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# THE SHAMAN AS A MAKER OF WORLDS: NELSON GOODMAN IN THE AMAZON

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This article shows how the philosophy of Nelson Goodman helps us to understand the chant language of the religious leader (*ruwang*) among the Piaroa of the Orinoco basin. Like the Western scientist, artist or historian, the *ruwang* is engaged in constructing versions of worlds, in which the validity of any element depends on its rightness of fit within a particular frame of reference rather than on its correspondence to some pre-existent reality. After outlining Goodman's view of the cognitive processes involved in world-making, the article shows how the *ruwang* assembled unique versions of worlds by drawing together particular strands of the 'before time' history of creator gods and the 'today time' history of people and animals, in order to protect his community from disease. Far from being products of the play of metaphor or manifestations of 'primitive irrationality', every chant is a version of the world that projects its own literal and moral reality.

> If worlds are as much made as found, so also knowing is as much remaking as reporting... Comprehension and creation go on together.
>
> The realist will resist the conclusion that there is no world; the idealist will resist the conclusion that all conflicting versions describe different worlds. As for me, I find these views equally delightful and equally deplorable – for after all, the difference between them is purely conventional (Goodman 1978: 22,119).

The route to understanding specialist knowledge among the Piaroa, a tropical forest people of the Orinoco basin of Venezuela, has been for me a long and frustrating one littered with roundabouts and one-way streets. Finally the time came when I could receive from the *ruwang*, the Piaroa religious and political leader, answers to my questions which did not surprise me about the territories of his universe, and I began even to predict his answers. To find my own way, however, was one matter; to communicate and translate directions was another. It was not until I read Nelson Goodman's work, *Ways of worldmaking*, that I was able to understand sufficiently the processes through which the *ruwang* constructed knowledge so as to begin to draw tentative maps of them that the Western reader could follow. The rich chant language of the *ruwang* through which his knowledge was displayed became more sensible, and what I had for a long while understood as chaos, obscurity, ambiguity and confusion slid into coherence.

As a distinguished American philosopher of science and language who is well known for his work on such highly technical topics as inductive theory, counterfactual conditionals and the measures of simplicity of constructional systems, Goodman is a

surprising source of help to the anthropologist trying to make sense of hallucinogenic and shamanic reasoning among people of the tropical forest. However, in his later work, as exemplified by his two books, *Languages of art* (1968) and *Ways of worldmaking* (1978), his interest in structure led him to cross the boundaries between art and science and to look at the creative processes followed in both in their respective construction of worlds. What is of crucial importance to anthropology is that Goodman accepts, in egalitarian manner, the reality of a multiplicity of knowledges or 'versions of the world'. As he says of his own argument, 'the movement is from unique truth and a world fixed and found to a diversity of right and even conflicting versions or worlds in the making' (1978: x).

It is Goodman's position that the difference between science and art is not what normal Western judgements make it to be, where art is seen as weaker knowledge or non-knowledge in its relationship to science on such grounds as that art manifests a 'lack of cognitive efficacy', a 'stress on the emotive', a display of 'inexact standards', and the 'relaxation of rigor' (1968: 262; 1978: 5). He observes that it is in fact difficult to pinpoint relevant differences between the two knowledges on such commonly accepted grounds (1968: 249). To summarise briefly Goodman's view of the place of art *vis-à-vis* science: because the bases for the hierarchy of knowledge through which science traditionally defines itself and its knowledge as unique (and superior) are groundless, and because art has such an effect in reorganizing one's world, the philosophy of art should be conceived as an integral part of metaphysics and epistemology (Goodman 1978: 102-6).

Furthermore, he sees the contrasting knowledges of science and art to be unified in the cognitive processes through which knowledge in general is organized and created. In his words: 'Even if the ultimate product of science, unlike that of art, is a literal, verbal or mathematical, denotational theory, science and art proceed in much the same way with their searching and building' (Goodman 1978: 107). In *Ways of worldmaking*, his task is to move from a specific concern with the structure of concepts (based in the philosophy of science) to a wider concern with the structure of the several symbol systems of the sciences, philosophy, arts, perception and everyday discourse.

One argument that I shall advance in this article is that the processes of worldmaking (to replace my initial metaphor of map-making with Goodman's metaphor) followed in the West and in the jungle are much akin to one another. The scientist, artist, myth teller or historian, and shaman-curer are 'doing much the same thing' in their construction of versions of worlds. However, while the thought processes for constructing worlds are in many ways similar, the facts of which these worlds are made are very different indeed. For instance, in the jungle a world version may comprise angry creator gods and translucent streams of madness, rather than force fields of energy or atoms and molecules.

Goodman is a relativist, but one who recognizes constraints. Disclaiming any association with rationalism, empiricism, materialism, idealism, dualism, essentialism, existentialism, mechanism and vitalism, mysticism and scientism, he claims his position to be that of radical but rigorously disciplined relativism, one that results in something akin to irrealism (1978: x). But far from being a 'soft' hermeneutician, he is a 'hard-headed' philosopher of science who is technical about the ways in which versions of worlds are constructed – their unity – and also about the ways in which they differ. Thus to accept versions of the world other than physics implies no relaxation of rigour,

'but a recognition that standards different from those applied in science are appropriate for appraising what is conveyed in perceptual or pictorial or literary versions' (1978: 5).

Thus Goodman gives a tentative answer to the question of how aesthetics differs from science as well as being similar to it, and he suggests various symptoms which tend to be indicative of symbolizing in aesthetics whilst not distinguishing it absolutely. There is also a good deal of overlap because both science and art make, for instance, similar use of metaphor. His point is that while standards of appraisal in art are different from those in science because art differs in the types of symbols predominantly used, these standards are no less exacting than those applicable in science. It is worth listing some of the symptoms of aesthetic symbolizing since they are of interest to the anthropologist: 1) semantic density, where symbols are provided for things distinguished by the finest differences in certain respects; 2) relative repleteness, where comparatively many aspects of a symbol are significant; 3) exemplification, where a symbol symbolizes by serving as a sample of properties it literally or metaphorically possesses, and 4) multiple and complex reference, where a symbol performs several integrated and interacting referential functions (Goodman 1978: 67-8). In the judgement of standards of acceptability for the words and construction of Piaroa chant language the last three, relative repleteness, exemplification and multiple and complex reference, are all important. For reasons of space, I shall concentrate in a later section on multiple and complex reference alone.

Let me make my own position clear. It is not my intention to place the knowledge of the Piaroa religious specialist on the side of art, nor on that of science; for although much anthropological debate has been concerned with this issue (the primitive as poet or scientist), the answer itself is unimportant. What we need are new means, the more technical the better, of acquiring insight into the processes of creating knowledges, both generally and in their multiplicity. It is certainly not new to speak of the poetry involved in mythmaking, nor of the abstract theory in cosmological explanations. Nor is it my concern to explore the relative rigour or exactness of the aesthetic and the scientific modes of thought. Rather, I wish to note that Goodman has provided the anthropologist with the prospect of approaching tired issues through new understandings and with exacting techniques for exploring them. In many previous discussions of the poetry of the mythmaker the results have been placed firmly on the thither side of knowledge, and within such schemes, structuralist or otherwise, 'the shaman as world maker', a creator of knowledge, would be an untenable notion. This is not so within Goodman's vision of the cognitive processes involved in the creation of knowledge; for because of his rather unique view of 'truth' (see below) he accepts the reality of a plurality of knowledges.[1] The concrete means that he gives us for analyzing the standards for knowledge and its creation are demanding ones, and should be seen as complementary – not as replacing – those of structuralism, hermeneutics, and any other techniques and insights that might come to hand, allowing us to increase our ability to learn what both we *and* 'the other' share in the making and the remaking of our respective versions of worlds. It is only through the systematic examination of the production of knowledges, both theirs and ours, that we can then begin to unfold differences between these knowledges.

*Versions of worlds and rightness of fit*

Much of our talk in anthropology about symbolism has been centred on the problem of the relationship of words and reality. As Sperber says (1975: 4), we anthropologists know in the field when we are facing a 'symbol': a statement is irrational ('my father-in-law is an anaconda'); it does not fit with the world; it is contradictory. The statement has no 'truth-value', and thus does not fit our truth-conditional theory of meaning.[2] We assume one real, objectively fixed world, and when our informants' statements contradict this notion of the world we see confusion in our data which must be explained away as a peculiar form of 'thought process'.[3] At best we can say that our informants are being poetic and ambiguous, though untruthful or ignorant or unconcerned with truth about the world. One prevalent solution following the latter path is that symbolic discourse must never be taken literally, for its real intent is to express metaphorical platitudes about the social structure.

The truth of the matter is that the confusion is often ours: it is we who assume this image of a single, unified world, and not they. We try to treat the entire world(s) of knowledge of another culture as one unitary system, as the myth of science says the world (reality) is, and then we wonder why 'the laws of logic' do not fit. We label 'the other' as obscure and mysterious in thought process, when it is more probable that we have not understood the relationship between their 'symbolizing' and their standards for knowledge and explanation, and the relationship of such standards to practical matters.

In *Ways of worldmaking* Goodman argues that whether there is one world or many depends on our way of talking, and that, for him, whether there is in fact one or several actual worlds is not a relevant question since what we can know are *versions* of worlds – which are always tied to frames of reference. One cannot say what something is without a frame of reference. Under frame of reference A, the world has points as the intersections of pairs of lines. Under frame of reference B, the world has lines drawn between pairs of points. Or, in another instance, under frame of reference A, the earth dances the role of Petrouchka, while under frame of reference B, the earth always stands still.

It is Goodman's argument that such frames of reference belong to systems of description, rather than to *what* is described (on this point see also such philosophers of science as Rorty 1980 and Feyerabend 1975). Each of the statements above relates what is described to such a system. In the words of Goodman:

> If I ask about the world, you can offer to tell me how it is under one or more frames of reference; but if I insist that you tell me how it is apart from all frames, what can you say? We are confined to ways of describing whatever is described (1978: 2-3).

Goodman observes that our knowledge and perceptions are informed by a vast variety of world versions from the various sciences, from the works of painters and writers, from performances of symphonies, and so on. These often dramatically contrasting versions of the world are not reducible one to the other; yet they all enter into the process of *knowing* (1978: 22). We make and remake described worlds in numerous ways. That there are many world versions is not a trivial matter; for in their multiplicity they enter into the processes through which we know, perceive, understand and therefore experience 'the world' (1978: 3).

Having made this point, Goodman argues then that there is no solid bedrock of reality to which we can turn to assess world versions. Since reduction from one system

to another in 'any reasonably strict sense' is rare, 'to demand full and sole reducibility to physics or any other one version is to forego nearly all other versions' (1978: 5). Goodman's main argument is that 'truth' must be otherwise conceived than as corresponding with a ready-made world (1978: 94). A statement is true, and a description or representation right, for a world it fits (1978: 132).

Standards of judgement accord more with views of 'rightness of fit' than with notions of truth, truth itself being only one aspect of the rightness of fit of particular types of versions of the world, namely 'scientific'. Truth pertains solely to what is said, and to what is said literally (but see my discussion below of the hidden naturalism in Goodman's thought), while pictures and categorial systems have no truth-value (1978: 18-19; 127-32); but worlds can also be made through metaphor, and through what is exemplified and expressed. This is why Goodman claims that it is better to speak in general of right and wrong versions, rather than true and false ones, and why he subsumes truth under the more general notion of rightness of fit to world version (see 1978: 126 sqq.): the truth of statements and the rightness of descriptions, representations, expressions, exemplifications, diction and rhythm are primarily a matter of fit. For the tasks of knowing and understanding there are all sorts of fit beyond, and often more powerful than, the acquisition of true beliefs – fit to authority for instance, and to modes and manners of organization.

However, to deny the notion of one objectively real world does not for Goodman license the acceptance of an uncontrolled, out-and-out relativism where 'anything might go'. It is rather that standards and types of rigour and constraint are tied to world version or frame of reference, as the examples above of the earth dancing and the earth standing still aptly illustrate. He stresses that we *can* distinguish between 'right' and 'wrong' versions, for every world built is not as legitimate as every other one: within a single frame of reference one can be right and another wrong.

On the other hand, *Ways of worldmaking* is in large part about the creative processes followed in the construction of right versions of worlds that cut across the sciences and the arts. Worlds, he argues, are always made out of other worlds that are already at hand. It is thus with the relationship between worlds that Goodman is primarily concerned. One process of worldmaking is that of 'composition' and 'decomposition' (1978: 8 sqq.); for much worldmaking involves putting together and taking apart. The resorting of items in a world can lead to the creation of a new one, where different so-and-sos become the same such-and-such. Temporally disparate events can be brought together under a proper name or identified as making up 'an object' or 'a person' (this is especially pertinent to the identification of events and persons in 'mythic' material). In other words, identity or constancy in a world is always identity with respect to what is within that world as it is particularly organized. Contrasting worlds can also be created through processes of weighting, variations in ordering, through deletion and supplementation, and through deformation (1978: 10 sqq.). In portraiture, the visual weighting of features of bulk, line, stance, or light can alter, and thus past portrayals may seem strangely perverted, while the new appear delightfully 'correct'. Conflicting purposes may make for irreconcilable accents and therefore contrasting worlds. Orderings of different sorts pervade perception and practical cognition. For instance, the nature of shapes changes under different geometries, and so do the perceived patterns change under these different orderings. On the other hand, the artist who produces a spatial representation that the present-day Western eye will

accept as faithful must defy the 'laws of geometry' (Goodman 1968: 16). The scientist rejects (deletes) or purifies most of the entities and events of the world of everyday things while generating quantities of filling to complete the curves suggested by sparse data (1978: 15). The physicist may smooth out the simplest rough curve, while the caricaturist may exaggerate its irregularities.

Through Goodman's discussion of these various processes of worldmaking, I began to understand the worldmaking of the Piaroa *ruwang*. The *ruwang* was the Piaroa leader (see Overing Kaplan 1975 on his political role), and as such was their expert on what the universe is (and was) and on how beings in it, past and present, daily affect the everyday world of community life. He expressed and used his knowledge of the historical complexity of the universe through a process which involved the creation and description of world versions. Such creation of world versions was, for instance, the endless process of his chant language. Lévi-Strauss speaks (1966: 217) of the 'unlimited capacity for extension' in primitive thought. Goodman would say that good science is also dependent upon such abilities.

The multiplicity of versions that the *ruwatu* (pl.) presented to me appeared in the first instance highly conflicting. And so they were; but the point is that they were endlessly building worlds out of other worlds, both past and present, through processes similar to those which Goodman describes. The *ruwang*, in conducting a cure and constructing a world version to do so, like the scientist or artist building a theory or the artist painting a picture with other theories or pictures in mind, deleted and added items, weighted the same items differently, reshaped and transferred metaphorically: he organized and reorganized in response to both theoretical and practical need. Some features of the processes through which he constructed worlds will be discussed below.

Three aspects of Goodman's argument in *Ways of worldmaking* led me to begin to understand the descriptions and statements of the Piaroa *ruwang*. These were Goodman's insistence first that multiple and conflicting versions of worlds can legitimately co-exist; secondly that worlds are always built from other worlds already at hand; and thirdly that the processes through which they are created are similar in nature.

### *The* ruwang *as specialist of relationships between 'today time' and 'before time'*

In Piaroa cosmology time and space were divided into two major periods: the 'before time' of the creator gods and 'today time' which came after the rupture of time and space with the period of cosmogonic creation.[4] The label 'before time' (*to'pu*) literally means 'before', and not 'past'; and beings of mythic time were described as 'before people', not as 'ancestors'. *To'pu* refers to the time and the organization of things before the rupture, though the Piaroa might also have meant it to mean 'the period of history before time' or 'before sequentiality': mythic actions had their own mythic tense to separate them absolutely from actions of 'today time', which unlike mythic action could be distinguished as distant or near past, present and future.

'Before time' did have its elements of sequentiality: it was a period of rapid technological development when the means for using the earth's resources were created – gardening, hunting, fishing, cooking. Because the transformational forces that allowed for this creation were highly poisonous (see Overing 1985*a*), it was also a period characterized by violent competition over the ownership of new technology and the resources it utilized. As the transformational forces for creation increasingly poisoned the wills and desires of those who received them, the creator gods began to murder

and cannibalize for the ownership of ever more powerful forces for transforming the resources of the earth and for control of the domains themselves: all relationships developed into those of predator and prey. Even the Piaroa, toward the end of 'before time', became overcome by greed, and each community (their members transformed into jaguar predators) became involved in cannibalistic battles against competitor communities. The murderous period of 'before time' history ended when all the transformational forces for creation were thrown out of this earthly world into a new and safe home in celestial space: in 'today time' these particular powers were housed within the crystal boxes owned by the ethereal and benevolent *Tianawa* gods.

With the rupture of time and space from the 'before time' of creation history the universe became a discontinuous one, and as a result power became dispersed throughout the universe and individualized. The process that dispatched the destructive forces for creation from earth also split up into distinct abodes, separated by layers of space and skies, each type of being who in earlier days dwelt on one spatial plane and who could freely interact and exchange powers. Speciation also took place: beings who once could mate no longer could (usually) do so; animals, fish, and plants, autochthonously human in form, received their form of today. Many other beings of 'before time' became transformed into the benevolent *Tianawa* gods, moving from earthly space to their celestial home of today to live a pure and solitary 'life of thoughts' behind the spray of waterfalls.

Only the Piaroa (and perhaps other present-day humans), after the end of the time of creation, were able to live in groups and lead a social life; for only the humans of post-creation time were able both to acquire (although in limited quantity) and to use the capabilities for transforming resources of the earth (see Overing 1988). All other beings had lost their human capabilities for sociality and for transforming resources of the earth for use. For these reasons, the Piaroa received mortality: in 'today time' they suffered disease and death because many of the beings who lost their capabilities at the end of 'before time' sought revenge against the Piaroa for this loss.

It was the work of the *ruwang* to handle all dangerous forces from worlds that daily threatened the existence of his community and its members. As a 'man of thoughts' (*tu'eparing*), he was the community's warrior. To be effective as a warrior he needed to attain as full a knowledge and experience of the cosmos as he was able, a work he carried out through his powers of sight and movement. Through the flights of his 'master of thoughts', a homunculus who dwelt in his eye, the *ruwang* travelled from the community in which he lived to the lands of the gods beneath the waterfalls within their mountain-top homes in the sky; he visited the homes of the primordial parents of animals beneath the earth; he flew to places of 'before time' where the elements on earth and the capabilities to use them were first created.

The Piaroa said that the *ruwang* had '*umariaena t'opu tsu*', the wizardry to walk in 'before time'. Through his work of flying to other places and time, of seeing and wandering in them, he acquired the knowledge of these dangerous, alien lands and the powerful agents in them that he could then use weapons to deal with them. He was able through his knowledge to handle the often destructive and predatory power relationships between them and his community. One main purpose of the chanting of the *ruwang*, which lasted up to eight hours nightly, was to counteract the revenge of the immortal beings who dwelt outside 'the sky of the domesticated', the boundary which separated the Piaroa from other realms.

*Ruwatu* said that the words of their chants, along with the forces to cure disease, were given to the *ruwang* by the celestial *Tianawa* gods who in present-day time owned the crystal boxes of transformational capabilities and knowledge. Yet at the same time they said that much of the description of events was the experiencing of the *ruwang* during his flights to other worlds of both 'before time' and the present – for it was only then that he could see and understand the forces contributing to any particular illness, and therefore enabled to report on them. The words of the chant had the force for curing: through and in them the *ruwang* willed beings of other realms to enter the patient in order to enter into a cannibalistic battle with the beings causing disease, who were themselves engaged in eating their Piaroa victim, again attesting to the predator/prey relationship which typically held between other domains and the human one (see Overing 1986*a*).

It was from such lengthy chants that I learned the history of the cosmos, as the *ruwatu* understood it, and the elements of which it was composed; for it was always through long sections of chant recitations, and exegesis of them, that they told about their knowledge and their work. I was for a long time baffled by what I saw as the tolerance of each *ruwang* for ambiguity, contradiction, obscurity and mystery with respect to this history: much, by our notions of time and history and logic, was thoroughly incoherent.

### *The 'problem' of obscurity, mystery, contradiction and the incoherent*

The details of the adventures and misadventures of 'before time' belonged, then, to the domain of *ruwatu* knowledge and experience, and it was these details that often baffled me. The *ruwang*'s cavalier treatment of time and identity was so extreme that both seemed hopelessly jumbled in his history. There was an overall development to the time of creation: characters formed relationships, married and fought. Or, in the words of Lévi-Strauss (1966: 237), time during the period of creation had an 'irreversible' tendency, as well as a 'reversible' one (see also Descola 1986 on Achuar cosmogony). The latter tendency was well in evidence; for it was often the case that beings at the beginning of 'before time' were depicted in transformations, relationships and events that could only have occurred later in its history: animals were given their form only at the end of the time of creation, yet in a history given of 'the origin of night', an early 'before time' event, a god was also creating the animals – giving them their animal form; the revenge of disease was also given to the animals by creator gods long before the animals were created; and so on.

More disturbing, beings during 'before time' often took on the characteristics, qualities and relationships which were part of their 'today time' transformation – and vice versa. In the curing chant against paralysis, the *ruwang* described the disease as 'the loincloths' of peccary and armadillo covering the victim's bones and becoming intertwined with them. But animals, who in 'today time' gave disease to the Piaroa, did not wear loincloths; though they did do so during 'before time' when they were people who did not give disease. Such intermingling of identities from 'before time' and 'today time' was a constant feature of the *ruwang*'s descriptions and explanations of things; it seemed that the Lévy-Bruhlian notion of 'the primitive's' disrespect for logic and rationality could provide the answer, and that the Lévi-Straussian one of 'analogic thought' missed the point.

With chant language alone as evidence one might be tempted to blame ambiguities of identity upon the mysteries of shamanic metaphor, and leave the matter at that. To do so, however, would have been a mistake, and it was everyday talk that made this clear. Uncertainty about identity was a daily ontological puzzle for the Piaroa, and one they endlessly discussed. Thus the everyday talk of the ordinary Piaroa could be every bit as confusing for the unwary anthropologist as the complicated 'metaphors' and ambiguities of identity presented by the *ruwang*. But such 'problems' of identity in these daily conversations were certainly not those of 'metaphor', for here the Piaroa were obviously worrying about factual identity: 'Is that wild pig a human or a vegetable?'; 'Is that jaguar an animal, a human sorcerer or a god from "before time?"'; 'Is that butterfly or bat a sorcerer from a stranger community?'. If they got it wrong, it was their understanding that the literal consequences could be grim – the individual could become subject to a predator attack. It was the *ruwang* who was able to solve such mysteries of identity: he was the one who transformed pig meat, which was really human flesh, into safe vegetable food; he was the one who could see the sorcerer in bat's clothing, and do battle with him.

I shall now argue that a 'Goodman' approach, where we view the *ruwang* as a 'worldmaker', offers a much more powerful route to understanding. Through it we can begin to discern that our anthropological problems with metaphor and logic are most likely due to our giving insufficient attention to details of alien ontologies or versions of the world.[5] In other words, our communication problem with the *ruwang* is not because his is 'the poetic mind at work creating obscurity', but in large part due to the difference in basic metaphysical principles (premisses about what the world is) that we and he assume. This is a very old anthropological insight, but the depth of such differences – about what time is, and identity, and the historical process – is nevertheless still not very well appreciated. To dismiss such difference on the grounds of irrationality on the part of 'the other', or to see the solutions of the *ruwang* as but illustrations of a universal, rational and unconscious thought process (despite their obscurity) – the two approaches Sperber (1975: 1-4) holds to be prevalent in anthropology – militates against a 'Goodman' understanding. Goodman's approach, on the other hand, allows us to understand the solutions of the *ruwang* as good examples of order and knowledge appropriate to a metaphysics very different from our own.

Below I shall discuss more specifically some of the ways in which Goodman's insights into worldmaking enabled me to understand better the kinds of ordering typical of shamanic descriptions of worlds, including time in these worlds and temporal relationships between them.

### *The shamanic process of worldmaking*

Once I stopped trying to understand shamanic talk as if it were about a single, objectively fixed universe within which all the parts should fit together and form a coherent whole, I could then follow the lead of Goodman and focus upon the *process* of worldmaking in which the *ruwatu* were involved. In the words of Goodman, I gave up my 'futile search for the aboriginal world' (1978: 100). The Piaroa *ruwang* was able to do his work – to cure, to make fertile the land, to protect his community – because he was also in the business of worldmaking, of taking apart and putting together versions at hand, e.g. the worlds of 'before time' and of 'today time'. It would be a mistake to seek a bedrock of reality to such worldmaking.

When it is realized that the moral quality of a relationship or the intentionality of an action – e.g. treachery – was frequently a more important matter to the *ruwang* than, say, a principle of sequentiality, many of the more difficult anomalies of identity in his chanting become understandable. Identity for the *ruwang*, what something or someone was, often depended not upon sequential links, as tends to be the case for us, but upon what that something or someone was morally within a world as it was organized during a particular event.

Sometimes the *ruwang* was intentionally ambiguous about identity in order to express a moral point, as for instance in his chant that included the origin of garden fertility where he fused the identities of Cheheru, the promiscuous wanderer and sister of a creator god (Wahari) during 'before time', with Cheheru, the ethereal and morally pure goddess of 'today time'. In this history, Cheheru was named not as Cheheru, but as a woman called 'Kwawaworahu'.[6] She was also cited as 'the wife of Wahari', and not his sister. But the wife of Wahari was called 'Kwawanyamu',[7] and it was she who first gave the gift of cultivation to Wahari. There is nevertheless ample evidence, too much to detail here, that the person was not she, but (mainly) Cheheru.

In accordance with Goodman's principle (1978: 8) that in the construction of worlds 'different so-and-sos may be the same such-and-such', the *ruwang* fused through the person of Kwawaworahu aspects of the relationship of both Cheheru and Kwawanyamu to Wahari – and deleted many others. In doing so he created further tension by melding from 'before time' and 'today time' portions of Cheheru's existence. Cheheru, as the promiscuous, incestuous sister of Wahari, goes against the more proper and industrious role of 'Kwawaworahu', who was 'mistress of fertility' and diligent worker in this tale. Thus, although the story was set during the time of creation, Cheheru took on the attributes of her future transformation which would accord with her 'today time' responsibility for 'regulating the land' and her status as '*ruwahu* of all edible plants in the world'. As the 'before time' adulterous wife and irresponsible sister, and as 'the mother of monkeys and perfume', her moral qualities would have been inappropriate for the role of 'Kwawaworahu', while those of Cheheru, the *Tianawa* goddess, made an appropriate fit.

As Goodman stresses (1978: 5), no type of reducibility can serve all purposes, and rightness of categorization does depend upon the purpose at hand. In the story of Cheheru (alias 'Kwawaworahu'), the world constructed was a coherent one – from the point of view of moral qualities and personal attributes. From the point of view of sequentiality, it was not.

Space forbids more examples of the detours of time made by the *ruwatu* in chant language descriptions, but the particular understanding that the Piaroa had of the relationship between knowledge and the experiencing of time is important to mention. In their view, the experiencing of time and space was contingent upon degree of knowledge: the powerful beings of 'before time' could do what they wished with past and future events; they could mix them at will and even invent for 'today time'. They had these powers for trans-spatiality and trans-temporality because they had sufficient knowledge both of the origins of things and of their own futures to do so. When Wahari, the creator god of the Piaroa, first received knowledge beneath the earth from the hallucinogens of his powerful mentor, the chimerical tapir/anaconda, he saw his whole future – his future marriage, relationships and battles; his future creations, their transformations and suffering. He also saw the future of 'today time'. Thereafter, he

was able to play in 'before time' with the strands of this history. It was the albeit lesser knowledge of the *ruwang* that allowed him to travel among the creator gods and witness their trespassing of time. His words and descriptions which mixed times did not therefore contradict 'before time' and its possibilities for time detours.

Nevertheless, the uniqueness and power of a *ruwang*'s versions of this history were recognized by the Piaroa. It is here that we can turn to Goodman's interest in the standards of acceptability and judgement for rightness of fit in versions of the world outside the scientific domain. Goodman warns us that with aesthetic knowledge we should beware of confusing its symbolic symptoms with 'mystery' and 'obscurity', suggesting to the contrary that the symbol in aesthetic creations is satisfying the insatiable demand for absolute precision (see Goodman 1968: 153; 1978: 67–8). I wish to stress that the aim in Piaroa shamanic knowledge was also for precision, and not for obscurity. In what follows, I shall give some examples of the symbolic function of multiple and complex reference, which was a constant and critical feature of the *ruwang*'s creation of world versions. Because this function played such a large part in the work of curing and protecting, and thus in the respective renown and status of each of the *ruwatu*, standards distinguishing right from wrong versions were much debated and discussed by these specialists of knowledge.

### *'Before talk' and history: standards of acceptability and judgement*

The words of chant language were labelled by the Piaroa as 'before talk' (*t'opuku wene*), as opposed to 'new talk' (*hareu wene*), or standard language, and the great *ruwang* was the master of powerful 'before talk'. Such powerful words of 'before talk' were said to be *true*, while those of standard language were not necessarily so. The clever word-play of everyday talk for which the Piaroa had great talent, and were encouraged to develop as children, was considered 'false' (see Overing 1985*c*). High respect went to those who used 'before talk' frequently and well, and as men and women grew older they sometimes used 'before talk' in everyday conversation. The use of such words told of their great knowledge which sometimes went well beyond the comprehension of younger people, who told of incomprehensible 'old talk' statements being used in everyday conversation. One example was the use by an old man of the phrase 'distant Guakamaya widowed red person' (*otoaerae tuarekua*) to express 'let us go and bathe' (*ahe tiahae*). The knowledge of neither the young people nor this anthropologist was sufficient to grasp the relationship between bathing and this piece of 'before talk'.

The main standard used by the Piaroa for apt 'old talk' was that of the powerful organization of knowledge, which had practical effect in the activities of curing and protecting. The Piaroa overtly recognized the constitutive elements of the *ruwang*'s cure. Each successful cure was considered to be an original act, and a *ruwang* gifted in the work of curing was called a *k'adak'a menye*, or 'one who can cure everything (through chanting)'. *K'adak'a* was the word for the tap root of a tree; it was used metaphorically in chant language to signify the 'first idea of', or 'the first time created'. It was also used to state the first of anything: the first being to give disease, or the first to be killed. It signified the creation of something.

Each occasion of illness demanded its own explanation, and therefore its own unique experiencing of history to achieve a cure. For any cure to be effected, the *ruwang* had to experience in his travels, and explain in great depth, the motivated

origins in 'before time' of the particular disease at issue, and he had to recreate the reasons for its being given to the particular victim in 'today time'. His experience and explanation had to cover the great battles of 'before time' when transformational capabilities were created, owned, fought over and stolen.

Every disease that the Piaroa suffered in 'today time' had its origin in a series of acts of treachery and self-aggrandizement that occurred in 'before time', which were usually motivated by emotions of anger, greed, deception, or arrogance. When listening to this history, one began to realize that in boasting that he was the 'Master of the mountains, of the rivers, of the rapids, of the sky, land, and waterfalls', the creator god of the Piaroa brought no good to humankind. The results of his assertion of his right to a life of promiscuity – 'as due to such a great *ruwang*' – led in part to the human condition being one that included the experience of both evil and the disease of madness (see Overing 1985*a*).

As mentioned above, many beings at the closure of 'before time' lost their transformational capabilities for hunting, fishing and gardening; and these same beings then entered into 'today time' to avenge this loss by giving disease to humans. In a chant to cure skin disease, the *ruwang* explored and then detailed in his chant the cultural artefacts and the knowledge lost by the water animals, and he listed the particular diseases that took their place. Such diseases were the transformed and poisonous 'culture lost' of the animal, which the animal did not suffer but which in 'today time' it gave in revenge to the Piaroa for the capabilities that it had lost. Each aspect of cultural knowledge, such as the capacity to cultivate and to hunt, and each cultural artefact had its disease counterpart. Every illness was in part caused by the violence of the 'before time' culture of the animals attacking the victim in 'today time'. Thus fire, which had its origin in rivers and was owned by large water creatures (in human form), became in 'today time' the disease of water creatures to give to the Piaroa. When a Piaroa received a skin infection, part of the disease process was to be burned by the fire of the water creature attacking him/her (see Overing 1986*a* for further details on the Piaroa understanding of disease process).

It was because of the historical complexity of the disease process that the chants of each *ruwang* varied so much from one another; for each chant drew together strands of historical relationships in different ways. Thus, to call a successful curer *k'adak'a menye* was to recognize that both the diagnosis and the cure were creative acts and, as such, unique occurrences. The Piaroa would be in accord with Goodman in interpreting the acquisition of knowledge, and the power to be gained by it, as acts of worldmaking.

Success in creating an apt and powerful 'before talk' word was judged by the degree to which the *ruwang* captured the relevant complexity of 'before time' history, or, in other words, the significant aspects of the historical existence of beings in their relations with others. The *ruwatu* could be highly critical of each others' organizations and creation of 'before talk'. While the chanting of a young apprentice was fairly easy to understand, the most powerful 'before talk' appeared on the surface to be the most 'obscure' and 'abstract'; for a great *ruwang* could often integrate much of the history of a being through one multi-layered bit of 'before talk', the unravelling of which would take one to several worlds and times of significant history. The 'unpeeling' of the complex words of the *ruwang* that encapsulated the history of beings was a process in which Piaroa audiences constantly engaged.[8] It was for this reason that children at

an early age were encouraged in word-play; through it they gained experience they could later use for unravelling the multiple and complex reference of 'old talk'.

By taking the aim of multiple and complex reference into account, one can better understand the 'obscure' description of paralysis cited in an earlier section. Paralysis, as the 'loincloth of wild peccary wrapping itself around you', gave *entitlement* to (encapsulated) the existence of wild peccary in both his/its past human and present-day animal form. It also encapsulated his relationship with humans, and thus the reason for his revenge with paralysis, which was for the capabilities lost to him and kept by humans in 'today time'. The human wild peccary of 'before time' sent paralysis to humans through the present-day animal who had lost the ability to create and to wear loincloths. Thus, the peccary sent his 'culture lost', his disease, as a loincloth in the form it would take if he wore it in 'today time' – distorted, and therefore crippling to the Piaroa victim as it wrapped around the loins, forcing him/her to the peccary's own present-day animal shape. Clearly, it was necessary to know much history to begin to understand the chant language of the *ruwang*.

Paralysis as 'the loincloth of wild peccary wrapping itself around you' was not just a metaphor: it was a literal description by the *ruwang* of the illness being suffered. His words were both an historical explanation and a diagnosis, and his chant continued with the cure, which can take up to four nights for completion. In one cure for paralysis, these were some of the words of the *ruwang*:

> The sons of the *Tianawa* god, Muk'a, are moving within the water. They are descending down into it. Thus our sons laugh. The waterfall of the *Tianawa* god, Anemei, falls inside the water. The waterfall wakes up, and falls inside. The sons of Muk'a can eat the loincloth. The white flowers of the *Tianawa* god, Wirik'a, move into the water, ....

The *ruwang* was here calling upon the forces of the present-day *Tianawa* gods to help him fight the power of the 'loincloth of wild peccary'. The words themselves had efficacy because as he chanted he periodically blew them with their force into containers of water or honey, and in the morning all members of his community drank the words, which then acted as a cure or prophylactic within them. The sons of Muk'a literally entered their bodies to combat the powers of wild peccary and other gods from 'before time' who had entered or might enter them.

I shall give two more examples of 'before talk' where multiple and complex reference is evident: one is a single word and the second a series of puns. In both instances, the *ruwang* was creating a 'simultaneity' of time and space through the expert use of affixes towards the end of referring, in their historical complexity, to particular types of agency affecting the human community.

In the myth detailing the creation of red jaguar, Kuemoi (the mad and demonic creator god of hunting and gardening) made all parts of this animal, including his hair, which was called by the chanting *ruwang 'aeraerinyo'u'*. Typically excessive in his behaviour, this creator god was trying to make hunting dogs, but it was the large cats he created instead. It would be a very simple understanding of the construction *aeraerinyo'u* to read it as a metaphor for 'the red hair of jaguar', which was its first level of meaning in Piaroa exegesis. But the word required explanation, since the everyday phrase for 'jaguar hair' was *yaewi wotsae*.

The exegesis continued as follows. Through the efficient use of affixes in the construction of *aeraerinyo'u*, it also referred to the red cotton (*aerae* = red Guakamaya) from which the hair was created and to the 'red lake of jaguars', the lake of origin

(lake = *yo'u*) owned by Kuemoi in which jaguar was created. Kuemoi was also born within this lake, and it was within it that the first fire was born near the beginning of time. Thus the reference to the creation of 'red jaguar hair' referred to this first fire, which in 'today time', in its malignant force as disease (the culture lost at the end of 'before time' by water animals), caused burns on human beings. The lake in which fire was originally born was also called 'the lake of (the bird) Guakamaya'. *Aeraerinyo'u* was further the name of the red stone which formed the plaza within the lake, and it was in this plaza that Kuemoi later foolishly created jaguar and other big cats (they dirtied his plaza with their defecation and vomit after their first predatory journeys). But after creating jaguar, Kuemoi then used their force (transformed into jaguar) for his predatory hunting for humans. Towards the end of 'before time' history, the Piaroa themselves used Kuemoi's forces for creation to murder one another: maddened by these poisonous forces for hunting and cultivation that they had appropriated, the Piaroa transformed themselves into jaguars to attack and devour one another.

Thus through the use of multiple and complex reference, the *ruwang* – in the construction of the one word *aeraerinyo'u* – integrated through a number of different related times and events in 'before time' that referred to excessive and finally treacherous actions caused by the use of Kuemoi's powers; as a construction, it therefore had powerful effect in the cure for a bad burn.

The words and structure of this chant by a renowned *ruwang* contrast considerably with an example of chanting from a young apprentice *ruwang* that partially covered the same events, in particular those of the cannibalistic battles of the Piaroa at the closure of 'before time'. In his chant the young man described in detail this madness, but his story became repetitive and boring because the masterful use of affixes was absent from his construction. Thus he made little reference to the relatedness of the complicated events and relationships of 'before time', reference that would have given reason, motivation, and therefore practical power to his story. For the purpose of curing, this version was judged 'wrong', not 'right', as was in contrast the case with the version discussed earlier.

Many words of chant language were created through complicated punning. The following exegesis was given to me on the use of the construction of the three words, *t'eoraenyú*, *maeriaenyú*, and *maeriaényu*, in one of the histories about the battles fought between Wahari, the creator god of the Piaroa, and his father-in-law (Kuemoi), the creator of the forces for cooking, hunting, gardening. Elements of their battles were always included in the curing chants, for it was the fighting between Kuemoi and Wahari over ownership and control of the predatory capabilities for civilized eating that in the main led to the chaos and destruction typical of the closing of 'before time' history, and to the death and disease experienced today by the Piaroa.

The incident in the myth that was being described was Wahari's flight in his magical canoe to Kuemoi's home: he wished to steal hunting capabilities from Kuemoi to give to his fellow jungle beings. He was said to 'take the force of hummingbird' to make his canoe move through space, both beyond the earth and below it. The hummingbird was a frequent transformation of this creator god, and thus one of his greatest manifestations of power. In contrast his father-in-law, Kuemoi, a violent and malevolent person, tended to use as his transformation his own house pet, the jaguar.

The word for hummingbird was *maeriaenyú*, but the word a *ruwang* used was *t'eoraenyú*, 'white nest'. This nest belonged to Woranyu, who was a type of

hummingbird, a sacred musical instrument, and the 'mother' of Wahari. 'White nest' was also the term used for a wizard's basket. *Maeri*, the prefix of the word for hummingbird, was the term for 'wizardry' in the Piaroa language: whenever anyone accomplished something through *maeripa*, he/she did so through wizardry. With the accent changed on *aenyú* ('nest'), the word became *aényu*, or 'pointed object', the term also used for a canoe with pointed ends. When the accent was changed on the term for hummingbird (*maeriaenyú*), to make the word *maeriaényu*, it became all of the following: 1) the name of Wahari's canoe, 2) the name for the 'force of hummingbird', and 3) the name for the 'nest of Woranyu'. The accent pun on hummingbird also created a description of the 'force of hummingbird' as *maeri* (wizardry) + *aényu* (pointed object), or the long beak of the bird. In its other use, as the name of the magical canoe, the term *maeriaényu* literally meant 'wizardry point'. The phrase *maeripa aényu* was also used to describe this force.

CHART OF PUN: *T'EORAENYÚ*

*T'eoraenyú* = white nest
= wizard's basket

*t'eo* = white

*aenyú* = nest

*maeriaenyú* = hummingbird

*maeri* = wizardry

*aényu* = pointed object
= canoe

*maeriaényu* = name of canoe
= force of hummingbird
= Woranyu's nest
= wizardry point

*maeripa aényu* = wizardry through the use of the force of hummingbird.

Once I understood that the *ruwang*'s main role as leader was that of worldmaker, I was then able to begin to appreciate the *precision* of his 'before talk', and its organizing force in the formulation of power relationships within the universe. It was the exploration of agency, and the history of its morality and its treachery, that was the focal task of the *ruwang*; and it was the encapsulation of this history in powerful 'before talk' that gave his words efficacy in his work of curing and protecting.

*Conclusion*

Nelson Goodman should be taken seriously by anthropologists. His approach not only allows a deeper communication between philosophy and anthropology, but even more importantly it can lead to a conversation between anthropologists and 'the other' in which the latter can be treated as an adult. Goodman's acceptance of a multiplicity of experiences and of knowledges, his recognition that each may be irreducible to the next, and his insistence both that fact is tied to world versions, and that the cognitive is inextricably tied to the emotive, should all appeal to the anthropological sensibility.

Goodman suggests that there are other knowledges equal to the scientific one that contribute to the organization and the reorganization of our worlds. It was my desire in this article to pay respect to the Piaroa judgement that their *ruwatu* were men of knowledge; indeed, they were renowned among Amerindians of the Venezuelan Amazon Territory as 'the intellectuals of the Orinoco'. At the same time it was necessary to cope with my own judgement that what is spoken of as the *ruwang*'s knowledge fits ill with what we as secularized Westerners would regard as knowledge. I have argued that Goodman's concept of worldmaking reconciles this apparent antinomy; for the virtue of it is that it applies equally well to the chantings of the *ruwang* as to the Western philosopher's or scientist's theory-building, and all of these can therefore be understood as 'doing the same thing'. No distinction can be made between the order of theory and the order of reality, for each theory projects its own reality.

There is, however, one thorny issue which has to do with the relation between the *ruwang*'s descriptions, ontology and morality. Goodman remarks that when he is discussing the counterpart of truth for works without subjects (without reference to 'the world') in literature and art, he is leaving the topic of *moral* rightness to others, just as he likewise leaves the explanation of 'why things are as they are' to the cosmologist (1968: 78; 1978: 109). However, the connexion between ontology and morality is critical to the understanding of most knowledges, and of their creation.[9] Thus, the side-stepping of such an issue as worlds comprised of significant relationships – 'evaluated worlds', as Hesse expresses it (Hesse 1984: 40), or 'semiological ontologies' (worlds as meaningful orders), in the words of Taylor (1985: 223) – leads inevitably to muddles in any discussion of 'actual worlds' when the literal/metaphoric distinction is rejected. Goodman's position throughout *Ways of worldmaking*, where he denies any built-in universalistic privilege to so-called literal predicates, entails a rejection of the importance of the literal/metaphoric distinction. Yet he still defines truth as pertaining to statements made literally, although he subjugates truth to the more general standard of rightness of fit: 'truth, like intelligence, is perhaps just what the tests test' (1978: 122).

Even though Goodman argues that 'truth must be otherwise conceived than as corresponding with a ready-made world' (1978: 94), and despite his statement that his worlds are conceptual systems and that he wishes to allow for differences in opinion as to what actual world or worlds there are (1978: 94-5), in his distinction between 'everyday' and 'fictional' worlds Goodman nevertheless displays what Hesse has called 'a barely acknowledged *naturalist* ontology' (1984: 36, her emphasis). For Goodman, a unicorn has null denotation; it denotes nothing in the actual world. A picture of Don Quixote does not literally denote anything. However, his portrait may effect 'a reorganization of our familiar world by picking [it] out...as a relevant kind category that cuts across well-worn ruts' (1978: 104), and a person may then be judged as 'quixotic' in the everyday world. He argues that fiction therefore applies 'truly' to actual worlds.

But what about religious chanting and 'myths' where the remaking of worlds may be about actual changes and effects in the 'everyday' world? The perspectives of Goodman and of the Piaroa would differ. What would the 'symbols' of chant language stand for from Goodman's point of view? According to Hesse, they would stand for nothing, since for him they would be fictions (Hesse 1984: 38). She finds it interesting

that in his discussions of knowledge, Goodman never mentions *myth* (or religious knowledge), although in the first chapter of *Ways of worldmaking* he pays tribute to Cassirer and in particular to Cassirer's pluralism as expressed in his work, *Language and myth* (1946). The resolution of the discrepancies between these two perspectives, that of Goodman and that of the Piaroa, would take one into the realm of a revised ontology and theory of knowledge and truth, and thus well beyond the bounds of my own capacities and of this article. For a start, a *satisfactory* answer to the question of whether metaphoric statements have truth-value would have to be found (see Hesse 1984).

Piaroa truths, about physical reality or otherwise, are tied explicitly to a *world of values*. A 'fact/value' dichotomy (or a distinction between the 'fictional' and the 'everyday') would not be relevant to a discussion of these truths. Finally, it is important to emphasize that for the Piaroa, within the framework of their versions of the world, the metaphoric statements of the *ruwang* were true (literal) ones about agency in the universe. The *ruwang*'s capabilities for action were dependent upon his ability to state the truth, and powerful true statements had practical effect in everyday life.

## NOTES

I thank Misha Penn, Jacob Meløe, and Mark Hobart whose discussions with me about the Piaroa worlds helped me to be more 'rigorous' in my treatment of them.

[1] See also the work of the Nordic school of 'the philosophy of practice' as exemplified, for example, in the works of Jacob Meløe (1983*a*; 1983*b*). Like Goodman, these philosophers also speak of 'many worlds'. However their emphasis is not so much upon the formal processes of cognition, as upon the effect of our activities in the world upon the creation of our concepts of it.

[2] See the spirited discussion by Taylor (1985: ch. 10) on the inadequacy of a truth-conditional theory of meaning in the task of translating a language very alien to one's own. Basically his argument is that t-c theory gives primacy to the literal or the representative, while in fact language is at least equally social, invocative, constitutive, expressive, etc. Also see Hesse (1984), who argues that all language is metaphorical.

[3] See Sperber's interesting, but almost incomprehensible solution where he says that 'symbolic knowledge is neither about semantically understood categories, nor about the world, but about the encyclopaedic entries of categories. This knowledge is neither about words nor about things, but about the memory of words and things' (1975: 108).

[4] Harris (1987) used the term 'rupture' to describe a similar disjunction in the cosmogony of the Andean peoples. The term aptly captures the separation of 'today time' from the 'time of creation' in many Amerindian histories.

[5] See Barnes and Bloor (1982) and Hacking (1982) where these authors talk of the effect of premisses upon thought, or in Hacking's words, upon 'styles of reasoning'. Also see Overing (1986*b*), where I develop the argument that our problems of translation are often due to insufficient knowledge of 'the other's' metaphysics. Also see Hobart (1985), Salmond (1985), Overing (1985*b*, 1985*c*) on this point.

[6] To translate literally: *kwawa* = food; *Wora* = a musical instrument during 'today time' who, during 'before time', was a handsome man with whom Cheheru wanted to play; *hu* = feminine suffix.

[7] Again, to translate: *kwawa* = food; *nyamu* = maize; *hu* = feminine suffix.

[8] According to A. Hobart (personal communication), the Balinese use the term *melut*, 'peeling' of the words, to describe the process of unveiling the sacred language of shadow plays, making it thereby accessible to the villagers.

[9] See Gellner (1973: 170 sqq.) where he makes the point that the scientific understanding of truth is in sharp contrast to the knowledge systems of other societies where it is normal for physical truths to be tied to other truths that are social, moral, and political in scope.

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## Le shaman comme créateur de mondes: Nelson Goodman en Amazonie

*Résumé*

Cet article montre comment la philosophie de Nelson Goodman nous aide à comprendre le langage de chant du chef religieux (*ruwang*) parmi les Piaroas du bassin Orinoco. Le ruwang comme le scientifique occidental, l'artiste ou l'historien est engagé dans la construction de versions de mondes dans lesquels la validité de tout élément dépend de la façon dont il s'harmonise au sein d'un cadre particulier de référence plutôt que de sa correspondance à quelque réalité préexistante. Après avoir souligné les vues de Goodman sur les processus cognitifs engagés dans la création de mondes, l'article montre comment le ruwang assemblait des versions uniques de monde en faisant se rencontrer des enchaînements particuliers de l'histoire 'd'avant les temps' des dieux créatures et de l'histoire 'des temps actuels' des personnes et des animaux afin de protéger sa communauté des maladies. Loin d'être des produits du jeu de métaphores ou des manifestations d''irrationalité primitive', chaque chant est une version du monde qui projette sa propre réalité littérale.