




From the colonialist to the “autobotanical” approach: the evolution of the subject-object relationship in ethnobotanical research

Cristina Baldauf¹ 

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ABSTRACT

This article explores the evolution of the subject-object relationship in ethnobotanical research. Discussion of the main tendencies of each time period revealed a great distance between subject and object during the beginning of ethnobotany, which decreased in subsequent phases, and only became absent in some contemporary works. Furthermore, paradigmatic transitions in ethnobotany were found to be incomplete and multiple paradigms were found to coexist simultaneously in present time, despite important epistemological ruptures. Analysis of presentations at the last Congress of the International Society of Ethnobiology revealed not only an expressive participation of traditional communities, but also a considerable amount of work based on the “autobotanical” approach; a recent trend that expresses a greater symmetry in the consideration of different ways of thinking, knowing and performing research in ethnobotany. Finally, this article discusses the profile of the “new” ethnobotanists, who often occupy spaces of mediation among different knowledge systems and social groups due to their capacity for intercultural communication, as well as their preference for action in contexts related to social and environmental justice.

Keywords: contemporary ethnobotany, ethnobiology 5, local knowledge, traditional knowledge, traditional populations

This work is strongly supported by the author’s personal impressions and reflections after twenty years of participation in scientific events in ethnobiology and ethnobotany. Thus, it is essential to emphasize the provisional character of this text, which aims to dialogue with other authors who have reflected on the epistemological and/or methodological changes in ethnobotany, as well as to record the contemporary trends in the field.

The connectivity between the epistemological foundation of research and the methods employed in conducting it is

critical in order for research to be meaningful (Darlaston-Jones 2007). Whereas research methodology is related to the strategy, plan of action, process or design behind the choice and use of particular methods to reach the desired outcomes, the epistemology refers to the theory of knowledge embedded in the theoretical perspective and thereby in the methodology (Crotty 1998). One of the main concerns of epistemology is to provide a philosophical grounding for the decisions about which kinds of knowledge are adequate and legitimate (Maynard 1994). In this

¹ Departamento de Biociências, Universidade Federal Rural do Semi-Árido, 59625-900, Mossoró, RN, Brazil, crisbaldauf@ufersa.edu.br

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sense, what I broadly call “epistemological evolution” in ethnobotany refers specifically to the historical change in the relationships between the subjects and the objects of the ethnobotanical research.

Several authors have already focused on different phases of ethnobiology based on the theoretical, conceptual, methodological and paradigmatic tendencies that emerged in each phase (Clément 1998; Hunn 2007; Svanberg *et al.* 2011; D’Ambrosio 2014), as well as presented possible gaps and future prospects for the field (Alexiades 2003; Oliveira *et al.* 2009; Wyndham *et al.* 2011; Nabhan 2016a). Since ethnobotany is one of the major sub-disciplines within ethnobiology, most recognized trends for ethnobiology also apply to it. However, I do not intend here to dwell on the history of ethnobotany, but to highlight some of its elements that enable the analysis of the subject-object relationship throughout its different phases.

The beginning of ethnobiology/ethnobotany as a science is usually associated with an essentially descriptive and utilitarian approach deeply connected to the field of Economic Botany: “a sub-discipline that has always carried an imperialistic or extractive shadow with its inquiries” (Nabhan 2016b p. 36.). Consequently, most conceptualizations were restricted to aboriginal peoples and their useful plants, which might have economic value in order to justify the funding for ethnobotanical research (Clément 1998). Despite this dominant pattern, a careful reading of ethnobiological programmatic proposals suggests that early students also appreciated the different aspects of indigenous knowledge, including their linguistic, symbolic and aesthetic dimensions (Hunn 2007). Still, the strong subject-object dichotomy of this phase was firmly grounded in the view that traditional knowledge lacks any scientific value.

The most emblematic example of the transition from this first phase of ethnobiology, characterized by the positivist paradigm and an essentially descriptive approach, to a new paradigm based on subjectivism and the emic dimension was the seminal work of Conklin (1954) on the classification system of the plants of the Hanunóo people in the Philippines. Other important representatives of this phase were Brent Berlin and Paul Kay, both linked to ethnotaxonomic studies based on cognitive psychology and linguistic research. This new phase implied an approximation between subject-object, since capturing the universe of meanings of another culture necessarily requires the understanding of the phenomena from the native perspective and categories. The study of native classifications, on its turn, revealed the complexity of traditional knowledge, a theme addressed by Levi-Strauss (1962) in his influential book “The Savage Mind”. This phase is understood as a paradigmatic shift of the conceptual framework of cultural science (Segato 1988).

The growing appreciation of knowledge built by non-industrialized populations led to a new stage in ethnobiological studies in the late 1970s focused on the

broader ecological context of traditional knowledge to include not only an inventory of species, but also research on local peoples’ comprehension of abiotic factors, ecological processes and habitat/resource management systems (Hunn 2007). Many of these works have maintained the emic perspective that had emerged in the previous phase and, therefore, the approximation between subject-object. Actually, the status of traditional knowledge theoretically increases at this stage, since in addition to recognizing its complexity, in some studies a new perspective emerges: that traditional knowledge might offer alternatives to the environmental problems caused by industrialized societies supported by modern science. On the other hand, this subject-object proximity is often asymmetric in terms of which kind of knowledge is adequate, since several works of this period have as their perspective the validation of traditional knowledge by scientific knowledge.

In response to this inequality of power between traditional knowledge and scientific knowledge, as well as to the innumerable cases of misappropriation of the former, debates on the ethical aspects of ethnobotanical research emerged in the late 1980s and deepened after the Convention on Biological Diversity (CBD) in 1992. As a consequence of this fruitful debate, a number of collaborative projects between traditional populations and the academic community have been developed in recent decades, decreasing the subject-object dichotomy and resulting in a series of publications in co-authorship between them. This particular kind of “ecotone,” i.e., the creative tension between indigenous sciences and modern science, has also fostered a new backdrop for ethnobotany in terms of developing research partnerships and agendas, as well as influencing policy and development (Alexiades 2003; Nabhan 2016a).

Although the heterogeneous nature of ethnobiology/ethnobotany makes difficult the proposition of “future trends” in this field (Alexiades 2003), many researchers are naming contemporary ethnobiology and its prospects as “Ethnobiology 5”, a reference to the four phases of ethnobiology described in Hunn (2007). This new phase is characterized by interdisciplinary collaboration among researchers of various disciplines and regions in order to address contemporary ecological and social issues, such as biocultural conservation and environmental co-management (Nabhan *et al.* 2011; Wyndham *et al.* 2011; Wolverton 2013; Hidayati *et al.* 2015). Nevertheless, from the standpoint of the subject-object relationship in ethnobotany, perhaps the most notable and least discussed trend of Ethnobiology 5 is the expansion of “autobotany” (an analogy to the “autobiology” term coined by Nabhan 2013), i.e., the study of plant-human inter-relationships in a particular cultural/ethnic group conducted by its own members.

In the latest meeting of the International Society of Ethnobotany (ISE 2018) in Belém, Brazil, representatives of traditional communities from different continents



presented posters, lectures and videos produced by them on a wide variety of topics. Focusing on Brazil, more than forty works presented by indigenous researchers were part of the event's programming. Among the topics related to ethnobotany that were addressed in these works were: harvesting and handicrafts, medicinal plants, dialogues between indigenous and conventional health systems, native plant species with traditional uses of food, traditional indigenous agriculture, agroforestry systems, the use of plant resources for producing toys for children, and traditional paintings.

A significant part of the Brazilian indigenous participants in ISE 2018 were or currently are students/researchers of public universities, spaces where, until very recently, they were not considered subjects but objects of theorization. This new moment in ethnobiology/ethnobotany constitutes a marked difference from the previous phase, since the former project partners now also occupy the position of protagonists in academic research.

In Brazil, the entry of indigenous people into public universities generally occurs through two actions: the creation of specific courses, such as a Licenciante degree in Indigenous Intercultural Program (Prolind) and the provision of special or supplementary vacancies in regular courses through affirmative action policies (Bergamaschi *et al.* 2018). In the case of Brazilian indigenous people at ISE 2018, the majority of these participants were academically linked to indigenous intercultural programs. In addition, students/researchers of environmental management, geography and forest engineering were registered, as well as important indigenous leaders with no institutional ties with universities. Among those who were linked to a university, several had received scholarships from governmental programs focused on education (PIBID – Institutional Program of Teaching Initiation) and affirmative action (PIBIC/AF – Scientific Initiation Program - Affirmative Action), which are of vital importance to the inclusion of indigenous students in teaching, research and extension activities.

Many authors have studied both the positive and negative impacts of affirmative action policies on education for indigenous groups. In general, they have found that in institutions that had previous relationships with indigenous groups, the experiences tended to be successful, whereas universities that began to have this contact only through the implementation of affirmative action usually had little knowledge of indigenous realities, as well as how to implement programs and projects that are relevant and participatory (Paladino 2012).

The indigenous presence in a university environment appears as a condition of the flowering of knowledge relationships capable of counteracting the epistemicidic (*sensu* Sousa Santos) impulses of an institution built on universalistic prejudices and a structure of racist and colonialist privileges (Souza 2017). However, a bridge

between distinct educational models needs to be created to allow the transition of indigenous students from their differentiated processes of education (bilingual, intercultural, specific) to the global university (Santos 1994; Baniwa 2013).

Many indigenous students and researchers believe that traditional knowledge is not recognized within higher educational institutions, and most professors are unprepared for dialogue and knowledge sharing (Bergamaschi *et al.* 2018). Therefore, while affirmative policies of access and permanence for these students are fundamental, they are insufficient. It is also necessary to include other epistemologies as an inextricable part of any inclusion process, by obliging the university to transform itself insofar as it opens itself up to the holders of this traditional knowledge, either at the undergraduate or graduate level (Goldmann & Banaggia 2017). In this sense, the ethnobotanical research presented by indigenous researchers in ISE 2018 represents an example of this transformation, evidencing a greater symmetry in the consideration of different ways of thinking, knowing and conducting research.

Despite the focus on the participation of Brazilian indigenous researchers in a specific scientific event (ISE 2018) to explore the theme of “autobotany”, ethnobiological data collection by traditional or local communities represents a process that radiates globally. This trend brings new perspectives for the development of ethnobiology, whose consequences are still unknown (D'Ambrosio 2014). What is undeniable, however, is that as the subject-object relationship presented in the first stages of ethnobotany — a relation that internalizes the subject at the expense of the exteriorization of the object, thus making them incommunicable — begins to succumb, new relationships are built.

In a similar way to what has been happening in anthropology, in this new phase of ethnobotany it is not enough to include only the names of our interlocutors in the field or their words. For Souza (2017), no “inclusion” is enough; in some way the university also needs to be “exploded”, that is, spread in new directions. In this context, a series of new narratives have emerged in different countries, from the implementation of decolonization processes in established universities to the creation of alternative universities in partnership with traditional populations and social movements (Hall & Tandon 2017).

Nevertheless, paradigmatic transitions in ethnobotany are incomplete, and despite the epistemological ruptures already discussed, multiple paradigms coexist simultaneously in the present time. Oliveira *et al.* (2009) highlight that even today, the boundary between ethnobotany and economic botany is difficult to establish for many studies, since the registration and cataloging of useful plants in a given region is the starting point of bioprospecting processes. In addition, the strengthening of ethnobotany as a research area in the



past decades is deeply rooted in the materialist paradigm, whose empiricist and quantitative bases maintain and reinforce the epistemological distinction between subject and object. However, even keeping this distance, practically all contemporary ethnobotanists recognize the intrinsic value of traditional knowledge, which represents an irreversible epistemological evolution from the beginnings of ethnobotany.

It is crucial to historicize our own practice and acknowledge that it has been shaped by many forces, especially the political and economic context of each historical period. In Latin America, from the very beginning of the colonization process until the current day, original peoples have experienced a long history of exploitation, de-territorialization and resistance (Porto-Gonçalves & Leff 2015). The historical struggles of these peoples and other social movements against the neoliberal policies in the 1990s had as an indirect consequence the emergence of “new” professionals in ethnobotany, characterized by a less specialized background and as being less politically naive and more aware of their social role (Toledo 1995). These new ethnobotanists often occupy spaces of mediation among different knowledge systems and social groups because of their intercultural communication capacity, as well as their preference for acting in contexts related to social and environmental justice.

In the following period, the installation of a set of progressive and leftist governments in most South American countries was celebrated as the end of “the long neoliberal night” (Escobar 2010). Unfortunately, despite the unquestionable advances in poverty reduction and significant social achievements of these leftist governments, they have adopted (to a greater or lesser degree) a neo-developmental model characterized by export-oriented extractivism, environmental impacts and numerous human rights violations. In the mid-aughts, the so-called “conservative wave” emerged in Latin America and other parts of the globe. Several countries elected representatives of right-wing political parties for executive and legislative positions. These groups have managed to erode decades of human rights and environmental laws, materializing a series of threats to traditional populations and conservation of their territories and livelihoods (Cunha *et al.* 2017). This scenario is of utmost concern for ethno-scientists worldwide.

Paradoxically, this socioeconomic and environmental context that has been pushing ethnobotanists to become more involved in the struggles and demands of the people whom they write about is the same driver for the opposite movement, that is, the growing presence of traditional populations in academic spaces. One of the main motivations for such a presence is the need to prepare, within indigenous and local populations, representatives who can participate in the processes of interlocution and intervention regarding public policies in favor of their rights,

interests and territories, which are constantly threatened by the different versions of the capitalist economic model, especially the new developmentalism. In this specific context, the old subject-object dichotomy dissolves and colonialism gives way to solidarity as, regardless of their point of origin, ethnobotanists and traditional communities have been meeting and mutually reinforcing their actions in search of what Boaventura de Sousa Santos called “advanced normality”: the aspiration to live in normal times whose normality does not derive from the naturalization of abnormality.

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