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**FROM SEMANTICS TO CULTURE
(AND ETHNO-COGNITION) :
BIRDS NAMES IN SOME
AMERINDIAN LANGUAGES FROM
FRENCH GUYANA**

INTRODUCTION



- The aim of our communication is to make sense of the comparison of birds names and bird classification systems in two Amerindian languages from French Guyana (and in general).
- It will be based on somehow complex semantic and pragmatic considerations about the semantics and pragmatics of naming, which will be detailed in the first section and according to which the relationship between names, nouns, categories and identification has to be deeply reconsidered.

Introduction



- The second section will present bird names and linguistic classification systems in Wayampi (Tupi-Guarani) and Palikur (Arawakan), two languages from eastern French Guyana and Brazil, which are both northern representatives of two large South-American linguistic families:
 - the Tupi-Guarani family, whose origin is a southern one;
 - the Arawakan family, which is an Amazonian family.

Introduction



- Working on languages which belong to such large families, and whose direction of migration is sufficiently known, allows to compare names and referents on a large scale, allowing a diachronic study of the “migration of words” (F.Grenand, 1995).
- Areal diffusion of names being also a reality in the region, with names used for the same bird or another bird, it is also possible to study denomination on a trans-linguistic basis.

Introduction



- The third section will summarize the main contrastive conclusions which can be made about the naming of birds, showing that languages within a single linguistic area use quite different types of characterizers in the denomination of birds, and that the recognition of kinds (and not only their names) is at the lowest levels based on different criteria, it is ultimately the human experience of bird “life styles”, i.e. relation to the world and behavioral patterns, which account for crucial aspects of classification.

Methodological precisions



This study is part of an extensive effort to describe the lexicon of these two languages, and specifically its “bio-lexicon” (plants and animals).

This effort consisted initially in the recollection of all the names of plants and animals, and was conducted both in the field (forest, swamps, savanna, river) and with the use of available handbooks.

In Palikur, this effort has been associated with the constitution of a spoken corpora about each of the natural kinds or species, summarizing a basic knowledge about them.

In Wayampi, this effort has been conducted for a part on a day by day exploitation of specimens collected by various institutions

Most of the time, the results which have been obtained have been tested on various speakers, from different generations, using both onomasiological and semasiological approaches .

Reconsidering the semantics and pragmatics of naming



The starting point of our analysis will be a theoretical one, namely that a widely shared idea about the relationship between lexical meaning and categorization, namely that *the meaning of a noun is a definition of a set of conditions which something must satisfy to belong to a category*, is as unacceptable as the assumption that the earth is flat.

We shall assume on the opposite that nouns as such are characterizers and not categorizers, and that when nouns becomes names of something, the association of a characterizer and a kind is not a relation of definition.

Reconsidering the semantics and pragmatics of naming



We shall indeed assume that understanding the way birds, i.e. specific individual birds, are identified is essential to a correct understanding of bird's names and classificatory systems.

The most basic and important observation in that respect, which is a semantic one, is that the nouns used as characterizers never provides a condition for the identification of something as belonging to a category, and vice-versa that only a fraction of the information which is provided by these nouns is sometimes used as an identificational clue.

Illustration



If one considers nouns such as English *waders* or *cuckoo*, Spanish *quebrantahuesos* (bone-breaker, Lammergeyer) or French *Fauvette à tête noire* (black-headed warbler) or *pic* (woodpecker), it is obvious that seeing a lammergeyer breaking bones or a woodpecker pecking is not a condition of identification which has to be satisfied in order to categorize something as a *pic* or a *quebrantahuesos*. It may also be observed that only males of *cuckoo* or *Fauvette à tête noire* are correctly characterized by the characterization chosen as a name, so that half of the category members (i.e. females) simply do not fit the description provided by the noun.

Illustration



Moreover, it is not even the case **waders** or **quebrantahuesos** or **pic** should be birds at all.

As a noun, what those words intrinsically mean is in fact only that something wades, or pecks or break bones or has a black-throat, and it is only because those characterizations were used for a bird specie that they become associated with birds at all. This explains why a word such as *fourmilier* (ant-er) in French is a name both for the *giant ant-eater*, a mammal, and the *ant-birds*. And also that **wader** may name:

waders



or waders



Illustration



Or even other species of birds in North America (herons, storks) where waders are called shorebirds.

This polysemy is directly explained by the meaning of *wading*, which is “to move forward into (water)” and which is true in the three uses.

Such a polysemy is not accidental but inherent to linguistic signs, and as a consequence, has become a central issue in Semantic theory in the past thirty years, with the recognition of the indexical nature of nouns and the necessity to distinguish nouns and names.

Names, Nouns and Semantics



This reality thus directly falsifies three of the most widespread ideas about the semantics of names, namely that:

- the meaning of a noun N would be a definition of what is called a N;
- the meaning of a noun N would list a set of properties which a given object must have to belong to a class;
- nouns would thus be categorizers.

Names, Nouns and Semantics



On the contrary it shows that:

- even though it is nouns which are used as names, this reality does not imply that the semantics of nouns would be directly related to naming and the conditions of naming:
- if N is a noun and a name, the answer to the question « what does N mean ? » is completely distinct from the answer to the question « what is a N ? » (see Cadiot & Nemo, 1997a, 1997b, 1999)

Recent developments in the semantics of nouns



- A huge effort on the understanding of nominal polysemy (Pustejovsky, 1995; Cadiot & Nemo, 1997a, 1997b, 1999) has led among other things to the following conclusions:
 - nouns in all their uses provide an access to the referent rather than a determination of the referent, in other words they behave like indexicals;
 - when nouns are used as names they combine denominativity and indexicality and are denominative indexicals;
 - nouns are characterizers and not categorizers.

Recent developments in nominal semantics



- Studying nouns and names thus implies to study the way they are used as characterizers and what the characterization process is about.
- Characteristics are properties which are distinctive but not forcefully shared by all the members of the class (Cadiot & Nemo, 1997c).
- Because they are not shared by all the members of the class, they cannot define membership as such;
- As distinctive properties, they may play a role in the existence of a prototype but not the other way round: characteristics account for prototypes but the reverse is false.

Reconsidering the pragmatics of naming



- As mentioned earlier, the identification of a specific object as belonging to a certain kind is based on a wide spectrum of identificational clues which, for most of them, are simply not relevant when it comes to linguistic meaning and/or unrelated to the meaning of the noun by which the kind is named;
- This however does not imply that there would be no relationship between identification and systems of classifications in language use, but only that there is no direct or necessary relation between identification and individual names.

Reconsidering the pragmatics of naming



- Nouns are used, and part of their meaning is due to the lexicalization of the interpretation of these uses;
- The science which studies language use is pragmatics
- A major pragmatic constraint on interpretation is the constraint of being exhaustive, of providing enough information about what is subject of the conversation. (see Grice's maxim of quantity, 1975).
- This constraint directly applies in everyday life to the identification of a given object or live-being.

Reconsidering the pragmatics of naming



- Whenever a contact, either visual or auditory (etc.) is established with an animal, an identification process starts.
 - Quite often this process is not fully completed, in other words, there is only partial identification. One may say:
 - (1) *I saw a bird.*
 - (2) *I saw a raptor (duck, etc.).*
 - (3) *I saw a falcon.*
 - (4) *I saw a peregrine falcon.*
 - (5) *I saw a female peregrine falcon.*
- etc.

Reconsidering the pragmatics of naming



An essential part of anybody's experience of nature is that it is often the case that one cannot fully identify a bird (or even something that could be a bird).

In such cases, utterances such as (1) or (2) provide the maximal identification available but do not provide the name of the bird at stake, in other words do not provide the sufficient or complete information which is provided by (3) and (4).

On the contrary, there are also contexts in which less than complete identification is enough for the object of the conversation.

Reconsidering the pragmatics of naming



It follows from this that in any language, the existence of the higher ranks of the classificatory system cannot be reduced to the sole question of grouping of kinds into classes and life-forms, and should be considered in identificational terms, especially when it comes to the understanding of the various levels of classification.

It also follows that from a pragmatic point of view, the higher ranks of classificatory systems are and should be considered as **first characterizers**, a reality which deeply modifies the interpretation which should be made of cross-linguistic data about Life-forms (e.g. Brown, 1984).

Reconsidering the pragmatics of naming



Consequently, types must be distinguished according to their relationship with naming:

- for instance, no bird is named *bird*, because *bird* is a partial characterization and naming requires sufficient if not full identification;
- a type associated with sufficient of full identification will have a name and will be a kind;
- kinds may be poly-specific, and group sub-kinds, with a name on their own.
- un-named types may exist, which will be referred to by other linguistic means that denomination.

To be or not to be (something): recognizing kinds



Before being named, kinds have to be identified as such.

In everyday life, this process is mostly dual, for it supposes on the one hand the identification of an object-token as associated with a type, and then the use of the name of this type. And not the other way round (virtual reference).

Understanding why something is recognized as something on its own (step 1) which deserves to have its own name (step 2), is thus an important issue.

To be or not to be (something): recognizing kinds



There are consequently three issues to consider jointly:

- the first question is the question of knowing why something deserve to have a specific name or not, and if there are types which are known but not named or not;
- the second issue is the study of the way distinct languages semantically characterize birds, in other words the study of characterizing patterns,
- the third issue is to study the role of characterizers in partial identification contexts.

Parameters in the ethno-cognition of birds



In order to address these three questions, a last distinction must be made in the study of bird names and classificatory systems between;

- ornithological expertise;
- ornithological experience;
- ornithological knowledge;
- ornithological cultural representations;

All of which interfere in the ethno-cognition of birds.

Definitions



Ornithological expertise is the capacity to identify a certain bird (and something as a bird). It is unequal among speakers of the same language. It includes the knowledge of birds names

Ornithological experience is the knowledge of birds which result from direct contact and observation. It is partly implicit and unconscious;

Ornithological knowledge is the (collective) knowledge of birds one may have independently of direct experience. It includes the knowledge of birds names.

Ornithological cultural representations are stories about birds which are shared in a linguistic community, sometimes through the name.

Section 2



Bird names and classification systems
in Wayampi and Palikur

Birds among live-beings



In Wayampi, the name of birds is *witá*, which is a group on its own and does not include bats.

Birds belong to a larger group, called *watewa* (*those who like the high*) which includes birds, monkeys, squirrels, sloths, bats, etc.

Other such groupings are *iwilewa* (*those who like the ground*), which includes terrestrial predators, turtles, rodents, tapirs, deers, etc. and *ilewa* (*those who like water*), which includes fish, turtles, otters, etc.

Birds among live-beings



In Palikur, the name of birds is *kwivra*, which is a group on its own (does not include bats), together with *im* (fish), *kaybune* (serpents), *kaukwine* (cats), *tivu* (amphibians), *mahuksi* (a large group in which monkeys are saliant, the name of the group being the name of the howler monkey), *wayam* (turtles), *puikne* (litt. meat, non carnivorous mammals from tapir to small rodents).

The word *kwivra* includes a suffix *-vra* which is used otherwise to name birds.

Toucans in Wayampi: tukã



- Tukane'e [*Rhamphastos tucanus*] Toucan-real
- Tukãsĩpako [*Pteroglossus viridis*] Toucan-beak-banana
- Tukanowakĩ'a / tukãsisĩ [*Selenidera culik*] Toucan-call /
Toucan-small
- Tukãsĩmilã [*Rhamphastos toco*] Toucan-beak-red
- Tukãkulukawilã [*Rhamphastos vitellinus ariel*] Tc-
throat-red

- (Tukã)kĩlo, kĩlo [*Rhamphastos vitellinus vitellinus*]. TC-
call
- (Tukã)pĩni , pĩni, [*Pteroglossus aracari*]. TC-call

Toucans in Palikur



- Yauk [*Rhamphastos tucanus*] call
- Yauk agagl, yauk ihuvryune [*Rhamphastos toco*]

- Panaka [*Pteroglossus viridis*]
- Panakayen [*Selenidera culik*] Panaka-small
- Kyapyed panaka [*Pteroglossus aracari*] Big-panaka

- Mwokyavra [*Rhamphastos vitellinus*] Mwok-bird
mwok is rain (seems unrelated)

Kingfishers in Wayampi: Yawasi



- Yawasi [*Ceryle torquata*]
- Yawasisia [*Chloreceryle inda*] Yawasi-girl
- Yawasitekole'e [*Chloreceryle americana*]
Yawasi-male-true

Despite their names, the two last species are considered as different kinds.

Kingfishers in Palikur: Tava(r)a



- Tava(r)a [*Ceryle torquata*]
- Kwĩa [*Chloreceryle inda*]
- Hwitãkig [*Chloreceryle americana*] drill-beak
- Walaxux [*Chloreceryle amazona*]
- Hwitãkig [*Chloreceryle aenea*] drill-beak

Pigeons in Wayampi: Pïkau



- pïkauwili = pïkausĩmilã = uluwulayiwẽ [*Columba speciosa*] Pigeon zébré. Pigeon-beak-white. Vautour-Gendre
- Pïkaulo [*Columba plumbea*] Pigeon-bitter
- Yelusiãsi [*Leptotila rufaxilla*] Dove-shy
- Yelusipilã [*Geotrygon montana*] Dove-red
- Tukuluwe [*Columbigallina* spp.] Areal name

Pigeons in Palikur



- Wa(r)am [*Columba speciosa*]
- Waytkuk [*Columba plumbea*] call (possibly)
- Tukwa [*Columba cayennensis*] call (possibly)
- Ugus [*Leptotila rufaxilla*] call
- Ugus ahavukune [*Geotrygon montana*] ugus-forest
- uhumã [*Columbigallina minuta*] call (possibly)
- uhumã [*Columbigalilna passerina*] call (possibly)

Waders in Wayampi: Matuwituwi



- Matuwituwi [*Actitis macularia*] Call
- Matuiwituwiu [*Tringa melanoleuca*] Call-big

There are only two species of waders in upper Oyapock, which are distinguished one from another.

The name *sũĩsũĩ* in Wayampi is the name of two rallidae

- Sũĩsũĩ [*Laterallus exilis*] Call
- Sũĩsũĩnu [*Porphyryula martinica*] Call-big

Waders in Palikur: swiswi



- swiswi [*scolopacidae*] Call (possibly)

At best a distinction is made on size

- Swiswi-nopsad [*Curlew*] swiswi-big.
- Swiswiyen. [*Actitis macularia*] Swiswi-small

There are plenty of different waders species in the estuary of the Oyapock, many of which are migrants from northern America. The existence of a diversity of *swiswi* is known (from curlew/whimbrel to sandpipers) and they may be described. But this does not lead to a specific naming.

Palikur classification: minoring morphology



As a general trend, the Palikur's nominal characterizers used to name birds are not morphological characterizations:

- reference to coloration is not frequent, often limited to the clear/dark/rufous distinction and to sub-kinds.
- reference to shape or form is even less frequent, and mostly limited to consideration of global size, with little reference to body parts;
- reference to coloration patterns such as *streaked* or “ant-ed” are not uncommonly present in the characterization process, almost always for sub-kinds.

Palikur classification: life-style vs life-forms



It does not follow from the fact that semantic characterization and classification of birds in Palikur makes little reference to morphology that the Palikur would ignore the reality of morphological differences. When asked, they prove to be perfectly aware of morphological differences (and types), and even, for groups such as waders or woodpeckers or some tanager genders, of the existence of different types (polytypic kinds).

Reference to this un-named types is not nominal but periphrastic/definitional (*Did you hear that ? It is the black-headed woodpecker which lives near streams*).

Palikur classification: life-styles vs life-forms



What seems to be the case is rather than their classification system is based mainly on ethological-ecological considerations rather than morphological ones.

In other words, what they classify seem to be life-styles rather than life-forms, the relation of a bird to the world (in both a behavioral and ecological sense) rather than characteristics of its body.

This reality contrasts with ordinary western assumptions about the importance of morphological features, but also with folk-classification in a language like Wayampi.

Ultimately however, and even biologically, the fact that life-forms derive from life-styles, and the fact for a bird of having to cut its catch for instance rather than to swallow or gulp it, has direct consequence on its morphology.

Classificatory perspectives



“For the most part, biological organisms are not morphologically continuous [..] Rather there is typically much distinctiveness making for obvious breaks or gaps among species. [..]. While folk classification occasionally involves overlooking such breaks – resulting in the lumping together of morphologically distinct species – usually natural discontinuities are followed closely in folk classification”. (Brown, 1984, summarizing Hunn, 1977)

The choice of the term/characterization *life-form* is based on the same assumption.

Palikur classification: bird language



If morphology is minored, bird vocalizations on the contrary play an important role in the characterization process.

Not only because of:

- onomatopoeic names;
- exocentric construction such as *audikavra*, tapir-bird, interpreted as the bird which sounds like a tapir;
- recognition of a bird kind on an almost purely vocal basis, for instance among morphologically homogenous flycatchers or tyrants;

.....

Palikur's classification: bird language



... but because the vocalization of birds are to a large extent considered as a language, much closer in that respect to speaking than to singing, and that speaking a same language is essential in defining a group.

It seems in any case that birds which share similar vocal patterns and a single relation to the world are strongly considered as a kind, no matter how different they may be otherwise and morphologically.

Palikur classification: wider issues



The Palikur society has not moved for at least 500 years, living in a swampy and semi-forested environment, but has experienced since that time the necessity of constant demographic reconstruction through incorporation of fragmented groups. Its heterogeneity is maximal and dynamic.

At the end of the 19th century however, it has crystallized in a limited and fixed number of clans (or nations): belonging to a clan is a necessary and sufficient condition to identify someone in any corner of the Palikur society.

Palikur classification: wider issues



Consequently, Palikur have the necessity to recognize the block to which a bird belong, exactly as it is necessity to know the clan to which others Palikur belong.

The classificatory systems of natural kinds is an opportunist system based on different sources of knowledge (Creole, Brazilian, creolized and luzitanized Amerindian groups of northern Amapa).

Wayampi classification



Wayampi characterizers often are morphological features, dealing with body parts and colors, and that as a consequence than more kinds are recognized (or rather vice-versa).

As a system, the classification is dominantly eco-morphological combining ecological and morphological features.

Nouns also often refer to myths involving the bird at stake, and to parenthood.

Wayampi classification: wider issues



- Wayampi have lived 500 years of migration, with the constant necessity to adapt to each new natural environment, and to make it theirs and control it.
- naming every aspect of their environment has become second nature, to the point of becoming a shared passion;
- this passion is not limited to naming but to the understanding of relationship between live-beings and thus to classification;
- this must be related with an active kinship classificatory system, more than ten generations/levels deep, in which anyone must somehow be placed, and which determines social relationships.

Wayampi classification: wider issues



This classificatory system groups elements in overlapping sets and is coherent with the epistemological construction of the modern Wayampi universe.

There is a constant need among Wayampi to name precisely in order to position oneself with any point of their universe.

Conclusion: from semantics to culture



Nouns, before becoming names, are characterizers, pointing to one of the (many) specificities of the object that they are characterizing.

At crucial levels of bird classification, they are based on a concrete experience of **living** birds and **bird lives** and of **ordinary human/bird interaction**, allowing to points to these experiences, rather than on physiological properties, life styles and lived experiences rather than living forms.

This, together with other better known factors, may account for the cognitive assimilation of birds into kinds and kinds into classes.

Conclusion: from semantics to culture



But what is then left for explanation is the reason why something should be recognized as something on its own, and as deserving nomination.

This, as we have just seen, seems to rely more on a social/cultural definition of what makes the identity of someone/something within his group and defines his/her relation with all the others, for instance clan membership or genealogical position. A definition which is embodied as a cognitive habitus.

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