeed, collective landownership under clan groupings has played a significant role in supporting the subsistence of both clan members and non-clan members. Although members of a clan could use any piece of clan land or pass use rights on to others, traditional principles and practices did not allow outright disposal of it. Conflicts often arose between and among clan members and non-clan members, especially over irresponsible use of land.

- There are reasons to believe that traditional systems of social organization had their origins in the precontact realities in which people lived. These included hostility and enmity between tribes. The European contact and eventually pacification gradually eased intertribal warfare. Traditional feasts and social exchange systems were gradually eroded.
- Cash payments should be seen as a contemporary means of maintaining and enhancing the traditional feasts and social exchange systems for usufruct land rights.
- Status is no longer sought in feasts and social exchange, but rather in the accumulation of 'Western" material goods through the acquisition of monetary wealth.
- The fact that certain subsistence crops can be converted to money at the market has altered the traditional concept of giving garden produce as gifts during feasts and social exchanges. By the same token, the proportion of the land given out on a loan basis in anticipation of feasts or social exchanges has undoubtedly diminished significantly.
- Pressure on the land and the introduction of a cash economy are transforming land into a commodity. A host of colonial enforcements such as the imposition of taxes meant that male members of households had to seek cash employment away from the traditional subsistence sector. The basic tenet behind this argument is that if force were brought to bear on the people, they would in turn seek material wealth. To obtain material wealth, people would be forced to transform their land into a commodity to meet these new desires.

The argument that customary land provides the necessary support and security for the bulk of the population may not remain tenable for long. As the population increases rapidly, the amount of customary land will become insuffcient for everyone's needs and some clan members will become landless. Those who become landless may have to turn to other forms of employment opportunities, particularly in the market economy. In other words, land claims are likely to be high where subsistence farming is the major source of livelihood and natural land resources remain abundant. Forestry and mineral resources are unfortunately finite, and at the current rate of exploitation they will all be depleted perhaps in the next fifteen to twenty years. As the subsistence livelihood is gradually replaced by a modern market economy, traditional land claims will be unheard of. At this point collective ownership of customary land will fragment. Also at this time the demand for individual land tenure will become a high priority and survey and registration of the land will become possible. Indeed, the survey and

subsequent registration of the land would effectively remove the land from collective or clan ownership. It is doubtful if the Group Incorporation Act will be effective in safeguarding against the onset of fragmentation. For many years successive governments have recognized the limitations of customary land tenure in fostering economic development. Despite a wealth of reports in this area, governments lacked clear-cut policies. At this point governments should facilitate the individualization of land dealings.

NOTES

The author is grateful to two anonymous reviewers for their extensive and invaluable constructive comments. Any shortcomings, however, remain the sole responsibility of the author.

1. The phrase "customary land tenure" is widely used, but without a universally accepted definition. For the purposes of this essay, "custom" implies an "unwritten" law that is recognized as legitimate by the community whose rules regarding land acquisition and transfer of rights are usually explicitly and generally known (Tompson 1976:223).

2. Narokobi identifies ten ways in which ownership of land was traditionally acquired: settlement, hunting, fishing, gardening, gathering, conquest, purchase, succession, adoption, or gratuitous grant (1988:23). But ownership is either personal, collective, or group based.

3. Recently, Wau-Bulolo landowners have requested two gold-mining companies to pack and leave their land. They claimed that the companies had failed to provide basic facilities such as roads, hospitals, and training colleges for the local population. They also alleged that the companies had no respect for the landowners (Tau 1994).

4. During a recent field trip to Mount Hagen, I was told that land sales to strangers were rapidly increasing. According to land officials there, these transactions are witnessed by *kiaps* to make them formal (Ken Won, Lands District Officer, pers. com., November 1994; see also Ward 1981).

5. According to Brandewie, each head of the individual family did the apportioning of gardens to members of the household (1981:153). But where clan leaders did the distribution of land, they did so after consulting with their lineage mates. A well-educated and prominent Lae politician managed to convince his fellow clansmen and women to sign a letter authorizing him to survey and register a piece of clan land under his name. He now uses the land for poultry farming.

6. In Kamukumung settlement, Lae, one such trustee has used his position to win a local by-election in the Ahi constituency. Also, after the death of his highlands wife, block holders (land users) contributed money to pay for his new wife's dowry (Alois Yambui, pers. com., November 1994).

7. I am grateful to Professor Ron Crocombe for this invaluable comment.

8. Papua and New Guinea were initially two different territories under two different administrations. Policies regarding land adopted in the two territories also differed. They ranged from policies that supported traditional landownership in the Papuan region to policies that indiscriminately supported the purchase and alienation of vacant or "owner-less" lands.

9. Papua New Guinea has perhaps the largest number of both consultant and research reports on customary land of any country in a similar situation.

10. Further pressure on the land has been exerted through the establishment of legal institutions to mediate and settle land disputes. A number of attempts in this direction include the 1952 Native Lands Commission, the 1962 Land Registration (for communally owned land), the 1963 Land Ordinance (tenure conversion), the 1973 Commission of Inquiry into Land Matters (CILM), and finally the 1975 Land Disputes Settlement Act. Consequently, repeated referral to state courts to settle customary land disputes is significantly contributing to the redefinition of the customary landownership system (see Zorn 1991, 1992; Sacks 1974; Ward 1981:250-252). Recent attempts by the government to introduce customary land-registration reforms have been met by angry demonstrations across the country, with students boycotting classes and burning government vehicles (see, for example, *Saturday Independent,* 22 July 1995, 21-24).

11. House of Assembly Debates 1970, 2:2407, quoted in Sacks 1974:1.

12. *Post-Courier,* 25 July 1989.

13. As discussed further below, these operations are not without their own adverse social and environmental consequences.

14. See also SKEPHI and Kiddell-Monroe 1993 for a similar case in Indonesia.

15. For a detailed description regarding the introduction of compulsory cash cropping and the efforts of several administrations to bring economic development in the Papuan region, and in particular among the Orokaiva, see Newton 1985:35-53.

16. For competing interests groups, see, for example, the *Post-Courier*, 6 April 1994, 25. Traditional landowners from Motukea island and Kopi, Gulf Province, are vigorously competing for the establishment of an oil refinery on their respective lands. They hope that this will create employment opportunities and bring in royalty payments.

17. The term "sale" is used here to refer to temporary transfer, or mere usufruct, of land to a non-owning clan member. One buys the right to use the land, not the land itself. Even those who are now claiming outright purchase of the land from traditional owners are likely to face similar problems of revisionary claims from future generations of these landowners. In lending support, Oram considers that much of the land in Papua New Guinea is still under "sub judice" *[sic]* as a result of claims by descendants of the original owners (1974:171). The term "sale" therefore connotes land leasing (see also Ward 1991:182; Ward 1981).

18. The Land Act, however, allows dealings between Papua New Guineans provided the dealings comply with custom. The reason that land could not be sold to nonnationals was

to protect the interest of the traditional landowners. The purchase of land by nonnationals is possible if such purchase would not bring hardship to traditional landowners in the future.

19. I am fairly familiar with at least two cases taking place in urban settlements. In Lae, two land custodians have taken it upon themselves to apportion clan land to non-clan members for housing, among other things, upon payment of a prescribed monthly fee including a fixed deposit (see also Oram 1974:172 for similar cases in Goroka before independence). While talking with two villagers in Mount Hagen, I was asked if I wanted to buy land. When I told them that I was just interested in getting some information from them, they immediately lost interest in any further discussion.

20. See *Post-Courier,* 21 March 1994, 4.

21. See, for example, the *Post-Courier* of 20 April 1994, 14.

22. Recently, the *Post-Courier* reported a case where two groups of landowners were fighting for the land on which a PTC repeater station was located (12 May 1994). Also, landowners along the Yonki dam received a soft grant of nearly K1.3 million. This grant must be seen as an attempt to appease the landowners for the loss of and the destruction caused on their land after the construction there of the Yonki hydroelectric dam (see *Post-Courier,* 6 May 1994).

23. Increasingly, however, the government is shifting its attention from forestry and mining operations to downstream-processing industrial developments in an attempt to increase employment opportunities, which will also significantly increase the value of urban land. This will further put pressure on traditional lands around urban areas to house increased numbers of the work force (see also Oram 1974).

24. For instance, according to the *Post-Courier* (8 April 1994, 14), the forestry industry alone employs nearly eight thousand rural people.

25. According to Tompson, there is no such a thing as absolute ownership of the land, since many governments regulate development and control in the interests of the general public (1976). Such controls are said to be normal and are intended to prevent the destruction or abuse of the land by those who claim exclusive ownership.

26. In a K1.4-billion lawsuit currently at the courts of law, a group of landowners along the Fly River are demanding compensation from Porgera's mining giant BHP for the destruction of their environment.

27. I know of a Kamukumung traditional landowner who has leased a portion of the land allocated to him by his clan members to Mobil Company. Once the land was given to him, he surveyed it and registered it in his name before leasing it for about K3,000 a month.

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EDITOR'S FORUM

EMPLOYMENT, UNEMPLOYMENT, AND ACCESS TO EDUCATION: POLICY DILEMMAS FOR PAPUA NEW GUINEA

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This article examines education policy in Papua New Guinea in light of the most recent evidence on the growth of population and the labor force. Over the intercensal period 1980-1990, the labor force grew by between 2.5 and 3.0 percent per annum, and rates of unemployment among young people increased, especially in urban areas. But in spite of rising unemployment, an acute shortage of skilled labor compelled the private sector to increase reliance on expensive expatriate labor. The education sector in Papua New Guinea is plagued by problems of high unit costs, a high dropout rate, and low continuation rates into secondary school and tertiary institutions. Some policy suggestions are put forward that over time could lead to improved access to education and better absorption of the output in productive employment.

FOR MORE THAN TWO DECADES, development economists have been debating the optimal provision of education in those countries in the developing world that emerged into independence with very low levels of educational attainment. While demand for educational qualifications as a passport to urban wage employment continues to be intense, growing evidence of unemployment among the educated and low rates of return on educational expenditures, especially at the secondary and tertiary levels, have made some economists doubtful of the wisdom of allocating substantial govern-

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ment funds to provision of educational facilities, especially where such provision involves a large subsidy to the better-off sections of society (Jimenez 1986:112). But in recent years, numerous studies have pointed to the importance of an educated labor force in promoting the transfer of knowledge, especially in the fast-growing economies of East Asia. In one recent study of those economies, a team of World Bank economists pointed out that "education is the main theme of the story of the differences in growth between sub-Saharan Africa and the East Asian high performers" (World Bank 1993a:53-54).[1] Developing countries that neglect educational provision, especially at the postprimary levels, are unlikely to be able to grow rapidly through the successful adoption of technology that has characterized the East Asian high performers.

Poor countries with rapidly growing populations are thus confronted with a dilemma. On the one hand, it seems clear that they can never hope to emulate the success of the fast-growing developing economies in East Asia without greatly improving the average level of educational attainment of their labor forces. But on the other hand, a rapid expansion of educational facilities usually implies additional budgetary outlays and the risk that many of those graduating from schools and colleges will not be able to find the kind of employment that they believe their qualifications equip them for. Some governments capitulate to pressures from politically powerful urban populations and devote a substantial part of the education budget to expanding places in the tertiary education system, even though social rates of return to education at this level are generally thought to be lower than at the primary and secondary levels.[2] Primary and secondary educational facilities outside the large cities are neglected, and average enrollment rates remain low. Low educational attainment in turn affects the success of government development programs including health and family planning.

This article explores these dilemmas in the context of Papua New Guinea (PNG).[3] When Papua New Guinea achieved independence from Australia in 1975, rates of educational attainment were extremely low, and the government gave high priority to expanding access to education at all levels. However, the period since independence has been characterized by slow economic growth and rising unemployment, particularly in urban areas, with an accompanying breakdown of law and order.[4] These developments have in turn given rise to an ongoing debate about appropriate educational and employment policies. In this article, I first examine some of the most recent evidence on the growth of employment and unemployment and their relationship with educational attainment, paying particular attention to the data from the 1990 population census. I then relate these findings to recent

debates on educational policy in Papua New Guinea and to new government initiatives for rural development.

How Fast Is the Labor Force Growing?

The four population censuses that have been carried out in Papua New Guinea in 1966, 1971, 1980, and 1990 contain by far the most comprehensive available data on the composition of the labor force. But, as is often the case with census data in developing economies, problems have been encountered in Papua New Guinea in fitting the population into the conventional labor force categories. In addition, changes have been made between censuses in the way certain categories have been interpreted, so that problems of comparability arise, and adjustments must be made before using the data to calculate growth rates or other indicators of change over time.[5] Given these problems, it is clear that it is impossible to come up with a precise estimate of the intercensal growth in the labor force. But it seems fairly certain that it was higher than the growth in the population over ten years of age (2.4 percent per annum) and most probably in the range of 2.5 to 3.0 percent per annum. The urban labor force grew much more rapidly than the rural (6.7 compared with 2.6 percent per annum), and the male labor force grew more rapidly than the female labor force (UNDP/ILO 1993:table 1.1). The slower growth in the female labor force was in turn entirely due to slow growth in rural areas, where the female labor force only grew by 1.4 percent per annum. In urban areas, the female labor force grew more rapidly than the male labor force, largely because of the rapid growth in female wage workers. The very slow growth in the female labor force in rural areas was in part due to the absolute decline in the number of women employed in subsistence agriculture and in part due to the rapid growth in the numbers reported as students and homeworkers. There was also a rapid growth in the number who did not state their labor force category, although the growth of males in this category exceeded that of females. It is probable that some of those reported as homeworkers and as "not stated' were in fact available for employment and could better be described as discouraged job seekers than as outside the labor force.

Changes in the Age Structure and the Educational Attainment of the Labor Force

There was no marked change in the age structure of the labor force in Papua New Guinea between the 1980 and 1990 censuses, except for a near-doubling in the percentage of workers over age sixty-five for both males and

TABLE 1. **Percentage Breakdown of the Citizen Labor Force by Age and Sex**

	Males		Females	
Age Group	1980	1990	1980	1990
Total	100.0	100.0	100.0	100.0
10-19	16.8	20.5	19.6	22.3
20-30	27.9	29.1	25.3	29.6
30-65	53.8	47.1	53.8	45.8
Over 65	1.7	3.3	1.3	2.3

Sources: National Statistical Office 1985, 1988, n.d.

Notes: In this and following tables, "Citizen Labor Force" excludes all expatriate workers, "Citizen Population" excludes all expatriates, and totals may not sum to 100% because of rounding.

females (Table 1). This could be a consequence of the harsher economic climate of the years 1989-1990, although it could also reflect changing social attitudes about the role of older people in the labor force. Given that such a high proportion of the population is under the age of twenty-five, we would expect the labor force to be skewed toward the younger age groups also. In 1990, almost 50 percent of the male labor force and 52 percent of the female labor force were under the age of thirty. As would be expected, given the increase in access to education through the 1980s, there was a decline in the percentage of the population over age ten with no education and an increase in the percentages with access to education at all levels. The increase was most pronounced for the categories "completed grade 6" and "completed grade 12 and over," although the absolute numbers in the latter category were still small, especially for females (Table 2). In spite of the gains of the last ten years, it is clear that the level of educational attainment of the PNG population remained extremely low by international standards. This indeed is confirmed by the comparative data of the United Nations Development Program (UNDP 1994:130), which shows that mean years of schooling for the PNG adult population was much lower than in most other countries in the Asia-Pacific region and lower than in all but the poorest parts of Africa.

Trends in the Population Engaged in Money-Earning Activities

Successive population censuses in Papua New Guinea have categorized the economically active population into those engaged in money-earning activities, including cash agriculture, and those either not in the labor force,

TABLE 2. **Percentage Breakdown of the Citizen Population over Age Ten by Educational Attainment and Sex**

	Males		Females	
Highest Level Attained	1980	1990	1980	1990
Total	100.0	100.0	100.0	100.0
None	60.4	46.7	72.8	58.5
Grades 1-5	17.7	19.7	14.2	17.3
Grade 6	12.4	17.8	8.7	14.8
Grades 7-9	5.3	6.0	2.9	3.9
Grades 10-11	3.6	4.9	1.4	2.6
Grade 12	0.6	0.8	0.1	0.3
Apprentice	—	2.0	—	1.0
Diploma	—	0.5	—	0.2
Degree	—	0.3	—	0.1
Not stated	—	1.4	—	1.5

Sources: See Table 1. Data for 1990 are still preliminary.

Note: In the 1980 population census, those with postsecondary qualifications were included in the Grade 12 category.

unemployed, or employed in subsistence agriculture. I have already suggested that the distinction between the last two categories may not have been entirely consistent in successive censuses, especially for women workers. However, it is more likely that the concept of "economically active in money-earning activities" has been applied consistently in successive censuses, and so a comparison is possible for the four censuses since 1966 (Table 3). It is clear that there has been a continuing trend toward greater participation in the monetary economy for both male and female workers. The number of women in money-earning activities has been growing faster than the number of men, although women employed in the monetary sector are still a smaller proportion of the female population (32 percent in 1990) than men in the monetary sector are of males (45 percent in 1990).

The 1980s witnessed a marked slowdown in the rate of growth of the population engaged in money-earning activities, from 8.5 percent per annum in the years from 1966 to 1980 to only 3.5 percent in the 1980s. This slowdown was in part due to the slower growth of the economy during the 1980s.[6] It may also be due in part to the fact that the opening up of many parts of the country, especially the highlands, to cash-crop agriculture in the preindependence years led to a very rapid rate of growth of people engaged, however partially, in the cash economy. This growth could not be

TABLE 3. **Citizen Population over Age Ten Employed in Monetary Activities**

Year	Male	Female	Total
Percentage			
1966	29.1	7.0	18.4
1971	31.8	12.1	22.3
1980	40.0	29.3	34.9
1990	45.0	32.3	39.0
Annual average percentage growth			
1966-1990	4.7	9.5	6.0
1966-1980	6.2	14.7	8.5
1980-1990[a]	3.7 (3.3)	3.3 (3.2)	3.5 (3.3)

Sources: Billington 1984:chapter 4, table 1; National Statistical Office n.d.

[a] North Solomons Province data excluded in estimating the 1980-1990 growth rates. Figures in parentheses show the growth rates when the wage labor force data for North Solomons are included in the 1980 figures.

sustained once the cash-crop boom began to taper off, partly because of land, labor, and marketing constraints and partly because of lower world prices.

The data in Table 3 make clear how far the PNG population has progressed in terms of dealing with the modern economic world compared with the colonial era. The economy can no longer be described as "predominantly subsistence" when almost 40 percent of the population over age ten have some exposure to the cash economy. But it should be stressed that, according to the census definitions, persons earning any money at all from farming or fishing are considered to be engaged in monetary activities, even if most of their time is spent in subsistence activities (National Statistical Office 1988:4). In 1990, less than half the male population over age ten and less than one-third of the female population were involved, even partially, in the monetized economy. If PNG citizens are to face an increasingly commercialized and competitive world with confidence, these proportions will have to increase.

A study by Billington pointed out that between 1971 and 1980 there had been a "significant polarisation" by educational attainment of the citizen labor force engaged in monetary activities (1984:chapter 4). On the one hand, there had been a considerable increase in the share of the labor force in monetary activities with no education, while on the other hand there had been some growth in the share with ten years of schooling and with tertiary qualifications. The 1990 data indicate some reduction in that polarization. The proportion with no education fell from 68 percent in 1980 to 53 percent

TABLE 4. **Educational Characteristics of the Citizen Population Employed in Monetary Activities, 1971-1990**

	Males	Females	Total
Percentage with no education			
1971	53.6	62.1	55.7
1980	60.6	79.2	68.0
1990	46.6	63.6	53.3
Percentage with less than six years of schooling			
1971	33.0	29.2	32.0
1980	11.5	7.0	9.7
1990	11.6	9.7	10.8
Percentage with more than ten years of schooling			
1971	1.7	0.9	1.5
1980	7.6	2.9	5.6
1990	14.0	7.0	11.3

Sources: Billington 1984:table 4.10; preliminary computer tabulations from the 1990 census.

in 1990, while the proportion with ten years of schooling or more rose from 5.6 percent to over 11 percent (Table 4).

The evidence of slower growth in citizen employment in monetary activities in the 1980s together with a considerable improvement in average educational attainment indicates that most of the new employment opportunities in monetary activities were for people with at least some schooling, and those with low levels of educational attainment (especially those with incomplete or no primary schooling) found it more difficult to get employment in monetized activities than in the previous decade.

Unemployment in Papua New Guinea

Given the slow economic growth that prevailed through much of the 1980s and the coincidence of the 1990 census with a period when the country was facing a regime of fiscal stringency and tight monetary policy, it was to be expected that 1990 rates of unemployment would be higher than in 1980. But the definitional changes adopted in the 1990 census make it difficult to judge just how much worse unemployment became during the 1980s. If we use the narrow definition of unemployment in the second National Manpower Assessment, then it seems clear that the unemployed grew as a percentage of the labor force in both urban and rural areas (Table 5). But the problem with this definition, as the second National Manpower Assessment pointed out, was that it excluded many of the "discouraged' unemployed

TABLE 5. **Changes in the Rate of Unemployment of the Citizen Labor Force, 1980-1990**

	Unemployed as a Percentage of					
	Labor Force			Total Population over Age Ten		
	1980[a]	1980 (-NS)[b]	1990	1980[a]	1980 (-NS)[b]	1990
Urban and rural						
Male	3.2	3.9	9.1	2.5	2.6	6.9
Female	1.5	1.7	5.9	1.0	1.0	3.5
Urban						
Male	7.1	8.8	28.6	5.4	5.6	20.6
Female	5.9	1.6	34.3	1.8	1.9	11.9
Rural						
Male	2.6	3.2	5.4	2.1	2.1	4.1
Female	1.3	1.4	3.4	0.9	1.0	2.2

Source: National Statistical Office n.d.

[a] Estimates from the second National Manpower Assessment, table 1.4.

[b] 1980 data adjusted to exclude North Solomons Province and to exclude those in the "other" category from the labor force.

who in 1980 were placed in the "other" category (Department of Finance and Planning 1986:4-6).[7] Thus the second National Manpower Assessment used a second, broader definition of unemployment that included those in the "other" category. If we apply this broader definition to the 1990 data, we find that unemployment in fact declined in 1990 compared with 1980, for both males and females. In urban areas, however, the unemployment rate for males increased markedly, with a smaller increase for females.

But there are problems with the "broad" definition of unemployment used in the second National Manpower Assessment, at least insofar as the 1990 census data are concerned. The "other" category in 1990 was much more tightly defined than in 1980 and was much less likely to capture the discouraged workers. However, it is quite possible that some discouraged workers who wanted employment but felt that none was available either reported themselves in 1990 as homeworkers or fell into the "not stated" category. (Both these categories experienced rapid growth in the intercensal period.) But there can be little doubt that, whichever definition is used, unemployment in urban areas worsened considerably over the course of the 1980s.[8] It is likely that there was a worsening in rural areas as well, although it is not possible to draw an unequivocal conclusion from the census data now available. It depends on just how many of those classified in the "other

and not seeking work" category in 1980 were in fact unemployed and also on how many of those in the "housework" and "not stated" categories in 1990 were actually willing to work but not actively seeking work because they were pessimistic about its availability.[9]

In Papua New Guinea, as in most other developing countries where a high proportion of the labor force is located in rural areas and engaged at least partly in agricultural production, it will be necessary to carry out special labor force surveys in order to determine the extent of employment, unemployment, and labor underutilization in rural areas.[10] Such surveys ask not just whether a person is engaged in those activities that count as "employment" in the internationally accepted definition of the term, but also about the number of hours worked and the person's availability for further work. There is a widespread perception among scholars studying economies like that of Papua New Guinea that the international definition of unemployment used by organizations such as the International Labour Organisation excludes people working in subsistence agriculture. This is incorrect; all people working in subsistence production should be included, and the very high labor force participation rates in rural areas for both males and females suggest that most people who work in agriculture in Papua New Guinea are in fact enumerated as "employed."[11] To the extent that unemployment in rural areas rose in the 1980s, it is because many young people became reluctant to take up traditional agricultural tasks and instead sought wage employment. This problem needs to be distinguished from that of labor underutilization, which refers to people working shorter hours than they would prefer. Underutilization may also be increasing in at least some rural areas, but it is not captured in the census data.

The census data do show the composition of the unemployed by age and educational status. Using the narrow definition of the unemployed, it is clear that the great majority were young people; 70 percent were under the age of twenty-five (Table 6). Almost 70 percent were male, and slightly under half were in urban areas. In relation to the total labor force and to the total population, the problem of open unemployment (i.e., those actively seeking work) is more severe in urban areas, giving rise to the widespread perception of politicians and the public that unemployment is mainly an urban phenomenon. This is not correct, in that over half the unemployed were in fact located in rural areas. Although those classified as unemployed in rural areas may have the option of employment in traditional agricultural tasks, they were not willing to take up such employment, but sought other work, probably in the wage economy. In addition, it is probable that a high proportion of the "discouraged" workers, who did not show up as unemployed but were excluded from the labor force, were located in rural areas.

TABLE 6. **Percentage Breakdown of the Unemployed Citizen Labor Force by Educational Attainment and Age**

	Male		Female		
	Urban	Rural	Urban	Rural	Total
Total	34.1	34.2	14.9	16.8	100.0
Educational attainment					
No school	8.5	13.3	4.7	8.2	34.7
Grades 1-5	4.6	4.4	2.0	1.7	12.7
Grade 6	12.0	10.3	5.2	4.6	32.1
Grades 7-9	3.4	2.4	1.2	0.9	7.9
Grades 10-11	4.2	3.0	1.4	1.1	9.7
Grade 12	0.4	0.2	0.1	0.0	0.7
Over Grade 12[a]	0.9	0.7	0.3	0.2	2.1
Age group					
10-14	2.6	7.3	1.8	5.1	16.8
15-19	10.1	10.9	5.2	5.6	31.8
20-24	8.5	7.1	3.4	2.6	21.6
Over 25	13.0	9.0	4.4	3.4	29.8

Source: National Statistical Office n.d.

[a] Includes certificate, diploma, and degree students.

A further important point about the unemployed in Papua New Guinea is that they are, in large part, uneducated or dropouts and graduates from the community (primary) schools. Around one-third had no education, and almost 80 percent were either without any formal schooling or educated at most to grade 6 level (see Table 6). Unemployment of the educated is only a small part of total unemployment. This is probably to be expected given the very low rates of educational attainment prevailing in the population at large. But it does mean that it may be unwise to expect that unemployment will decline rapidly and labor force utilization improve as rates of economic growth accelerate in the 1990s.[12] Faster economic growth in Papua New Guinea, especially that generated in the mining, construction, and service sectors, will lead to an accelerated demand for skilled workers, and, given that most of the currently unemployed are so poorly educated, it is likely that employers will prefer to fill many vacancies by recruiting expatriate labor.[13] Unless the government takes the initiative with policies designed to improve the skill level of the currently unemployed, it is unlikely that many will be able to find employment even in a more buoyant economy.

Although only a small proportion of the unemployed are secondary and tertiary graduates, rates of unemployment among individuals with these levels of education were not negligible in 1990 (Table 7). In urban areas, the

TABLE 7. **Unemployed as a Percentage of the Total Labor Force by Educational Attainment, 1990**

	Rural		Urban	
	Male	Female	Male	Female
Total	5.4	3.4	28.1	33.5
No school	3.4	2.2	34.2	40.2
Grades 1-5	6.3	3.9	33.5	43.7
Grade 6	8.8	7.1	37.6	49.4
Grades 7-9	10.1	9.7	29.5	31.4
Grades 10-11	14.0	15.6	18.9	17.6
Grade 12	9.0	8.1	9.9	7.9
Certificate[a]	3.5	3.4	7.4	5.0
Diploma	3.2	2.8	4.1	3.6
Degree	3.8	3.8	2.5	2.7

Source: 1990 population census, preliminary tabulations.

Note: Estimated from the preliminary data, which slightly understate rates of unemployment.

[a] Includes apprentices.

unemployment rate peaked for those who left school after grade 6 and fell slowly thereafter, with almost 19 percent of the male labor force with grade 10 and 11 qualifications unemployed and 18 percent of females. In rural areas the rates of unemployment were lower, but they were highest for workers with high school qualifications. These rates might reflect the fact that in a recession, workers with high school qualifications were less willing to go back to traditional village employment and more willing to declare themselves unemployed. The fact that, even in the middle of a severe recession, unemployment rates were quite low among workers with certificate, diploma, and degree qualifications testifies to the acute shortage of these workers in Papua New Guinea.

The Growth and Changing Structure of the Wage Labor Force

An important point to emerge from the comparison of the 1980 and 1990 census data was that the female wage labor force grew much more rapidly than the total labor force (5.4 percent per annum compared with only 1.8 percent per annum). As a result of these divergent trends, the female share of the total wage labor force increased from 13 percent to 18 percent in the intercensal period, and females accounted for 35 percent of the total intercensal growth in the wage labor force (Table 8). The urban male share of the

TABLE 8. **Percentage Distribution of the Citizen Wage Labor Force by Location and Sex, 1980-1990**

	198O[a]	1990
Males		
Urban	41.6	42.2
Rural	44.9	39.8
Urban + rural	86.5	82.0
Females		
Urban	7.3	10.5
Rural	6.1	7.6
Urban + rural	13.4	18.1

Sources: See Table 1.

[a] Data for 1980 include the North Solomons.

wage labor force stayed roughly stable over the period, but the rural male share fell. The educational level of the wage labor force showed a considerable improvement, indicating that the new opportunities in wage employment were for skilled rather than unskilled labor. In 1990, almost 54 percent of the female wage labor force and 35 percent of the male wage labor force had attained at least a grade 10 education (Table 9). The higher average level of attainment of women no doubt reflects their concentration in occupations such as secretaries, nurses, and teachers. The faster growth in the female wage labor force through the 1980s indicates that demand for wage employees in these relatively skilled occupations grew more rapidly than demand for wage labor in the more traditional, and less skilled, male occupations, especially in rural areas.

A markedly lower proportion of the wage labor force are in the youngest age groups compared with the labor force as a whole. According to the 1990 data, only 7.5 percent of the male wage labor force fell into the ten-to-fourteen and fifteen-to-nineteen age groups compared with 21.7 percent of the labor force as a whole. Similarly only 12.8 percent of the female wage labor force were in those two lowest age groups compared with 23.4 percent of the labor force as a whole (UNDP/ILO 1993:18). These figures reflect the fact that the wage labor force is better educated than the total labor force. They probably also reflect the deterrent effect that the minimum-wage regulations have had on the employment of youths. The high minimum wages in Papua New Guinea have attracted much critical comment over the years, and in 1992 the Minimum Wages Board recommended sweeping changes to

TABLE 9. **Percentage Breakdown of the Citizen Wage Labor Force by Educational Attainment and Sex, 1980 and 1990**

	Males		Females	
	1980[a]	1990	1980[a]	1990
Total	100.0	100.0	100.0	100.0
No education	38.6	24.4	22.2	17.6
Grades 1-5	13.6	10.2	7.0	5.2
Grade 6	17.7	21.8	17.2	15.0
Grades 7-9	12.1	8.4	21.9	8.6
Grades 10-11	15.6	16.9	29.0	25.9
Grade 12	2.4	2.8	2.6	3.5
Apprentice/ certificate		9.6		18.2
Diploma		2.8		3.4
Degree		1.7		1.1
Not stated		1.4		1.4

Sources: National Statistical Office 1988, n.d.

[a] In 1980 those educated above grade 12 were included with grade 12. Data for 1980 include North Solomons Province.

the system.[14] The distinction between urban and rural minimum wages was dropped and a national minimum wage introduced, which was set about 12 percent higher than the rural minimum in 1991. A new national "youth wage" was introduced, which was set at 75 percent of the national minimum wage. It is difficult to predict what impact these changes will have on the absorption of young people into the wage economy, although in the short run it is unikely to be very great. In the longer run, it has been argued that the 1992 changes could "assist employment growth in the formal sector," especially by encouraging new firms that would not be affected by the problem of different wages for existing and new employees. Over time, the new regulations should also lead to the narrowing of differentials between urban and rural wages (McGavin 1993:72).

In most developing countries the public sector wage labor force is an important component of the total wage labor force and of total nonagricultural employment. In their pioneering comparative analysis of government employment and pay, Heller and Tait found that the proportion of all nonagricultural employment accounted for by government workers in fact varied considerably across countries (1984:table 22). In the Asian context the proportion varied from over 50 percent in India to just over 12 percent in Singapore and the Philippines. In Papua New Guinea, the total public sector establishment in 1992, including the uniformed services, was just under

TABLE 10. **Government Employees as a Share of Nonagricultural Employment and Per 100 Population, Papua New Guinea and Select Asian Countries**

Country (date of data)	Percentage of the Nonagricultural Labor Force	Per 100 Population
Papua New Guinea (1990)	19.3	1.6
India (1977) (1981)	54.5	1.5
Indonesia (1990)	11.3	2.1
Philippines (1979) (1983)	12.6	3.2
Thailand (1979) (1980)	24.0	2.9
Korea (1981)	13.4	3.1
Singapore (1981)	12.2	5.4

Sources: Heller and Tait 1984:table 22; Central Bureau of Statistics 1992; Edgren 1987:7. PNG data from the Department of Personnel Management; the 1992 data were assumed to be unchanged in 1990.

60,000, which is slightly more than one-quarter of the total wage labor force and just under 20 percent of the nonagricultural labor force (Table 10). This total refers to central-government employees only; in addition there are thought to be some thousands employed directly by the provincial governments. As a proportion of the total population, the civil service in Papua New Guinea is actually quite small by international standards; there were fewer than two public sector employees per one hundred population (see Table 10). As a proportion of total nonagricultural employment, Papua New Guinea is in the middle of the range: neither as high as countries such as India nor as low as Indonesia, the Philippines, or Singapore.

Current Dilemmas in Educational Policy

The 1990 population census, in spite of its flaws and the problems of comparability with earlier censuses, provides a more comprehensive picture of labor utilization in Papua New Guinea than was available previously. It is clear that, in spite of the slow economic growth and stagnating living standards that have characterized the PNG economy since independence, there have been a number of important changes in patterns of employment and in attitudes to employment in both urban and rural areas. Numbers involved in the monetary economy, both as wage employees and as self-employed in both agricultural and nonagricultural activities, have been growing more rapidly than the total labor force. But many who wanted to work in the monetary economy were not able to find employment there, and unemployment

grew more rapidly than numbers of paying jobs (UNDP/ILO 1993: table 1.1).

Although the rapid growth in the numbers of unemployed is alarming, it does indicate that many younger people now see employment in the monetary economy as a desirable goal and declare themselves as unemployed and looking for work rather than simply as subsistence agricultural workers or as outside the labor force. In the 1960s, economists regarded most of the PNG population as deriving a materially and spiritually sufficient livelihood from traditional activities in the subsistence sector (see, for example, Fisk 1971). They could only be lured from what Fisk termed conditions of "subsistence affluence" by the offer of substantially larger remuneration in the monetary sector. A combination of growing population pressure in traditional agriculture and the dissemination of Western consumption norms through the mass media is rapidly changing these attitudes, especially among young people. Many are no longer content with the traditional ways. During the 1980s these attitudinal changes occurred at a time when the PNG economy was increasingly unable to absorb poorly educated young people into the cash economy, and some of those who could not get the material goods they wanted through gainful employment tried to get them through criminal activity.

It is far from clear that the prospects for employment generation will improve, even with the accelerated rates of GDP growth that occurred between 1991 and 1994 as a result of expanded mining sector output. Many of the jobs generated in the mining sector and in ancillary industries are for skilled and semiskilled workers, and employers are more likely to recruit from abroad than to train young, unemployed locals. In spite of the rhetoric about localization, the number of expatriates employed in Papua New Guinea appears to have increased during the 1980s and by 1992 probably numbered around 17,500 (UNDP/ILO 1993:215-222). Most were people with specialized technical skills. Given the problems facing the technical and vocational training sector in Papua New Guinea, it seems inevitable that the mining sector and other modern industries will have to continue to rely on foreign technicians for some years to come.[15]

Thus a mismatch between the needs of the modern sector of the economy and the output of the education system is likely to continue for years and perhaps decades to come. Young PNG citizens with little or no schooling will continue to be confronted with the choice of returning to jobs in the agricultural sector (with young men increasingly replacing young women) or joining the already large numbers of unemployed in both urban and rural areas. The only possible solution to this problem in the medium term is to improve educational and training facilities at all levels. Indeed, that conclu-

sion is widely accepted within the government, which has committed itself to carrying out the recommendations of the 1991 Education Sector Review.

This review proposed an initial three years of elementary schooling in the local language, followed by six years of primary schooling and three years of lower secondary schooling, which could be either academic or vocational. Two further years of upper secondary schooling would be either academic (permitting entry to the university or to college) or a preemployment technical training course. It is argued that implementation of this new structure would mean fewer children leaving school after six years and improved retention rates at both elementary and primary levels because of the use of local languages and "greater cultural bonding" (Department of Education 1991a:2). The Education Sector Review expressed alarm at the "appalling attrition rates" between grades 1 and 6, almost 45 percent. It pointed out that many children are leaving school functionally illiterate and that continuation rates from sixth to seventh grade actually fell through the 1980s. The great majority of those leaving primary school do not possess the skills that are needed in formal wage employment and are thus faced with a choice between employment in more traditional agricultural activities or open unemployment. The 1990 census data indicate that an alarmingly high number were taking the second option.

The Debate over Costs and Benefits

Reception of the Education Sector Review findings has generally been positive; one authority has argued that the main proposals are "sound, and if properly implemented, capable of addressing long-standing structural problems of the education system" (Gannicott 1993:155). But the immediate issue concerns their cost. The Education Sector Review made it clear that implementation of the new structure would involve considerably increased government expenditures, especially at the primary and lower secondary levels. During the 1980s, total government expenditures on education, at both the provincial and the national levels, actually fell in real terms and, even allowing for some increase in 1990-1991, real expenditure per pupil was considerably lower in 1991 than in 1983 (Department of Education 1991a:2; see also Blyth 1991).

Support for increased government expenditure at the primary and secondary levels comes from recent estimates of social rates of return to education in Papua New Guinea put forward by McGavin (1991a:table 1), which range from 6.1 percent (completed primary school compared with incomplete primary school) to 28.5 percent (completed provincial high school compared with incomplete high school). If indeed returns to completed sec-

ondary schooling in particular are so high, the case for higher enrollments at the secondary level seems compelling, even if achieving that target involves increasing educational expenditures relative to other forms of government expenditure and relative to GDP During the latter part of the 1980s, expenditure on education averaged around 6 percent of GDP (UNDP/ILO 1993: 163). Although this expenditure is high in comparison with many developing countries, some countries are spending considerably more; Zimbabwe, for example, is estimated to have spent over 10 percent of GDP on education in 1990 (UNDP 1994:159).

The Education Sector Review documents made it clear that the guiding philosophy influencing educational development in Papua New Guinea should be integral human development rather than a narrow focus on manpower needs (Department of Education 1991b:58). This finding directly challenged the approach adopted by many economists working in Papua New Guinea in the 1970s and 1980s, which had been far more preoccupied with fitting educational development into the projected capacity of the economy to absorb particular types of labor. This is the approach enshrined in the two National Manpower Assessments, which both advocated an extremely cautious approach in expanding access to education.[16] The second National Manpower Assessment warned in 1986 that those who had completed only primary schooling could not expect to find employment in the formal labor force, and indeed the 1990 census results show that this has been the case. It also queried whether use of government resources to "overeducate" was rational and suggested that further expansion of the secondary system might be unwise when the products of the system only take up jobs that had hitherto been performed by people with either no education or with at most six years of primary education (Department of Finance and Planning 1986:35-36). Improving quality of education with a view to replacing expatriates might be more sensible than expanding quantity.

The 1990 census data on employment and unemployment made it clear that the government cannot ignore issues of labor demand and supply. In particular, the evidence of high rates of unemployment among people with primary and lower secondary education shown in Table 7 must give cause for concern. How can these figures be reconciled with the evidence of high rates of return to primary education reported by McGavin? It should be noted that these rates of return were calculated from a small sample of nongovernment wage employees (McGavin 1991a:224). It can justifiably be asked whether estimates of returns to education from such a small and atypical sample of the labor force can serve as a basis for planning educational expansion for the nation as a whole. At the very least, such estimates should be adjusted for the probability of unemployment and for the probability that

in the future the great majority of people with at most a primary education will not find employment in the wage economy.

A major problem in Papua New Guinea, as in so many other parts of the former colonial world, is that in the immediate aftermath of independence pressures for rapid localization meant that many people were pushed into jobs for which they lacked appropriate qualifications. This explains why in 1980 such a high proportion of the male wage labor force in particular had at most grade 6 education (see Table 9). Those who possessed considerable natural ability succeeded in learning on the job. But in many cases, inevitably, the job was, and continues to be, done rather badly, and this is an important reason for low productivity levels in many parts of the economy. Over time, as poorly trained workers are replaced by people with better qualifications, the economy as a whole will benefit. It is well known that, as countries develop, the educational requirements for particular jobs increase, and the productivity of the worker in the job is greater as a result. In Japan, Western Europe, and North America, many secretaries are college graduates, and much more can be expected of them than in Papua New Guinea, where secretaries have had at most lower secondary education. Many farmers in the developed countries have postsecondary education, which means they are far better equipped to adopt modem agricultural technologies than farmers in Papua New Guinea with no schooling at all.

In addition, as numerous studies have shown, broader social benefits accrue from educational expansion than are captured in rates-of-return estimates. For example, parents with at least primary education are far less likely to have children die in infancy (World Bank 1993b:43). Schultz emphasizes the links that have been found in many countries between education of women and lower fertility, and suggests that "a subsidy that favoured women's schooling would help shift private household resources towards investments in the quality of the younger generation" (1993:74-78). Ayegi found clear evidence from a demographic survey conducted in Papua New Guinea in 1978 of a decline in numbers of children born as female educational attainment increased (1988:table 5.7). It seems that the return to female education in Papua New Guinea in the form of smaller, healthier families would be considerable. Although female participation in education in Papua New Guinea has increased rapidly since the 1970s, mean years of schooling of females in 1992 was estimated by the United Nations Development Program to be only half that of males, and the average figure was one of the lowest in the Asia-Pacific region (UNDP 1994:130-147). From this comparative viewpoint, the case for expanded access to education in Papua New Guinea, with a particular focus on increased female participation, would seem very strong.

If the broader social cost-benefit arguments are to be accepted as determining the pace of educational expansion in Papua New Guinea, rather than a narrow manpower-planning approach, then several key policy issues arise. How should a rapid expansion of education be funded? How should competing demands on the education budget be prioritized? And should the government assume responsibility for providing employment for the greatly expanded output of the system? The final part of this article examines these policy issues in more detail.

Policy Options

Educational attainment in Papua New Guinea, although on average very low by international standards, is characterized by considerable regional variation. Fernando has shown that in 1980 gross primary enrollment as a percentage of the age cohort varied from almost 90 percent in East New Britain to just over 40 percent in the western and southern highlands (1992:19). Regional equity as well as an understandable desire to make at least a minimum educational package available to children everywhere in the country as part of the process of nation building will almost certainly induce the government to give top priority to the attainment of universal primary education, although how that is to be defined in the context of the Education Sector Review's proposals is not completely clear.

Presumably it would mean the completion of the three elementary years, followed by the six-year primary cycle. The cost of giving all chidren in the country nine years of basic education would involve a considerable increase in government funding over current levels. One recent set of estimates has demonstrated that, assuming educational costs are held constant in real terms, expanding total enrollments to achieve in 2010 100 percent enrollments in the six-to-twelve age group, 50 percent enrollments in the thirteen-to-fifteen age group, and 20 percent enrollments in the seventeen-to-eighteen age group will cost a sum amounting to over 9 percent of GDP (Gannicott 1993:149). The cost of achieving the Education Sector Review target of universal enrollment of the six-to-fifteen age group would amount to over 12 percent of GDP

Is such an increase feasible in light of present and future budgetary constraints? Gannicott thinks not and reaches the rather pessimistic conclusion that "even 20 years from now. . . it will not be possible for Papua New Guinea to provide a basic 10 years of schooling to everyone in the age group" (1993:151). However, he does point out that this prognosis could change if the government were prepared to tackle the problem of high unit costs in the education system. Particularly damaging is the extremely expen-

sive tertiary system, which is almost wholly funded by government subsidies. "Failure to tackle higher education costs has a clear trade-off in terms of achieving better primary schooling" (Gannicott 1993:157). Proposals for reforming the system of financing tertiary education, involving a graduate tax, have been put forward, but there is as yet little indication that the government is willing to implement them (Curtin 1991:123-124).[17] The current system is regressive in that the highest subsidies are given to those students who have the highest earnings expectations, but the political will to reform the situation appears to be lacking.

Indeed, the Wingti government was determined to reduce parental contributions to the cost of education. In 1993 it abolished all fees in government primary and secondary schools. At the primary level, such fees were a deterrent to poor parents "who already face significantly higher opportunity costs in sending their children to school, in terms of lost family labour" (Fallon et al. 1994:67). But at the secondary level the move is almost certain to be regressive, as the highest fees are paid by middle-class children attending the higher-quality schools in the larger urban centers. Gannicott has argued that the additional subsidies that the government will have to pay to make up for the lost fees would amount to K20.5 million in 1993 and would increase thereafter (1993:148). These additional costs will slow down the rate of expansion of schooling in the more remote areas of the country.

Papua New Guinea is not the only country in the Asia-Pacific region wrestling with the budgetary consequences of expanding access to education, and much can be learned from studying the experience of other countries. In Thailand until very recently, the great majority of children dropped out of school after the six-year primary cycle, and continuation rates into lower secondary school fell to under 40 percent in the late 1980s (Ministry of Education 1992:60). The government responded to the problem of low continuation rates by expanding rural primary schools to accommodate students staying on to complete the three-year lower secondary cycle. Although doubts have been expressed about the quality of the education offered, the scheme has greatly reduced the costs of lower secondary education in rural areas, and retention rates have increased rapidly since the scheme has been in operation. Parents particularly value the fact that children can continue at school while staying in their home environment, which allows them to participate in domestic chores and reduces the risk of their becoming too "urbanized" (Myers and Sussangkarn 1992:18).

In the PNG context, one way of reducing unit costs is to reduce staff costs, especially in the first three years of the primary cycle, which the Education Sector Review envisages will be taught in the local language. Teachers at this level could be recruited locally and trained in special high schools, rather than at the tertiary level. Indeed, the ambitious program of village

services initiated by the Wingti government in 1992 placed particular emphasis on the provision of primary education (Nilkare 1992). In introducing the program, the government stressed that the officials recruited in the context of the village service programs could not expect to be paid at the high levels of remuneration enjoyed by civil servants directly under the control of the central government. If teachers working in rural primary schools and giving instruction in the local language could be brought under the purview of this program, the cost of providing such education could be greatly reduced.

A rapid expansion in the provision of village services, including not just education but health, agricultural extension, and legal services, could also make a significant contribution to the provision of employment for rural school-leavers. In announcing the government initiative, Minister John Nilkare stated that the new program had the potential to create up to 40,000 jobs in rural areas. Given the quite low provision of public servants per capita in Papua New Guinea (see Table 10), this expansion in numbers of public officials is probably justified, especially if the extra officials are to be located in rural areas, engaged in the provision of basic social and community services, and not paid at the high rates prevailing in the urban public service.

In the short term, budgetary constraints will probably mean that implementation of this program will proceed only slowly. In the medium term, given the continued dominance of the minerals sector in export earnings and given its very limited capacity to create employment directly, most new employment will have to come from growth in the nontraded goods sectors.[18] Certainly some nontraded sectors, such as construction and many services, including the village services already referred to, have the capacity to absorb large quantities of labor. But because a large part of the profits generated by the mining sector accrues to government, government expenditure patterns will be a crucial determinant of the employment effects of the revenue from minerals exploitation. Since independence, government expenditure in Papua New Guinea has been oriented to the maintenance of a small, urban-based, and extremely highly paid civil service and to the construction of capital-intensive public works. Inevitably the direct and indirect employment effects of such an expenditure strategy have been extremely limited. A reorientation of public expenditure toward the provision of labor-intensive services in rural areas together with greater emphasis on cost recovery in sectors such as higher education could over time allow more rapid expansion of educational facilities in rural areas, on the one hand, and expanded employment opportunities, on the other. The longer-run returns in the form of a more productive labor force and a more integrated nation would be considerable.

NOTES

This article draws on work that I carried out in 1992, when I was part of a team preparing a report on employment strategy and human resource development in Papua New Guinea, under the auspices of the United Nations Development Program and the International Labour Organisation. The views in this article are entirely personal.

1. For further discussion of educational investment in the context of the Pacific Rim economies, see Williamson 1993.

2. See Jimenez 1986 for further details.

3. Per-capita GDP in Papua New Guinea in 1992 is estimated to have been slightly in excess of US$1,000, which would make it a "lower middle income country," according to the World Bank ranking. But the United Nations Development Program classifies it as a "low human development" country, because of its relatively low life expectancy and low levels of educational attainment. See UNDP 1994:129-131. For further discussion of Papua New Guinea's development achievements, see Booth 1995.

4. In spite of the improved growth record in the early 1990s, the available data suggest that real per-capita GDP in 1993 was little higher than that in 1975.

5. The first problem in comparing the 1980 and 1990 data, and probably the easiest to correct for, relates to the exclusion of the province of North Solomons in the 1990 census; because of the separatist rebellion, no enumeration took place there. In addition there appears to have been considerable underenumeration in other parts of the country, although this problem has, in part at least, been corrected for in the final census figures that were made available in early 1993. A further set of problems relates to changes in the way questions were asked about participation in the labor force. In urban areas, both the 1980 and 1990 censuses asked a question about current occupation: where the respondent had worked in the last seven days. In 1980, the same question was asked in rural areas, but in 1990 it was changed in rural areas to a question concerning "principal economic activity over the past 12 months." Other things being equal, this change is likely to lead to a larger estimate of the labor force in rural areas in 1990, as people who had worked in the last twelve months but not in the week preceding the census enumeration will be included in the labor force in 1990 but not in 1980. Another change in definitions concerned the questions about unemployment and other activities. In 1980, people who were not currently working were asked if they fell into one of two categories: "other activities and looking for work" and "other activities and not looking for work." As the second National Manpower Assessment pointed out, the second category probably included many discouraged workers or people who were not openly looking for work as they knew none was available. The interviewer's manual for the 1980 census stated that the "other activities and not looking for work" category should be used for people who were not working for money and not working in their gardens or in their houses, but just doing nothing, or perhaps helping a neighbor build a house. In contrast to the 1980 instructions, in 1990 the "other activities" category was used for people who received income from property and land, for pensioners, or for anyone else who did not fall into any of the other activity categories. Because the 1990 definition of the residual category was more specific and less ambiguous than in 1980, fewer people fell into it.

6. For a discussion of the reasons for the slow growth performance in 1980, see Booth 1995.

7. The second National Manpower Assessment pointed out that the "other category" was defined to include "quite large numbers of young people who are apparently sitting around in villages doing very little."

8. The underenumeration of the population, especially the urban population, that occurred in the 1990 census is also likely to have led to some understatement of unemployment. The poorest sections of both Port Moresby and Lae, where the problem of unemployment is probably greatest, appear to have been most affected by the underenumeration.

9. It is also likely that the use of the one-year reference period in rural areas in 1990 reduced the extent of reported unemployment, as more people would have worked during the past year than during the past week.

10. The labor force surveys carried out three times a year in Thailand could serve as a model, although obviously enumeration procedures would have to be sensitive to the special problems arising from Papua New Guinea's unique society and culture.

11. For a detailed discussion of the concept and boundary of economic activity used by organizations such as the International Labour Organisation in measuring the labor force, see Dupre, Hussmanns, and Mehran 1987.

12. In 1991 and 1992, GDP growth is estimated at over 9 percent per annum. Much of this is derived from growth in mining sector output.

13. Figures from the Department of Labor indicated that as of July 1992, 28,724 requests for work permits had been approved and 15,427 permits issued. Almost 14,500 noncitizen employees holding work permits were in the country in 1992. See UNDP/ILO 1993: chapter 7.

14. For a discussion of the history of minimum-wage legislation in Papua New Guinea, see in particular Colclough and Daniel 1982 and McGavin 1991b. McGavin 1993 discusses the likely impact of the 1992 changes.

15. The problems of the technical education and vocational training sectors are discussed at length in UNDP/ILO 1993:chapter 6.

16. See Morris and Pourhosseini 1982 for a description of the first National Manpower Assessment, published in 1982. Gupta provides a critical assessment of the first National Manpower Assessment (1982). International agencies such as the World Bank have also advocated a cautious approach to the expansion of education in Papua New Guinea. See Curtin 1991:108-111 for a critique of the 1987 World Bank report.

17. The authors of the National Higher Education Plan, published in 1990, declared themselves "strongly opposed to any conventional scheme of student loans" (Commission for Higher Education 1990:72). However, they did concede that other forms of student funding, to supplement if not replace the NATSCHOL (national scholarship) system, should be investigated.

18. A detailed assessment of the impact of the growth of the minerals and petroleum sector on the economy is given in Parsons and Vincent 1991:31. Their model predicts that nontraded goods sectors such as health, education, construction, and public services will grow rapidly while traditional traded goods sectors such as agriculture will contract.

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BOOK REVIEW FORUM

Bruce M. Knauft, *South Coast New Guinea Cultures: History, Comparison, Dialectic.* Cambridge Studies in Social and Cultural Anthropology, no. 89. Cambridge: Cambridge University Press, 1993. Pp. xii, 298, illus., bibliography, index. U.S.$49.95 cloth; $16.95 paper.

Review: ANDREW STRATHERN
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IN THIS STUDY Bruce Knauft works hard to bridge the gap between different frameworks and modes of analysis in Melanesian anthropology, especially those that emphasize either "materialist" or "symbolist" approaches. Fighting his way through the problems of specificity versus generality that have been churned up through the set of approaches fuzzily labeled as postmodernist, he sets himself the task of reexamining the available data on a part of New Guinea earlier characterized as the home of exotica such as head-hunting and ritual homosexuality. His aim is to establish new generalizations that give a more coherent picture, and in particular to show how the south coast New Guinea cultures configure in comparison with those of the highlands region about whom other writers, such as Daryl Feil and Maurice Godelier as well as Gilbert Herdt, have produced earlier generalizations and comparisons. Well aware of the problems of inappropriate reification involved in synchronic objectivism, he nevertheless notes that the more dynamic and processual theories implicating "practice" "are not yet well developed" for comparative analysis (p. 5). Knauft recognizes also that ethnographies written at different times and from within different writing traditions cannot be simplistically utilized; rather, their conditions of pro-

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duction and their tendencies (biases) must first be taken into account (see also Stürzenhofecker 1991). The early ethnographers of south coast New Guinea cultures were interested in symbolism, religion, and magic; those who worked from the sixties onwards in the highlands tended to focus more on politicoeconomic formations and social structure (that is, until the "interpretive turn" began to take effect). Knauft is concerned to show that the apparent contrast between the highlands and the south coast cultures may in part be an artifact of these contrasting preoccupations rather than simply based on "the facts." He embarks therefore on a demonstration that some aspects of the highlands models can hold also in south coast New Guinea, a finding that helps also to balance those characterizations that have stressed ritual homosexuality as a defining feature. As well, Knauft is concerned to explore endogenous processes of change, for which his type-case is the Marind-anim people. He insists on the power of local symbolic constructions in these processes, but argues equally that such constructions must come to terms with the physical world. The "hard-world actualizations" (p. 14) that result lead to further changes at the level of practice over time, and so a sociocultural dialectic emerges that is in effect the "engine of history." Knauft argues, then, that "what results is not failed cultural reproduction or simple alteration, but directional change" (p. 16).

Despite this overall thrust toward the historical analysis of change, Knauft finds it necessary also to challenge certain synchronic (or better, achronic) themes dealing with sexuality and gender relations (chapters 3-5). He is mindful of Arjun Appadurai's admonitions on ethnographic metonymy, and in this vein he critically and empirically reexamines Gilbert Herdt's materials on homosexuality. Knauft finds that although sexuality and reproduction as such are salient themes on the south coast, labeling them as "homosexual societies" is incorrect. Similarly, the labels "semen groups," "semen-focused" societies, and "sperm cultures" employed by Shirley Lindenbaum and others are inadequate. Such labels have often been developed as a means of contrasting the highlands with the lowlands, and Knauft shows the dangers of such dichotomizing. It nevertheless is the case that the *range* of sexual practices and ideas is much greater in south coast New Guinea than in the highlands, and this might be taken as a genuine problem for examination, with the proviso, as Knauft points out, that we study such practices "in conjunction with other dimensions of social relationships" (p. 59).

In reviewing gender relations (not reducible to sexuality) Knauft finds it necessary to make a reassessment of women's "status." This is because of conflicting claims made previously, for example, that women's status is low where there is ritual homosexuality (Herdt) or, *per contra,* that it is quite high (Feil). Given the inherent problematics of the portmanteau concept of

women's "status," Knauft breaks this down into five features ranging over belief, practices, and legal rights, and proceeds to examine these for the Purari, Kiwai, Marind-anim, Elema, Asmat, Kolopom, and Trans.-Fly peoples, concluding that no overall generalization holds: status was, for example, very high in Purari and Kiwai but very low among Kolopom and Trans-Fly peoples. The result of this critical exercise is therefore a salutary negative (p. 105), as it was also for "homosexuality." Knauft's no-nonsense and hard-nosed empirical approach pays off well here. Harriet Whitehead's attempt to contrast "cult of clan" with "cult of man" or "man-woman" societies also does not seem to hold. Knauft concludes that female status, as found earlier by Martin Whyte, cannot easily be treated as a unitary factor in analysis and correspondingly is not easily explained by prime determinants (p. 115). The partial correlations he does find (for example, high female status and subsistence dependence on sago) are worth following up, but the more fundamental point here is the deconstructive one: if yesterday's correlations do not hold, today we must rethink the whole comparative enterprise. Following Ortner, Knauft argues that it is the interrelation between cultural ideas and social processes that is important and that dominant tendencies in a given case may be undercut by counterhegemonic trends that provide transformatory potentials.

The major case study in the book is on the Marind-anim, a people hard not to see as "exotic" in any comparative context. The case provides the author with a number of exemplifications of his major thesis. The Marind-anim had an expanding system of social-structural classification that enabled them to incorporate and assimilate other local populations and to integrate these into major ritual and ceremonial performances. Alliance groups combined to raid non-Marind for heads, and extreme violence against outsiders was combined with great internal solidarity. They are a success story with a twist, however. Rituals often centered on a drive for fertility with plural copulation and the use of sexual secretions for the purposes of strengthening and rejuvenating performers. In *otiv-bombari*, younger women were subjected to serial intercourse, held to increase their fertility, which actually resulted in pelvic inflammation and genital damage followed by sterility. This in turn led to increased emphasis on raids to abduct women and children and incorporate them into Marind communities. The "hard-world actualizations" are clear, therefore. Marind cultural practices aimed at fertility had the opposite effect. The postpacification practice of buying children shows this clearly.

When Knauft comes to the other south coast cases, he is able to show quite easily that in most of these the concern with fertility and the reenactment of mythical scenes is found but configures differently with other ele-

ments. Political organization seems rather decisive here. For example, the Purari lived in large fortress villages, needed only an occasional victim for head-hunting, and practiced ritual copulation only with the wife of the man who killed a victim in the hunt on the occasion of bringing the body home. They show a stress on "coalescence of spiritual force" rather than the "union of proliferating complements" developed by Marind (pp. 176, 177). With the Kolopom, captured heads were planted on the grave of a person who had died by sorcery, so balancing the loss of a life. Sexual fluids were taken as a means of stimulating the growth of boys (p. 180). The concern for fertility and regeneration is clear; but Kolopom political structure emphasized agonistic exchange between village moieties, a pattern unlike that of either Marind or Purari politics. The Asmat emphasized head-hunting itself as the avenue to male prestige, accompanied by wife-exchange and generalized heterosexuality at celebratory feasts. Sexuality was thus pressed into service for the competitive individuation of males (p. 193). For each of his cases Knauft neatly invents a phrase to express the cultural focus: Elema show "graduated corporeal embodiment of life-power," going well with the slow "material substantialization of status" (p. 204) consistent with gerontocracy. Such vignettes are illuminating achievements in themselves, and when set into the comparative framework succeed well in showing local variation within a set of regional generalities.

These comparative analyses are further set into a framework of reflections and suggestions on comparative and regional analysis generally (chapters 6, 7, 10). In an earlier chapter Knauft makes several astute observations about the comparative analysis of regions: that features selected as "characteristic" depend on contrasts with specific other areas (e.g., highlands vs. lowlands), on analytic agendas, and on historical trends and topics that are fashionable at a given time. They are often handmaidens to the construction of types or models, and these in turn are usually compromised by considering variation on a different scale within an area or type. Good instances of all these features are ready to hand in the volume on big-men and great-men edited by M. Godelier and M. Strathern (1991). Knauft points out that the books own contributors make the primal dichotomy "squirm if not dissolve" by confronting it with counterexamples and complexifications (p. 119). Separately, it appears, the great-man case is set up as the predominant one, while the big-man category is made to appear "chimerical." I will return to this issue below.

On regional comparisons within Melanesia, Knauft agrees with the spirit if not the previous details of a highlands/lowlands-south coast contrast: not that the highlands were "secular" and the lowlands "religious," but that they elaborated different themes: lowlands cultures made a connection between

sexual generation and the violent taking of life; "core" highland areas highlighted the tension between a threat of enervation and the drive to increase productive growth (p. 211). Extending his purview to areas seen as "fringe" to the "core" highlands (Anga, Strickland-Bosavi), Knauft soon finds that there are many "gradations, permutations, and intermediate cases," making clear contrasts between regions or types of social logic difficult (p. 213).

In what follows I wish to comment further on the themes I have mentioned drawn from chapters 6 and 10. In his chapter 4, Knauft shows in detail that elements of leadership drawn from the big-man model (e.g., polygyny, competitive feasting, dependence on female labor) are actually found in a number of south coast societies (e.g., Asmat, Purari), although not among the Marind. Looking at the problem more widely he has found that *both* great-man and big-man characteristics are found in *all* of his cases. Such a finding does not unilaterally dissolve either "type" as such, but it does reveal them clearly as ideal types. A harder task that logically follows is to *explain* the particular configurations and their cross-cultural variation, given that the ideal types as such cannot be pressed into service to do so. Knauft's own vignettes and extended analyses take us part of the way. As I have suggested above, a concentration on overall political organization (not just "leadership type") might take us a step or two further. Given this, I am not quite sure how to read Knauft's second crack at the big-man/great-man problem in chapter 6 (p. 120). There he appears to concur in the supposed finding of the Godelier/Strathern volume that big-man systems are rare and may have been an artifact simply of colonial change or even of a mid-century imposition of a model of competitive individualism on the ethnographic data. I find all this rather ironic in view of several points. The people I have worked with, the Melpa, become one of the few instantiations of the big-man type. Yet for these people too I have recently shown that elements of the types are commingled (A. J. Strathern 1993). Further, in my much earlier ethnography (A. J. Strathern 1971), I already pointed to the historical effervescence of leadership based on exchange while indicating that it certainly was not *simply* a colonial artifact. And with regard to individualism I pointed out in 1979 that it is on the interplay between individual and collective aims that we must concentrate rather than elevating either above the other (A. J. Strathern 1979). I find it distressing therefore that these issues, already dealt with and recognized, are sometimes brought up as if they were first examined only in the 1991 Godelier/M. Strathern volume.

On regional comparisons and their problems we can cite the Duna case as exemplifying particularly well Knauft's propositions. The Duna fit awkwardly into a core highlands model. Their marriage system configures differently, leadership shows an apparently unique combination of ritual power

and control over production and reproduction, and cosmological ideas show a confluence of ideas from the Huh, Ok, and Strickland-Bosavi areas (see Stürzenhofecker 1994, 1995a, 1995b). Further, an apparently "anomalous" case such as the Duna--previously interpreted by Modjeska in terms of a lineage mode of production model (1977, 1982)--can, when carefully re-examined, become a heuristic focus for a new and ramifying set of comparisons. "Regions" may thus come and go, while regional analysis continues to flourish.

With each new exercise the wider theoretical project becomes harder, however, to specify. The problem is how to configure the configurations or how to see, as Evans-Pritchard put it long ago, the relations between relations. Imagination and scholarship need to be continually entwined in such a project, to which Knauft's book contributes bravely and brilliantly. His overall insistence on process, history, and the interaction between mentalities and the physical world captures the major spirits of both Weber and Marx in a manner that is exemplary for the future practice of anthropology. Yet the question he himself poses of how to turn practice theory into a comparative project remains to be explored even further in the directions he so ably indicates.

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1995b Sacrificial Bodies and the Cyclicity of Substance. *Journal of the Polynesian Society* 104 (1): 89-109.

Review: PIERRE LEMONNIER
CENTRE DE RECHERCHE ET DE DOCUMENTATION SUR L'OCÉANIE,
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE/
ECOLE DES HAUTES ÉTUDES EN SCIENCES SOCIALES
MARSEILLE, FRANCE

Fertile Chimeras

In his regional synthesis on south coast New Guinea cultures, Bruce Knauft successfully addresses no less than three anthropological domains. First, drawing on a myriad of papers and on the dense and magnificent monographs dealing with the region, he documents and synthesizes the past sociocultural organization of seven language-culture areas that cascade down from the Asmat country (in present-day Irian Jaya) to the Purari delta (Papua New Guinea). He then proposes a global interpretation and characterization of the similarities and diversity of these societies, based on a theoretical perspective that stresses the "core dialectic . . . constituted by the recursive qualitative impact that symbolic and existential dimensions of social action exert on each other over time" (p. 15). Lastly, he debates at length the theoretical and methodological pitfalls of regional comparativism and how to escape them. Any one of these would already make the book well worth reading. Jubilant agreement alternating with strong disapproval guarantees to mobilize similar energy and interest in the reader. But the skill and clarity with which the author constantly combines these diverse points of view is the amazing feat.

Summarizing dozens of reports, papers, and books devoted to the south coast in a few easily readable pages on each of the seven language-culture areas reviewed is admirable for the erudition, accuracy, and pertinence involved. Not only is there a thick pile of literature on south coast New Guinea societies, but information on one particular group is often scattered in several publications. Furthermore, as Knauft recalls in the excellent chapter devoted to the historical setting of these societies and their study, although one is struck by the richness of the pre-World War II descriptions of

rituals, exchanges, and warfare patterns that had already almost disappeared sixty years ago, the first ethnographers of the region were not particularly interested in some of the topics Melanesianist ethnology has dealt with more recently. Consequently, establishing what is now basic information on leadership, exchange, or gender often involves a treasure-huntlike approach, in which Knauft shows great expertise. He also generally indicates the precise reference that supplies a key detail as well as missing information. The picture he draws is highly reliable, and those who have spent a few months with the literature in question will appreciate the sheer amount of work involved in this "mere" presentation of the south coast cultures.

The core of the book is devoted to the exposition and step-by-step demonstration of the authors theoretical position. Knauft assumes that, among south coast societies, the cosmological beliefs linking the cultural creation of fertility and the circulation of life-force with ritual sexuality and head-hunting were in various kinds of correspondence with residential patterns, political organization, and forms of social inequality. Such particular aspects of a group's "sociomaterial life" had a dynamic influence on its sociopolitical and/or demographic patterns, which in turn acted on "cultural motivations." The Marind-anim, whose cosmological beliefs and ritual life have been described at length by van Baal, in his *Dema* (1966), and among whom the relations between myth, ritual, and demography have already been stressed by Ernst (1979), provide the main illustration of this dual relationship. On the one hand, their mythology and practices focused on the rejuvenation of the *dema* spiritual beings and their fertility cult involved intense heterosexual rituals and head-hunting. On the other hand, their "hypersexuality" and notably the frequent *otiv-bombari* rituals during which a few women often copulated with many men in succession, resulted in a high rate of female infertility due to vaginal infections. As Knauft puts it, "Marind ritual heterosexuality was caught in a vicious circle with the very feature it was most explicitly designed to cure, that is, infertility" (pp. 164-165). As a result, "Marind elaborated ever-intensifying beliefs and practices linking hypersexuality with headhunting and culturally-engendered reproduction" (p. 168). At the same time, the internal depopulation was balanced by the taking of heads and living children from non-Marind groups (heads being necessary to the naming of children in view of their social incorporation in a Marind group).

Knauft next turns to demonstrating that this clear-cut and convincing case of a "reinforcing spiral among cultural, sociological, and demographic processes" (p. 169) is only one possible permutation of a more general configuration of reciprocal relations between sociocultural representations of fertility and the institutions and practices that they underpin and into which

they materialize. For this purpose, for each of the six other south coast New Guinea language-culture groups, he analyzes and characterizes (1) their views and practices regarding "fertility," (2) the "concomitant" residential and politicoeconomic patterns, and (3) the kinds of internal development resulting from the coexistence of these two domains. These characterizations take the form of short, sharp formulae. For instance, in the Purari delta, "fertility emphasized *coalescence of spiritual force* in clan spirit incarnation . . . , in persons of rank, and in large men's houses. The political correlate of this fertility emphasis was *centralized competition* in warfare between extremely large but widely dispersed Purari villages" (pp. 176-177; Knauft's emphasis). Or, "Kolopom fertility emphasized *antagonistic polarization* in nested dual organization, restrictively controlled sexual exchanges, sexual antagonism, and food-giving competition. . . . As a political and economic corollary, one finds *invidious intra-village opposition* in Kolopom residential structure, prestations, sorcery, and killing" (pp. 183-184; Knauft's emphasis). These résumés, synthesizing Knauft's own analyses, raise three sets of questions. Is the characterization of each society accurate? Do these characterizations call upon the same phenomena? And do they illustrate the process that Knauft wants to demonstrate?

The description of each group proves to be extremely precise, which is no surprise in view of the author's impressive knowledge about the area. Having spent far less time than he in the company of this literature, I shall merely venture the comment that one would sometimes like to know more about the interpretative choices he has made, in light of the uncertainty of the available data on certain domains. Trans-Fly people, for instance, are said to have "failed to develop a strong fighting ethic or alliance structure, preferring to derive their social prestige from thousands of small yams" (p. 188). It is perfectly true that, according to Williams himself, these people were "less often aggressors than victims" (1936:262). But there were also those known to practice in various circumstances what this great ethnographer called "head-challenge"--that is, challenging an offender to prove he was as able a head-hunter as the offended (Williams 1936:117, 162, 286). One may wonder if people for whom "Match that head!" is one possible answer to social conflicts are accurately characterized as lacking a fighting ethic, or at least, how much their "preference" for competitive exchanges rather that fighting weighed in their "relative defenselessness . . . to ethnic encroachment" (p. 207).

The Kiwai case offers another example of the difficulty of retaining particular aspects of a social organization for comparative purpose, while at the same time key ethnographic details are missing. Knauft very cogently characterizes Kiwai fertility beliefs and ritual as emphasizing "*temporary cele-*

bratory union of groups" and underlines the "concomitant . . . *pulsating aggregation* of Kiwai population for collective activities, visiting and trading, headhunting raids, and attending feasts and ceremonies" (p. 200; Knauft's emphasis). But when he comes to explain the (otherwise well documented) dispersal and shifting alliances of the Kiwai, he puts forward a "large-scale social repulsion" grounded in the very events that brought people together. However--and insofar as I have not overlooked some important piece of information in Landtman's book (1927)--only the *gaera* feasts seem to have been an occasion to bring people together for a common fertility purpose and, at the same time, to compete in food giving. If I am right, then, either a general statement about the "political rivalry of feast-giving" or interpreting "the widespread dispersal of the Kiwai" as "the unintended fallout of celebratory union" (p. 200) implies that all fertility cults had such a competitive dimension, which Landtman does not specify. Or, as Knauft advances, one must consider that the main fertility cults "overlapped or were coincident with large feasts such as the *gaera*" (p. 200). However, the references to Landtman's work mentioned by Knauft (p. 250n. 22) merely indicate that several cult performances included the same kind of preparation (notably games) or initiatory rites as the *gaera,* but this does not imply that all cult performances and feasts had a competitive dimension. Consequently, and again if I am not wrong, the general competitiveness of all "large-scale aggregation" would remain to be demonstrated, which may weaken Knauft's hypothesis that the internal dynamic of the Kiwai groups was the indirect result of fertility-oriented rituals, which provided "the seeds of their active dispersal" (p. 200).

These are probably marginal remarks that do not do much to change the strength of Knauft's general appreciation of each south coast New Guinea culture. Nevertheless, more details would be welcome on, for instance, why the fighting ethos of the Purari could pertinently be seen as *relatively* less developed than that of neighboring groups, or why the Kiwai's competitiveness in collective events should take priority over their collective partaking in fertility rituals, in other instances. For lack of such information, some of Knauft's characterizations of the south coast cultures are less convincing than others, notwithstanding the remarkable care with which he generally documents and establishes their salient features.

Alternatively, there is no doubt about the general assumption that south coast societies illustrate a particular set of "symbolic and sociopolitical permutations." Furthermore, whoever is familiar with these cultures as a whole will certainly agree that these permutations definitely have something to do with "the pragmatics of fertility cultism" (p. 173). In the present case, it would be helpful to determine what sociocultural elements are involved in

these permutations, and then to specify and, if possible, understand what common process or social logic underlies each local configuration.

Knauft's study deals with only part--although a very important part--of such a program. He first demonstrates that social representations (my term) of fertility and the cultism they underpin are a key factor of sociocultural differentiation among these societies. Conversely, he shows that the political, residential, demographic, and other patterns that locally "correspond" to particular kinds of emphasis on fertility also react in some way on the symbolic dimension of fertility cultism (e.g., pp. 134-135). He also quite rightly stresses that these two sets of relations are "mutually contingent" (p. 225): the relationship between "symbolic orientations" and "existential constraints and opportunities . . . is systematic over time but cannot be predicted by considering either of them separately" (p. 225). Lastly, Knauft highlights the internal dynamic or "developmental" dimension of fertility cultism and its sociocultural correlates on the south coast, even though some of his cases are more convincing than others. More generally, the entire book provides a perfect illustration of the too often ignored phenomenon of "spiralling elaboration" of cultural organization or of the "reinforcing" of social processes (e.g., pp. 135, 220). These are all-important and to a large extent fairly well established results. In particular, Knauft not only postulates and explores a useful bridge between "symbolic" and "material" or "existential" dimensions of social life (which is not so common nowadays), but he also proposes crucial hypotheses about examples of the mutual relationship involved.

Nevertheless, although it is highly plausible that "the process of generative development has been similar in each case" (p. 16; also p. 209), Knauft does not provide details on this co-elaboration of the symbolic and existential dimensions of reality in south coast New Guinea societies. What the book gives is a clear idea of what *type* of social relations, institutions, and representations participate in this process. Furthermore, it paves the way for further research by outlining key social domains in which permutations and various dynamic processes need to be understood. We are convinced that a number of questions are involved here, such as: Where and with whom do people go head-hunting? Which social units co-celebrate successful raiding or fertility rituals? There are also questions concerning the politicodemographic consequences (expansion, polarization, realignment, and so forth) of obtaining life-power by killing "others" in accordance with specific cosmological beliefs. By designating the "strong and complementary linkage between celebratory creation of life-force through ritual sexuality and violent taking of life-force through headhunting" as a crucial aspect of fertility (p. 216), Knauft's comparison puts forward an important result that may even characterize south coast New Guinea as a cultural region, albeit at a

fairly general level. But at the same time, he shows that this particular emphasis on fertility was in *various* relations with sociopolitical practices and institutions. Even the elements that were associated primarily with fertility cultism were sometimes quite different (e.g., pp. 206-207, 220). Of the process itself, by which "a *distinctive* pattern of symbolic-existential interface resulted [from the actualization of symbolic impetus] in each of the seven south coast language-culture areas" (p. 172; my emphasis), we do not know a lot (if anthropology can even hope to come to grips with such a question). In other words, what Knauft demonstrates to be similar in each group is a general, highly complex but rather unpredictable two-way dynamic relationship between cosmological beliefs, fertility rituals, and the sociopolitical sphere (pp. 216-217). But he does not point to, or characterize, a *particular setting of social relations and institutions* that might correspond to the south coast fertility emphasis and that would be common to all south coast groups and therefore distinguish them from other New Guinea culture areas. I shall come back to this shortly.

Besides demonstrating that a major involvement of fertility beliefs and rituals can be read in the diversity and, often, transformation of the sociopolitical forms in south coast New Guinea, Knauft's book is a dense essay on comparative anthropology. The main interest of this component is first and foremost the very way Knauft has built his demonstration of the central and dialectical implication of a particular set of beliefs and rituals associated with south coast social organizations, even though it is not 100 percent conclusive. His attempt to set his research in a more general theoretical framework is less convincing, although he would probably argue that he is the only one who knows what his research owes to others' theories. Let us simply say that his numerous (probably too numerous) theoretical references are not equally pertinent. For instance, there is no real point of appealing to postmodern feminism to come to the conclusion that ritual *hetero*sexuality was a prominent feature in south coast New Guinea, nor to pretend that whoever has "missed" these rituals in the available ethnography was misled by the theories of the time (pp. 8-10). On the other hand, what does need explaining is why anthropologists can write about an area without having so much as glanced at its ethnography, for no one can "miss" these rituals once they have opened the books on the area. In a word, Knauft's ethnographic study speaks for itself, and his step-by-step comparison of seven south coast societies, his systematic exploration of his own and others' hypotheses, his relentless search for counterexamples, and, of course, his own theory on the necessity of simultaneously analyzing "symbolic" and "hard-world" realities are real advances and bases for future research. But, for a large part, his the-

oretical references sound rather academic or pay a nonpertinent respect to particular theories of the day

The same is certainly not true of the strong critical review of several recent comparative studies on New Guinea, which he rightly goes through in his systematic quest for the most appropriate means of documenting "the richness and diversity of alternative cultural formation and . . . the operation of social inequality and domination" (pp. 129-130)--by the way, two highly recommendable although not exhaustive goals of ethnographic comparison. He notably and again rightly shows that generalizations about "homosexual societies" or hasty correlations between fertility rituals and particular sociological features are unfounded. In so doing, he shows an impressive ability to unearth counterexamples and illustrates how difficult it is to make solid generalizations in comparative anthropology. Knauft's association of minute analysis and erudition makes this critique an extremely important piece of work that any further research on ritual sexuality or on possible factors related to female status in New Guinea in general will have to reckon with.

I shall now turn to my main disagreement with his book, which concerns Knauft's evaluation and dismissal as a comparative tool of the "big-man"/ "great-man" opposition, developed and discussed by Godelier and others (Godelier 1986; Godelier and M. Strathern 1991).

This might look like just one more critique of this model, on which I am merely commenting in the name of my previous (and continuing) support of it (Lemonnier 1990, 1991). But my point goes far beyond that. I argue that, contrary to Knauft's claims, reference to such a "typology" can be particularly effective in revealing several *general* social logics specific to the south coast--that is, in obtaining a kind of result that his own otherwise excellent study fails to bring out. Needless to say, my general feeling is that the two approaches are definitely complementary.

I shall start by commenting rapidly on two criticisms he makes on the general plausibility of the big-man/great-man model itself. First, although it was necessary to mention the important questions raised by the variation in the findings of ethnographic comparison according to the scale of the geographic area, there was no reason to link these remarks with the implicit affirmation that the author or users of the big-man/great-man model claim that the opposition between the two types of leadership exhausts the entire range of sociopolitical organizations found in Melanesia (pp. 118, 120-123). This would clearly imply that the advocates of the big-man/great-man model have never heard of ranks and chiefs in the region. In passing, the question addressed by this kind of model is not principally that of characterizing regional social systems, nor even of assessing the geographic scope of

the model's pertinence, but that of *contrasting social logics.* A regional basis only means that the societies at hand may share a common sociocultural past or have developed similar means of dealing with their environment. In turn, this may narrow the range of factors behind the differences to be accounted for when stressing intraregional variations.

His second criticism is more serious, though less straightforward. It concerns the idea that one of the protagonists of the model--the big-man--might be pure invention, and that "many Melanesianists could now consider 'Big Manship' to be (in significant part) a chimerical rendering of indigenous leadership" (p. 120). A consequence of this proposition is, of course, that if big-men and the social organizations they are supposed to characterize are a chimera, then there is no more big-man/great-man model. However, whereas Melanesianists do agree that "the classic Big Man emphasis on complex and competitive material exchange was intensified . . . by Western influence in the course of colonial pacification" (p. 120), I do not think one can even envisage that big-man sociopolitical systems were "enabled" by it. To take note of the "de-throning of the Big Man as *the* typical indigenous Melanesian leader" does not imply that "Big Manship," as a particular kind of social organization, did not exist before the Europeans arrived in the highlands (p. 120; my emphasis). First contact in Mount Hagen, for instance, is dated April 1933, and the first ethnographic accounts of big-men and competitive exchanges for this area are those of Vicedom, who settled there in 1934, and Strauss, who arrived in Hagen in 1936 (Stürzenhofecker 1990). To be sure, these observers were missionaries and not trained anthropologists. But is that reason enough to skip over A. Strathern's own ethnography (including his criticism of earlier descriptions) and imply that the entire set of social logics he has analyzed at length and modeled are "chimeral" (Strathern 1969, 1971, 1978)? I do not think so.

Knauft's most substantial argument against the big-man/great-man model concerns the latter's alleged nonpertinence for the study of the south coast societies *stricto sensu.* He rightly observes that features generally associated with big-man *or* great-man societies are to be found *together* in the south coast area (pp. 79-83). For instance, bride-wealth and sister-exchange, homicide compensation and blood feuds, or several bases for leadership (wealth, spiritual prerogative, coercion) sometimes coexist in *one* society. In particular--if I may quote myself[1]--south coast New Guinea societies definitely showed coexistence of warfare, initiations, *and* intergroup exchanges as dominant collective enterprises (Lemonnier 1992:39). At this stage, two conclusions are possible. One may consider, as Knauft does, that the south coast groups appear as an intermediary case of big-man (and/or great-man) societies, which makes the very contrast between these two

types of leadership (and related social organizations) highly questionable and therefore useless in characterizing south coast societies. In particular, this is a logical decision if big-men and great-men are wrongly supposed to be the *only two* forms of leadership in New Guinea. With such a presupposition, south coast New Guinea can only appear as a region that contains many of those intermediate cases and counterexamples before which "the Great Man versus Big Man dichotomy squirm[s] if not dissolves" (p. 119).

An alternative position is to remember that the big-man/great-man opposition is built not so much on the presence or absence of particular sociocultural features as on the way their *relations* constitute particular *social logics.* In effect, it is less the presence of a given aspect of social organization that is important than its possible involvement in social relations and practices, and notably of its participation in social practices that *reinforce each other* (to use a notion that Knauft has remarkably illustrated in his own analysis and that nicely summarizes the kind of phenomenon at hand in a social logic).

By social logic, I mean what appears to the analyst as a functional or symbolic outcome of a particular set of social relations, behaviors, and representations that are interconnected, derived from one another, or at least compatible. In big-men societies, for instance, the exchanges linked with marriage; homicide compensation, and intra- and intergroup competition put into play the same kind of wealth items, among which pigs and shells have a prominent role.[2] Furthermore, the people involved in these various exchanges--maternals and affines--are often the same. Their participation in the preparation of these exchanges or that of the competition itself is another social characteristic of big-men systems. Similarly, personal relations of dependence or cooperation materialize primarily in gardening and pig raising, two activities at the heart of the "finance" process (Strathern 1969, 1978). Finally, marriage, politics, and intergroup relations imply a set of constantly interwoven relations, all of which involve the exchange of pigs, as a token of life, and shells, as a key medium and event of social life.

It is noteworthy that, if models are prone to be "compromised by considering smaller-scale ranges of variation *within* each individual area or type" (p. 118), this compromising is also the best way to improve them, to refine them by bringing out the key features and relationships that make up the core of a particular social logic. For instance, recent research on southern Anga groups, where bride-wealth is the marriage rule although the general social organization is definitely great-manlike, has shown that the opposition bride-wealth/sister-exchange has probably less radical consequences than previously suggested by Godelier (Lemonnier n.d.; see also Whitehouse 1992). But the fact remains that the political domain (leadership, male dom-

ination, authority of the older initiates), the basis and reproduction of male/female relations, the overwhelming place of warfare and male initiations as collective enterprise are nevertheless associated in a core of interlocking relationships--that is, a social logic. And this social logic contrasts sharply with that of big-man systems. Anga groups do show important differences among themselves (notably in marriage practices, but also in the patterns of male initiations, cooperation, residence [Bonnemère 1996]), but this core of interlocking social relations is common to all Anga groups and makes them great-man societies. Similarly, whatever important differences can be observed within big-man societies, there exists a nucleus of mutually linked social relations or institutions (namely, the existence of a unique sphere of exchange, the "finance" process, etc.) that characterizes a particular type of socioeconomic organization, the logic of which can be opposed to that of great-man societies.

For lack of other models bringing into play such a wide range of sociological domains (exchanges, initiations, male/female relationships, war and peace, agriculture and pig raising, etc.), the big-man/great-man contrasts can help in the understanding of both intermediary cases[3] or of obviously non-big-man or non-great-man societies. With such a view in mind, rather than pronounce the big-man/great-man contrast useless, one may try to use it to analyze the mutual relations in which various sociological features observed in south coast New Guinea are or are *not* involved. In the present case, the contrast between the intergroup exchanges in south coast and in big-man societies is illuminating.

As underlined by Strathern (1978), Modjeska (1982), and Godelier (1982), and mentioned above, one key feature of exchanges in the world of big-men is the use of the *same* kinds of items, pigs (or pork) and shells, in a *multitude* of social relations (marriage, homicide compensation, peace, economic competition, etc.). Alternatively, what is striking in south coast New Guinea is that, although societies there did utilize wealth to pay compensation, raise and circulate pigs, and practice competitive exchanges, none of these terms (or domains) was ever overtly paired in any way (details in Lemonnier 1993:135-142). In particular: (1) although large-scale ceremonial exchanges did play an explicit role as an economic alternative to warfare, these ceremonial exchanges were clearly distinct from peace ceremonies; (2) competitive exchanges involved only vegetal products, with the exception of other kinds of wealth, notably pigs; (3) pigs were also notably absent from the wealth items used to compensate for lives lost in combat; and (4) wealth items played only an indirect role in marriage, and pigs were only marginal there (Lemonnier 1992:46). In short, it is precisely the absence of a key aspect of big-man systems that appears as a general feature of south

coast social organizations, that is, the systematic absence of relationship between various spheres of exchange. In other words, whereas several features that are particularly developed in big-man systems are to be found in south coast societies, and notably the existence of particular exchanges (homicide compensation, competitive exchanges, and so forth), these features are not involved in the kind of "spiraling reinforcing" of wealth exchanges that characterize the big-man systems and are the basis of the "finance" process on which the big-man built his political status. As one can see, the big-man may be a reified type of leader, a chimera, but the particularities of the exchanges he organizes can be usefully contrasted with those of the south coast in order to reveal two important and general social characteristics of the region: a systematic separation of various types of exchanges, emphasized by the use of different types of items in different exchanges and circumstances, and by the nonlinking of these events to each other; and the concomitant absence of a basis for a "finance" process that, in turn, is coherent with the absence of big-manlike leaders.

Now, in the light of this comparison, the next question that comes to mind is that of the striking absence of the pig in exchanges.[4] Whereas big-man societies (and most highlands peoples) use the domesticated pig as a substitute for the human person (notably in marriage and homicide compensation), the groups of the south coast do not. Another domain where highland and south coast societies make a radically different "use" of pigs is the cultural reproduction of fertility. I need not go over the crucial links among fertility, head-hunting, and ritual heterosexuality, which Knauft has explored in depth. I shall simply add that, contrary to highlands groups where the pig's blood and grease are more than often involved in the rejuvenation of the fertility of the gardens, the abundance of the pig herds, or the health and growth of humans (Lemonnier 1990),[5] the domestic pig plays no such role on the south coast.

Marriage is another domain in which the social organizations of the south coast peoples prove to be an interesting "intermediary" case with respect to the big-man/great-man contrast, which emphasizes the quantitative and qualitative aspects of the use of wealth in marriage exchanges. Several south coast groups make remarkable *indirect* use of wealth in marriage, that is, "buying a sister" in view of sister-exchange, giving wealth to the wife givers as a sort of "security," or giving a compensation in case a marriage agreement is broken (p. 104; references in Lemonnier 1992:40-41). Together with the Purari's gifts of wealth to women as sexual partners in ritual heterosexual intercourse and the involvement of these wealth items in male status, these marriage practices indicate a very particular set of relationships between marriage, sexuality, and wealth in south coast New Guinea. And

comparison with big-man societies again reveals the absence of the pig in this domain.

Since this is a review of Knauft's book, however, I am not going to summarize or carry on my own research.[6] Besides my lack of agreement with Knauft's dismissal of the big-man/great-man model as a possible analytical tool for comparative studies on New Guinea, what I wanted to emphasize here is that, looking *also* at the south coast with the big-man/great-man model in mind rapidly brings up new questions that are directly *complementary* to those raised and studied by Knauft. In particular, the absence of the pig from fertility rituals or from various compensations in which south coast peoples offer women's sexual services might lead to exploring correlations with other particularities of the place of pigs in the region, such as the fact that they are not bred in captivity or the use of wild boars in most ceremonial occurrences and their association with warfare and male initiations (Lemonnier 1992:46-49). This would in turn bolster a somewhat daring hypothesis according to which the role of pigs in compensation might be bound up with the amount of agricultural labor the women invest in the animals and, particularly, in their reproduction (Lemonnier 1992:49-52).

How and how much all that would fit into Knauft's inquiry on the internal dynamic of south coast New Guinea societies or with his tentative hypothesis on gender in the region I just do not know (this would be work for the future).[7] But it might help to understand the diversity of socioeconomic life and forms of social inequality that he regards as two important goals of ethnographic comparison. For we can now posit that, despite the contingency of the actualization of fertility beliefs in particular socioeconomic forms and that of their feedback effect of symbolic forms and notwithstanding the variety of socioeconomic forms encountered, south coast cultures *also* emphasize an original exchange pattern--that is, the crucial separation of the exchanges regarding war and peace, marriage and homicide compensation, economic competition, and the rejuvenation of fertility. Together with this general pattern of exchanges goes an amazing cultural emphasis on the maintaining of a distance between pigs, which are no substitute for the human life, and women, whose sexuality is considered a crucial component of fertility and means of exchange.

Needless to say, my comments are direct proof of and proportional to my respect for and interest in Knauft's book. Whether one considers his theoretical criticisms, his interpretation and presentation of the south coast ethnography, or his hypotheses for understanding its diversity and originality as a region, Knauft's work is profoundly thought provoking. This is a book to be read and reread.

NOTES

1. From here onward, I shall base much of my argument on the near-twin papers I wrote and published at a time when Bruce Knauft was doing his own work on the south coast (Lemonnier 1992, 1993). For those interested, I add that the English version of my study covers a wider range of questions (notably it addresses indirectly the originality of the Baruya case) but is less detailed than the paper in French. Here *is* also a good time to mention that it also contains (at least) one wrong interpretation of Kimam (or Kolopom) competitive exchanges (1993:148) to which Bruce Knauft (pers. com., 1994) has kindly drawn my attention. Like Knauft's study, my own took into account the Asmat, Marind-anim, Kolopom (or Kimam), Kiwai, and Trans-Fly people (or Keraki). Unlike him, I have included the Jaqaj in my own work, but neither the Purari nor the Elema.

2. It should be noted that, contrary to the pig, whose role in different regions of New Guinea has been contrasted, a comparative study of the uses and significance of shells has yet to be done.

3. Peoples of the Eastern Highlands Province, for instance, would be "intermediary" between big-man and great-man social organizations (Lemonnier 1990).

4. This would obviously not be true in the case of the Elema, but they were clearly the least "south coast New Guinea-like" people in the area. They are geographically a south coast people, but they are unfamiliar with head-hunting as well as with ritual sexuality and they practice highlands-like gift exchanges and pig raising (p. 204). This is fairly in line with their probable origins in interior New Guinea (p. 215). Altogether, the Elema are obviously one of these exciting intermediary cases that comparativism has to deal with.

5. Not to mention the use of pigs in "sacrifice," which has yet to be developed following Strauss's analysis of the Hagen people (1962).

6. For lack of time--the study of south coast literature is an endless although fascinating occupation, for each new reading inevitably brings new hypotheses to test--but also because I am rather ignorant of the literature on the Purari, who are probably crucial here, even as one more intermediary case.

7. Jaarsma 1993 should also be consulted.

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The founding of modern anthropology was based in no small measure on work conducted in Melanesia and the island of New Guinea in particular, a colonial history that prefigures this new and important book by cultural anthropologist Bruce Knauft. Melanesian studies might be said to have opened with the "problem of comparison" created by the Cambridge expeditions to the Torres Strait (*Reports* 1901-1935), that multidisciplinary natural history survey undertaken by riverboat at the beginning of this century by such Victorian figures as British anthropologist W. H. R. Rivers and colleagues, all key players in the scientific establishment of the day. However, it was the first true fieldwork that forged anthropology, as dramatically and brilliantly presented in Malinowski's ethnographies of the Trobriand Islands' people off the southeastern coast of the island, starting with *Argo-*

nauts of the Western Pacific (1992), and carried cultural study far beyond those of his teachers and mentors who had conducted the riverboat reports a generation earlier. By entering into the village, and uncompromisingly making native-language study and lived experience new standards for the representation of the Other, Malinowski paved the way for a kind of thinking in positive science and popular society, regarding the project of comparison in human affairs.

That is the story that lies behind the critical efforts of *South Coast New Guinea Cultures.* Nearly a century has passed since the Cambridge expeditions; their colonial and scientific establishments are eclipsed by new Pacific nations and scientific paradigms that debunk the project of comparativism and indeed the very fabric of anthropology itself, the stepchild, as it were, of old. How fitting, then, that a book so self-consciously dedicated to the question "How can anthropologists describe and compare ethnographic regions?" (p. 3) should take as its object the ethnically dense and least known region of island New Guinea--the south and southwestern coastal traditions of the Papuan Gulf and hinterlands--so culturally complicated to assess that after a thousand pages of that extraordinary and maddeningly multilayered work, *Dema,* on the religion and society of the Marind-anim peoples, the late great Dutch anthropologist, Jan van Baal (1966), would throw up his hands at the seeming "contradictions" of Marind-anim belief and mythology, and especially the metaphysical "dark side" of ritual sexuality--both same- and opposite-sex erotics, that troubled his Calvanist heart. Of course, van Baal felt an obligation to worry over these matters, having been the last governor-general of Dutch West New Guinea, a fact over which he took glee; by his own admission he was disturbed by these practices, especially "ritual homosexuality" and the "promiscuity" of ritual defloration and heterosexuality, which caused him in the 1930s to take action against certain ritual practices during his reign. What a sea change has occurred since that time, that both the colonial figures and the ethnography, and their scientific worldview, are called into question and by turns rejected.

By the early 1980s, and the discovery that a variety of Papuan peoples participated in a symbolic complex of ritual sexual beliefs and practices, it was possible to launch a new comparative project, *Ritualized Homosexuality in Melanesia* (Herdt 1984), whose aim was the positive comparison of these groups. Many of the volume's authors, as Knauft notes, were themselves distinguished elderly anthropologists, such as van Baal (the oldest among them at the time), who wrote from the perspective of their generation without marked disjunction from the colonial past, save for the symbolical and a somewhat more enlightened attitude about the scientific reporting of sexuality in anthropology.

Here is where Knauft's work both ends an earlier era and begins a new one. He embraces the tendencies of postmodem study, a certain bittersweet taste that one must definitely acquire a taste for, one that Knauft obviously savors. His work is critical, however, particularly of the "practice" theories influenced by French poststructuralism and social theory, He employs these ideas in a generally interesting and useful way, without the wholesale egestion of anthropological theory of the past current in postmodernism. Thus it is not surprising that research paradigms and their ethnographic accounts should be shaken up by the effort to locate this new examination of New Guinea in "postmodern" discussions of cultural expression. Knauft rather convincingly achieves his conceptual goals in a general way; for, as he concludes of his analyses in chapters 7 and 8, "The objectivist assumption that classification is a transparent window upon reality is untenable" (p. 217). Perhaps this is, in a nutshell, the real aim of the book, condensing ethnographic material with conceptual worldview.

Let us take, for instance, Knauft's achievement in the reconsideration of the diverse ethnographies of the Marind-anim peoples of southwestern New Guinea (chapter 8). This is to be admired, for it is specially impressive. The immense effort to catalogue and interpret this work by van Baal, in his magnum opus (1966) and nearly a generation later in his chapter in *Ritualized Homosexuality* (1984), shows the intelligence of a dedicated ethnologist. No one since van Baal has understood this corpus so well, as anyone brave or feckless enough to attempt comparative studies is wont to know (see Herdt 1984 and as revised in 1993). Knauft lays bare key points, particularly regarding the men's ritual cults, the famous Sosom and Mayo organizations. By linking ritual and myth, he puts into practice his own practice theories, through the construct of what he calls "enacting myths"--a kind of ritual implementation of the main beliefs and ideas of the cults in military, societal, and sexual actions, such as the famed head-hunting expeditions that resulted in the obtaining of captives, their personal names for the heads, kidnaped children. These are all manifestations of the expansion of the Marind across decades along the Papuan Gulf studied by a variety of comparative scholars from the time of Paul Wirtz, Roheim, Haddon, Margaret Mead, Ruth Benedict, and up through Alan Dundes, Keesing, Herdt, Lindenbaum, Marilyn Strathern, and now Knauft. A kind of detailed microdemographic and ethnological comparison yields some generally significant validations of insights from before, such as the precarious fertility status of the Marind people. Thus, Knauft writes, "Marind illustrate a dialectic spiral between the enactment of culture in the material world and cultural responses to its own actualization" (p. 171).

Besides the comparative reformations of *South Coast New Guinea Cul-*

tures, what interests me most is the conceptualization of customary same-sex practices, also known as ritual homosexuality, within the broader Melanesian circle. The reports of these customs are scarce and often skimpy, even muddy, since anthropologists seldom collected detailed material on sexual behavior and rarely went beyond the anecdote in understanding same-sex relations. The exceptions to this generalization in the extant work include Williams (1936) and notably van Baal (1966, among other works). My own work among the Sambia (Herdt 1981), followed by the ethnographic survey in 1984, showed the outlines and limitations of the work in this area up to the early 1980s (and since updated in a 1993 edition). Early study of age-structured homoerotic relations--the canonical mode of sexual relations between males in Melanesia--was typically conducted in the naive context of mixing Western prejudices with local knowledge and ontologies and practices, but without the critical benefit of explicit comparisons to sexual cultures in other parts of the world, including those of Western nations. This is problematical, however, since the anthropological concepts utilized --especially "homosexuality" itself--contain the marked categories and unmarked or implicit assumptions that preoccupied Western discourse at the time. Thus, the categorical. "homosexual" as instantiated in nineteenth-century medical discourse and as used in New Guinea descriptions, including my own, is overburdened with the intellectual baggage of the past. Knauft recognizes the issue but decided, perhaps wisely so, to stay out of quagmire debates regarding what is or is not "homosexuality." But by doing so, of course, he reproduces the very fabric of positive categories that he opposes. Granted, the task of elucidating the phenomenon of same-sex relations from the customs of one tradition through the tropes and ontological understanding of another was the bane on post-Freudian culture and personality work, such as the classical and rare but highly flawed report of Devereux on the Mohave Indian berdache (1937), a product of his dissertation research. This I have shown elsewhere (Herdt 1991), and Knauft's book, coming as it does in the midst of such conceptual change, is placed in the difficult position of deconstructing categories or inventing new ones in anthropology's rediscovery of sexuality (Vance 1991).

Knauft is no stranger to these issues. As I have written before (Herdt 1993), his work shows remarkable and bold scholarship and insight, first because of his keen interest to expose colonial and postcolonial agendas that comes out of the postmodem perspective, matters incumbent upon the use of the category "homosexual." Second, Knauft consistently illuminated same-sex relations in his important Gebusi ethnography (1986), to a point more extensive than any other Melanesianist, with the exception of the present author.

Knauft has reexamined the historical situation on Kiwai Island at the mouth of the Fly River, reviewing one of the most important nineteenth-century cases of Melanesian rites. His critical reconstruction of the general pattern, distribution, and frequency (in maps and estimates) of boy-inseminating rites among adjacent societies along the southern coast of Papua is a great achievement. For example, he has rather effectively argued against the inclusion of Kiwai Island culture among groups that traditionally practiced boy-inseminating, and he systematically deconstructed each piece of ethnographic evidence on the Kiwai set out in my 1984 review. He builds a strong case that Kiwai Islanders never practiced the custom. Here as before, the main effect of this effort is to establish that only the Keraki (Williams 1936) and other tribes *west* of the Fly River participated in the practices.

How frequent and pervasive were these precolonial patterns of boy-inseminating rites? We can never be sure and the facts are still open to question, much as they were in the time of the first speculative theory on the matter, set out in Alfred Haddon's introduction to *The Kiwai Papuans of British New Guinea* (1927). We do know that boy-inseminating rites, like the serial male/female sexual relations of certain ritual occasions in southwestern Papua, profoundly troubled many of the early white colonists. It is difficult for us to adequately gauge the tremendous toll that Western agents and missionaries have taken with respect to these practices, including their suppression by force and their subsequent practice in secret. Knauft claims that the total population related to the precolonial practice of boy-inseminating was 39,768 individuals--itself a remarkable figure; how accurate this is I cannot judge. Some writers, such as Schiefenhovel (1990:411), also provide different estimates of the incidence of total ethnic groups that practiced the custom in Melanesia; he uses my 1984 figures to estimate 3 percent of all cultures, based upon an arbitrary number of a thousand cultures, but then he explains that the "real" figure was probably much higher. Why he thinks this is unclear. The point is that these are all educated guesses and we should not place too much credit in them due to the lack of accurate historical information.

The strides made in detailed ethnographic analysis and comparison, as witnessed in the core of *South Coast New Guinea Cultures,* especially part 2, the "critique chapters," as well as chapter 9, "Symbolic and Sociopolitical Permutations," are impressive demonstrations of erudition. These merit the study of all serious students of Melanesia. Among the key observations of Knauft's work are the immense diversity and fluidity of the region, which he rightly balances against a similar flex in the highlands; the claim that culture is no simple "reflex" of south coast ecology, even though environmental patterns facilitated the emergence of certain symbolic complexes, such as raid-

ing (pp. 220 ff.); a strong and consistent emphasis upon social inequality and political organization, taking a lead from Godelier regarding the importance of "great men" among the Baruya and other Anga peoples; and a complicated but interesting argument that "fertility" as a symbolic theme is generative of ritual activity in these parts. I was disappointed, however, that Knauft chose the conceptual approach of generally ignoring the psychocultural dynamics of agents, and the issue of the desires of these cultural objects, which was of great interest to van Baal. In particular, in spite of Knauft's strong critique of comparativism, he does not ultimately succeed in deconstructing that enormously essentializing category "fertility," which to my mind remains opaque and obligingly signifying of Western norms.

Nearly a hundred years following the famed Cambridge expeditions, then, a new generation of anthropologists have thus come to question not only the natives' ideas about sexuality and culture but the very construction of transparent categories, as instantiated by that riverboat crew who would objectify and quantify the natural history and customs of Melanesia, leading to the science of comparison known as anthropology. Clearly, this book represents the somewhat more reasoned and reticent approach of reinventing key elements of comparative study, rather than dismissing them or totally rejecting the epistemology in which they take place. Knauft's book is a new challenge to positivism and relativism in cultural study; and while it does not completely lay to rest the problems that are raised in the effort to rethink comparison in the context of New Guinea studies, it must be placed alongside a small handful of excellent and pathbreaking studies, such as Marilyn Strathern's *The Gender of the Gift* (1988). For the student of comparative ethnography in this part of the world, Knauft's book is a *tour de force,* a gift of unusual proportions in a culture area already embarrassed by comparative riches. For the specialist in the area, as well, the effort and study involved are to be admired, and the manifestations of a keen eye at work must be acknowledged at all times even though, in the end, the theoretical and conceptual achievements remind us of how far we have to go in making a science out of fieldwork.

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Beyond Classic Scribes and Others' Dia-tribes: Ethnography and History along the New Guinea South Coast

I owe genuine thanks to Gilbert Herdt, Pierre Lemonnier, and Andrew Strathern for providing a context for constructive dialogue. This is particularly the case insofar as other recent invectives threaten to make the productive discussion of Pacific ethnography and history into something of an endangered species.[1] That each present reviewer comes to my book with a different set of scholarly interests provides a welcome opportunity for the ethnography of south coast New Guinea to refract onto disparate theoretical and topical agendas. As a prelude to their concerns, I add others they did not mention in order to broaden the purview of ensuing discussion.

In the context of 1990s anthropology, it may be asked why *South Coast New Guinea Cultures (SCNGC)* does not deal more explicitly with late colonial and postcolonial developments. What is the larger value and context of a work that considers a culture area--albeit a particularly rich and diverse one--on the basis of precolonial customs and those persisting into the very early colonial period? The effect of colonial impact and Southeast Asian trading influences is arguably underplayed in the volume's analysis of the New Guinea south coast. What would be the benefit (and the cost) of foregrounding these influences in the books analysis? Relatedly, how do such criticisms relate to Herdt's concern about how indigenous voices are objectified in the history of Melanesian ethnography and re-presented in the present? More generally, in what ways does the book speak to current directions in the cultural anthropology of Melanesia and to Melanesians' own concerns?

The historiographic dimension is a prominent part of the book's argument and is considered by all three reviewers. Though they all look favorably upon the volume's general orientation and depictions, my analysis has a different status for each commentator. Starting from their specific concerns, my response weaves discussion into a gradually widening arc that ultimately addresses the additional issues raised above.

First, I am most pleased that the scholarship and substantive portrayals of *SCNGC* have found such a warm and generally approving reception. It is important to know that detailed ethnographic and comparative analysis is still valued in cultural anthropology. As against myself, I would only caution again that my use of untranslated German and especially Dutch sources was minimal, and that the available literature places significant limits on what

one can glean about more recent south coast developments, on the one hand, and their intricacies of subjective experience, on the other.

Types and Tensions: Great-Men, Big-Men, and Other-Men

Since the tensions and difficulties of a comparative analysis are often as interesting as its accepted contributions, problematics can be considered straightaway. As against the books main themes, Strathern and Lemonnier give special attention to my discussion of great-man versus big-man typologies and to my argument that it is quite difficult to apply these types effectively along the New Guinea south coast. Strathern finds the refractoriness of south coast political organization to the model of "great-man" versus "big-man" to be welcome. This conclusion resonates with counterindications against the original big-man model that Strathern himself documented among the Melpa of the New Guinea highlands some twenty-five years ago (1971). He has recently elaborated complementary points in a southern highlands context (1993a). *SCNGC* documents that south coast New Guinea leadership has been configured through diverse constellations of ritual, socioeconomic, and military control; these are difficult to reduce to received leadership and exchange types. But Strathern still finds it distressing that the critique of leadership types frequently references such works as the 1991 volume *Big Men and Great Men,* edited by Godelier and M. Strathern.

By contrast, though Lemonnier also agrees with me that big-man and great-man characteristics were confounded along the south coast, he suggests that this evidence should be used to refine rather than reject the big-man/great-man model. Hence, what Strathern sees in my book as nails in the coffin of a previously surpassed typology, Lemonnier sees as grist for extending the model--it becomes a future hope rather than a historical relic.

My own position lies between these two. Lemonnier's assessment to the contrary, it is not my intention to dismiss the big-man/great-man model in any general sense. What I do emphasize is that it is an ideal type; its value is heuristic and variable depending on the region and the cases it is applied to. This implicates the scale of analysis: Is the typology used roughly across Melanesia as a whole, or does it intend to explain intricate variations within a particular region? In my own opinion, the big-man/great-man model has been valuable in stimulating the comparative assessment of Melanesian leadership types beyond the original model of Melanesian big-men (Sahlins 1963). Though Sahlins's big-man archetype was quickly questioned by Strathern and others on ethnographic grounds, it continued to be influential in the face of such evidence. Like Strathern's own distinction between lead-

ership based on finance versus that based on production (1969, 1978), the big-man/great-man model has heuristic value in giving us at least two types of nonrank leadership to choose from, rather than one. However, the model is far less useful for understanding ranges of variation internal to particular culture areas of Melanesia; these variants often make mincemeat of its distinctions. In particular (and here I side more with Strathern--especially Strathern 1993a), it is important to emphasize dimensions of leadership that articulate more closely to cultural particularities. In New Guinea, these have included assumptions of ritual and spiritual power that often underlie political and economic structures of exchange and prestige. The ability of symbolic formulations to exert a genuine and nonreducible impact upon leadership has been effectively emphasized by Lindstrom (1984), as well as in my own earlier work (Knauft 1985a, 1985b) and that of other Melanesianists. Cultural orientations exert both local and regional influence.

On a broad, panregional level, the reification of abstract and less culturally sensitive distinctions may continue to have heuristic value. Such distinctions frequently link (with greater or lesser explicitness) to the kind of global contrasts that run through many of anthropology's ancestral legacies, including Lévi-Strauss's contrast between complex and restrictive structures of exchange; Durkheim's division between organic and mechanical solidarity; and Weber's distinction between this-worldly and other-worldly asceticism. The heritage of these global contrasts continues to inflect current typologies. In the present case, the big-man type entails more complex exchange based on economic calculation, whereas the great-man category includes restricted exchange and sanctified ritualism.

I find nothing wrong with large-scale typologies--as long as they are used at an appropriately large scale of analysis and recognized as the ideal types they in fact are. In a different context, I have myself developed a model of large-scale contrasts that is more encompassing even than those presently discussed: archetypes of sociality and violence across the transition from hominoid to simple human to more complex pre-state societies (Knauft 1989b, 1991, 1993, 1994a, 1994c, n.d.*b*). But it is important for all such models to remain open to refutation at refined levels of analysis--and not just to subdivide into a greater number of static types in the face of such evidence. As I noted in *SCNGC* (p. 125), models such as Strathern's (1969), which accommodate a sliding scale of empirical variation, are more responsive to local variants than those that do not, such as the big-man/great-man model (see also Lederman 1990).

SCNGC brings to light key features of south coast fertility cosmology; worldviews in this region were remarkable if not unique in emphasizing the creation of fertility through ritual sexuality and the taking of life-force

through head-hunting. These complementary processes form a distinct permutation upon cultural cycles of growth and depletion found elsewhere in Melanesia (Knauft 1989b; M. Strathern 1988). Moreover, internal variants of this shared emphasis along some two thousand kilometers of coastline provide the key point of entry for explaining enormous local differences in political, economic, and gendered features that were evident within the south coast region. As *SCNGC* shows, it is extremely difficult to account for these variations without taking the region's cultural orientations into account.

One of the important goals of *SCNGC* was to articulate rather than divorce sociopolitical features and symbolic orientations. Though I agree with Lemonnier that social relations and institutions provide a necessary basis of analysis, I disagree that they are sufficient engines of explanation when disarticulated from cultural dispositions. Subjective motivations not only make social life meaningful to actors but are integral to explaining empirical variation in their practices over space and time.

In this respect, I find my own model more empirically responsive than Lemonnier's. Defending discrete exchange logics in cases where virtually all their features are mixed together turns each instance into a complicated "intermediate case" that needs special explanation. In the process, the model's 'assumptions become virtually immune to ethnographic refutation. Lemonnier writes, "[I]t is less the *presence* of a given aspect of social organization that is important than its *possible* involvement in social relations and practices" (emphasis altered). As I stated in *SCNGC* (p. 83), "If they do not have some systematic empirical reflection . . . the existence of underlying exchange logics at the level of 'deep structure' is correspondingly called into question."[2]

Amid the confusion of exchange archetypes, Lemonnier takes the relative absence of pigs in exchange along the south coast as a key factor. Excepting the Elema, I concur wholeheartedly that this contrast is significant from a pan-Melanesian perspective. But when considering the *internal* complexities of south coast New Guinea as a region, using intergroup pig exchange as a diagnostic feature has the effect of defining the region by what it lacks; it does little to appreciate the richness and diversity of this important part of Melanesia in its own right. The absence of large-scale pig raising along the south coast is largely a function of raw environmental constraint rather than of cultural disinterest per se. As I tried to document, what is indeed remarkable for the south coast is how complex and developed the political economy of alliance and exchange was *even in the absence of large-scale transactions of pigs.* Correspondingly, I disagree with Lemonnier's assessment that the south coast has a "systematic absence of relation-

ship between various spheres of exchange." The point, rather, is that this relationship is a preeminently cultural one based on fertility cycles--the exchange of sexual fluids and life-force--rather than one based on a restricted notion of exchange based on pigs. Viewed intraregionally, what is needed is not analysis based on pig-absence but one that articulates culturally constituted notions of fertility and exchange with the socioecological potentials and constraints of their actualization. That this system enabled hereditary chiefdomship among the Purari is particularly telling; ranked political leadership was present along this section of the New Guinea south coast but absent in the New Guinea highlands, despite subsistence intensification and large-scale pig husbandry in the latter area (e.g., Strathern 1987).

At the level of ethnographic specifics, I can appreciate some of Lemonnier concerns, but the facts short-circuit his suspicions. What he characterizes as "short sharp formulae" describing south coast areas are only shorthand glosses for a host of ethnographically documented patterns. (The same goes for "fertility" as an overall concept; it is less an imposed cover-term than a gloss on the beliefs and customs that south New Guineans themselves found important.) The Trans-Fly fighting ethic that Lemonnier would like to stress was certainly not absent, but it was far weaker and more ineffectual than among neighboring groups. In opening his chapter on Keraki warfare, Williams emphasizes,

> It may be that more stalwart generations in the past possessed a larger share of the combative spirit, or merely a stronger taste for blood; but this, if it were ever the case, must have been long ago, for the oldest surviving witnesses can now recall only a few martial experiences. It would be wrong, therefore, to think that head-hunting among the Keraki was the absorbing aim which it seems to have been among the Marind or the virile population to the north of the Morehead district. (1936:262)

Correspondingly, Williams's chapter on Keraki leadership reveals that prestige was more a function of age, speech making, and gardening prowess than exploits in war (ibid.:ch. 13). Concerning the nominal ideology of "head challenges" that Lemonnier cites in cases of Trans-Fly adultery, Williams suggests that such challenges were rhetorical (ibid.:286); they were never, to his knowledge, ever taken up!--"I have no evidence that this . . . course was ever taken, and it is perhaps unlikely that an expedition would be organized for such a trivial cause." Indeed, "I have not been able to discover any ceremonial necessity for head-hunting among the Keraki, nor any kind of permanent obligation such as would lead to recurrent raiding. The very

infrequency of raids, which I have already stressed, indicates the absence of such an obligation" (ibid.:284). As Lemonnier himself notes in a different context, "Keraki power is directly and *primarily* linked to a man's skill as a gardener and organizer of feasts" (1993a:138; Lemonnier's emphasis).

Lemonnier's doubts about the timing and magnitude of Kiwai feasts also appear ungrounded. Landtman notes that major sections of the entire Kiwai Island population aggregated at the settlement holding the ceremony, where they were hosted in huge longhouses up to 450 feet in length (1927:204). Haddon notes that ritual season visits often lasted up to two or three months in duration (1901:97). Indeed, the missionary James Chalmers dreaded the ceremonial season because so much of the Kiwai population departed from their normal villages for such a long period of time. As for the timing of celebrations, the ceremony of competitive gift giving *(gaera)* occurred when gardens were harvested after the conclusion of the wet season, that is, in April (Landtman 1927:383). This is the same period mentioned for the ancestral pantomime or *horiomu* ceremony, which occurred after the spirits had fasted for the whole of the wet season (ibid.:333). In addition, the *mimia* or fire ceremony occurred directly prior to this, in March (p. 368). Given articulation between various ceremonial activities, the need for seasonally abundant foodstuffs to host large-scale population aggregations, and the known existence of a prolonged ritual season, the ceremonial aggregation and subsequent dispersal of Kiwai seems more than well attested.

As to Lemonnier's query about whether the Purari were really less avid in head-hunting than some other south coast groups, the distinctive fact is that, as Williams stresses, "the [Purari] raiders were usually content with a single victim" (1924:108). Raiding expeditions were for the most part undertaken only for infrequent ceremonial occasions such as the consecration of a new longhouse or the construction of an associated spirit effigy *(kaiemunu).* Given the large population of Purari villages, this low casualty rate stands in diametric contrast to the Asmat, Marind, and Kiwai, among whom many heads were taken on raids despite their smaller settlement sizes.

Lemonnier's suggestion that theoretical perspectives such as postmodem feminism are irrelevant to the appreciation of sexual pluralities in south New Guinea seemed to have missed the issue. My point here is that the recent tendency to typecast south New Guinea in comparative sexual terms was *not* transcended by many anthropologists *until they were pushed to do so* by the kinds of pluralizing awareness illustrated by Foucauldian and post-Foucauldian feminist analysis. These encourage a more diverse and non-essentialized perspective on sexual practices. To say that theoretical developments can sometimes be "only academic" is itself part of the larger point I was myself trying to make in a more nuanced historical way.

Stepping back from such transient disagreements, I am cognizant of Lemonnier's sensitive and comprehensive attempt to configure not just the New Guinea south coast but much of the island's sociopolitical complexity as variants upon the big-man/great-man model. I find this to be an ambitious and important enterprise. Like all such enterprises, it should benefit from disconfirmations as well as from cases it can more easily subsume, as Lemonnier himself notes both here and in his other writings. It may be underscored that these complexities are more fully spelled out in the French than in the English versions of his corpus on this issue (e.g., Lemonnier 1990, 1993b; cf. 1991, 1993a). Lemonnier himself has noted that ceremonial exchange and other features in south coast New Guinea "set these societies apart" from both big-man and great-man categories (1993a:139). I am impressed with the detail of his associated attempt to consider leaders from this region as interstitial between these types (ibid.). Though we might disagree about which features to privilege in making such distinctions, I applaud Lemonnier's dedication to ethnographic sophistication in the context of regional comparison.

Histories and Subjectivities

It is at this point that larger questions of evolutionary and historical progression arise, as mentioned most directly by Strathern. If the previous use of the big-man label is now realized to have been overgeneralized, this is not to deny real patterns of sociopolitical intensification in the core New Guinea highlands. My point about "chimeric" big-men in *SCNGC* (p. 120) pertained quite explicitly to recent changes of conceptual emphasis *among Melanesianists themselves* and *not* to the presence or absence of ethnographic circumstances (regardless what one calls them). I would be the last to deny the importance or the complexity of socioeconomic intensification and political alliance based on what has often been termed "bigmanship" in core areas of the New Guinea highlands.

However, it may now be shortsighted to repackage the Melanesian big-man or his alter ego without considering our attempts to understand postcolonial changes in Melanesian leadership. Rather than either dismissing the notion of political leadership types or relegating them to a past history, we can broaden our understanding and bring it more up to date (e.g., Strathern 1984, 1993b). Crosscutting the legacy of the big-man and the great-man is now the *raskol*-man, the *bisnis*-man or "develop-man," the *kastom*-man, the *lotu*-man or church-man, and the parliamentary-man, office-man or "*gav*-man." We need new models of culture as well as of exchange, politics, and institutional organization to comprehend these emergent types, and, more

importantly, the dynamics that interconnect them. Historical change should be no more an impediment to such conceptualizations than it was to anthropologists of the 1950s and 60s who found that Australian pacification and Western importation of pearl shells vastly increased (not "created") the exchange-based networks of those described as "big-men."

On the other hand, models that focus on highland or interior areas of New Guinea are often not as well suited to lowland areas such as the south coast. One of the larger purposes of *SCNGC* was to highlight a region of Melanesia that has been ethnographically remarkable but ethnologically backgrounded by the dominant focus on New Guinea highland societies. It is noteworthy that the criticisms considered above entrain a response that orients as if by necessity back toward theoretical models geared in the first instance to highland New Guinea. These were only a secondary concern in *SCNGC* itself.

It is at this juncture that Gilbert Herdt's insistence on greater detail in local patterns of subjectivity is a necessary and important corrective. Though I tried to push this type of analysis as far as I felt comfortable (and probably farther than either Lemonnier or Strathern might have wished), I admit frustration in not finding information that would have enabled a more fine-grained treatment. (Even tallies indicating the populations practicing ritual homosexuality are crude: "One cannot assume that these figures give more than a rough estimate" [*SCNGC,* p. 48].) Certainly, local beliefs, idioms, and subjectivities merit closer attention, which is what Herdt gently wishes in my discussion. As is the case with historical change and details of political economy, however, the ethnographic record for south coast ethnopsychology is limited. The principal accounts remain rich on other topics, especially when judged against ethnographic standards otherwise prevalent during the 1910s, 20s, and 30s. But the ethnography of subjective states and meanings, much less of fantasy and personal accounts of sexual experience, is largely absent. The kind of work that Herdt has himself inaugurated both in New Guinea and in the United States over the past fifteen years has often been path breaking in just this respect (e.g., 1981, 1982, 1984, 1987, 1992, 1994; Herdt and Stoller 1990; Herdt and Boxer 1993). I have resonated with this emphasis in parts of my corpus on the Gebusi of interior south New Guinea, who lie outside the south coastal purview (e.g., Knauft 1985a, 1985b, 1986, 1987b, 1989b, 1990). I have also directly analyzed the comparative psychodynamics of Melanesian homosexuality in a separate article (1987a). Since the publication of *SCNGC,* I have more recently extended and refined the discussion of subjectivity, sexuality, and self-constitution along the south coast (Knauft n.d.*a*:ch. 5; 1994a:412ff.). In short, the issues Herdt raises are ones I have found important. But given the accounts available and my desire

to emphasize those features most verifiable, I found it difficult to adequately explore issues of subjectivation and its relation to sexuality in *SCNGC* itself.

Contemporary Developments and "New Melanesian Anthropology"

The concerns of Herdt and Strathern, as well as Lemonnier, point to further stones left unturned, including those raised in my introduction above. How do subjective ontologies, diverse voices, and gendered or sexualized practices relate to changing socioeconomic and political conditions in the postcolonial present? Of what value is a largely historical ethnographic study such as *SCNGC?* The first point to note is that recent developments are eminently studiable and worthy of study in places such as the New Guinea south coast (especially on the PNG side, for which research permits are more readily obtainable). Even as some selected areas of New Guinea receive overwhelming attention, others, such as the south coast, are woefully neglected. Almost all the primary monographs on south coast New Guinea societies are based on field research that is now several decades old. To my knowledge, no major monographs taking colonial or postcolonial developments squarely into account have been published on any of the areas highlighted in *SCNGC,* excepting only Robert Maher's book on the Purari, which appeared thirty-four years ago (1961).[3] Given the paucity of literature on current developments, works such as *SCNGC* serve the purpose of restimulating interest in previous work, recasting its current theoretical relevance, and providing a baseline against which a new generation of research might advance. With this in mind, the present book exposes the way that ethnography's theoretic and ethnographic genealogy has been woven, so we can rediscover its strengths without uncritically thinking that our current interests exist in a historical vacuum.

So what of colonial and postcolonial change? One good criticism, which I owe to the cogent remarks of Stuart Kirsch and James Weiner (pers. corns.), among others, is that *SCNGC* underplays early economic intrusions, including the trade in bird-of-paradise feathers that affected south coastal areas of Dutch New Guinea during the 1920s and 30s. During ensuing decades, the south coast has been strongly affected by missionization, selected economic development schemes, and social and religious movements, including some that used to go under the name of "cargo cults" (*SCNGC,* p. 224). Relative to other coastlines of Oceania, the south coast of New Guinea remained an economic backwater during the early decades of this century; in contrast to adjacent coastal regions, colonial influence was quite spotty and sporadic (ch. 2). Correspondingly, the early ethnography of indigenous south coastal

beliefs and customs is exceptionally rich and worthy of attention. But notwithstanding these trends, a detailed inspection of patrol reports, mission records, and other manuscripts now lodged in Australia, the Netherlands, and Papua New Guinea would reveal greater outside impact than my account might suggest. Though early colonial contact may have been relatively late in comparative world-historical terms, it is important to reemphasize that pacification and suppression of indigenous fertility cults and sexual practices had dramatic if not catastrophic effects on local cultures along the south New Guinea coast during the first half of the twentieth century (pp. 221ff.; Knauft 1994b:407ff.).

A further generation of field research will invariably recontextualize works such as *SCNGC.* Known deservedly as a site of rich tribal ethnography, New Guinea has long since entered a world of village-town relations, evangelical transformations, postcolonial politics, and the continuing if compromised pursuit of economic "development." The sites of Melanesian ethnography are expanding increasingly--and appropriately--from the village to include the school, the church, the courts, the disco or cinema, the store, and relatives or *wantoks* in towns or urban centers, as well as the mines, the parliament, and the multinational corporations seeking huge logging or mineral profits.

Melanesian studies now embraces a host of topics that articulate "traditional" concerns with deep postcolonial tensions concerning access to economic development and national resources, fundamentalist Christianity, law and order, government, and identities configured among village, town, regional, and national affiliations. Along the eastern part of the south coast, this last issue engages the problematics of provincial and national identity in Papua New Guinea (cf. Foster n.d.). In the western part, it entails the complexities of accommodation and resistance to massive intrusion by the Indonesian state (e.g., Gietzelt 1988; Monbiot 1989).

Subjectivity and identity become especially complex in postcolonial circumstances of competing or hybrid models of prestige and power. Along most of the New Guinea south coast, for instance, indigenous notions of fertility exchange and sexual power are crosscut by wage labor and personal possession. Even apart from Christianization, notions of interpersonal transaction confront those informed by *bisnis.* Ritual heterosexuality, spouse sharing, or indigenous sexual liaison based on fertility or reciprocity abut Christian morality and competing notions that commoditize sex and create a moral divide between marriage and prostitution or sex-work (e.g., Hammar 1992, 1995, n.d.). So, too, legacies of collective raiding butt against the illegality of *raskol*ism, which is highly developed along parts of the Gulf coast.

Traditions of largess and aggrandizement by leaders abut those of political payoff and postcolonial graft.

The question is not one of "transition" from an indigenous set of values to a Western one but how these conceptions combine to produce new hierarchies and asymmetries of power, stigma, subjectivity, and organization (Knauft n.d.*a*:chs. 4, 6). It is by considering such conflations that what Robert Foster describes as "the New Melanesian Anthropology" becomes both theoretically trenchant and ethnographically current (1995). This project combines an appreciation of local cultural diversity with the ways that actors are linked to regional and ultimately global political economies. There is no need to polarize an internalist cultural perspective against vantage points that stress wider economic and political connection; these dovetail in the study of contemporary Melanesia.

Works such as *SCNGC* provide both historical ballast and ethnographic grist against which to refine such future agendas. Moreover, the work foregrounds how cultural and politicoeconomic forces have always been linked in a dynamic if not dialectical relationship, that is, even prior to colonial influence. These preexisting relationships themselves prefigured the reception, accommodation, and response to foreign intrusion.

Now more than a century old, Melanesian ethnography needs to confront its present through its past. It would be folly to stress the importance of contemporary circumstance without drawing on the strengths as well as illuminating the weaknesses of Melanesia's ethnographic history. The articulation of past concerns to present theory is vital. Correspondingly, serious and critical reexamination of classic information remains one of anthropology's sharp cutting edges. A detailed attention to ethnographic specifics is a key-part of this process: they illuminate and enliven features of gendered, sexual, politicoeconomic, and religious diversity that refract as they twist into the present. Long-standing cultural dispositions are now more important than ever to consider, that is, against the risk of being relegated to obscurity in dusty but still wonderful tomes of classic ethnography.

This edge expands decisively in the light of contemporary ethnographic and theoretical concerns. It can also be reconsidered effectively by Melanesians themselves--not just as informants, but as authors. Only two of the 404 authors referenced in *SCNGC*--Abraham Kuruwaip (1984) and Billai Laba (1975a, 1975b)--are New Guineans.[4] If this represents "the state of the literature," it soberly reminds us of the thickness of the line that continues to separate the authorship of Melanesians from that of Western academics. In addition to issues of theory, method, and content, then, those of emerging authorship--and the enormous diversity of potential authorships

within Melanesia--also engage the limitations and the richness of ethnography's past in relation to the present.

NOTES

1. In particular, the legacy of debate between Obeyesekere (1992) and Sahlins (1995) over Captain Cook is swelling into its own industry. Though Obeyesekere's critique is theoretically scintillating and worthy of exploration in other contexts, it gerrymanders documentary information about Hawaiians and about Cook to a surprising extent; my reading of the data suggests that Sahlins's position is much more factually supported (Knauft 1993).

2. Such versions of what I call "deductive objectivism" have arguably provided the double edge that marks both the contributions and the limits of much French anthropological theory. Spanning from Durkheim and Mauss to Lévi-Strauss and structural Marxism, the benefit gained is large-scale generalization but the cost is relative immunity to refutation or real refiguration on a smaller scale. It has often been the function of empiricism and pragmatism in Anglo-American anthropology to force such refiguration in light of ethnographic counterindications.

3. However, see Hammar's important work on postcolonial sexual practices in Daru (1992, 1995, n.d.).

4. See also Hau'ofa 1975, 1981; Iamo 1992; Iamo and Ketan 1992; Waiko 1992; Kyakas and Wiessner 1992.

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