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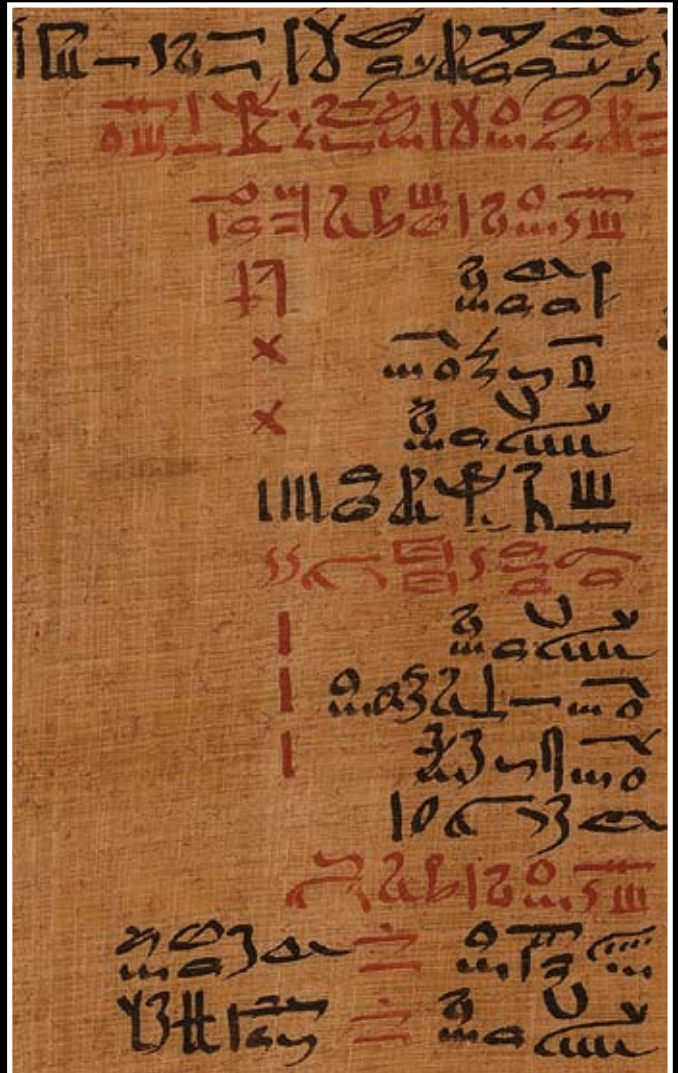
Zeitschrift für Medizinethnologie • Journal of Medical Anthropology

hrsg. von/edited by: Arbeitsgemeinschaft Ethnomedizin e.V. – AGEM

New Trends in Ethnobotany and Ethnopharmacology

Selected Contributions of the
6th Colloquium of ESE /
20th Conference of AGEM,
8–10 November 2007, Leipzig

- Pharmaceutical Anthropology
- Ethnodermatology
- Ethnoveterinary Medicine
- Ethnomycology
- Ethnoentomology
- Convention of Biological
Diversity



Cover Picture: The *Papyrus Ebers* is the largest, and most beautiful and famous book scroll of ancient Egyptian medicine. He was bought by the Egyptologist Georg Ebers (1837–1898) in Theben in Winter 1872/73 and is kept in the University Library Leipzig. The dimensions are 18,63 m (length) x 0,30 m (high), and he was divided for conservation reasons in 29 pieces. Since the Second World War some columns are lost or damaged. The date of origin is the last quarter of the 16th century B. C. The writing is Hieratic in black and red ink and runs from right to left. He contains 879 single texts, the majority are receipts, but there are also magic elements and doctrines, because the art of healing in the papyrus Ebers is an unit of medical empirical knowledge, magic and religion. On the back of col. I is a calendar with the Sotis period from the 9th year of Amenophis I (1525–1504 BC), very important for the Egyptian chronology. (see also 3rd cover page)

Titelbild: Der *Papyrus Ebers* ist die schönste und berühmteste Papyrusrolle der altägyptischen Heilkunde. Er wurde von dem Ägyptologen Georg Ebers (1837–1898) in Theben im Winter 1872/73 gekauft und befindet sich in der Universitätsbibliothek Leipzig. Er ist 18,63 m lang und 0,30 m hoch und wurde aus konservatorischen Gründen in 29 Stücke geteilt. Seit dem Zweiten Weltkrieg sind einige Kolumnen verloren oder zerstört. Er stammt aus dem letzten Viertel des 16. Jh. v. Chr. Die Schrift ist Hieratisch in schwarzer und roter Tinte und verläuft von rechts nach links. Er enthält 879 Einzeltexte, die Mehrzahl sind Einzelrezepte, es gibt aber auch einige magische Bestandteile, denn die Heilkunst im Papyrus Ebers ist eine Einheit aus empirischem medizinischem Wissen, Magie und Religion. Auf der Rückseite der Kolumne I befindet sich ein Kalender mit dem Sotis Periode vom 9. Jahr Amenophis I (1525–1504 v. Chr.), der sehr wichtig für die ägyptische Chronologie. (siehe auch 3. Umschlagseite)

Text des Titelbildes:

pEbers 7 (2b, 7 - 2b, 11) > {2b, 7} Mittel für das Entleeren des Bauches: {2b, 8} Milch 25 ro, {2b, 9} geritzte Sykomorenfrüchte 1/4, {2b, 10} Honig 1/4, {2b, 11} kochen, durchpressen, trinken an vier Tagen • *pEbers 8 (2b, 12 - 2b, 16)* > {2b, 12} Ein anderes [Heilmittel] für das Veranlassen, dass man ausscheidet: {2b, 13} Honig 1, {2b, 14} Mehl der Koloquinthe 1, {2b, 15} Mehl der sam-Pflanze 1, {2b, 16} zu einem Zäpfchen machen • *pEbers 9 (2b, 17 - 3,2)* > {2b, 17} Mittel für das Ausscheiden: {2b, 18} Snj-tA-Frucht 1/8, {2b, 19} Honig 1/8, ...

Acknowledgement:

Thank you to Prof. Reinhold Scholl, University of Leipzig, for help and permission

More on the Cover Picture, Archive Text, University Library Leipzig:

The Papyrus Ebers is the main source of our knowledge of ancient medicine. He contains 879 texts, composed of 44 texts of doctrine, 4 prognosis, 776 prescriptions in short form, 11 Prescriptions with magic phrases, 10 magic texts with medical application, 1 magic text without medical practice, 4 excerpts from texts of doctrine. (Papyrus Ebers, Universitätsbibliothek Leipzig, Col. I-III) • Name: by buyer Georg Ebers (1.3.1837–7.8.1898) • Acquisition: by purchase in Theben (Ägypten), Winter 1872/73 • Material: Papyrus scroll, at time of discovery in completely rolled state, later cut in 29 pieces • Dimension: H x L : 0,30 x 18,63 m • Date: last quarter of 16th century BC • Depository: Universitätsbibliothek Leipzig/Sondersammlungen: Since Second world war some columns are lost or damaged; then the papyrus was moved first in the safe of the Deutsche Bank Leipzig, then to the castle of Rochlitz, 60 km south-eastern from Leipzig; after the war the plates with papyrus Ebers were found in a dog kennel. We hope to find the plates nr. 13, 14 and 29. • Script: from right to left; Hieratic; with black and red ink, red for titles and measures • Hieratic: cursiv written and shortened Hieroglyphic • Purpose: Perhaps the papyrus Ebers was located in a library (in the house of life) of a temple for apprenticeship and education. • Scriptio continua: continuous, without space between words • Papyrus Ebers has few traces of utilisation. • There are some nefer (=good, useful) entries like in Greek xrhsto/j (useful), abbreviated with a Chi and Rho like the Christogram symbol well-known since Constantin the Great. • Content: Book of the ancient medicine on 110 columns; the columns 103–110 are on the verso of columns 102–94. On the back side of col. I is the famous calendar with the “Sotis-Date” (?) from the 9th year of Amenophis I (1525–1504 BC), very important for egyptian chronology. At the paging in antiquity the numbers for col. 28 and 29 are omitted, in this way the papyrus finished with 110, the ideal age of life in ancient Egypt.

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Papyrus Ebers Fragment

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The Urgency of Pharmaceutical Anthropology: A Multilevel Perspective*

SJAAK VAN DER GEEST

Abstract The anthropology of medicines is an intriguing study field: medicines constitute a nexus of social and cultural processes including knowledge, symbols and beliefs, politics, profit-making, trust and conflict. In dealings with medicines culture and society are caught red-handed as it were. But pharmaceutical anthropology is more than an academic fascination; it addresses urgent concerns of harrowing inequality in health and health care. Problems of health and suffering are commonly related to use, non-use and misuse of medication. In order to improve conditions of access to and use of medicine we need to understand the underlying processes that lead to these problems. I will present and discuss the multilevel perspective as a tool to come to grips with these processes. The recent introduction of antiretroviral medicines to resource-poor populations underscores the urgency of this perspective.

Keywords Anthropology – pharmaceuticals – multilevel perspective – linkages – social life of medicines – HIV/AIDS – antiretroviral medicines.

Die „Pharmazeutische Anthropologie“ als dringende Aufgabe unter einer Multi-level-Perspektive

Zusammenfassung Die Anthropologie der Medizin(en) ist ein spannendes aber auch verwirrendes und verworrenes Arbeitsfeld: Medizinische Räume bilden eine Verknüpfung von sozialen und kulturellen Prozessen ab, die Wissen, symbolisches Handeln und Glaubenseinstellungen, Politiken, Profitmacherei, Vertrauen und Konflikte umfassen. Wer Medizin so betrachtet ertappt Kultur und Gesellschaft direkt und pur auf frischer Tat. Die „pharmazeutische Anthropologie“ stellt daher mehr dar als ein bloßes wissenschaftliches Faszinosum: hierbei werden drängende und beunruhigende Sachverhalte über Ungleichheiten bei Gesundheit und medizinischer Versorgung aufgedeckt. Gesundheitsprobleme und Leiden sind in der Regel mit der Anwendung, der Unterlassung und dem Missbrauch von Medikationen verbunden. Um die Bedingungen für den Zugang und den geordneten Gebrauch von Medikationen zu verbessern, müssen wir die Prozesse, die diesen zugrunde liegen und die zu den dingfest gemachten Problemen führen verstehen. Ich stelle hier das Modell einer Betrachtung auf mehreren Ebenen als Werkzeug vor, um diese Prozesse in den Griff zu bekommen. Das aktuelle Beispiel der Einführung der antiretroviralen Medikamente bei ressourcenarmen Bevölkerungsgruppen unterstreicht die Dringlichkeit einer solchen Perspektive. (red)

Schlagwörter Ethnologie – pharmazeutische Produkte – Multi-level-Perspektive – Medizin im sozialen Kontext – HIV/Aids – anti-retrovirale Medikamente.

Multilevel perspective

Twenty years ago I argued for a multilevel approach in medical anthropological research (VAN DER GEEST *et al.* 1990). Primary Health Care was used as a case to demonstrate the usefulness of this approach. The concept of multilevel perspective is based on the assumption that developments at the various levels of social organization are linked to one another and that the nature of these linkages has to be studied in order to understand what takes place at one specific level. The word ‘level’ refers in particular to

the international, national, regional and local tiers of social organization

What we call “linkage” will almost always be some form of communication transmitted by man or by material means and moving from one level to another. Information, in its widest sense, is distributed over the various levels of society by people and objects, particularly by commodities. Underlying the multilevel perspective is the assumption that what is carried around does not remain the same thing during its journey. The

* Revised presentation at the 6th European Colloquium on Ethnopharmacology/joint meeting with “20. Fachkonferenz Ethnomedizin” of AGEM: *New Trends in Ethnobotany and Ethnopharmacology*, Leipzig, 8–10 November, 2007. This paper draws on earlier work, in particular VAN DER GEEST *et al.* 1990 and 2010, and VAN DER GEEST 2006.

meanings of concepts and objects, of words and institutions change as they move from one level to another. So the main concern of those applying a multilevel perspective is to reveal the different meanings of phenomena carrying the same name at different levels of social organization (VAN DER GEEST *et al.* 1990: 1026).

The perspective could be applied to any topic of social pertinence in the medical field as well as in society at large. The main inspiration is that culture and society are dynamic, multi-sited and polysemic concepts. “Multilevel”, “linkage”, “flow”, “interface”, “biography”, “life cycle”, and “social life” are all approximate synonyms to express the continuously changing character of our objects of study. In developing the multilevel perspective, we described vertical, horizontal and historical linkages. In this paper I focus on vertical linkages between the multiple levels involved in pharmaceutical policy and practice.

The multilevel perspective helps us to identify what is taking place at the various levels of medicine production, distribution and use and to provide explanations for the whimsical movements of medicines. By looking at the way medicines are used and interpreted at the international, national, health care institution and household levels, we can trace crucial misunderstandings and conflicts that lead to inequality in access to medicines and to erratic drug policies. I will apply the multilevel perspective to the perception, distribution and use of pharmaceuticals and argue that these can be fruitfully viewed as multilevel processes in which political and commercial power and individual agency play prominent roles. The leading idea is that actors at various levels seek to pursue their personal or group interests and thus steer the processes of production, marketing, distribution and consumption of pharmaceuticals. Antiretrovirals are a particularly pungent case in point.

Pharmaceuticals

The first time I drew attention to pharmaceuticals as worthy of anthropological scrutiny was in an article that focused on the illegal character of medicine distribution in developing countries (VAN DER GEEST 1982). In the years that followed two collections of articles in “pharmaceutical anthropology” appeared which portrayed pharmaceuticals as cultural objects with distinct social, commercial and political

values in addition to their medical qualities. (VAN DER GEEST & WHYTE 1988; ETKIN & TAN 1994). In other words, the study of pharmaceuticals needed a multilevel approach. Craig in his study of everyday health care practices in Vietnam, writes:

This book argues that the movement of drugs and the “rational” knowledge associated with them across cultural and physical borders is best understood in the broad and diverse context of mobility associated with globalization, and its social and cultural consequences in particular localities (CRAIG 2002: 6).

In an overview of the field of “pharmaceutical anthropology” (VAN DER GEEST *et al.* 1996) this mobility of use and meaning of medicines was expressed in the metaphoric concept of “biography.” By following the transaction of pharmaceuticals one could discern a biographical order in their “social life.” From their preparation in a technologically advanced setting they move to wholesale suppliers and from there to retailers such as prescribers, pharmacies and drug shops. The next phase is their distribution into the hands of consumers, either through a practitioner’s prescription or through direct selling. After the pharmaceutical has come into the hands of a consumer, it will reach the final stage of its life: someone will use the medicine with the purpose of restoring, improving or maintaining his or her health. The way in which a medicine is taken constitutes a crucial moment in its life. “Wrong use” may render its entire life meaningless. Finally, pharmaceuticals have, as it were, a life after death. The fulfilment of their life purpose lies in the effect they have on the wellbeing of the person who took them. Efficacy represents their ultimate and decisive “life stage.” Each life stage is characterized by a specific context and particular actors. In the production and marketing phase, the primary social actors are scientists and business people working for pharmaceutical companies. The prescription phase is mainly populated by health professionals and their patients in the context of a medical practice, while the distribution is carried out mostly by sellers such as pharmacists, storekeepers, drug peddlers and their customers in a market type setting. Focusing on the use of medicine, the anthropologist will most likely find the consumer in a household setting, away from medical professionals. The same applies to the final stage: efficacy.

Each stage is also characterized by a “regime of values” (APPADURAI 1986), expressed in distinctive sets of ideas concerning medicines. In the production and marketing phase, concepts of scientific research, market commodity, and commercial competition dominate the minds of the principal actors. Medical practitioners see pharmaceuticals as indispensable means in their encounter with sick people who come for help and advice. Pharmacists and other sellers regard pharmaceuticals as items for sale, commodities, while patients and their relatives expect medicines to solve their problems (VAN DER GEEST *et al.* 1996: 156).

“Social life”, a term borrowed from APPADURAI (1986), was the organizing concept in an anthropological study of medicines on the move (WHYTE *et al.* 2002). “Social life” proved a useful analytic tool to trace the “careers” of material things as they move through different settings and are attributed value as singularities, gifts or commodities. The authors used the idea to review the literature on the “biography” of medicines. Three categories of social actors were discussed in whose “shadow” medicines assume particular meanings: consumers, providers and “strategists” (including manufacturers as well as policy makers).

Several studies approach medicines from a multilevel perspective (though they may use another term to name their perspective). CRAIG (2002), for example, who shows the multiplicity of meanings that drugs may carry in different practical situations, emphasises that professional knowledge about drugs cannot keep up with the speed of local knowledge and the practical logics of consumers. He devotes one chapter of his book to antibiotics as commodities in the Vietnamese culture and market: “Commodities are designed to travel and cannot realize their value without it” (*ibid.* 123). As commodities, medicines pass national borders and transgress patents, thus entering domains where professional knowledge and control do not reach. The drugs are reinterpreted into local concepts and may thus turn into different objects (*cf.* BLEDSOE & GOUBAUD 1988). With chameleon-like metamorphoses of the antibiotics, rationality changes as well, moving from scientific to local or personal knowledge. New knowledge comes into existence at the intersection of cultural beliefs and market tactics (*cf.* VAN DER GEEST 1991). Women, as housekeepers that care for

the family, play a main role in the production of that local knowledge.

... it is predominantly women who contest retail markets, especially in rural areas. Mothers swap product information and are expected to know about and control household medicine, especially where children are involved. These responsibilities in Vietnamese families are central ones, especially where resources are tight. The everyday world of market transactions in Vietnam involves a delicate balance between preserving goodwill and being hard-as-nails about price: feigning disinterest, always being ready to go to the next stall down the road, conspicuously displaying product knowledge in being ruthlessly critical of whatever is offered, while trying to pick up whatever information is put forth (CRAIG 2002: 132–33).

Several studies focus on the linkage between multinational industry and the prescription and distribution of medicines at the level of medical institutions. LAKOFF’S (2005) ethnography of psychiatric practice in Argentina shows how medical work and scientific reasoning are surreptitiously steered by political and commercial interests. The author describes the growing popularity of anti-depressants in a country where depression is hardly an issue. The partial explanation of this enigma lies in the metamorphosis of an anti-depressant that turns into a tranquilizer, helping people to overcome stress and panic in a turbulent period of Argentinean history: the collapse of the national bank and the subsequent economic disasters for private citizens.

The case of the “anti-panic” drugs illustrates the hold of business over science and health care. LAKOFF reveals how the pharmaceutical industry cleverly plugs into the political and economic crisis by offering people the gift of a drug that helps them to restore control over their lives. He also shows that the pharmaceutical company actively creates the condition—the pathology one could say—that requires its drugs. He calls it “diagnostic truing”: making the diagnosis “correct” in the sense that it fits the drug for sale. The lock is changed to fit the key. The categories of psychiatric practice are “... broken down in terms of medication response, so that diagnostic questions would appear no longer as—‘is it bipolar disorder or schizophrenia? But as—‘is it a lithium or an olanzapine response profile?’” (p. 174). Company representatives, or “reps”,

lure doctors with attractive rewards and pharmaceutical audits closely monitor prescription practices to ensure the effectiveness of their pressure on doctors to make diagnoses suit the drugs to be sold.

A pharmaceutical company needs to sell a disease before it can sell its drugs. In other words, the marketing of medicines requires marketing of science. One of the ways to achieve this is exerting influence on the production of scientific literature. Companies go to the extent of soliciting scholars to write their articles for them. The industry's invisible hand in producing scientific literature preparing the market for its products is a development that—for obvious reasons—has been hardly recorded by social scientists. Healy made an analysis of articles edited in *Current Medical Direction (CMD)*, a medical information company that “delivers scientifically accurate information strategically developed for specific target audiences.” He estimates that up to 75 percent of *CMD* articles “on randomized controlled trials on therapeutic agents appearing in major journals may now be ghostwritten.” A major consequence, Healy concludes, is that “the new method of authorship appears to lead to an omission of negative data on the hazards of therapeutic agents” (HEALY 2006:73). The “invisible writing hand” of the industry in the production of scientific publications is a public secret in circles of medical journals and publishing houses. Protests against this growing phenomenon are bound to largely remain lip service, as the academic world cannot do without the support of the industry.

Antiretroviral medicines

As we have seen, anthropological interest in medicines has grown over the years. However, few policymakers and health workers took notice of these anthropological scripts. The conclusions did not provide them with useful, manageable suggestions for better policy and action; on the contrary, they rather complicated and paralyzed action because of their complexity. Pharmaceutical anthropology became a mainly academic specialisation that enabled anthropologists to discuss a fascinating cultural phenomenon that was poorly understood and little appreciated by medical professionals and others who are involved in dealing with the particular product under the anthropological lens.

The arrival of antiretroviral medicines forces us to re-examine and resuscitate the study of the multi-

level reality—or social life—of pharmaceuticals in order to better ascertain what may happen when antiretroviral medicines become widely available, in particular in resource-poor societies (as is happening now). It also calls upon researchers to come up with conclusions that can be more easily translated into policy.

Researchers at the University of Amsterdam have designed an extensive research programme that takes the multilevel character of antiretroviral medicines as its starting point. It is a multi-country research programme involving about 25 PhD, post-doc and senior researchers, exploring problems of distribution and usage of anti-AIDS medication in nine low-income societies (Vietnam, Indonesia, Uganda, South Africa, Burkina Faso, Mali, Ghana, Tanzania and Zambia). The assumptions or expectations which motivated the research are threefold: (1) Access to antiretroviral medicines (ARVs) is a human right for PLWA; (2) Greater access may increase HIV testing and reduce HIV transmission; (3) Greater access to treatment may diminish stigma and discrimination associated with HIV/AIDS.

The general objective is to learn from ongoing AIDS treatment efforts by means of comparative assessment of five inter-related themes: (1) Mechanisms of inclusion and exclusion in access to AIDS medicines under routine healthcare conditions, with an aim of finding ways to increase equitable access to medicines. (2) How gender-dynamics and stigma shape access to and use of ART. (3) The effects that use of AIDS medicines brings about in quality of life for and social capital of PLWAs and affected families. (4) The extent to which PLWA participate in and adhere to treatment programs, and reasons for non-adherence with an aim of determining ways in which social and adherence support systems can be strengthened. And (5) the perceived quality of counselling and care provided in health facilities, and ways in which both care and counselling of care can be improved.

Medicines are studied as linkages between policy planners, health workers and PLWA. The programme is explicitly multilevel-oriented and has listed the various activities involving the production, distribution and use of drugs involving the international or global, the national, institutional, and local or household levels.

The enormity of this inventory underscores that a multilevel research may lead to considerable lo-

gistic problems and can only be tackled by a team. The inventory also makes clear that there is a need to focus on one level and to treat the other ones as relevant contexts. An article by WHYTE *et al.* (2005) can serve as an example of such a selective multi-level approach.

Reported successes in making ARVs widely available for HIV-infected citizens raises the question whether and how this policy actually materializes in the daily lives of people living with HIV/AIDS. This is the very question that is addressed by Susan Whyte and co-authors about the uneven road that ARVs travel in Uganda. They paint a depressing picture of unequal access to anti-AIDS medicines. Poverty coerces patients and their families to make impossible decisions. The already heavily reduced prices of the ARVs in Uganda are still much too high for the average family. In dramatic case histories the authors illustrate the painful priorities that families and patients have to set. In some cases families sacrifice most of their financial resources to treat their sick relative(s), in others they are simply unable to do so, and in the most desperate the patients help their families by taking their own lives. The pharmaceutical nexus expresses itself in yet another form: the financial and emotional costs of treating relatives with AIDS. The costs force people to (re) define their relationships thereby making medicines tokens of both kinship quality and the quality of international relations.¹ The authors:

As concrete things ARVs objectify relationships in both subtle and dramatic ways. Hope, concern, solidarity, power, money, selfishness are all enacted as those tablets and capsules move between people. Within families, the virtues of care are most clearly demonstrated by buying medicines for the sick person... On a global level, claims of medical apartheid in refusing to make ARVs truly accessible in poor countries are accusations of injustice and immorality (WHYTE *et al.* 2005: 260).

BIEHL (2007) discusses Brazilian AIDS policy, particularly the history of Caasah a small community of people with HIV/AIDS in the city of Salvador in the poor North-East region of Brazil. Brazil was the first “third-world country” that succeeded in making antiretroviral medicines available for the entire population. Biehl describes not only how the Brazilian government achieved this through negotiations with the pharmaceutical industry but also

how it tried to bring the medicines to the poorest and most marginal groups of the society.

When Biehl visited Caasah in the 1990s it was something between a community of squatters and a hospice of homeless AIDS patients, former prostitutes, transvestites, and drug users who had occupied a deserted clinic. Caasah became a showcase for local and national politicians. It managed to give the most marginal inhabitants of the city their dignity back and it helped them take the new medicines that could change their lives entirely if used well.

Five years later, when Biehl returns, Caasah has become a well-organised clinic that only treats people who obey the rules and take their medicines exactly as they are told. Most of the first inhabitants have died of AIDS or have resumed their previous life. They turned out to be “hopeless cases”, useless people for whom nothing could be done. The fact that the promising approach of five years ago failed to assist the others in finding a better life characterises the profound tragedy of AIDS according to Biehl.

The “pharmaceuticalisation” of HIV/AIDS, as Biehl calls it—reducing AIDS to taking or not taking medicines—simplifies the problem and has serious consequences for the most vulnerable in the society. AIDS policy, which does not address poverty, stigmatisation and social exclusion leaves people to fend for themselves in conditions that destroy them.

Equally upsetting is FASSIN’s (2007) study *When bodies remember: Experiences and politics of AIDS in South Africa*. Fassin follows AIDS from the offices of international organizations and the national ministry down to the shantytowns around Johannesburg. He begins with a detailed analysis of the public debate about the cause of AIDS. South Africa, with its highest number of HIV infected people in the world, denied the causal link between HIV and AIDS. The former president, Thabo Mbeki, who insisted that AIDS was caused by poverty and discrimination and not by HIV, and thus obstructed the distribution of life-saving medication, is a painful example of the impact of national politics on local health conditions. Fassin’s visits to households in urban settlements and remote villages produced devastating narratives of lost lives that could have been saved by a president with other views.

In spite of the gloomy observations by Fassin, Biehl and Whyte and her co-authors, developments

around ARVs show that political pressure on the industry is beginning to yield results. The industry is more susceptible to public criticism now than it was 25 years ago. There is sufficient reason for careful optimism that justice and moral decency can no longer be ignored on the market of pharmaceuticals and that eventually medicines will have far reaching societal benefits. HARDON (2005: 605) writes:

The distribution of AIDS medicines, which was initially not seen to be cost-effective by global policy makers in sub-Saharan Africa, is now seen to have beneficial effects, such as destigmatising of HIV/AIDS, increasing uptake of voluntary testing and counselling, and better prevention programmes.

Multilevel research undertaken at the frontlines of health care in Sub-Saharan Africa, within the multilevel research program aims to not only describe ARV provision and use in a multilevel perspective, it also intends to contribute to policy and programmatic changes by “advocating up”. A comparative study on adherence to ART in Uganda, Tanzania and Botswana (HARDON *et al.* 2007) found that people had difficulties adhering to drugs, despite the fact that all the facilities studied in these three countries at the time of the study had started to provide ARVs free of charge. ART users reported other related costs (e.g. transport expenditures, registration and user fees at the private health facilities, and lost wages due to long waiting times) as main obstacles to optimal adherence. Side effects and hunger in the initial treatment phase were an added concern. They further saw that ART users found it hard to take their drugs when they were among people to whom they had not disclosed their HIV status, such as co-workers and friends.

Whether greater access to ARVs will indeed diminish stigmatization is an issue for future research and cannot be answered yet at this stage. Incoming research reports provide data that suggest both destigmatization and continued stigmatization (since the medicines enable PLWA to hide and deny their disease status and thus promote the secrecy around HIV/AIDS). Other concerns include the question that medical professionals in particular raise: How will long-term ARV use affect drug adherence in societies where re-interpretation and commercialization of pharmaceuticals is widespread, as has been shown in earlier anthropological studies (e.g. CRAIG 2002; ETKIN & TAN 1994; HARDON 1991; KIM

1993; NICHTER & NICHTER 2003; NICHTER & VUCKOVIC 1994; SENAH 1997; TAN 1998; VAN DER GEEST & HARDON 1990; WHYTE 1992).

In conclusion

The growing access to ARVs calls for a renewed anthropological analysis of the production, marketing, dispensing and use of pharmaceuticals. In this article we have argued that the *multilevel approach* is an effective heuristic tool for such analysis. The approach is particularly fit to describe and interpret the movement of drugs in present-day societies. It shows how meanings and practices are situated in a specific context, for example how in resource-poor settings poverty shapes access to and use of life saving technologies and how that obstacle is linked with policies and commercial interests outside the local life conditions of people living with HIV/AIDS.

A second conclusion is that to understand—and even foresee—the whimsical travels of medicines, and antiretrovirals in particular, we should closely monitor the *perceived interests* of those involved in the production, distribution and use of these medicines. A multilevel approach in research will yield the type of information that makes such interpretations possible; it shows the rather mundane and “egocentric” motives that steer the lifecycles of medicines.

Finally, to make an impact on policy and on the actual distribution and use of pharmaceuticals, the results of multilevel analysis should be communicated to those who are most directly involved in the use and dispensing of medicines. Anthropologists should take care to write transparently and to provide clues to make their work accessible to policymakers and stakeholders at the lower layers of society and to be more effective in “advocating up.”

Note

- 1 The fieldwork for this paper was conducted in mid-2003. The issues they highlight will not be found in the same way today, since ARVs are now far more accessible to people in Uganda than they were then.

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