

# Local/global articulations and the high use of pharmaceuticals in Cotonou, Benin

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*This paper deals with two life stages of pharmaceuticals: their distribution and their use. It examines how global and local processes increase the use of pharmaceuticals in Cotonou, the economic capital of Benin. During anthropological research between 2005 and 2007, I studied the link between information from health professionals practicing in Cotonou and 'traditional' knowledge passing from generation to generation. The intertwining of these two sources of information constitutes popular knowledge about health, disease and the use of medicines. The commercial character of pharmaceuticals and their form of delivery also play an important role in the current use of pharmaceuticals. These different factors, which have local and global characteristics, lead to a high intake of pharmaceuticals, mostly through self-medication. I discuss how this arises and consider the implications of such medication use in health care.*

*[drug use, pharmaceuticals intake, popular knowledge, local, global, self-medication, commodification, Benin]*

Since the emergence of medical anthropology in the late 1970s, researchers have been interested to describe the relationships between people and pharmaceuticals, with most studies conducted within societies in the 'South'.

Initially, anthropologists focused on how local people take ownership of pharmaceuticals, based on their own representations of health and disease. They investigated how pharmaceuticals were incorporated into medical traditions that differed from biomedicine (Van der Geest & Whyte 1988). The relationship that individuals establish with these medicines was perceived, as Whyte noted in the early 1990s, as a "cultural and social appropriation not so much of a way of thinking about health, as of a form of therapeutic technology" (Whyte 1992: 164). In other words, pharmaceuticals were considered to constitute a new type of therapeutic object, but their incorporation into local use was held to develop without modification of local representations of health and disease. Thus, a so-called culturalist perspective is noted in the initial medical anthropology research which, not unlike the discipline as a whole, tended to over-interpret local practices within the culture.

However, it seems logical that drugs, and the biomedical healthcare system centred on these drugs, would influence local representations of health and disease. I define this influence as a global one, because biomedicine is nowadays the dominant healthcare system on a global scale. Research in Africa has shown how some popular nosological entities, such as those related to infant diarrhoea and sexually transmitted diseases, are defined not by an aetiology or a symptomatology, but by pharmaceutical treatment (Desclaux 1999; Haxaire 2003). In this regard, it is important to remember that in the case of Francophone countries in Africa, pharmaceutical drugs were introduced through colonial ventures in the 1930s and 1940s (Echenberg 2002; Baxerres 2011). Therefore, when anthropologists became interested in this issue 40 to 50 years later, it had already been in process for some time, and had undoubtedly influenced local perceptions over that time. Other developments beyond the biomedical system, such as the commercialization of pharmaceuticals and their current global production and marketing systems, have undoubtedly also exerted their specific influences on medication use by people. I also define these economic factors, inherent in pharmaceuticals as goods, as global because they play a role in all societies (Nichter 1996; Tan 1999; Whyte et al. 2002).

I sought to examine these different influences on local popular knowledge of health and disease and their impact on current pharmaceutical use through a qualitative study. This was conducted between 2005 and 2007 in Cotonou, the economic capital of Benin. The study focused on the health conditions and problems faced by people in their daily lives and the medicines that individuals take when confronted with these health challenges. The behaviours, practices and interactions occurring in daily lives within urban settings, where everything is concentrated and interacting, appeared to be ideal objects of study for investigating social transformations, including those related to popular knowledge about medicines and their use. Semi-structured interviews were conducted with 14 mothers and fathers from families with very young children, of different socio-economic status. In addition, these family members participated in bimonthly monitoring of their pharmaceuticals intake, conducted over six months. In an associated in-depth study of the informal market for pharmaceuticals, I observed and interviewed wholesalers, informal retailers and their customers. The overall question was: how is local popular knowledge about health constructed and what are its consequences for the use of medicines?

### **Constructing popular knowledge about health**

Interviews with residents of Cotonou highlighted two main sources of information about health. Firstly, as shown previously by anthropologists (Bledsoe & Goubaud 1988; Etkin et al. 1990), the knowledge that people acquire from generation to generation, which they call 'traditional,' transmits information about health, disease and use of medicines. Several elements in popular knowledge that individuals associate with tradition shed light on some of the modalities of current drug consumption.

A case in point is the belief that certain health problems are constantly present in individuals' bodies. These involve 'innate' diseases. One mother from the interviewed families explained this by saying: "Disease doesn't just happen by itself, like that. Unless the thing was already a little in the blood, it can't appear in your body like that" (interview with Camille, 45 years old, April 2006). Hence, some diseases logically arise due to a person's age and changes in the body. This occurs, for example, in infants, young children, pregnant women, women who have just experienced childbirth and older people. These 'innate' diseases are triggered fairly naturally by specific behaviours and situations, such as improper hygiene, poor diet and exposure to elements considered harmful to health, such as cold, heat, wind, dust and filth.

Further evidence of the influence of 'traditional' knowledge on current popular beliefs about health and drug use in Cotonou is that individuals use ancestral herbal treatments in combination with pharmaceutical drugs. Unlike the frequently presented dichotomy in anthropological literature between pharmaceutical drugs and herbal remedies (Cros 1994; Jaffré & Olivier de Sardan 1999; Chilliot 2003), this distinction does not appear relevant in Cotonou. Although written accounts often present the issue through binary distinctions such as 'modern drugs' versus 'traditional drugs', or even 'drugs for whites' versus 'drugs for blacks', both forms of remedy are now used in Benin to achieve similar health objectives. Moreover, the same generic term is used in Fon and Goun, the predominant languages in Cotonou, to refer to both kinds of remedy. The term *amasin*, which literally means 'water (*sin*) from leaves (*amà*)', was initially commonly used to signify herbal remedies, but later generalized to include pharmaceutical drugs. Although herbal remedies are regularly consumed in Cotonou, my study highlighted a shift toward pharmaceuticals, as will be shown later. Pharmaceuticals are easier to use and more readily available. The preparation of herbal remedies requires space and time, and is less easy in urban settings. Furthermore, most of the ingredients required for herbal remedies are not found growing in cities; they come from North Benin and their sale in Cotonou raises problems of preservation. In addition, pharmaceuticals project an image of modernity and technology that attracts individuals (cf., Van der Geest & Whyte 1989). Similar to replacing the 'traditional' mustard (condiment extracted from the seeds of fruit from the Néré tree) by manufactured Maggi cubes, they swap herbs for pharmaceuticals.

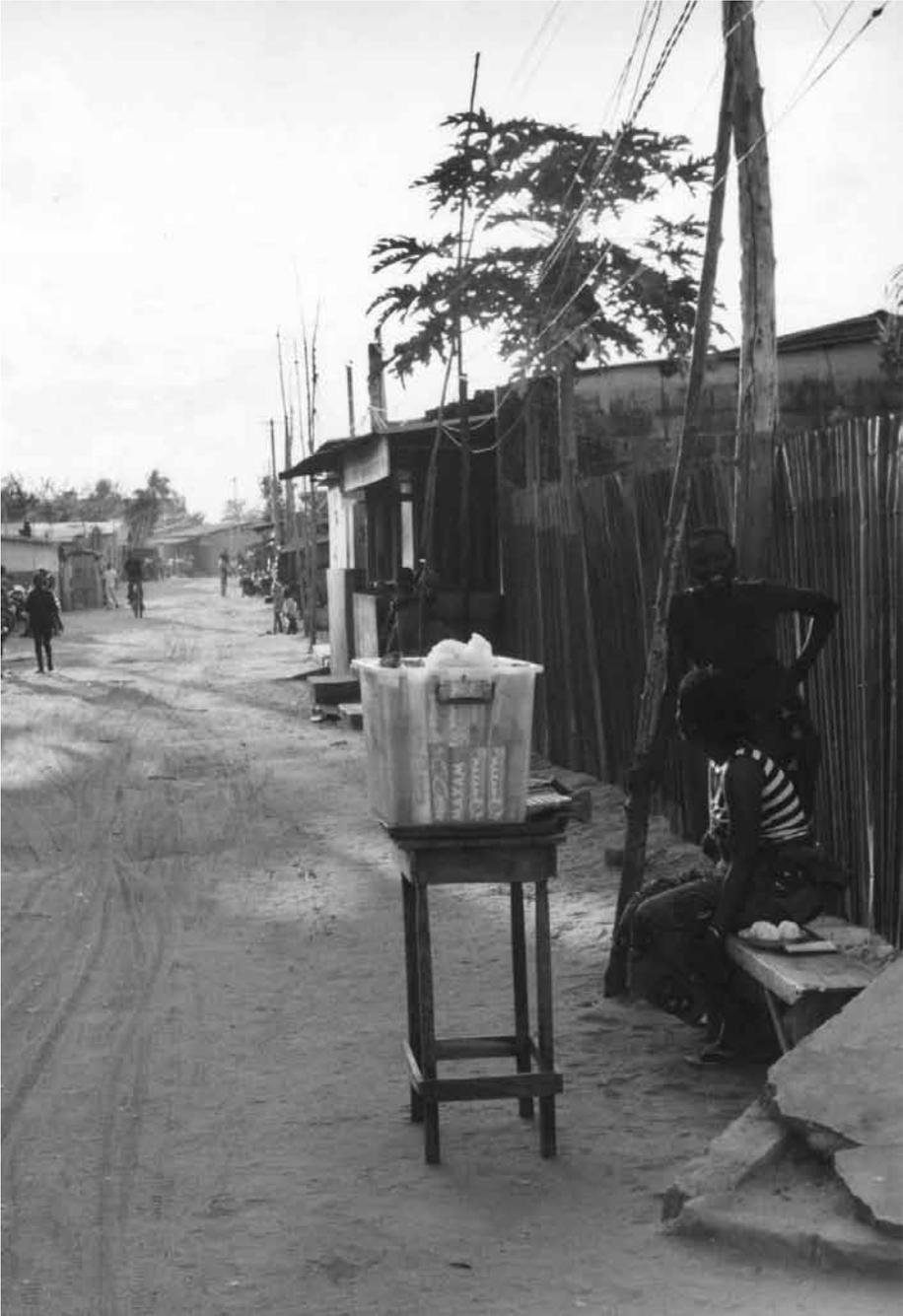
In the construction of popular knowledge about health and disease, the 'traditional' knowledge which has just been highlighted and is part of the local context is combined with information transmitted by biomedical health professionals. This process has been too little explored in anthropology. The residents of Cotonou acquire a great deal of knowledge when they go to biomedical facilities. They remember the names of the drugs prescribed to them during consultations and when facing a new health problem which they believe resembles a previous one, they follow the same prescriptions and use the same drugs in self-medication. Moreover, beyond their experiences in biomedical facilities, most people maintain ties with healthcare providers among family, friends or neighbours. These individuals prove to be important agents in providing them with information about drugs. These healthcare providers are doctors, nurses, midwives, nursing aids but also vendors in pharmacies and health centres. Despite

the fact that they have a wide range of skills, and that their advice corresponds more or less to scientific recommendations, they all are considered to be '*dotóó*' (a generic term in Fon and Goun that refers to any person within a health centre who wears a white coat and is therefore seen as a doctor). These people are consulted frequently, if necessary by telephone, to get advice and recommendations about drugs. This 'biomedical' information, which can vary considerably, is remembered but often quite selectively and according to the interest carried in the information. This last observation is true in Benin as it is in France (Fainzang 2006). In Cotonou, people generally remember the name of the medicine and its effect on diseases or particular symptoms, but appropriate dosage information is vague. Individuals will have absorbed the fact that a pharmaceutical has to be taken repeatedly during the day, often for several days, and that it has to be consumed in different doses according to the age of the sick person. However, these notions rarely follow the dosage and treatment recommended within biomedicine for a particular pharmaceutical. As we can see here, the global biomedical information is inserted into a specific local context, through *dotóó* who are practicing in Cotonou. The biomedical knowledge that people obtain through these providers is then an articulation of global and local knowledge.

As noted in the introduction of this paper, arguing for the influence of 'tradition' and biomedicine on popular knowledge, the popular meanings given to drugs can reveal how pharmaceuticals and healthcare system practices affect popular local knowledge. Indeed, as has been highlighted several times in anthropology (Van der Geest & Whyte 1988; Jaffré 1999), Cotonou's residents use a whole series of terms, stemming from languages such as Fon, Goun, Mina and Yoruba, to name particular pharmaceuticals they know and consume regularly. For example, *jängojän* pills, a Fon term which means 'to tighten a knot' and refers to the fact that 'joints are blocked', are thus taken for joint pain. However, Cotonou's residents call most pharmaceuticals after their scientific or commercial name. Because the health professionals whom they meet use those words, they are absorbed into the common vocabulary, for example 'Chloro', 'Para', 'Nivaquine', 'Quinine', 'Amoxi', 'Ibu', 'Bactrim', 'Vermox', 'Flagyl', 'Fer-foldine', to quote the most common. Thus, health professionals in Cotonou participate in an important way in the continuous production of popular health knowledge. Between 'traditional' knowledge passing from generation to generation and biomedical information coming from health professionals, popular knowledge about health and disease appears to be a syncretism which leads to new perceptions. In anthropology, this notion expresses the fact that several entities, stemming from diverse influences, blend into a new entity (Mary 2000).<sup>1</sup>

### **The impact of commercial concerns**

As well as being scientific and popular objects, pharmaceuticals are also commodities. This mercantile side has a great impact on use of pharmaceuticals. In both the formal and informal sectors drug vendors, whose purpose is profit-making, feed popular knowledge about medicines (cf., Van der Geest 1991; Baxerres 2010). Because



A 'roadside vendor' of medicines on the sidewalk in Cotonou.  
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One of the many signs advertising a small private health centre in southern Benin.  
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of their activities, pharmaceuticals are now ubiquitous in Cotonou. They are available in pharmacies, in public and private health facilities<sup>2</sup>, along small roads and major thoroughfares, in the city's markets, from itinerant vendors and in people's homes (see photographs). Pharmaceuticals are actively marketed to city residents by these vendors who, in one way or another, promote them and vaunt their merits. They develop strategies to draw customers, which has an undeniable influence on how people perceive and use pharmaceuticals (which medicine, for what health problem and in which quantity).



Alongside retailers, pharmaceutical companies have an influence as well. Attractive names and packaging (colours, illustrations, inserts) are essential tools of marketing and have a great impact on consumers' perceptions and use. Comments by people on pharmaceuticals underline the link between package images and the expected effects of the product. Talking about a drug packaging showing a man who is ill, with a cold, running nose and a headache, a housewife explains: "I took Mixagrip, I had a flu, it is myself who chose that, it is drawn on it" (interview with Karamath, 36 years old, March 2006). The manufactured form of the drug can also influence individual perceptions; the fact that a pharmaceutical is presented as a tablet, a capsule, a syrup, an injection or as eye drops can lead to specific perceptions. Efferalgan® for instance, which is effervescent, is very popular and perceived as particularly effective. The impact of the commercial name of products, skilfully selected by firms, on pharmaceutical intake is well known. Lemoine talks about "the magic of names" (1996: 50). Tan (1999), who conducted fieldwork in the Philippines, showed how brand names are an essential aspect of commodification, influencing people's perceptions and use of pharmaceuticals. This symbolic efficacy of medicines has been pointed out by numerous anthropologists (Van der Geest & Whyte 1989; Akrih 1995; Fainzang 2001; Whyte et al. 2002). Obviously, the industry is also very aware of this and applies this information in its marketing.

Pharmaceutical sales representatives, who constitute another commercial strategy, also feed current popular knowledge about drugs. Providing information to all types of *dotóó*, they influence prescriptions and thus the popularity of specific pharmaceuticals; people follow prescriptions in self-medication.

In summary, the articulation of global market forces and local commerce has a strong impact on the perception and use of pharmaceuticals in Cotonou.

## High pharmaceutical intake

The study revealed two main reasons why Cotonou's residents are keen to use drugs. Firstly, they logically take drugs as a cure when they experience physical disorders. Their practices – in line with the concept of 'therapeutic itineraries', thoroughly documented in anthropological literature in the 1980s (Janzen 1978) – begin with self-medication, which is practiced at high levels. Moreover, people have knowledge about common illnesses which makes them confident to self-treat. The costs of professional treatment and the poor state of the healthcare system further encourage self-medication. When common and frequent disorders arise, people know which drugs to use. The mothers and fathers from the interviewed families were familiar with many drugs that they could match to diseases or symptoms.

After self-medication, people seeking healthcare can go through a possible second step of resorting to a local specialist who prescribes treatments. As we saw before, prescriptions may be provided by various *dotóó* with different competences. Biomedical staff working in Cotonou tend to write broad prescriptions; given the potential seriousness of many diseases, such as malaria and respiratory infections, and the often-unreliable diagnostic tools in health centres, professionals prefer to write prescriptions for a broad spectrum of conditions, including several categories of drugs and often, specifically, antimalarials, anti-inflammatories and antibiotics. The healthcare provider's rationale is based on making sure the condition is treated and complications are avoided. Individuals then follow these prescriptions again when self-medicating. These processes lead to high pharmaceutical use.

However, in addition to this curative use, there are high levels of drug consumption in Cotonou to avoid disease and more generally, to maintain good health. For a long time, the so-called 'traditional' herbal remedies were consumed mainly for this specific purpose. They are believed to have the capacity to eliminate impurities from the body by stimulating urination; they are used as a 'fortifier', to "avoid suddenly getting sick," to "feel healthy" and to "feel comfortable", as people said during the interviews. Pregnant women, infants and young children in particular, considered vulnerable to so-called 'innate' diseases, take multiple herbal remedies.

The shift, highlighted above, from herbal remedies to pharmaceuticals means that people in Cotonou now also consume pharmaceutical drugs as a preventive measure and to maintain health. 'Popular prophylaxis' thus leads to increased use of drugs; drugs are taken nearly every day by those who feel they perform strenuous work or are exposed to extreme heat, for example porters, moto-taxi and truck drivers, pedlars walking in the sun, and women cooking on open fire. One mother, who manages a small business in a stall in front of her house, takes two anti-inflammatory ibuprofen or Ibucap® tablets each night, which can lead to gastro-intestinal problems. She explained this practice as follows: "I have too many hassles. It's for fatigue; I take

this every night so when I wake up, I feel good.” (interview with Augustine, 32 years old, April 2006). Camille, another mother, took Chloroquine and Paracetamol tablets every day because of her work situation. People frequently take drugs when they believe they have been exposed to conditions that could cause disease, for example, when travelling or during certain times of the year. Intense heat and heavy rains increase, for instance, consumption of vermifuges, vitamins, antimalarial drugs and antipyretics. Periods of worry and ‘hassles’ also require taking drugs. Another mother took two tablets of Chloroquine and Paracetamol every morning and evening as well as two ibuprofen tablets per day for one week because she was busy organizing her mother’s funeral and felt tired. These preventive reasons for using drugs seem clearly influenced by ‘traditional’ knowledge about health and disease. However, the biomedical practices also play a role. The regular consumption of vermifuges (against worms), for example, is widely encouraged by health professionals. Chemoprophylaxis against malaria, recommended in combination with Chloroquine (between 1960 and 1990), has also increased medicine use.

These curative and preventive reasons for using drugs have led to high and almost-daily pharmaceutical intake, regardless of socio-economic status, usually through self-medication. In Cotonou as in other places (Hardon 1994; Whyte et al. 2002), drugs become personalized objects, encouraging pharmaceutical use. People appropriate some drugs because they believe they ‘fit’ their bodies. People also report being more susceptible to health problems that need medication. As the slogan goes in Cotonou: “To each his own body, to each his own ailments and to each his own daily drugs.” For example, one father who suffered from asthma, used four different drugs regularly: Chloroquine, salbutamol (anti-asthmatic) Coltab® and Corhinza® (antipyretics and decongestants). His wife also took two tablets of Chloroquine and one of Pentax® (an antipyretic composed by Paracetamol and caffeine) every day to remain healthy.

## Conclusion

This study suggests that current popular knowledge in Cotonou promotes a high consumption of pharmaceutical medications. In addition, drug providers, as well as pharmaceutical companies, have a clear impact on drug consumption; ubiquitous drug availability, marketing strategies to promote sales, seductive packaging, advertisements, and the practices of medical personnel and pharmaceutical sales representatives all project influences.

An increased use of drugs has been noted in Western societies for the last three decades (Collin et al. 2006). The resulting economic and health consequences – rising healthcare costs, irrational over-consumption of drugs, consumer vulnerability, etc. – have been studied. Similar realities have been described in Asian countries (Hardon 1987; Kamat & Nichter 1998; Tan 1999). For African societies, this process has rarely been noted. Ultimately, the growth of the drug market, although quite real, is not sufficiently highlighted by researchers in these countries. Distribution companies working locally, as well as international pharmaceutical companies, seem to be aware of this

growth. In Cotonou, for instance, the number of pharmacies grew from 27 in 1987 to 87 in 2007. However, by focusing on other weaknesses in the healthcare system (lack of human, financial and material resources), experts have given little attention to the issue of individual use of drugs and how these individuals are influenced by the modes of pharmaceutical distribution (commodification, formal and informal prescribers and vendors). Clearly, it is important to bring attention to these issues today and to assess how popular knowledge about health develops, how it influences drug use, and what the ensuing impact is on public health.

## Notes

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- 1 Thirty years ago Buschkens and Slikkerveer (1982) referred to this hybrid type of medicine as ‘transitional’: “By this term we refer to a health care system which includes elements of both the modern and the traditional system, but is virtually beyond the control of either” (p. 53).
- 2 Although the sale of pharmaceuticals is not allowed in private health centres in Benin, it is a common and profitable practice.

## References

- Akrich, M.  
1995 Petite anthropologie du médicament. Les objets de la médecine. *Techniques et Culture* 25/26: 129-57.
- Baxerres, C.  
2010 Du médicament informel au médicament libéralisé. Les offres et les usages du médicament pharmaceutique industriel à Cotonou (Bénin). *Thèse de doctorat d’anthropologie*. Paris/Cotonou: EHES/UC.
- 2011 Pourquoi un marché informel du médicament dans les pays francophones d’Afrique? *Politique Africaine* 123: 117-36.
- Bledsoe, C.H. & M.F. Goubaud  
1988 The reinterpretation and distribution of Western Pharmaceuticals: an example from Mende of Sierra Leone. In: S. van der Geest & R.S. Whyte (eds.), *The context of medicines in developing countries. Studies in pharmaceutical anthropology*. Dordrecht: Kluwer Academic Publishers, pp. 253-76.

- Buschkens, W.F.L. & L.J. Slikkerveer  
 1982 *Health care in East Africa: Illness behaviour of the Eastern Oromo in Hararghe (Ethiopia)*. Assen: Van Gorcum.
- Chilliot, L.  
 2003 Médicaments et prévention en milieu populaire Songhay-Zarma. In: D. Bonnet & Y. Jaffré (eds.), *Les maladies de passage: Transmissions, préventions et hygiènes en Afrique de l'Ouest*. Paris: Karthala, pp. 427-64.
- Collin, J., M. Otero & L. Monnais (eds.)  
 2006 *Le médicament au cœur de la socialité contemporaine. Regards croisés sur un objet complexe*. Québec: Presses de l'Université du Québec.
- Cros, M.  
 1994 Logique médicamenteuse de la prévention du malheur. Pour une approche anthropologique. In: M. Cros, *Education pour la santé et bon usage du médicament*. Vanves: Éditions CFES, pp. 77-94.
- Desclaux, A.  
 1999 Les perceptions populaires des diarrhées infantiles: Diversité et invariants. *Archives de Pédiatrie* 5: 183-89.
- Echenberg, M.  
 2002 *Black Death, White Medicine: Bubonic plague and the politics of public health in colonial Senegal, 1914-1945*. Portsmouth NH: Heinemann Press.
- Etkin, N.L., P.J. Ross & I. Muazzamu  
 1990 The indigenization of pharmaceuticals: therapeutic transitions in rural Hausaland. *Social Science & Medicine* 30 (8): 919-28.
- Fainzang, S.  
 2001 *Médicaments et société*. Paris: PUF.  
 2006 Transmission et circulation des savoirs sur les médicaments dans la relation médecin/malade. In: J. Collin, M. Otero & L. Monnais (eds.), *Le médicament au cœur de la socialité contemporaine. Regards croisés sur un objet complexe*. Québec: Presses de l'Université du Québec, pp. 267-79.
- Hardon, A.P.  
 1987 The use of modern pharmaceuticals in a Filipino village: Doctors' prescriptions and self-medication. *Social Science & Medicine* 25: 277-92.  
 1994 People's understanding of efficacy for cough and cold medicines in Manila, the Philippines. In: N.L. Etkin & M.L. Tan (eds.), *Medicines: Meanings and contexts*. Quezon City: Health Action International Network, pp. 47-67.
- Haxaire, C.  
 2003 'Toupaille', kits MST et remèdes du 'mal d'enfants' chez les Gouro de Zuénoula (Côte-d'Ivoire). *Anthropologie & Sociétés* 27 (2): 77-95.
- Jaffré, Y.  
 1999 Pharmacie cittadine, pharmacie 'per terra'. *Africa e Mediterraneo* 1: 31-36.
- Jaffré, Y. & J.-P. Olivier de Sardan (eds.)  
 1999 *La construction sociale des maladies: Les entités nosologiques populaires en Afrique de l'Ouest*. Paris: PUF.
- Janzen, J.M.  
 1978 *The quest for therapy in lower Zaire*. Berkeley, Los Angeles, London: University of California Press.

- Kamat, V.R. & M. Nichter  
 1998 Pharmacies, self-medication and pharmaceutical marketing in Bombay, India. *Social Science & Medicine* 47 (6): 779-94.
- Lemoine, P.  
 1996 *Le mystère du placebo*. Paris: Odile Jacob.
- Mary, A.  
 2000 *Le bricolage africain des héros chrétiens*. Paris: Les Éditions du Cerf.
- Nichter, M.  
 1996 Pharmaceuticals, the commodification of health, and the health care-medicine use transition. In: M. Nichter & M. Nichter, *Anthropology and international health: Asian case studies*. Amsterdam: Gordon & Breach, pp. 265-326.
- Tan, M.L.  
 1999 *Good medicine. Pharmaceuticals and the construction of power and knowledge in the Philippines*. Amsterdam: Het Spinhuis.
- Van der Geest, S.  
 1991 Marketplace conversations in Cameroon: How and why popular medical knowledge comes into being. *Culture, Medicine & Psychiatry* 15 (1): 69-90.
- Van der Geest, S. & S.R. Whyte (eds.)  
 1988 *The context of medicines in developing countries. Studies in pharmaceutical anthropology*. Dordrecht: Kluwer Academic Publishers.
- Van der Geest, S. & S.R. Whyte  
 1989 The charm of medicines: Metaphors and metonyms. *Medical Anthropology Quarterly* 3 (4): 345-67.
- Whyte, S.R.  
 1992 Pharmaceuticals as folk medicine: Transformations in the social relations of health care in Uganda. *Culture, Medicine & Psychiatry* 16: 163-86.
- Whyte, S.R., S. van der Geest & A. Hardon  
 2002 *Social lives of medicines*. Cambridge: Cambridge University Press.

