

Logic, Methodology and Philosophy of Science

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Preface

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Plenary

Topic A

LOGIC

Topic B

**GENERAL PHILOSOPHY
OF SCIENCE**

Topic C

**PHILOSOPHICAL ISSUES
OF PARTICULAR
SCIENCES**

Topic D

SCIENCE AND SOCIETY

Special Symposium on COSMOLOGY

**Special Symposium on
FREUD AND
PSYCHOANALYSIS**

**Special Symposium on
CHINESE TRADITIONAL
MEDICINE**

Experimenting on innovative scientific vs. traditional treatments: the case of AIDS medical research in China¹

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ABSTRACT. Since the 1950s, rehabilitation and legitimacy of an ever-evolving and multi-faceted scholarly medical tradition tend to be gained through the use of modern science explanatory model. Interfaces of knowledge and practice are approached through experiment in biomedicine and in traditional (empirical) medicine revealing a process of ‘biomedicalisation’ of the latter over time through an on-going tentative process of modernisation, standardisation and means of legitimacy along the lines of biomedical sciences criteria even though their rationales are radically diverging.

Traditional Chinese Medicine (TCM, *zhongyi*) – the traditional medicine integrated in the public health system promoted by the post-1949 Chinese government, can be defined as a ‘neo-traditional’ medicine insofar as references of modern biology and standardised biomedicine are inserted in its transmission, body of knowledge and practice. The question of clinical trials is relevant in biomedicine and traditional medicine in a growing number of developing countries: even though raising controversial issues, such trials are often encouraged at local, national, and international levels. Trials in traditional medicine are promoted with a political will locally and globally, a trend initiated by the WHO recognition of the efficacy of some traditional medicines in treating a number of pathologies at the Alma Ata Conference in 1978. In Western countries, ‘integrative/integrated’ medicines are gradually inserted in treatments schemes of chronic diseases such as cancers and AIDS and in palliative care: this issue is addressed by health and research actors in collaboration with civic actors. A global trend in biomedical sciences is the expanding relevance attributed to ‘evidence-based’ medicine (EBM): in the early 1990s, focusing on the evidence from clinical research, the EBM founding group of scholars claimed that was emerging ‘a new paradigm for medical practice’ whose significance will reach the scale of a ‘scientific revolution’ in medicine ([16, 17]). Such trend is reflected in ‘conventional’ traditional medicine (TCM in China) as China secures a significant place in the ‘global village’ and in world affairs through an accelerated process of cultural and economic globalisation.

Therefore, from the 1990s and at a faster pace in the 2000s, the ‘biomedicalisation’ of TCM research reached another scale through the tentative adoption and increasing valuation of EBM practices and ideas. In my work, such process is approached through the case of AIDS research: a number of scientific practices and experiments in relation to HIV and AIDS treatments are ongoing while the new national scheme on AIDS treatment and care is gradually and tentatively been implemented since 2004 [13–

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15]. Acknowledging a global context of circulation of knowledge, the concepts of CAM (Complementary and Alternative Medicine) and evidence are both discussed as their elaboration and meanings offer a relevant glimpse of interacting/interlocking paradigms.

While societies in emerging countries are growingly based on knowledge, research and development following the route of developed countries, our approach to medical research draws on the broader field of the anthropology of sciences, building up on what are labelled 'new subjects' in anthropology in contrast to classical ones such as the kinship or religious systems.

Using tools of social anthropology, the methodology is based on the collection of qualitative data, documentary and archival research, and qualitative research analysis. Still in an exploratory phase, this research is part of a social sciences programme on AIDS jointly run by IRD and PUMC/CAMS.

1 AIDS medical research in TCM: an overview

Along the lines of the national AIDS treatment and care scheme, the free TCM treatment project formally launched in June 2004, was designed to help in China's control of the epidemics. TCM has been accounted for a possible milestone in China's AIDS treatment and care strategies. According to the SATCM (State Administration of TCM) created in 2003, China will offer free treatment to approximately 30000 patients in 15 of its 21 provinces and autonomous regions. Initially, TCM-based treatment was provided for 2300 patients from rural areas under the TCM free treatment scheme in Hebei, Anhui, Henan, Hubei and Guangdong provinces.

Among TCM bodies involved in treating HIV and AIDS related symptoms, are included AIDS treatment centres such as that of Guang'anmen hospital (GAMH AIDS Clinical Centre) and research bodies such as the AIDS department and research centre of CATCM (Chinese Academy of TCM) in Beijing or the AIDS research centre of the TCM Institute in Zhengzhou, capital of Henan province, one of the most affected province by HIV infection.

From the content analysis of a number of Chinese publications on AIDS clinical trials, some results are reported in three areas: (1) in the process of identifying the herbs that are most effective, (2) in extracting the most active agents from the herbs, (3) in testing medicinal compounds based on TCM knowledge and practice. In those reports, herbs may be conceptualised consistently as regular drug the same way they are conceptualised in the biomedical model, without explicit reference to TCM basics (theory and practice).

TCM trials have been conducted in the USA, in Tanzania and in China since the late 1980s. AIDS clinical research in TCM was initiated in 1985 in the US by an American team (Cohen, Abrams and Burack, Quan Yin Healing Arts Center in San-Francisco) and in 1989 in Africa by a Chinese team ([12], AIDS Department of the National TCM Research Institute in Beijing) whose results were controversial. In 1996, for the first time, a pilot randomized controlled trial of Chinese herbal treatment for HIV-associated symptoms was reported in an international journal ([2]). However, only one TCM drug (*Tangcao*) has been approved by the China SFDA (State Food and Drug Administration) as a treatment for AIDS lately in 2006.

Recent results were published in the *Chinese Journal of Integrative Medicine*[19]: 'Zhongyan-4 has an immunity-protective and /or rebuilding function in HIV and AIDS patients in the early and middle stage, and also shows effects in lowering viral load, increasing body weight and improving symptoms and signs to a certain degree'. Over 20 years, four new compositions of TCM (innovative treatments in TCM for a new 'medical situation', namely HIV infection) labelled *Zhongyan-1* to 4 were tested. These long term trials were conducted by the research team of the Chinese Academy of TCM at the Centre for AIDS research and at Guang'an men hospital in Beijing. However, as the leading investigator in the China CIPRA (Comprehensive International Program for Research on AIDS) programme related to clinical research in TCM and immunologist underlines, no specific category of drugs has yet been found that could inhibit HIV replication and rebuild the body immunity[3]. Within the framework of China CIPRA project, a TCM drug, Chuankezhi injection, combined with ART (Anti-Retroviral Treatment) regimens was tested in order to evaluate its safety and its efficacy on alleviating HIV-related symptoms, and on reducing side effects of ARVs (Anti-Retrovirals). The efficacy still needs to be evaluated. In addition to a dose of uncertainty, some results remain difficult to explain with current scientific tools and theories and are contradictory: a stabilization or an increase in CD4 cell count can be observed concomitantly with an increase in viral load.

A number of tested and used treatments are very common and polyvalent, namely mostly used in daily life for the preservation of health and for stimulating the overall immunity of the body either in the pharmacopoeia (*zhongyao*), in acupuncture-moxibustion (*zhenjiu*) or in corporal and health practice of *qigong*; all these methods are generic TCM treatment methods. Most frequently tested treatments are compositions and prescriptions of pharmacopoeia, eventually combined with another TCM method of treatment.

To conclude, according to the results of some clinical trials whose reliability is not clearly assessed, TCM herbal preparations might have an immunity protective and/or rebuilding function. However, until now results show no major breakthrough, and experimenting on TCM drugs raises controversy in the international academia.

2 Concept of CAM

In China, traditional medical treatments of AIDS outside the public health system are not yet documented. What kind of traditional medicine is used? In Chinese, the term *minjian zhongyi* (popular traditional medicine) designates traditional medicine practiced in non-official settings (family, locality and/or temple-related community/group) distinguishing it from the official (conventional) TCM. In other contexts out of China, what kind of traditional medicine of Chinese origin is used? Can Chinese medicine understood in a broadened meaning including TCM but not excluding unofficial traditional medicine, be labelled a CAM?

CAM is a methodological, operational category rather than a theoretical one needing to be conceptualised in the context of culture: for instance, TCM can be conceptualised as a 'conventional' rather than 'alternative' medicine in China. Nevertheless, the latter applies to unofficial traditional medicine.

The terms 'alternative', 'parallel', 'conventional', 'neo-traditional' may be

useful or not depending in contexts. ‘Complementary’ is not epistemologically a generic term but rather a contextual term: complementary to what? In most contexts, it is understood as complementary to the biomedical model which may vary greatly being always adjusted locally, and which remains dominant even in pluralistic health care systems such as those of India and China.

The term ‘alternative’ health care was devised when prevailing beliefs held that consumers sought other treatment modalities in place of conventional Western medical treatment [20]. The term ‘complementary’ was substituted to it when a number of studies demonstrated that most people use unconventional therapies in addition to conventional medicine [5, 20]. According to WHO [21] estimates, approximately eighty per cent of people who do not live in Western societies currently use forms of medicine which are labelled CAM in the Western context, as their primary health care. Use of traditional/popular medicines remains unchallenged in much of the world. In the White House Commission report [20], CAM is defined as follows: ‘a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine. The list of practices that are considered CAM changes continually, as those therapies that are proven to be safe and effective become adopted into conventional health care and as new approaches to health care emerge’.

Therefore, CAM labelling applies to any set of knowledge and practice that has yet to meet the lines of the scientific medical paradigm of cause and effect. The mandate for research to prove the usefulness of CAM is clear in the report which acknowledges the current research on these medicines but raises issues dealing with the size and rigor of clinical trials and underlines that safety and efficacy of CAM therapies still need to be evaluated [4]. As both in the US and in Europe, government funding institutions set aside amounts of money for CAM research, [6, p.198] heuristically stresses on research bias highlighting the difference between using the scientific method for proving (the misguided approach) and for testing (the correct one). Investigators tend to judge a trial report more positively if it confirms their previous findings [7]. [18] have demonstrated that virtually no negative trials of acupuncture have emerged from China. CAM researchers are usually self-taught. The combination of lack of scientific training and strong bias in favour of their intervention could be a recipe for bad research [10]. A researcher in CAM and any other area should primarily be enthusiastic for good science and not for the therapy under investigation [6].

3 ‘Biomedicalisation’ of traditional medicine and evidence

Related to a cultural movement borrowing from the audit culture and applied to biomedicine since the early 1990s, the influence of EBM reveals an increasing valuation of the experimental method and tools of evaluation, the adoption of an agnostic and objectivistic approach when the proof is not yet reached within the framework of a research protocol: ‘EBM de-emphasizes intuition, unsystematic clinical experience, and patho-physiological rationale as sufficient grounds for clinical decision-making and stresses the examination of evidence from clinical research’ ([17], quoted by [8]). Even more controversially than in biomedicine,

such set of practices and ideas is tentatively applied to other medical bodies of knowledge and practice such as TCM/Chinese medicine and other CAM.

An anthropological reading supposes a consideration of all types of evidence on the basis that all bodies of knowledge either popular/traditional/scientific are socially and culturally constructed. Subsequently, such critical stance means contrasting diverging types of evidence instead of valuating one single type, namely biomedical scientific evidence which excludes other rationales and types of rationalisation, as well as confronting the scientific paradigm to other epistemological models. For instance, extending 'evidence' to 'What works?' [1] in medicine, a practical but crucial question for anybody who has ever been in a patient role referring to whatever (eventually diverging) bodies of knowledge, is a mean to account for – emic/etic (insider, local) versus -etic (expert, global) views, therefore a way towards 'indigenizing' the type of evidence.

4 Concluding remarks

In her presentation based on a historical and philosophical approach of Western medicine, [8] demonstrated that any body of medical knowledge and practice is the result of a merging of both traditional and modern lore and that the line between 'scientific versus traditional' may be difficult to draw: for instance, in the context of clinical research, the relevance of clinical case reports is partly based on their particularities, a fact that cannot be completely assessed with scientific tools.

Within AIDS treatment/research framework and context, and while TCM treatment and research is not yet standardized, the choice in China's policy between the development of combined versus substitutive treatment is not yet fully clarified nor acknowledged [13, 15]. Simultaneously, globalising/hybridised Chinese Medicine becomes a valued CAM in treatment schemes of chronic diseases such as cancer and AIDS out of China: in a context of cultural globalisation, 'a certain degree of hybridisation (transformative and/or contextual) is the normal course of events, which does not prevent other aspects from being homogenized' [9, p.84]. In times of economic globalisation, Chinese remedies which appeal to the newly emerged middle-class in China and currently take a significant stake in the global market of CAM, have become obviously lucrative [11, p.237–238]. Therefore, one may notice that TCM/Chinese medicine ranks first among the most used traditional medicines, and second, behind biomedicine, among the most used medicines in the world.

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