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The Canonic Formula of Myth and Nonmyth

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the canonic formula of myth and nonmyth

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[Myths] teach us a great deal about the societies from which they originate, they help to lay bare their inner workings and clarify the *raison d'être* of beliefs, customs and institutions, the organization of which was at first sight incomprehensible, . . . [and] they make it possible to discover certain operational modes of the human mind, which have remained so constant over the centuries, and are so widespread over immense geographical distances, that we can assume them to be fundamental and can seek to find them in other societies and in other areas of mental life, where their presence was not suspected, and whose nature is thereby illuminated.

—C. Lévi-Strauss, *The Naked Man* [1981:639]

Since its introduction, Lévi-Strauss's canonic formula for the structure of myth, $f_x(a) : f_y(b) \cong f_x(b) : f_a - 1(y)$ (1963a [1955]:228), has had a most peculiar history—no less in Lévi-Strauss's own voluminous writings on mythology than in social anthropology generally. For Lévi-Strauss, mythical thought constitutes the purest expression of *human thought* (1963a [1955]:205–208, 1966). One might therefore expect that the structure postulated for myth would have either achieved or been granted a certain prominence. In his subsequent works on myth, however, Lévi-Strauss has returned to his original formula only rarely—until quite recently (1988), just four times of which I am aware (1963b:236, 1973:249, 1981:538, 1987:114), and then only briefly and in passing. The sole appeal to the formula in the course of analyzing several hundreds of myths through all four volumes of *Mythologiques*, for example, is to say merely, “It was necessary to quote it at least once more as proof of the fact that I have never ceased to be guided by it” (1973:249; cf. 1981:538). The recent publication of *The Jealous Potter* (1988), wherein Lévi-Strauss makes ample and explicit use of the canonic formula, thus marks a welcome and notable development.¹

Notwithstanding, the issue has had potentially far-reaching implications all along, not just as regards myth and mythical thought in and of themselves but particularly as concerns the more routine anthropological questions of their interrelation. If mythical thought does indeed em-

Lévi-Strauss's canonic formula for the structure of myth, $f_x(a) : f_y(b) \cong f_x(b) : f_a - 1(y)$, was boldly intended to bring a “kind of order to what was previously chaos” (1963a [1955]:202, 228). Rarely, however, has Lévi-Strauss or have others systematically examined the formula's suitability for interpreting authentic mythic texts or—more puzzling, perhaps, given myth's centrality—seriously considered the potentially homologous structuring of nonmythical ethnographic data. In this article I attempt a detailed reinterpretation of the canonic formula and, after appropriately modifying it for the analysis of nonmythical materials, illustrate its empirical suitability with respect to diverse sociocultural contexts of North Mekeo (Papua New Guinea) tradition: notions and practices regarding the human body (eating, excretion, health, illness, sexuality, reproduction), space and time, social classification, political organization, and, finally, myth. By means of these controlled comparisons of nonmyth and myth internal to a single sociocultural system, I show that the revised canonic formula increases the empirical and methodological precision of Lévi-Straussian structural analyses. The structure of myth, therefore, is not restricted to myths. [dualism (recursion/inversion), myth, social classification, structural analysis, ethnographic method, Melanesia]

body the essential nature of all human thought, should its underlying structure not also be relevant in making intelligible nonmythical materials—ritual, kinship, economic exchange, social classification, political organization, and so on? Although Lévi-Strauss has himself occasionally pointed to the possibility of this kind of analysis in outlining his own methodological procedures (1963b, 1966, 1969:1–32, 1976:65–66, 1981:639, 1982:144–148), he has only once actually carried forth his researches into these other domains specifically in terms of his canonic formula for the structure of myth (1987:114–117). As Sperber (1985:65) contends, “Should a chemist or a linguist make a similar claim, he would be expected to elaborate upon his formula beyond any risk of vagueness or ambiguity. Lévi-Strauss does nothing of the kind.”

Among other anthropologists, the status of the canonic formula is no less curious. Some, unsympathetic to structuralist analyses altogether, have dispensed with it as simply “crazy” (Andreski 1972:141). But even as structural studies have abounded in anthropology since the publication of Lévi-Strauss’s original essay, the formula has been expressly invoked only in a small handful of instances, and nearly all of these have dealt exclusively with mythical or other narrative genres (Carroll 1977; Greimas 1971; Hage and Harary 1983:123–131; Kuper 1979; Leach 1965[1961], 1970:ch. 4; E. K. Maranda 1971; P. Maranda and E. K. Maranda 1971a, 1971b; Mezzadri 1988) or with the formula’s strictly mathematical properties (Petitot 1988; cf. Hage and Harary 1983:131). When it has on occasion been suggested that Lévi-Strauss’s general approach to myth could be profitably extended to the study of nonmythical or non-narrative materials—for example, to kinship (Boon and Schneider 1974) or to social organization (Willis 1967)—there has been no mention of Lévi-Strauss’s original formula. The only exceptions of which I am aware are Pierre Maranda’s (1963:826–827) attempt to assimilate the structure of myth to the “atom of kinship” and James Fernandez’s (1974:130n, 131) analysis of Christian ceremony. But even these references to the canonic formula are merely perfunctory, relegated to a brief appendix in the first case and a cursory footnote and simple parenthetical allusion in the second. More revealingly, when other anthropologists have adopted, unwittingly or otherwise, algebraic or analogical formulae closely akin to Lévi-Strauss’s, they have consistently failed to recognize or address the potential convergence (Eyde 1983; Godelier 1971; Greimas 1971; Hage 1979; Hage and Harary 1983:123–129; Ortnor 1974; Racine 1989; Sahlins 1976:24–46, 186–188, 199–203, 1985:103; Wagner 1977; Yalman 1967; see Mosko 1985:chs. 1, 10). As Sperber (1985:65), once more, has observed, “Most commentators have wisely pretended the formula did not exist.”

Perhaps unwisely, I shall pretend here that it does.

If myth is as privileged an aspect of culture and society as Lévi-Strauss has argued, its structure should be applicable to nonmythical ethnographic materials. This is the general theoretical issue that I shall examine in this article. I shall begin with a fairly extended attempt to interpret and illustrate what the formula means or, perhaps better, what I, examining the clues left over the years by Lévi-Strauss and his most authoritative exponents, have been able to make of it with respect to its originally declared intention—the analysis of myths. In this regard, Lévi-Strauss’s recent and timely reflections on his old formula in *The Jealous Potter* (1988) will prove most helpful. As my principal interest concerns aspects of culture and society other than myth, however, it will be necessary for me to modify the formula slightly—to see it as an expression of *bisected or recursively inverted dualism*, viz., $X':Y''::Y':X''$ —which, let me emphasize, is required on logical as well as empirical and methodological grounds.

Having attended to these preliminaries, I shall devote the remainder of the article to illustrating the revised formula’s utility in helping to make intelligible nonmythical conceptualizations and practices of a single sociocultural tradition—that of the North Mekeo people of Papua New Guinea. These nonmythical domains will include bodily states and processes (for example, health, illness, eating, excretion, reproduction, and death), constructions of space and time, social classification at a number of levels, and political organization. In these various contexts, indigenous categories are initially formulated as binarily opposed, inconsistent with,

or contradictory to one another. I will show how, through subsequent bisection and recursive inversion or reversal of these categories, the conceptual tension between them is resolved effectively and systematically so as to produce an overall sense of nonmythical order—an order homologous with the revised Lévi-Straussian formula for the structure of myth. The relation of myth to nonmyth, I am suggesting, is as much structural as it is empirical (cf. Leach 1969:25–26; Lévi-Strauss 1966:130).

Of necessity, this preliminary illustration of the modified canonic formula is limited to the synchronic dimension and is largely consistent, therefore, with my fuller treatments of North Mekeo culture and social organization (Mosko 1985, 1989a) and my comparative analyses of Trobriands, Tikopian, and Mbuti traditions (Mosko 1985:ch. 9, 1986, 1987). Nevertheless, the identical structural dynamic of double bisection or recursive inversion implicated by the modified canonic formula would seem to be involved in diachronic processes of social reproduction and historical transformation for the North Mekeo and these other systems as well (see especially Mosko 1983, 1985:chs. 6–10, 1987, 1989b, 1989c, 1990, In press). By applying the revised formula to single, “whole,” or “total” sociocultural systems in both synchronic and diachronic perspectives, I hope to be able to clarify and remedy some aspects of Lévi-Strauss’s formula specifically and his structuralist procedures generally that have appeared to many, often with considerable justification, to be obscure, mystifying, or, in some instances, empirically lacking.

the structure of myth, narrative, and nonmyth

My first priority is to interpret Lévi-Strauss’s original formula— $f_x(a):f_y(b) \cong f_x(b):f_a-1(y)$ —as intended for myth. Initially, Lévi-Strauss supplied only the following cryptic translation:

Here, with two terms, *a* and *b*, being given as well as two functions, *x* and *y*, of these terms, it is assumed that a relation of equivalence exists between two situations defined respectively by an inversion of *terms* and *relations*, under two conditions: (1) that one term be replaced by its opposite (in the above formula, *a* and *a*⁻¹); (2) that an inversion be made between the *function value* and the *term value* of two elements (above, *y* and *a*). [Lévi-Strauss 1963a(1955):228]

Very likely and understandably, most commentators, were they candid or brave enough, would admit along with Carroll (1977:671) that they “have never been completely certain of the meaning of this passage.” Consequently, a wide range of variation among the published interpretations of the formula, such as they are, has arisen.

Characteristically, the major difficulty seems to involve the meaning attributed to the “last member” of the equation, $f_a-1(y)$, and the “double” or “extra twist” created therein by the replacement of one term, *a*, by its opposite, *a*⁻¹, and the inversion of function and term values for the two elements *y* and *a* (Lévi-Strauss 1988:126, 128, 155–156; see also Lévi-Strauss 1966:220; P. Maranda and E. K. Maranda 1971a:28; P. Maranda 1963:827). Retracing Lévi-Strauss’s initial handling of the Oedipus myth, for example, Leach concludes, “By this hair-splitting logic we end up with an equation: I/II::III/IV” (1970:65; see also Leach 1965 [1961]:577; cf. Greimas 1971; Hage 1979:309; Hage and Hararay 1983:123–129). But this rendition, although it superficially retains Lévi-Strauss’s analogical form, does not effectively address the distinction between, and final inversion of, function and term values.

In his critique of Leach’s handling of the Genesis myth, Carroll attempts to remedy this deficiency by proposing two “Transformation Rules” that separately address the “final inversion of function and term” and the “overall analogical form” features of the canonic formula, respectively:

Transformation Rule 1. Starting with two roles, *X* and *Y*, which are related to each other in a particular way,

- 1(a) negate the outcome associated with each role, and then
- 1(b) move the actor originally in one of the roles, say *X*, into role *Y* and move a new actor into role *X*.

...

Transformation Rule 2. Given a sequence of events, negate the outcome of each event and reverse the ordering of the events. [Carroll 1977:671, 675 (emphasis added); see also Kuper 1979:650–651]

It is significant that in Rule 1, but not in Rule 2, the “new actor” of the final member bears no explicit, recognized relationship or identification with either of the initial actors in roles X and Y. In this respect, the “new actor” of Carroll’s Rule 1 would not seem to correspond precisely with its intended analogue, the final term value, y , of the final member in the original canonic version, inasmuch as for Lévi-Strauss the term value of the final member, (y), whatever else it may refer to, is technically *not* “new” but is in some respect related to or identified with the function value, y , of the second member (see the section below on *The Jealous Potter*). While Carroll’s interpretation is a substantial help toward unraveling the original formula’s complexity, it still appears to leave one or two loose ends.

myth and the “final member” Because it makes due allowance for the analogical as well as the function-versus-term and final-member elements, Pierre and Elli Kongas Maranda’s (E. K. Maranda 1971; P. Maranda and E. K. Maranda 1971a, 1971b) interpretation of the canonic formula has been the most clear and authoritative, at least until Lévi-Strauss’s own recent exemplifications appeared. It will thus prove essential to retrace the Marandas’ reasoning in some detail. As they explain:

While analogy is specifically “linear,” Lévi-Strauss’ formula is “non-linear,” i.e., it implies a permutation of roles or functions and of terms, since (a), which is given as a term, becomes, once inverted, a^{-1} , a sign of function, and y , which is given as a sign of function, becomes (y), i.e., a term which is the final outcome of the process. . . . It might be useful to point out that the two first members of the formula refer to the setting up of the conflict, the third to the turning point of the plot, while the last member refers to the final situation. [P. Maranda and E. K. Maranda 1971a:26]

Here, “terms” are defined as “symbols” or “subjects capable of acting, that is, taking roles” (1971a:32). They can be, for example, dramatic characters or magical or cosmological figures. “Functions,” however, are the “roles” performed or assumed by the “terms”: “They form the dynamic composition of underlying active strings which gives the terms their bearing. . . . Moreover, functions do not exist independently but only as expressed in terms which give them their concrete figure” (1971a:34; cf. Petitot 1988).

For Maranda and Maranda, the formula as a whole expresses a “mediating process” where:

(b) is the mediator; (a) is the first term, which expresses, in connection with the socio-historical context, a dynamic element (specifying function f_a) under the impact of which the item unfolds. The other function, f_b , which is opposed to the first one, specifies (b) in its first occurrence. Thus, (b) is alternately specified by both functions, and thus can mediate opposites. . . . [Therefore, the formula’s] three first members, $f_a(a)$, $f_b(b)$, and $f_x(b)$, express a dynamic process whose final outcome, expressed by the last member, $f_y - 1(y)$, is the result or a state, i.e., the end of the process of mediation. [P. Maranda and E. K. Maranda 1971a:26–27; cf. Petitot 1988:25–26]

This emphasis on the final member of the formula implies “a teleological view”:

In effect, myths are made to solve contradictions, according to this theory, and the formula can only be understood if it is read backwards, as the inversion of the first term, a in $f_x(a)$, becomes the verbal proposition which operates the substantification of the verbal proposition y in $f_y(b)$ to give $f_y - 1(y)$. Thus, a myth is built from its outcome—like a mystery story. [P. Maranda and E. K. Maranda 1971a:30]

Further, this outcome is not merely a return to the myth’s beginning state or a simple nullification of that state; it involves an “increase,” “gain,” or “helical step”:

This permutation is necessary, according to our interpretation, to account for structural patterns in which the final result is not merely a cyclical return to the point of departure after the first force has been nullified but a helical step, a new situation different from the initial one not only in that it nullifies it but also because it consists of a state which is more than a nullification of the initial. In other words, if a given actor (a) is specified by a negative function f_x (and thus becomes a villain), and another one (b) by a positive function f_y (and thus becomes a hero), (b) is capable of assuming in turn also the negative function, which process leads to a “victory” so much more complete that is [*sic*] proceeds from the “ruin” of the term (a) and thus definitely establishes the positive value (y) of the final outcome. This time

as a term, y) is specified by a function which is the inverse of the first term. To put it metaphorically, the inverse of, say, a loss which expressed the actual impact of a negative power is not only a loss nullified or recuperation, but a gain so that $f_a^{-1}(y) > f_x(b)$. [P. Maranda and E. K. Maranda 1971a:26–27 (emphasis added); see also Lévi-Strauss 1969:119–212; P. Maranda 1963:826–827; P. Maranda and E. K. Maranda 1971b:xvi; Petitot 1988:26–29]

This can be illustrated graphically, as in Figure 1.

Leaving aside momentarily the analogical form of the total expression, the notion of “gain” or “increase” represented in the final member here defines the myth’s “psychosocial function” or “message” (P. Maranda and E. K. Maranda 1971a:17, 26–27, 30, 35–36, 52, 70, 73)—something “supernumerary” (Petitot 1988:25–26) to the text of the myth itself. The result of the process of mediation would seem to consist, then, in what is recognizable to English speakers as the “moral of the story.” Maranda and Maranda supply an example from the Finnish genre of *schwank*:

Well, once a farmer and his servant were starting their meal, as the neighbors were eating, too. So the farmer said that, “Let’s pretend eating, but not eat.”

The servant contended [sic] himself with it, and then when they went to the field to mow, the servant took the blade off the scythe and said that, well, “Now let’s pretend mowing, but not mow.” [P. Maranda and E. K. Maranda 1971a:66]

According to the canonic formula, the *schwank* would read: “If the farmer’s cheating results in the servant’s being cheated, then the servant’s cheating results in the farmer’s being ‘paid back’ ” (1971a:67). The psychosocial function or “increase” shows that “even a servant can be superior to his superior by bringing him to an inferior position from which he cannot escape since he himself laid down the ground for the action, namely cheating” (1971a:70). It should be emphasized that in this instance, as in others conforming with the canonic formula (1971a:73, *passim*; see below), the psychosocial function expressed in the last member of the formula is itself “extra” or “supernumerary” to the myth or narrative text proper.

narrative nonmyth and the “final member” In their investigations of additional narrative folklore genres, however, Maranda and Maranda uncover empirical instances that force them to revise the original terms of the canonic formula in various ways and the final member in particular. Some sonnets, songs, legends, *sagen*, belief tales, *schwänke*, and riddles, for example, do not involve a concluding “increase.” In these instances, there is a “mediation” and a “nullification of the initial impact” but no “permutation” of it in the final member (1971a:35–36).² There is instead a “recuperation” or “reestablished equilibrium” (1971a:57). This result yields, then, a new, revised formula whose final member differs from that of the original canonic version: $f_x(a):f_y(b)::f_x(b):f_y(\bar{a})$ (P. Maranda and E. K. Maranda 1971a:54, 56). Here, the term, \bar{a} , of the final member is intended to signify the “nullification” of the term, a , of the initial member of the formula (1971a:52–53, 55, 56–57). Still, it would seem that this nullification is already represented in the application of the inverse function f_a^{-1} of the final member; in other words, the explicit notation of the “nullification” of a as \bar{a} is redundant (cf. P. Maranda and E. K. Maranda 1971a:55).

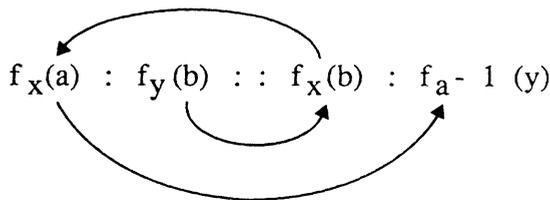


Figure 1. Permutations of members in the original canonic formula (after P. Maranda and E. K. Maranda 1971a:28).

The revised formula, I suggest, can be expressed more parsimoniously and without loss of meaning as $f_x(a):f_y(b)::f_x(b):f_y(a)$. This seemingly minor modification has major implications for the structural study of nonmythical ethnographic materials, *non*-narrative as well as narrative. Very simply, revised as I am suggesting, the Lévi-Straussian formula is potentially applicable to nonmyth in ways that have rarely been demonstrated even for myth, so long as certain empirical and methodological strictures are observed. These latter I shall discuss more fully below, when I turn to Lévi-Strauss's most recent exemplification of his own analytic procedures. First, however, it is necessary to examine the more conventional logical implications of the formula's final member as I have just revised it.

analogical reasoning and the "final member" For the original canonic formula, Lévi-Strauss adopted an analogical mode of representation in order to diagram certain processes of mythical mediation. Due partly to the "double twist" he insists be included in the final member, his formula does not strictly correspond with the logical canons of analogical reasoning. Indeed, Lévi-Strauss appears to be well aware of the disparity where, for example, he has cautioned against taking the formula too seriously or literally, suggesting it was intended merely as a "picture," "image," "graphic design," or "drawing" (Lévi-Strauss 1969:30, 1987:4–5; Lévi-Strauss, quoted in P. Maranda and E. K. Maranda 1971a:28; cf. Hage and Harary 1983:131).

Since Aristotle, analogy can be said to exist "whenever there are four terms such that the relation between the second and the first is similar to that between the fourth and the third" (quoted in E. K. Maranda 1971:117). As Maranda and Maranda have shown, analogy—whether continuous (A:B::B:C) or discontinuous (A:B::C:D)—is "essentially 'linear' . . . [and] cannot formalize the twists found in myths and which call for a 'non-linear' formalization" (1971a:25–26); hence, the double inversion or "twist" represented in the final member of the canonic formula.³

However, I shall suggest that the formula's modified version— $f_x(a):f_y(b)::f_x(b):f_y(a)$ —implies yet another logical and empirical possibility, one particularly relevant to *non*-narrative nonmyth and its formalization. The reformulated equation, unlike ordinary analogies but like myths, is nonlinear; but, like analogy and unlike myth, it lacks the "extra twist," "gain," or "increase" represented in the final permutation of term and function in the last member. In other words, if with nonmythical cultural and social materials we do not (for reasons yet to be fully specified) insist upon this final permutation, then we are left with an analogy-like formula which, although nonlinear, moves by *recursive inversion*—that is, folds or bends back upon itself in reverse. The new final member, $f_y(a)$, represents an inverted function or role of the initial term, a , just as the third member, $f_x(b)$, represents a parallel inversion of the function or role of the second term, b . Meaning exactly the same thing, the relation of the third and fourth members involves an inversion of their respective functions as specified in the initial situation contained in the relation of the first and second members (cf. Leach 1965 [1961], 1970; Greimas 1971).

Certain implications of Racine's (1989) recent critique of Lévi-Strauss's analyses of magico-religious phenomena converge rather strikingly upon this modified version of the canonic formula. But since Racine's point of departure is Lévi-Strauss's use of classic Aristotelian linear analogical reasoning as employed in *Totemism* (1963c) and *The Savage Mind* (1966), the problems specifically presented by the canonic formula's nonlinearity and its concluding "extra twist" never arise. According to Racine, Lévi-Strauss's one-sided methodological emphasis on relations of "distinction" or "difference"—as, for example, in his treatment of Australian aboriginal totemism—overlooks ethnographically significant but implicit relations of "resemblance." These relations of resemblance, he argues further, are implied in the classic linear analogy, A:B::C:D. Here, A and B are related according to the same distinction (f) by which C and D are contrasted, and similarly, A and C are related by the same distinction (h) as are B and D. But this still leaves unexpressed any possible relations between A and D or between B

and C. Racine suggests, therefore, that by the assimilation (*l'homologation*) of A to C and B to D on the basis of resemblances, the relations of A to D and B to C can be expressed in terms of the same relation as A to B or C to D (that is, *f*). Consequently, all permutations among all four terms of classic analogy are explicated.

I suggest that the result of this expansion of linear analogical reasoning is precisely homologous with the nonlinear modified version of the canonic formula for myth and nonmyth which I have described in terms of bisected or recursively inverted dualities. For Racine, both A and B can be drawn into overt contrasts with D and C, respectively, on the basis of resemblances between A and C, and B and D, *inverting the initial contrasts between A and C, and B and D*. For me, the first and third members of the modified formula, $f_x(a)$ and $f_x(b)$, as well as the second and fourth, $f_y(b)$ and $f_y(a)$, are already assimilated to one another as concerns functions while being differentiated as regards terms; and correspondingly, the first and fourth members, $f_x(a)$ and $f_y(a)$, like the second and third, $f_y(b)$ and $f_x(b)$, are assimilated as regards terms but differentiated as regards functions. I take it to be a most favorable and interesting indication, therefore, that Racine, working from classic analogy “upward,” and I, from the original canonic formula “downward,” should arrive at formulations that appear to be logically homologous.⁴

metaphors to metonyms and vice versa Indeed, it is this recursively inverted analogical equation, *not the simple classic analogy or the more complex original canonic formula*, that would seem to correspond most closely, if not quite literally, with Lévi-Strauss’s oft-stated assertion that the structure of myth exemplifies the passage or translation of metaphors to metonyms and metonyms to metaphors (Lévi-Strauss 1966:51–52, 106, 150, 204–208, 212–213, 224–228, 1971:18–19, 1973:248; Lévi-Strauss, quoted in P. Maranda and E. K. Maranda 1971a:28; cf. Petitot 1988:26; Fernandez 1974). Following E. K. Maranda’s (1971:117) illustration, in the discontinuous linear analogy A:B::C:D, A and C (or B and D), occupying the same structural position but in different contexts (that is, “different sides of the equation”), are related (paradigmatically) by metaphor or similarity. However, A and B (or C and D), occupying positions in the same context (that is, the “same side of the equation”), are metonymically (syntagmatically) related, that is, related by contiguity (cf. Saussure 1959[1916]; Jakobson 1956; Fernandez 1974:125–127, 131).⁵ The passage of metaphors to metonyms and vice versa occurs here when A and C, or B and D, establish new contexts or subsets on the basis of their metaphorical associations. What were previously metaphorical relations (A and C or B and D) become metonymical connections, and what were previously metonymical associations (A and B, or C and D) become metaphorical ones (see Figure 2).

It will very likely prove helpful to illustrate the modified formula at issue, and particularly the reciprocal metaphor-metonym transformation it implies, by reference to an example—one I have employed elsewhere (Mosko 1985:247) to illuminate the same structure, albeit for a somewhat different purpose. There are in our culture, say, two opposed categories (or terms) of gender that are conventionally recognized: “female” (a) and “male” (b). However, further contrastive qualities (or functions) are also customarily applied or attributed to the two genders and appropriately expressed in behaviors with at least some observable frequency: “short” versus “tall,” “gentle” versus “aggressive,” “weak” versus “strong,” and so on (or, summarily, conventional “feminine” versus “masculine” roles, f_x versus f_y , respectively). Nevertheless, living experiences of women and men occasionally belie these formal and routine correspondences. Some men are perceived as shorter, more gentle, or weaker than women generally, and so too are some women noticed to be taller, more aggressive, and stronger than many men. The simple distinction between “conventionally feminine female” and “conventionally masculine male,” $f_x(a) : f_y(b)$, therefore, is inadequate to accommodate all logical and experiential possibilities of gender variation (see below). For this degree of thoroughness, each gender category or term must be additionally bisected according to conventional and nonconventional functions or roles:

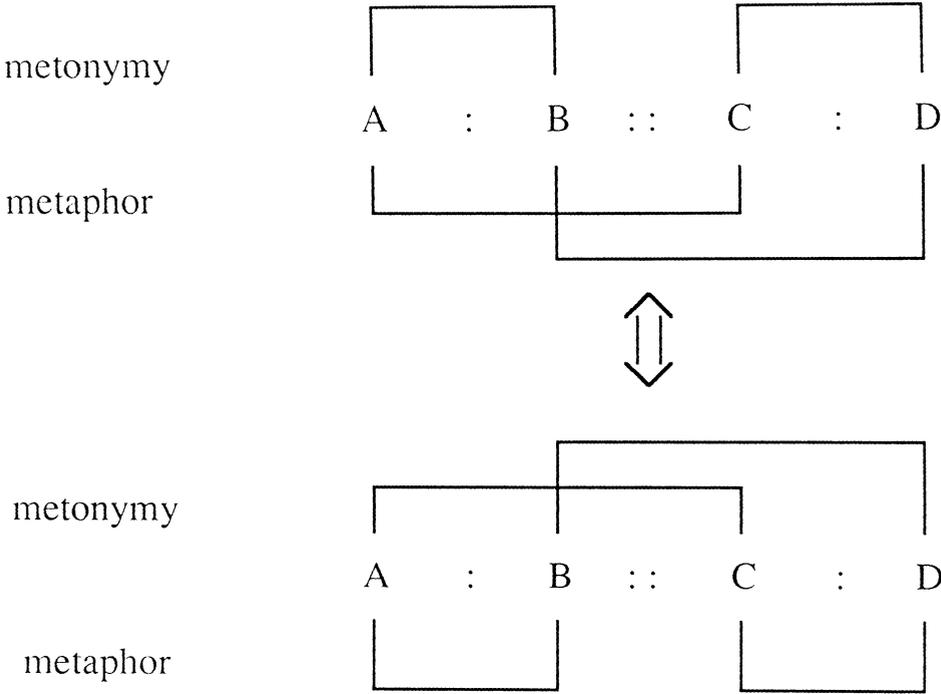


Figure 2. The reciprocal translation of metaphor and metonymy in classical analogy.

(conventional)		(conventional)		(nonconventional)		(nonconventional)
feminine female	:	masculine male	::	feminine male	:	masculine female
$f_x(a)$:	$f_y(b)$::	$f_x(b)$:	$f_y(a)$

By cognate operations in other symbolic domains, the translation of metaphors should be similarly comprehensible in the modified recursive-inversion form of the canonic formula at least as well as in the classic form of analogy.⁶ The passage of metaphors into metonyms and vice versa in myth or other contexts, in other words, appears to be an issue technically independent of the “extra twist” of function and term represented in the original canonic formula’s final member. Notwithstanding, because Lévi-Strauss’s formula lexically and notationally differentiates function and term for each of its four members, thereby making explicit the dimensions of similarity and difference that underlie the reciprocal transformability of metaphors and metonyms (here, depending on whether it is categories of function or term that define the relevant contexts), it, or something closely resembling it, offers a substantial improvement over the more common notational figures of analogical reasoning, such as A, B, C, and D (Figure 3).

However, inasmuch as my intended application of the modified formula will involve non-myth as well as non-narrative contexts of culture, the specific distinction of “function” and “term,” or rather the particular meaning that distinction has for the genre of myth, may be either substantively inappropriate or irrelevant. Not all nonmyth contexts necessarily involve “terms” (actors) assuming “functions” (roles).⁷ It is easily conceivable that some spheres of a culture or society might involve the classification of intersecting terms only or of intersecting functions only. In this respect, the internal structure of myth as inverted relations between functions and terms would be but a special case of a classificatory pattern of much wider applicability. There may be, in other words, ethnographic contexts beyond myths and narratives where the structural form of relations among the intersecting categories is the same as represented in the revised Lévi-Straussian formula but the substantive nature of the elements differs.

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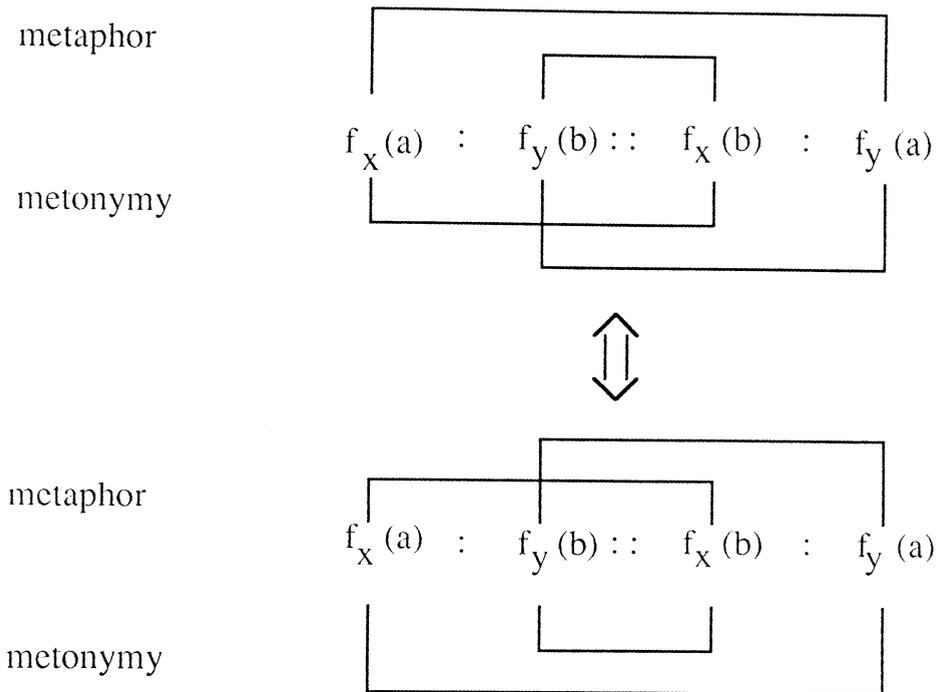


Figure 3. The reciprocal translation of metaphor and metonymy in the modified canonic formula.

Thus, I shall offer as my final modification of the canonic formula a new cipher. Slots occupied by terms will be occupied instead by a categorical opposition of any type, say, X and Y. In the place of functions I shall substitute a second categorical opposition of any type, ' and ", such that the two oppositions cross-cut one another. As a result, the initial opposition is recursively bisected by its own inversion to result in the overall formulation X':Y":Y':X". Moreover, the translatability of metaphors into metonyms and vice versa is preserved regardless of symbolic content (see Figure 4). Elsewhere (Mosko 1985, 1986), I have referred to this particular formulation as a "quadripartite structure." It is this modified version of the canonic formula which, I argue, constitutes the structure that North Mekeo nonmyth and myth have in common.

To the extent that the third member here, Y', can serve as a "mediator" of the opposition between the first two, X' and Y", so also can the revised fourth member, X" (cf. Black 1962:41-42; P. Maranda and E. K. Maranda 1971a:21, 25). Indeed, it would appear that combining the mediating roles of *both* the third and the fourth members produces a perfectly symmetrical or equilibrated balance to the opposition or contradiction represented in the relation of the first two members. And with this resolution of the first opposition, X':Y", through its respective inversion in the second opposition, Y':X", a sense of *logical completeness* is achieved. In the hypothetical gender example presented earlier, either of the nonconventional gender roles (feminine male or masculine female) serves equally well as a mediator of the opposition represented conventionally between masculine male and feminine female. But taken together, the two mediators perfectly "close," "neutralize," or "resolve" the tension between the first pair in a way that neither of them alone can approximate. In this respect, the quadripartite structure of bisected dualities possesses a capacity for logical closure that is perhaps more complete than, or even superior to, the triadic mediated dualities ordinarily emphasized by, or identified in, Lévi-Straussian-type analyses (see Mosko 1985; cf. Lévi-Strauss 1969:5-6). I might add that Roy

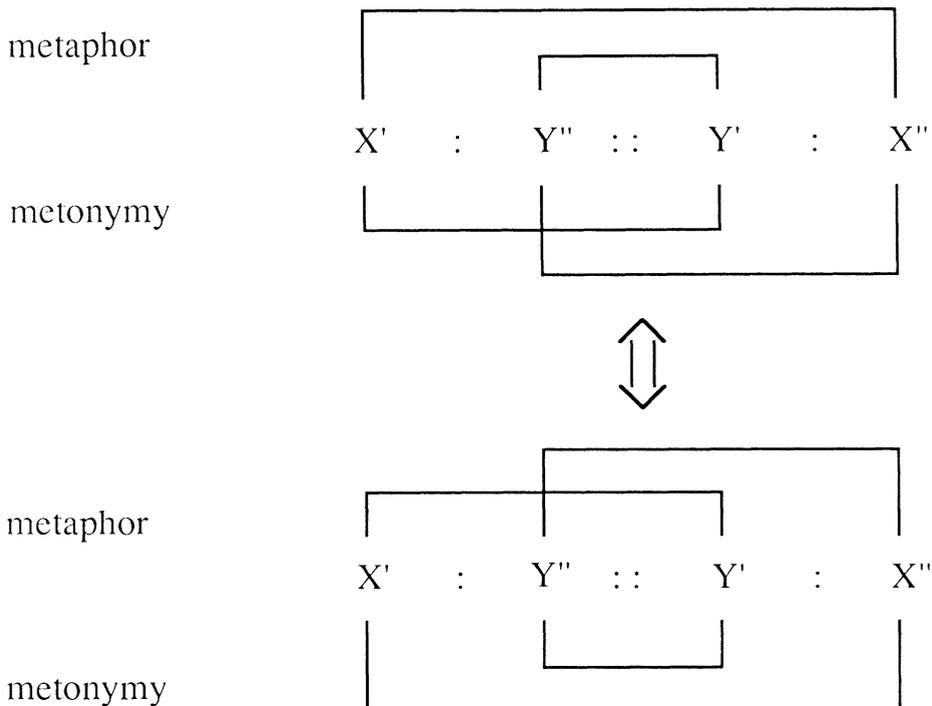


Figure 4. The reciprocal translation of metaphor and metonymy in bisected/recursively inverted dualism.

Wagner's (1978, 1984, 1986a, 1986b) illustrations of his notions of "symbolic obviation" and "analogic flow," although not explicitly traced to Lévi-Strauss's formula, nonetheless bear an obvious family resemblance.

Lévi-Strauss, *The Jealous Potter*, and method With *The Jealous Potter* (1988), Lévi-Strauss furnishes at long last a detailed explication of myth's internal structure as he originally conceived it in terms of the canonic formula. Apart from confirming the above interpretation, however, his several exemplifications of the original formula have the effect of laying bare precisely those ontological and methodological grounds on which, I suggest, modifications are required for adapting the formula to nonmythical ethnographic materials. Unlike the structural study of myth, which, Lévi-Strauss argues in *The Jealous Potter* and elsewhere, demands extensive cross-cultural comparison, the structural study of nonmyth underscores the possibility of an alternative strategy: comparison of diverse ethnographic contexts (mythical as well as nonmythical) within single, "total" sociocultural systems. Once again, the methodological implications of this procedure converge upon the formula's final member.

The Jealous Potter begins with one version of a Jivaro myth concerning the origins of pottery and marital jealousy. The main character is Aoho, the Goatsucker bird or nighthawk. At the beginning of the myth, Aoho is a woman married to both Sun and Moon, who are at the time still human beings living on earth. As Aoho falls from the sky in a jealous quarrel between the husbands, she is transformed into the Goatsucker bird, and the basket of clay she carries is scattered over the earth to be used subsequently by women potters (Lévi-Strauss 1988:14–22).

In the course of analyzing other Jivaro versions of this myth, other Jivaro myths, and the myths of other South American cultures, Lévi-Strauss is able to establish by "empirical deduction" (1988:13, 58) links between the Goatsucker and marital jealousy and between pottery and marital jealousy. But in order to demonstrate the systematic interconnection of all three of these

terms, he must also consider the relation between the Goatsucker and pottery, things that are not so clearly connected with each other in the South American corpus. Nonetheless, he establishes a link between them by means of “transcendental deduction,” as he moves on to consider numerous North American myths (1988:23, 50, 58). In those myths, however, it is not the Goatsucker bird that is overtly connected with pottery, it is the Ovenbird, which builds its nest of clay in the fashion of potters (1988:51–52). Still, by using transcendental deduction, Lévi-Strauss outlines a whole series of features that, he argues, allow one to see the Ovenbird as an “inverted Goatsucker” (1988:58; cf. Petitot 1988:26–27).

It is necessary at this point to digress briefly in order to clarify the distinction between “empirical” and “transcendental” deduction. For Lévi-Strauss (1971, 1973:38n, 1978:209–210, 1981:538–539), mythical thought involves both types of reasoning. With “empirical deduction,” natural beings are assigned properties on the basis of either (a) direct observation and experience, or (b) indirect inversion of the properties so observed. In respect of the foregoing discussion, it should be mentioned that “empirical deduction” encompasses the kinds of relations predicated by the reciprocal translation of metaphors and metonyms (1971:18–19). “Transcendental deduction,” on the other hand, is not based on observation or experience, either direct or indirect. It is “synthetic” (1973:38) and arises from “a certain logical necessity” (1971:4). With “transcendental deduction,” properties are assigned to a being on the basis of “a set of correlative properties” (1971:4; emphasis added). This “set,” in accordance with Lévi-Strauss’s proclaimed procedures, consists of a corpus of myths drawn not from a single culture but from many cultures. The key issue here, I suggest, is not so much the relative validity of the two types of reasoning, for as Lévi-Strauss (personal communication, 1990) asserts, “Each of us makes use of them all the time”; rather, it is a methodological principle of whether “transcendental deductions” are to be traced strictly between the myths of different cultures or between the mythical and nonmythical contexts of the same culture.⁸

In *The Jealous Potter* Lévi-Strauss (1988:56) “complete[s] a transformational cycle with a stage [North American Ovenbird myths] that is absent in the myths that illustrate the other stages [South American Goatsucker myths].” In other words, as he pursues the mythical relation of Goatsucker to pottery, his methodology requires that he switch from the strictly “empirical deductions” of relations among myths of a single South American culture or even closely related cultures to the “transcendental deduction” of relations among myths that in this instance stretch across an entire hemisphere. And Lévi-Strauss (1988:56) is forced to ask, “Is this a legitimate procedure? . . . Can we say that the Ovenbird is completely absent from these [South American] myths?” His answer, characteristic of his method, is: “There is no doubt that the Ovenbird was on the Indians’ mind even when it did not show up in their stories. And, as I have demonstrated, its habits were bound to be seen as being completely opposed to the Goatsuckers” (1988:56).

It is precisely at this juncture in *The Jealous Potter*, moreover, that Lévi-Strauss invokes the canonic formula for the first time and, revealingly, dwells on the formula’s last member, in this case “the ‘reversed Goatsucker’ [that is, Ovenbird] function of the potter”:

F		F		F		F
<i>jealousy</i>	:	<i>potter</i>	::	<i>jealousy</i>	:	<i>Goatsucker – 1</i>
(Goatsucker)		(Woman)		(Woman)		(potter)
						[Lévi-Strauss 1988:57]

This reads, altogether, “the ‘jealous’ function of the Goatsucker is to the ‘potter’ function of the woman as the ‘jealous’ function of the woman is to the ‘reversed Goatsucker’ function of the potter” (1988:57). Lévi-Strauss explains:

In order to follow the [South American] Jivaro myth and be able to establish a relationship between a woman and a bird, on the one hand, and between jealousy and pottery, on the other, here is what is needed: (1) a congruence must appear between the woman and the bird with respect to jealousy; (2) the register of the birds must have one term congruent with pottery. The Ovenbird [of North America] meets this need; it is thus legitimate to introduce it into the system, provided it is seen as an “inverted Goat-

sucker," as it is in fact seen in the myths. Indeed, the Ovenbird myths are inverse transformations of the Goatsucker myths.

As I have shown, the "jealousy" function of the Goatsucker depends on what I have elsewhere called an empirical deduction: it is an anthropomorphic interpretation of the bird's anatomy and observable habits. *As for the Ovenbird, it cannot be considered as a term in a relation, because it does not appear as such in the Goatsucker myths. It is present as a term only in those myths that invert the former ones. However, by using it as a function, one verifies the system of equivalences obtained through a transformation into an empirical deduction of what started out as only a transcendental deduction (namely, that the Goatsucker may be at the origins of pottery, as is claimed in the myth).* [1988:57–58; emphases added]

The original formula's most problematic element—the final member's inversion of function and term, which centers here on the Ovenbird or inverted Goatsucker—is, in this case, a joint derivation of the methods of cross-cultural comparison and "transcendental deduction" peculiar to the Lévi-Straussian analysis of myth. In fact, at every point at which the canonic formula is invoked later in *The Jealous Potter*, Lévi-Strauss is presented with precisely the identical predicament of cross-cultural comparison and "transcendental deduction" (1988:123–126, 153–156, 157–170; see also Lévi-Strauss 1971, 1981:538, 1988:70–71, 97–116; Petitot 1988:25–29). And although only rarely pinned to the canonic formula explicitly, it is just these kinds of logical and comparative leaps that characterize Lévi-Strauss's methodological procedures throughout all four volumes of *Mythologiques* (see especially 1969:1–32, 1978:253–259; also see 1971), which he himself admits are "highly conjectural" (1988:135) and which he fairly early on predicted would attract the most criticism (1969:2, 8).

It is not so much the algebraic or mathematical formulae that are the likely problem in Lévi-Straussian methods as it is the "transcendental" and seemingly uncontrolled nature of the comparisons on which his conclusions, and specifically the supernumerary "double twist" of the canonic formula's final member, are typically based. Again, this Lévi-Straussian "increase" or "gain" appears at the end of a mythic transformation—after the analyst has exhausted the mythical corpus of the sociocultural tradition he or she began with and has extended the investigation to the myths of other societies.

Nonmyth has played a curious role here nonetheless. Lévi-Strauss has consistently treated myth as an expression of human thought transcending cultural boundaries, and at least within that framework his methods can, arguably, be defended as appropriate to the task. In his actual analyses, however, Lévi-Strauss has also frequently relied on nonmythical ethnographic materials to illuminate his interpretations of myth symbolism, but not according to any systematic technique (Boon and Schneider 1974:804; Burridge 1967:97–98; Douglas 1967; Leach 1969:27, 40, 1983:1–2; Lévi-Strauss 1969:1, 4–5, 1976:65–67, 1982:144–148; Yalman 1967). There is, in essence, little room in his scheme for a notion of cultures or societies, or institutional nexuses of them, as "whole" or "total" phenomena in the Maussian sense (Mauss 1967 [1925]; cf. Leach 1969:29–30). My point is that adapting Lévi-Strauss's methods to ethnographic materials on the scale of single cultures or societies allows the modification of his pan-cultural, transcendental definition of myth, which leads in turn to a revision of his canonic formula precisely as I have argued above—that is, to an elimination of the final inversion of function and term: $f_x(a):f_y(b)::f_x(b):f_y(a)$ or $X':Y'::Y':X'$.

The structural study of nonmyth together with myth implies, therefore, a second kind of "closure" in addition to the "logical" sort already discussed, a kind of closure at once *empirical* and *methodological*. As represented in the final member of Lévi-Strauss's original canonic formula, the study of myth is always spiraling or open-ended. One version of a myth or one myth leads inevitably to other versions, to other myths, and so on, without end. Lévi-Strauss's comparative horizons thus frequently transcend entire continents and more. Here, however, for nonmyth, analogous comparisons are restricted to ethnographic interrelations among diverse semantic or classificatory contexts of a single sociocultural tradition. Internal to the same system empirically, these features, mythical as well as nonmythical, are therefore much more likely to involve legitimately comparable elements and relations. In fact, Lévi-Strauss's own

declared procedures do not absolutely preclude this alternative, although he has rarely if ever adopted it himself (Lévi-Strauss 1963b, 1969:1–32, 1976:65–66, 1982:144–148, 1987:204–206; see also Boon and Schneider 1974:804). With this second kind of closure or control in mind, I suggest that structural analysis specifically in terms of the modified canonic formula as I have adapted it to nonmyth may well help counter many of the more pedestrian sorts of empiricist criticisms that have been routinely leveled against structuralism in general and Lévi-Strauss in particular.

If myth is as central to the processes of human thought as Lévi-Strauss has proposed, and if the canonic formula that underlies it is adaptable to the systematic study of empirical materials from single sociocultural totalities, then I suggest it should be possible to discern homologous conceptual classifications in related nonmythical cultural contexts—in ritual performance, in kinship and social classification, in economic exchange, in political organization, and so on—as well as in related myths. It is to the preliminary demonstration of this claim with respect to the detailed ethnographic materials of North Mekeo culture and society that the remainder of this article is devoted.

the North Mekeo

The North Mekeo are an Austronesian-speaking people living in consolidated villages along the middle reaches of the Biaru River of the Central Province of Papua New Guinea. They are swidden agriculturalists and supplement their diets with fish and wild game from the bush. Like their closely related neighbors, the Central or Plains Mekeo and the Roro, the North Mekeo are locally renowned for traditionally possessing institutions of hereditary chieftainship and sorcery (Davis 1981; Guis 1936; Hau'ofa 1971, 1981; Mosko 1985, 1989a, 1990, In press; Seligmann 1910; Stephen 1987). The contexts of the culture that I shall use to illustrate the structure of nonmyth concern the human body, its substances, regions, states, and processes; constructions of space and time; and social and political organization at a number of levels. In order to corroborate the formal correspondences between these instances of nonmyth and the revised version of the canonic formula as well as to indicate the potential utility of the latter for myth alone, I shall end my ethnographic illustration with a brief consideration of one North Mekeo myth as it pertains to the first context of nonmyth mentioned above: the human body. Due to limitations of length, I can sketch here only the barest of outlines for these several complex dimensions of North Mekeo culture and experience.⁹

bodily space and time Villagers conceptualize their own bodies and those of others in terms of a differentiation between “inside” (*aonga*) and “outside” (*afanga*; literally, “on the skin”). It is according to the regulation of this spatial boundary and of temporal transferences across it that the different states and potentialities of the body itself, and of all *nonbodily* things and properties in the world, are systematically oriented, defined, and classified.

For the sake of health and the preservation of bodily life, this inside/outside distinction is, in some respects, unambiguous. Essentially, the “dirty” (*iofu*) exuviae of other people’s bodies must be kept from entering one’s own body, and the bloody tissues of one’s own body must themselves be prevented from passing to the outside. With respect to other people’s “dirty” bodily things as well as one’s own blood and flesh, the “skin” is ideally inviolate; whenever that boundary is violated, sickness and even death are the likely consequences.

In other respects, however, the health and life of the human body are critically dependent on regular transferences of substances across the boundary marked by one’s “skin”—both from outside in and from inside out—but these substances consist neither of other persons’ excreta nor of one’s own vital tissues. To live, quite simply, human beings must ingest minimal quantities of food and fluid on a daily schedule and consequently excrete “dirty” but bloodless wastes.

These transferrals of outside substances in and inside substances out center in the region of the body termed the “abdomen” (*ina*). Upon ingestion, food and fluids collect there and make blood. Also from the “abdomen,” ordinary bloodless wastes are excreted. The word for “abdomen,” *ina*, is also the term for “womb” and “mother” and figures significantly in the indigen-
ous theory of sex and procreation. In either context, the *ina* consists of space contained within the “skin” of the body that is nonetheless peculiarly associated with the body’s outside. It is *outside* space *invaginated* or *inverted*, if you will. Analogously, the space occupied by the body’s “dirty” bloodless residues consists of substances from within the body deposited outside the “skin”; it is *inside* space *extruded* or *everted*.

There are circumstances in life, then, according to which the inside of the human body is strictly separated from the outside, and others in which transferrals between inside and outside are demanded. The inside and the outside of the human body as spatial categories are thus cross-cut or bisected by their respective eversions or inversions to produce a fourfold universe:

bodily inside	:	nonbodily outside	::	nonbodily outside inverted (abdomen)	:	bodily inside everted (excreta)
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In this quadripartite classification of bodily space, I suggest, we have the first instance of North Mekeo nonmythical structure in accordance with the modified Lévi-Straussian formula $X':Y'':Y':X''$. The initial opposition of the first paired members—bodily inside and nonbodily outside—is recursively inverted and reconciled in terms of the second pair, nonbodily outside inverted and bodily inside everted. Much of the remainder of my discussion of North Mekeo nonmyth will involve filling in, elaborating, and clarifying the categories and relations that are implicated in these and homologous terms.

cosmic space and time The North Mekeo conceptualize the world itself much as they do the body, in terms of “outside” and “inside” zones. The world consists essentially of two kinds of places, “villages” (*paunga*) and “bush” (*ango aonga*). The village, of course, is where humans live, and the preponderance of their activity takes place there. The bush is a very different kind of place. Humans do not live there. It is dominated instead by nonhuman beings and things. Contrary to our English-speaking intuitions, perhaps, the village is regarded as “outside” and the bush as “inside.” Together, village and bush encompass all of the world. There is no other place.

Nonetheless, outside village and inside bush are not uniform places. As with bodies, human life requires daily transferences in both directions, with the parallel result that village and bush are each bisected. From the unambiguously inside or remote regions of the bush where villagers garden, hunt, fish, and gather, the people are able to provision themselves with the bush resources they require (raw foods, water, building materials, ritual ingredients, and so on). These are brought to the peripheral zone of the outside village, where they are processed into usable or consumable materials. In the very act of being processed and consumed, these transformed village resources inevitably produce certain wastes. Some of the wastes of foods and water collect, of course, in villagers’ abdomens. Other waste products are daily scooped or swept into the central cleared area of the village termed the “village abdomen” (*paunga inaenga*). Finally, each morning villagers deposit the wastes from their own and the village’s abdomens back in the bush, in the region of the bush that immediately surrounds the village.

The world is thus doubly bisected, first into inside bush and outside village, then recursively by their respective eversion or inversion. The bush consists of a simple inside region lying distant from villages and an everted zone wherein residues of the outside village are finally deposited. The village comprises an unambiguous or simple outside peripheral zone wherein most human activity takes place and an inverted-outside space or abdomen where wastes originating from inside the remote bush are collected. Thus, both village and bush have one region associated with resources and another with wastes. The North Mekeo conceptualization of the world as a spatiotemporal entity and of its materials is therefore homologous with the indige-

nous apprehension of the human body and the modified Lévi-Straussian formula for the structure of nonmyth:

remote bush	:	peripheral village	::	village abdomen	:	adjacent bush
inside	:	outside	::	outside inverted	:	inside everted
bush resources	:	village resources	::	village wastes	:	bush wastes

sweet, unsweet, blood, and dirt The materials that constitute village and bush resources and wastes are additionally classified in the culture according to how they relate to the human body as a spatiotemporal universe, as described above. Briefly, all things in the world are “sweet” (*mitsia*), “unsweet” (*etsiu*), or bloody or bloodless “dirt” (*iofu*). In the ordinary case of eating and drinking, for example, plant and meat foods properly prepared and boiled in water are “sweet” for taking inside.¹⁰ These substances, although they are not derived from human bodies, possess the elements necessary for making human blood and bloody tissues. Things “unsweet” for eating, by contrast, consist of those nonbodily objects and substances which, even if they are consumed, lack the elements necessary for blood and body sustenance (for example, house materials, canoes, clothing, earth, stones, coconut husks and shells, and uncooked or unprepared foods). Things “sweet” and “unsweet” for eating, then, are alike nonbodily, or derived from outside human bodies, but they are differentiated according to whether they possess the elements for making blood and bloody tissues upon ingestion. Villagers will thus ordinarily eat “sweet” things but will not eat “unsweet” things.

Now “dirty” things are distinguished absolutely from everything that is either “sweet” or “unsweet” for eating in that they originate inside human bodies and have passed to the outside.¹¹ This category includes all bodily tissues and leavings (hair, nail parings, spittle, vomit, sweat, feces, urine, pus, sexual fluids, and so on). And as with the categories “sweet” and “unsweet,” villagers distinguish among “dirty” things according to whether or not they consist of or are formed from blood. The body’s blood and wet bloody tissues, of course, are bloody “dirt” once they have emerged from the body, but so also are such things as semen, menstrual blood, and pus. Feces, urine, hair, nail parings, betel spittle, vomit, sweat, skin oils, and so on are also “dirty,” but they are bloodless.

According to indigenous notions of consumption and assimilation, the bloody portions of villagers’ bodies derive initially from the appropriate mixture and transformation of their parents’ procreative bloods (semen and womb-blood) in conception. Subsequently, the body’s blood is augmented by the blood elements of ingested “sweet” foods. Ideally, that is, in an ordinary state of health and life, bloody portions of human bodies remain inside the “skin.” Keeping one’s own blood and bloody tissues inside the “skin” where they belong is itself described as “sweet.” When blood or bloody tissues are excreted, they are a sign of “illness” (*eisaoa*; literally, “sees inside”). These things are “dirty” and must not be ingested. Bloodless types of bodily “dirt,” however, are derived from the bloodless or blood-impotent, “unsweet” portions of ingested food and drink. Unlike bloody forms of bodily “dirt,” these substances are “unsweet” for keeping inside the “skin” and are thus routinely excreted. And even though these “dirty” things lack blood or the elements of blood, other villagers avoid eating them. As they say, you can never tell by looking whether seemingly bloodless “dirt” really lacks blood.

In terms of eating and bodily health, then, indigenous classification of the world’s resources and wastes is homologous with other recursively inverted dualities of North Mekeo culture and consistent with the modified Lévi-Straussian formula for the structure of nonmyth:

bloody dirt (bodily tissues)	:	unsweet (bloodless nonbodily substances)	::	sweet (blood-potent nonbodily substances)	:	bloodless dirt (bodily exuvia)
bodily inside	:	nonbodily outside	::	nonbodily outside inverted	:	bodily inside everted

illness and death North Mekeo notions about illness involve systematic transformations among the spatial orientations of these four categories of substances. In a state of illness, the blood from inside the body, assumed to be otherwise healthy, is extruded to the outside in the patient's vomit, pus, sputum, urine, or feces. The excretion of blood is, in fact, the principal feature villagers use to diagnose illness, and it is the ingestion of various forms of excreted bloody "dirt" that is said to cause all kinds of illness and death, including those attributed to "sorcery."¹² In addition, a sick person's body is understood to fail in absorbing "sweet" blood-potent elements of ingested food and water, and these are excreted as well in vomit, urine, and feces. The "unsweet" blood-impotent elements of food that the healthy body would ordinarily pass on as bloodless "dirty" wastes are, in illness, retained so as to accumulate inside the body in place of blood and flesh. What should be ingested or kept inside is excreted, and what should be excreted or not ingested is retained.

Illness and death, therefore, involve a thorough transposition of the coordination of bodily substances with respect to the body in a state of health and life:

bloodless dirt (bodily exuvia)	:	sweet (blood-potent nonbodily substances)	::	unsweet (bloodless nonbodily substances)	:	bloody dirt (bodily tissues)
bodily inside	:	nonbodily outside	::	nonbodily outside inverted	:	bodily inside everted

human bloods, sex, and procreation The inverted set of associations that differentiate health from illness illustrates something of the dynamic possibilities of bisected dualities in nonmythical contexts. Additional possibilities are exemplified in the indigenous categorization of human bloods and the roles they play in sexual and procreative processes.

Like any other type of excreted human "blood," semen (*ialiali*) is "dirty." Ingested by another human—say, in the act of fellatio—it can cause illness and death. Hence, the North Mekeo practice no form of oral sex. When semen is deposited in a woman's body vaginally, however, it does not cause illness and death, and instead helps generate new human life. Evidently aware of the implicit contradiction here, villagers liken pregnancy as well as menstruation—alternative consequences of the depositing of men's semen in women's vaginas—to illness. They say that pregnancy is "like illness" but is "not 'true' illness."

According to the North Mekeo theory of human procreation, father and mother each contribute one-half of the procreative blood (semen and womb-blood, respectively) that forms the body of the fetus. As in many other Melanesian cultures, the father's semen is said to "dry," "harden," or "give form" to the "wet" or amorphous womb-blood of the mother. However, a single act of sexual intercourse, or even a few, villagers argue, are not enough for a woman to conceive. Instead, many acts of sex are required so as to build up proportionate quantities of mixed semen and womb-blood in the mother's abdomen or womb. In fact, it is commonly said to take at least three months ("moons") of regular and intensive intercourse for a couple to build up enough of both bloods for the woman to become pregnant and avoid menstruating.

Men's and women's bodies do not spontaneously release semen and womb-blood, respectively, except as a consequence of sexual penetration and exertion. The term for "vagina" (*ito*) is the same as that for "fire" (*ito*). While not actually engaged in intercourse, a woman's vagina is "cold." In the act of coitus, however, her vagina becomes "hot" and therefore capable of effecting certain changes in her body and that of her lover (similar metaphors are employed in other nonmyth contexts of the culture; for cooking, health, illness, betel chewing, sorcery, and so on, see Mosko 1985:chs. 3–7). When one is not engaged in sex, the blood of one's own healthy body is "sweet" to it and is kept inside, it will be recalled, whereas in illness one's blood and tissues become "unsweet" and are expelled as "dirt." The "hot" of a woman's vagina in sexual intercourse, however, causes the healthy man and woman to transfer sexual bloods from the inside of their bodies to her abdomen—that is, not directly to the outside of either of their bodies but to the outside inverted of hers. Released semen and womb-blood, in

other words, are not technically outside either the man's or the woman's body, and neither are they inside hers. Rather, sexually mixed semen and womb-blood occupy the portion of space outside both of their bodies that has been inverted, pushed in upon itself, or invaginated to produce the woman's abdominal cavity or womb.

Consequently, there is no contradiction between the fact that the oral ingestion of semen produces illness or death and the fact that the incorporation of semen in or by a woman in vaginal sex produces life. The claims that pregnancy and menstruation are "like illness" but are "not 'true' illness" now also become intelligible. Despite the metaphorical relations between the two processes, the procreative deposition of semen and womb-blood and the pernicious assimilation or excretion of human blood or flesh are otherwise conceptually distinct. The same bodily substances are involved in each but with reference to different categories of bodily space. The secretion of a woman's womb-blood from the inside of her body to her abdomen is not occasioned by her having literally ingested the bloody "dirty" residues of another human being. The semen her mate deposits in her abdomen is still outside her body, although this is outside space inverted and contained by her womb. The man's semen and the woman's internal body bloods never really mix. When there is enough of the woman's womb-blood and her mate's semen for them to be incorporated into the body of a developing fetus and make her pregnant, neither procreative blood has at any point passed directly from the inside of their bodies to the outside. If it so happens that there is not enough semen or womb-blood deposited in a woman's womb to make her pregnant, the procreative bloods will ultimately emerge from her body as "dirty" menstrual blood. But this blood's appearance outside is in that event not a result of her or her mate's having excreted any form of bloody "dirt" directly from inside his or her own body. Indeed, villagers say of menstruation the same thing they say of pregnancy—that it is "like illness" but is "not 'true' illness."¹³

Once the doubly bisected classification of bodily space is taken into account, what initially appears inconsistent turns out to be logically coherent. It is the very structure of the revised Lévi-Straussian formula intended for myth, in other words, that provides the solution to this particular riddle of nonmythical culture. Moreover, in connecting these indigenous views of human reproduction to the modified Lévi-Straussian formula, it becomes possible to draw out a number of additional implications. First, North Mekeo views about the body and its reproduction are constitutive of the doubly bisected universe of human bloods—male versus female and procreative versus bodily—substantively related to and structurally homologous with the other cultural domains I have examined. The body bloods of males and females are differentiated and so are male and female procreative bloods, but in the specific context of reproduction these pairs represent recursive inversions of one another in indigenous terms of "hot" versus "cold" and "wet" versus "dry":

female body blood	:	male semen	::	female womb-blood	:	male body blood
cold wet	:	hot dry	::	hot wet	:	cold dry

Second, children, although born of the bodies of their mothers, belong to the exogamous patrilineal "clans," "subclans," and "lineages" (*ikupu*; see below) of their fathers. They are neither conceived nor gestated inside the bodies of their mothers but external to them, on the skin—skin that has been folded or tucked in upon itself to produce the abdominal cavity. Therefore, the notion of patrilineal as distinct from matrilineal or cognatic descent makes more cultural sense than it conceivably might otherwise.

Third, these notions of the human body and reproduction figure critically in the systematic classification of local mammalian species, particularly as regards the distinction between placentals and marsupials. In common with other peoples of the region, the North Mekeo posit a direct physiological connection between the "womb" (*imi mamaunina*) and the "nipples" or "breasts" (*kuku*) of all mammalian females (Mosko 1985:65, 82; Seligmann 1910:84). But these two organs are always counterpositioned with respect to opposed inside and outside re-

gions of the body. For placental females (for example, pigs, dogs, and cats), as for women, the “womb” is viewed as a bodily intrusion or inversion—outside skin pushed in upon itself through the vaginal cavity—so that it is enveloped by, or inside, the body. The “breasts” of women and other placentals, by contrast, are on the skin, that is, on the outside of the body. With marsupial females’ reproductive organs, this bodily/spatial orientation is precisely reversed: the “womb” (*imi mamaunina*, or what in colloquial English we term the “pouch”) is conceived to be a “hole” or “pocket” (*ine*) of skin on the outside of the animal’s body and not contained by it; and the “nipples” or “breasts” that are contained by the marsupial “womb” are considered to be inside the animal’s body. The culture’s systematic bisection and reversal of the human (or mammalian) inside/outside bodily duality therefore establishes a certain logical consistency and symmetry between placental and marsupial reproduction where we Westerners, with our “scientific” conceptions, tend to perceive inconsistency and disjunction.

This view is reinforced, fourth, in the terms of a homology between the human body and clan bodies. Villagers speak of their clan sisters and daughters as the “skin of the clan.” When these women marry, it is said that “the skin of the clan has gone outside and into other clans,” and it is there—outside their own clans, inside other clans—that women give birth to their children. The implication here seems to be that not only do women possess an invaginated outside-inverted “abdomen” or “womb” as part of their individual bodies; being the “skin inside other clans” and mothers of members of other clans, women as wives are themselves the outside-inverted portions or “abdomens” of those other clans. The obvious metaphor here is that clan bodies are like human bodies, with inside, outside, outside-inverted, and inside-everted regions or dimensions, as follows:

			nonbodily outside	
bodily inside	:	nonbodily outside	::	inverted
				:
inside clan	:	outside clan	::	outside clan inverted
				:
			males of own clan	:
males of own clan	:	males of other clan	::	(wives, mothers)
				:
			males of other clan	:
			(sisters, daughters)	:

In other publications (see especially Mosko 1983, 1985, 1989b, 1989c), I have investigated additional dimensions of this metaphorical linkage between the body, the person, and groups at a number of segmentary levels. Before I turn to consider the salient structural dimensions of social organization, it is worth reemphasizing that the North Mekeo term for “mother,” *ina*, is the same as that for “abdomen,” *ina*. This, I argue, is no coincidence.

social organization In my illustration of the structure of North Mekeo nonmyth so far, it has been necessary to make several disconnected allusions to a variety of categories of social relationship. Taken altogether, however, North Mekeo social organization itself provides a number of additional examples of nonmythical structures consistent with the modified Lévi-Straussian formula. Again, limitations of space allow me to trace only the barest outlines of an empirically much more complicated situation.¹⁴

The sociopolitical unit of largest scale aboriginally is the “tribe,” of which for the North Mekeo there are two, the Amoamo and the Kuipa. Before “pacification” and colonial control late in the 19th century, relations between the two tribes were apparently dominated by reciprocal raiding and warfare. Tribal intermarriage was accordingly discouraged, if not prohibited. Among members of the same tribe, war and violence were forbidden, however, and marriage was enjoined. The tribe was thus, and remains today, a largely endogamous unit.

Still, fellow tribesmen and -women cannot marry just anyone, even within the tribe. Ideally, they marry exogamously as to their respective patrilineal “moieties” (*ngopu*). At the widest scale of traditional North Mekeo society, then, there were two endogamous warring tribes, and each tribe was bisected in terms of peacefully exogamous patrilineal moieties:

Amoamo moiety A	:	Amoamo moiety B	::	Kuipa moiety C	:	Kuipa moiety D
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An homologous patterning is expressed at several lower levels of North Mekeo society in terms of segmentary *ikupu* clan, subclan, and lineage organization.¹⁵ Moieties as units ideally consist of two nonlocalized, named clans, for a tribal total of four clans:

clan A¹ : clan B¹ :: clan B² : clan A²

According to the expressed rules of marriage, villagers are forbidden to marry anyone of either clan in their own moiety. In addition, they are forbidden to marry a person of their own mother's clan in the opposite moiety. North Mekeo marriage regulation consequently involves a preference for classificatory bilateral second cross-cousins. In such a system the minimum number of exogamous units is four, and this is precisely the number of clans encountered—two per moiety.

Each clan, however, is further divided into two categories of subclans differentiated according to genealogical seniority as "senior" (*fakaniau*) or "junior" (*eke*). Idealized moieties as units thus consist of two clans, with both senior and junior subclan branches:

senior subclan A¹ : junior subclan A¹ :: senior subclan A² : junior subclan A²

Similarly, each subclan ideally consists of four ritually specialized lineages, each of which possesses hereditary title to a politico-ritual office of the appropriate category: "peace chief" (*lopia*), "peace sorcerer" (*ungaunga*), "war chief" (*iso*), and "war sorcerer" (*faika*). The peace chief and peace sorcerer, with the support of lineage mates, regulate the reciprocal exchange of "female blood(s)" in the course of sanctioning marriage exchanges and mortuary feasts internal to the tribe. Complementarily (speaking in the ethnographic present of 1890), the war chief, war sorcerer, and members of their respective lineages are responsible for the reciprocity of "male blood(s)" between enemy tribes by means of violence and killing. Along the alternate dimension of chief versus sorcerer, peace and war chiefs both perform their functions publicly, while the two kinds of sorcerer operate upon their intended victims in secret. However, peace chiefs and war sorcerers have the parallel responsibility of removing dirty blood from the skins of their fellow clanspeople in appropriate contexts (mourning and homicide, respectively), as distinct from the reversed function of peace sorcerers and war chiefs of causing it to be there in the first place:

peace chief	:	war sorcerer	::	war chief	:	peace sorcerer
intratribal public	:	intertribal secret	::	intertribal public	:	intratribal secret
mortuary blood removal	:	homicide blood removal	::	mortuary blood causation	:	homicide blood causation

In these terms also, the political and ritual functions of the four North Mekeo hereditary offices can be seen as isomorphic with the indigenous conceptualizations of the body, the person, and the world or cosmos, and with the overall structure of the society.

body and cosmos in myth If these diverse contexts of nonmyth drawn from a single ethnographic universe can be shown to conform with the formal strictures of the revised Lévi-Straussian formula, the same question regarding that universe's myths inevitably arises. North Mekeo myths, in other words, should embody or express the same sort of functional patterning as has been shown to order nonmythical contexts of the system.

As my last ethnographic illustration, I thus return to the domain of myth—not myth seen from a global, Lévi-Straussian perspective, however, but myth that is empirically connected to the nonmyth at issue—for it is by recourse to the latter that the former can be interpreted with most confidence (cf. Lévi-Strauss 1982:144–148). For this purpose, I have chosen the myth of Amaka because it exhibits quite unambiguously the structural properties of the culture's nonmyth generally as well as the substantive terms or categories I have already described at some length with respect to the body specifically—in particular, its partitioning into inside, outside, inside-

everted, and outside-inverted spaces, and the associated distinctions between “sweet,” “unsweet,” and bloodless and bloody “dirt.”¹⁶

The Myth of Amaka

Upstream Amaka was fishing for his wife and child when, in the afternoon, he became tired. He tied his canoe to the shore and went to sleep. During the night, the river flooded and swept the canoe downstream to where it gently bumped along the shore. Amaka awoke and saw a garden planted there. He walked into the garden and saw Downstream Amaka. The two men discovered they were “namesakes” and began calling to each other, “Ah, my namesake” (a usage of endearment).

Downstream Amaka called his wife and told her to prepare food for his namesake. She skinned and sliced a taro and laid it on the ground to be warmed by the sun. Even so, Downstream Amaka’s wife’s taro remained raw. When Downstream Amaka told Upstream Amaka to eat the food his wife had “cooked” for him, Upstream Amaka excused himself to defecate in the bush first (he was lying). There he made a fire, and quickly the bush was in flames. Seeing this, Downstream Amaka and his wife were very afraid. Upstream Amaka returned and told them not to be afraid, for it was only fire (*ito*). They should put the taro into the fire to cook it, he said. Upon eating the cooked taro for the first time, the two vomited, but thereafter whenever they ate cooked taro, Downstream Amaka and his wife did not vomit it.

Then Upstream Amaka told his namesake he wanted a chew. Downstream Amaka gave him areca nut and betel pepper, and he inserted his limestick into his wife’s vagina (*ito*) and passed it to Upstream Amaka. Excusing himself to the bush again, Upstream Amaka took some lime hidden in his hair to chew instead, and then returned with his mouth bright red. Seeing the red spittle dripping down, Downstream Amaka screamed in fear, “Namesake, blood is coming out of your mouth.” Upstream Amaka explained that he must not be afraid, it was not blood, and said that he should use lime instead of his wife’s vaginal secretions to chew.

While the two men sat chewing, Downstream Amaka’s wife, who was pregnant, went into labor. Her husband took a bamboo knife to cut open her abdomen and take out the baby, according to the downstream custom, and he started to cry. Upstream Amaka asked him why he was crying, and Downstream Amaka explained what he was about to do. Upstream Amaka told him to stop and see what he could do. He brought a short stick and told the woman to sit on it while he squatted behind her, squeezing her abdomen to force the baby out of her vagina. Then he boiled some water. He told Downstream Amaka he must not do any more than this, and he told his wife she must do all the “purging” or “drying” things (*memengo*) herself—that is, wash her body and the baby’s skin with hot water, rub her abdomen with a heated bamboo tube, cut the umbilical cord, and so on. “Do all these things,” Upstream Amaka told his namesake, “and you can keep your wife instead of killing her when she gives birth.”

Among other relevant and noteworthy features, the two Amaka characters here are in certain respects equated with each other, and in others they are systematically contrasted. Most significantly, Upstream and Downstream Amaka each possess skills in their interactions with wives, but the former’s are ritually “hot” and consistently effective whereas those of the latter are “cold” or ineffective.¹⁷ Downstream Amaka eats food that, although it is warmed by his wife in the heat of the sun, remains raw, chews areca nut and betel pepper with the secretions of his wife’s vagina, and kills his wife in order to deliver her baby. Upstream Amaka, on the other hand, cooks food properly with fire, chews with lime, and assists in giving birth and life to the child without killing the wife, the child’s mother. And almost as if to aid the analyst, the implements that appear in the myth literally point the way through, if they do not actually effect, the various quadripartite divisions of the body totality: a knife cuts food correctly *outside* the body but threatens to incorrectly penetrate the bloody *inside*; the lime spatula incorrectly penetrates the vagina *outside in* but correctly draws red spittle from the mouth *inside out*.

As the myth moves from cooking and eating to chewing and the giving of birth, it progresses simultaneously from “unsweet” to “sweet” things and from bloodless to bloody “dirt.” Downstream Amaka’s customary skills not only contrast with Upstream Amaka’s, they are inconsistent among themselves. Downstream Amaka eats his food “unsweet” and fears the fire that would make it “sweet.” He fears *ito* (fire) for cooking, but he is not afraid of putting bloodless “dirty” secretions from his wife’s *ito* (vagina) into his own mouth. And even though he fears the red bloodless “dirty” spittle coming out of Upstream Amaka’s mouth, he does not fear the “dirty” red birth blood that would emerge from inside his wife and that would inevitably be transmitted from his hands into his mouth. As a result of his peculiar skills, Downstream Amaka risks putting inside his own body the things that ought to be kept outside it (that is, the three categories of inedible substances—“unsweet” things, bloodless “dirt,” bloody “dirt”) and

does not put inside his body what ought to be there (that is, the one category of edible substances—"sweet" cooked food). Consequently, in Upstream Amaka's terms, Downstream Amaka's practices, and life and death, are thoroughly confused.

And so Upstream Amaka instructs his downstream namesake in each of these areas. With fire, he makes raw "unsweet" food "sweet" for eating. By adding lime, he transforms "unsweet" areca nut and betel pepper into "sweet" chew.¹⁸ Upstream Amaka's orderly manner of eating and chewing safely generates bloodless "dirt," and his birthing techniques enable both Downstream Amaka and his wife to survive parturition and exposure to its bloody "dirt" as they successfully deliver their child. Upstream Amaka's practices thereby allow proper ingestion and excretion so as to sustain human health and life and to avoid the illness and death inevitably consequent on Downstream Amaka's customs.

This particular interpretation of the Amaka myth, however, derives from conceptualizations and practices located elsewhere in the culture—in North Mekeo nonmyth, not in the mythologies of other cultures—and specifically in terms of the bisected, recursively inverted dualities described previously:

X'	:	Y''	::	Y'	:	X''
bodily inside	:	nonbodily outside	::	nonbodily outside inverted	:	bodily inside everted
bloody dirt	:	unsweet	::	sweet	:	bloodless dirt

In this instance, the structure of North Mekeo myth conforms with the structure of that culture's nonmyth.

conclusion

Since its original formulation, Lévi-Strauss's canonic formula for the structure of myth has had a most curious history, one mostly of neglect. The present study has been aimed largely at compensating for that oversight.

My first task was merely to offer an interpretation of the original formula that was both comprehensible and credible in light of the existing commentary. The chief difficulties seemed to center on the final member, $f_a - 1(y)$, its meaning, and how to reconcile it with the formula's overall analogical manner of representation. As I have tried to show, these difficulties are chiefly derived from Lévi-Strauss's distinctive methods of analyzing and comparing myths cross-culturally. The "double" or "extra twist" of the final member, in other words, is a product of the "transcendental deductions" among myths of different cultures for which Lévi-Strauss's analyses are renowned and for which they have been frequently criticized. Revising the terms of the formula so as to restrict its application to ethnographic linkages among mythical and nonmythical data drawn from the same, single sociocultural tradition—that is, presenting it as $f_x(a):f_x(b)::f_x(b):f_x(a)$ or $X':Y'::Y':X''$ —suggests a methodological alternative possessing potentially increased rigor and validity, but one which remains nonetheless distinctively Lévi-Straussian.

An additional, related implication of modifying the canonic formula as I have suggested is that it should apply with equal force to nonmythical ethnographic materials. The structure postulated for a culture's myth, in other words, may not be restricted to its myths. Throughout this discussion and in my North Mekeo illustrations, therefore, I have deliberately focused on nonmythical conceptualizations and practices such as bodily states and processes, sexuality and reproduction, space, time, and descent group and political organization. Indigenous understandings and behaviors here are homologously structured in terms of bisected or recursively inverted dualities. But so also is North Mekeo myth. And although the Amaka myth happens to contain many of the same substantive cultural categories I discussed in terms of that culture's nonmyth, this need not be the case elsewhere. The content of a culture's mythical corpus may well differ from that of its nonmyth while nonetheless preserving a symmetry of form.

If this is so, then the theoretical and comparative implications are potentially far-reaching. At the very least, demonstrating the existence of structural homologies among a single society's mythical and nonmythical traditions greatly reinforces the view of sociocultural systems as integrated "wholes" or "totalities"—an element as crucially lacking in most criticisms of structuralism as it is in the work of Lévi-Strauss himself. But beyond that, if such "total" sociocultural systems as *units* can be shown to be structured according to single formulae, then systematic comparisons among truly comparable systems may also become a real possibility.

notes

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¹Lévi-Strauss's timely return to the canonic formula in *The Jealous Potter* is probably intended to represent the completion of a mythical cycle in another respect, inasmuch as the book ends where Lévi-Strauss's studies of myth began—with analysis of the Oedipal myth (see 1988:185–296, 1963a[1955]).

²Maranda and Maranda (1971a) have labeled this pattern of narrative genre "model III." The original Lévi-Straussian canonic formula corresponds with their "model IV." The Marandas' two remaining and most simple "models" (I and II) involve either no attempt or an unsuccessful attempt at mediation. For reasons that will become clear in my commentary below on *The Jealous Potter*, it is nonmythical materials conforming with "model III" that are my chief concern in this article.

³It was precisely for this reason that Leach's interpretations, expressed simply in terms of "continuous analogy," were judged to be inadequate or at least nonequivalent to the meaning Lévi-Strauss intended for the canonic formula.

⁴For an additional convergence with this logic, see note 6, below.

⁵I do not pursue Fernandez's provocative discussion of the "mission of metaphor" and metonymy inasmuch as his "pronominalist" perspective dwells rather exclusively on "textual" metaphors. These are based on a "similarity of feeling tone," and Fernandez explicitly differentiates them from "analogical" or "structural" metaphors, which are based on some isomorphism in pattern of the type conventionally associated with scientific analysis generally and the structuralism of Lévi-Strauss specifically—that is, from those sorts of metaphors and metonyms which are the focus of the present article (see Fernandez 1974:120, 123–124, 126, 129–133).

⁶An identical interrelation of metaphors and metonyms is implicated in Black's "interactionist theory of metaphor":

A metaphorical statement has two distinct subjects—a "principal" subject and a "subsidiary" one. . . . The metaphor works by applying to the principal subject a system of "associated implications" [metonyms] characteristic of the subsidiary subject. . . . The metaphor selects, emphasizes, suppresses, and organizes features of the principal subject by implying statements about it that normally apply to the subsidiary subject. [1962:44–45]

The relevant and unique feature of his "interactionist" theory involves reciprocal translation or transformation:

It was a simplification, again, to speak as if the implication-system of the metaphorical expression remains unaltered by the metaphorical statement. The nature of the intended application helps to determine the character of the system to be applied. . . . If to call a man a wolf is to put him in a special light, we must not forget that the metaphor makes the wolf seem more human than he otherwise might. [Black 1962:43–44]

This, it must be mentioned, paraphrases Lévi-Strauss in *The Savage Mind* (1966:220) quite closely: "The mistake made by Comte and the majority of his successors was to believe that man could at all plausibly have peopled nature with wills comparable to his own without ascribing some of the attributes of this nature, in which he detected himself, to his desires."

⁷It is partly for a comparable reason, again, that Fernandez's (1974) "pronominalist" theory of textual metaphor, based on the ontogenic and "primordial" predication of "objects" upon "inchoate subjects," would seem to be substantively too narrowly defined for my intentions as regards all nonmyth contexts of culture and society; see note 5, above.

⁸Lévi-Strauss (personal communication, 1990) would seem to be in agreement: "my formula was devised so as to demonstrate what takes place when a given myth circulates, so to speak, between different cultural groups." And, he adds, "my distinction between empirical and transcendental deduction has nothing to do with studying a single culture or several. Those two thought processes may unroll within a single group and even in the mind of a single individual."

⁹Fuller documentation of these and other homologous contexts of North Mekeo tradition can be found in Mosko (1983, 1985, 1986, 1989a, 1989b, 1990, In press).

¹⁰"Sweet" and "unsweet" discriminations are always dependent on context. For example, cooked food is "sweet" for eating but "unsweet" for making one's house, while the materials "sweet" for house construction are "unsweet" for eating. Also, human beings vary their "sweet"/"unsweet" predilections according to their ritual states as healthy or sick, open or closed, reproductively active or inactive, and partially also according to gender (see Mosko 1985:chs. 3–5).

¹¹The flesh and blood of certain animals, termed *faifai* (eels, python, certain catfish), are also regarded as "dirty" for eating by humans because these species possess certain otherwise uniquely human characteristics. *Faifai* beings, like humans, possess "souls" or animating "spirits," speak in languages, live socially in villages and houses, and have their own customs and ceremonies. The bodies of *faifai* are also said to be particularly bloody.

¹²North Mekeo "sorcerers" of several different categories are reputed to cause illness and death by a variety of techniques, including poisoning, snake bite, and violence. Distinct procedures rely on ritual manipulations of a number of elements: "souls" (*laulau*), "spirits" (*tsiange*), verbal "spells" (*menga*), and "charms" (*tolu*) consisting of "medicines" (*fuka*) and/or the "dirty" remains of dead humans (*fa iofu*). Despite their variations, however, all the sorcery and ritual procedures involving health and illness operate according to the precise terms of "sweet," "unsweet," and bloodless and bloody "dirt" as described here. For fuller discussions of Mekeo sorcery techniques, see Mosko (1985) and Hau'ofa (1971, 1981); cf. Stephen (1987).

¹³For that matter, a man's ejaculation is technically not illness either, even though blood does emerge from inside the body, because it is not produced as a result of his having taken bloody "dirt" inside his body and because in intercourse his semen is released directly into an inverted space—that is, the outside-inverted womb of his mate's abdomen.

¹⁴Other Mekeo peoples in the vicinity of Yule Island are traditionally organized according to doubly bisected tribal pairings. For the Central or Plains Mekeo, there are the Biofa and the Veke tribes. Among the closely related Roro-speaking peoples, the Waima and Kevori tribes were once paired opposites, as were the Roro and Paitana tribes (see Davis 1981; Guis 1936; Hau'ofa 1971, 1981; Seligmann 1910; Stephen 1974).

¹⁵Tribal and moiety boundaries have been partially eroded over the course of the past century of contact and colonial domination, but attitudes about intertribal and intermoiety relations have remained much the same. Homologous boundaries regarding lower-level units of clan, subclan, and lineage organization, however, have continued more or less intact up to the present. See Mosko (1990) and Hau'ofa (1981).

¹⁶A fuller version of the Amaka myth, analyzed with respect to somewhat different purposes, is discussed in Mosko (1985:69–72).

¹⁷In matters of ritual transformation as illustrated in these examples of cooking, chewing, and parturition as well as in many others (food assimilation, blood manufacture, sex, sorcery, courting, laughing, sickness and curing, mortuary feast ritual, and so on), villagers differentiate between the physical sensation of "heat" (*pangaingai*) of fire and the "hot" (*tsiabu*) power or transformative capacity of fire upon objects, which, depending on the context, may or may not be physically perceptible. In contexts involving various types of ritual practitioners and spirit beings, the "souls" and "spirits" are regarded as "hot" and effective even though their physical presence—as "heat," for example—often cannot be sensed.

¹⁸Alone, areca nut and betel pepper are considered "unsweet" for chewing, but mixed with lime they are made "sweet."

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