Balancing hot and cold Balancing power and weakness: social and cultural aspects of Malay *Jamu* in Singapore

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RÉSUMÉ

Les *jamu* (phytomédicaments malais) sont populaires chez les Malais et sont connus depuis des siècles. La conception pharmaceutique non occidentale du *jamu* a ses propres implications culturelles et sociales, en relation avec l'humorisme, la philosophie et la religion des Malais.

A Singapour, les *jamu* connaissent une situation spéciale, entre une vision occidentale et Sud-Est asiatique du monde, entre les standards de la science occidentale et la tradition malaise. Les efforts pour « traduire » le concept de *jamu* dans l'un de ceux de la pharmacie moderne sont voués à l'échec, car ces concepts ne sont pas compatibles.

The following article on Malay phytopharmaceuticals (*jamu*) is based on an anthropological field study conducted in the Malay community in Singapore in 1989/90 (TUSCHINSKY 1992), and a short follow-up in 1993. It does not examine pharmaceutical but cultural and social aspects of *jamu* within the three spheres of production, trade and consumption, which are the constituting elements in the "biography of a drug" (v.d. GEEST 1988).

THE VARIETY OF JAMU IN SINGAPORE

Interest in non-Western pharmaceuticals has risen in the last decade, as has been the case with Southeast-Asian "*jamu*". *Jamu* is the Indonesian and Malay term for traditional pharmaceuticals made from fresh or dried medicinal plants. These remedies have existed for centuries, and are popular among the Malays[1] throughout the Malayan Archipelago (Malaysia, Singapore, Brunei Darussalam, Indonesia). This region is rich in medicinal plants, which are cultivated in gardens and plantations in addition to growing naturally alongside other indigenous vegetation. The flowers, leaves, fruits, bark, wood and roots of these plants are prepared in different manners: *Jamu* can be an infusion of fresh or dried herbs, a mixture of dried plants, or a combination of dried and powdered medicinal plants. Most recipes are compositions of up to 40 different elements.

General folklore attributes the origins of *jamu* to Java's principal courts, and today it continues to be primarily associated with Indonesia. In the traditional way, *jamu* is produced at home to provide to friends and relatives. As a means of supplementing family income, female family members often sell the surplus to neighbours or villagers; these "*jamu* women" continue to be a familiar sight in Indonesian streets. Much like street peddlers, *jamu* women wander through villages and cities, offering the contents of their *jamu gendong* (*jamu* carried on the back) to regular clientele.

At the beginning of the 20th century, *jamu* production underwent a significant transition. Innovative Indonesian entrepreneurs began producing home-made *jamu* for commercial sale, and the profits generated from this prosperous cottage industry initiated a series of events which led to today's modern *jamu* industry. The pioneering businessmen transformed themselves and their heirs into what are today some of the world's largest *jamu* producers, such as "Jamu Jago", "Air Mancur" or "Nyonya Meneer". These firms operate along modern management lines, and are oriented to Western pharmaceutical industry standards. Today, *jamu* is sold in various forms: ointments, oils, tonics or compresses are usually preferred for external use; powders, tablets, pills, tonics and capsules are used for more popular internal medications, being considered as an important factor in everyday health care. More than 350 factories of varying sizes

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are registered in Indonesia, and their product is exported to several countries, the largest consumer market being in Malaysia and Singapore (AFDHAL/WELSCH 1988).

Indonesia continues to be the trend-setter in *jamu* production, development and marketing. *Jamu*'s industrialisation has affected not only its outer appearance, but also the increasingly modern strategies used to sell it. This latter factor has played a significant role in changing *jamu*'s image from that of an old-fashioned medicinal plant treatment to a natural remedy with "ancestral heritage", now also fitting into the Western back-to-nature trend. *Jamu*'s profit-generating potential became so significant that by the early 1980s, there was discussion in Indonesia about *jamu* becoming the most important *non migas* (non petrol/non gas) source of revenue for the country (SIMANDJUNTAK 1984). Dreams of profitable export to the West have not yet been realised, however.

In Singapore, the majority of all *jamu* sold is imported from Indonesia, a minority is imported from Malaysia, and a very limited amount of *jamu* are produced in Singaporean home manufactures using little machinery and manually-intensive processes. When people in Singapore talk about *jamu*, they usually refer to the Indonesian products described above; but the term is often used to describe a macro-category, which includes many other varieties of Malay phytopharmaceuticals. *Akar-akar kayu* (literally: wooden roots; *i.e.* the cleaned and roughly chopped up raw ingredients used for infusions) is one example of *jamu* included in the macro-category, but perhaps the most important variety is *majun* (also *majon*, *ma'jun*, *makjon*), which is either imported from Malaysia or produced in Singapore. The original meaning of this Arabic term is "paste" or "cream", but in general *majun* refers to a "compounded medicine" (WILKINSON 1959), "kneaded" and "of floury material" (WILKINSON 1985/1903).

The main difference between *jamu* and *majun* is the form: *jamu* was originally sold in powder form, with pills, tablets and capsules being the result of modern development and commercialisation. *Majun*, in contrast, has the form of a large soft pill which is comparable in size and shape to a large black olive. In principle, the plant compositions are quite similar, but unlike *jamu* the powdered ingredients of *majun* are cooked, then kneaded with honey and beef fat and formed into the olive-like pills. *Majun* is rarely sold in singular form, and typically ten to fifteen pills are packed in plastic containers. Recently, *majun* has also been produced in capsule form, containing the same powdered plant ingredients.

The term *majun* is known in Bahasa Indonesia as well and can even be found in Old-Javanese dictionaries (ZOETMULDER 1982; MARDIWARSITO 1981). Yet *majun* is not known to come from Indonesia in pill form, where the term is only used to specify a certain kind of *jamu*, and thus describes the purpose rather than the form or shape. In Indonesia, *jamu majun* are special medicines for the strengthening of male vitality (Air Mancur Catalogue). This purpose, however, is not contradictory with that of the Malaysian or Singaporean *majun*. Although it can also be taken by women, there is a clear delineation: *majun* is more for men, *jamu* more for women.

Only a few *jamu* come from Malaysia, whose products include *majun*, *akar-akar kayu*, oils or ointments. According to the statement of a well-informed Singaporean *jamu* trader, the few attempts to develop an industry similar to Indonesia's in Malaysia have been unsuccessful.

In this article the term *jamu* is used as a super-category comprising all varieties of Malay phytopharmaceuticals and will be specified only when necessary.

STRATEGIES IN SINGAPOREAN JAMU PRODUCTION AND TRADE

A number of Malay people in Singapore are familiar with use and production of *jamu* and are still knowledgeable about many medicinal plants (YUSOF 1987/88). Often they supply *jamu* to relatives and friends, and sometimes they sell their products to small shops or market stalls. In spite of strict regulations in Singapore, *jamu* is often sold without any packaging descriptions whatsoever. The ingredients, producer, place of production, and sometimes even product name are often completely absent — they are simply known to all.

In Singapore there exist only three producers which sell their products professionally either out of the home or through a shop or market stalls. Some businessmen specialise strictly in selling and are completely removed from the production process; three run specialised *jamu* shops, while others operate strictly as agents. The 80-100 small to moderate-sized *jamu* shops and stalls whose product range is not limited to Malay pharmaceuticals are supplied by three wholesalers.

Singapore's production and marketing of *jamu* is comparatively rudimentary. The professional *jamu* business only started at the beginning of the 1980s, while Indonesian firms have long been working with successful marketing strategies and continue to develop new ones.

Singapore is exposed to the influences of neighbouring countries, and a mixture of these features can be found in *jamu* marketing. Singapore *jamu* traders have, of course, all the marketing venues available of a modern city, and they make use of advertisements in newspapers and broadcast media. But these means are not as important as one would expect, and the informal word-of-mouth information provided by relatives, friends or *jamu* sellers is still an integral part of sale strategies. Some firms have employed house-to-house sellers, who serve as knowledgeable health care and cosmetic consultants — a role somewhere in between the traditional

"*jamu* woman" and the counter salespeople in the European and American cosmetic industries. In 1992, the first small stall serving ready-to-drink-*jamu* by a Malay lady was opened in "Geylang", a Malay dominated quarter. Its design is a combination of store and ba — a kind of "Jamuteria", which has been commonplace in many parts of Indonesia for several years. In spite of having almost no knowledge about their products, all sales executives in Singaporean *jamu* outlets have a consulting role, too. Usually they need only read aloud the packaging inscriptions, but consumers expect some service from the selling individual.

The more important sale strategies and the creation and implementation of product images become clearer on examination of the target consumer group. *Jamu* is popular among the Malays, who consider themselves to be the true indigenous inhabitants of Singapore, in spite of the fact that the Malay population base has been steadily decreasing since the beginning of the 19th century (strict Singapore immigration laws instituted in 1965 stopped the immigrant influx). The ethnic breakdown of Singapore has changed only slightly over the last twenty years, and now stands at 76% Chinese, 15% Malays and 8% Indians. The 400,000 people who make up the Malay community today have roots throughout the Malayan Archipelago (especially Bali, Java, Sulawesi, Bawean and Malaysia), and they have maintained strong cultural and kinship links extending far beyond the state boundaries. The different Malay groups who emigrated to Singapore were ethnically quite similar, and they intermingled quickly with other Malays to form a distinct community with a high sense of community identification (BEDLINGTON 1974). Many have been living in Singapore for several generations, and the differences of geographic origin have seemingly lost any real significance. Malays often express the feeling of being an ethnic minority in their "own" country. in general they have a lower educational and socio-economical status than the Chinese Majority, and almost no political influence: Malays are frequently labelled as "lagging behind" (BACH 1991). The Malay community defines itself with a common set of cultural values and customs, its language (Malay), and by the same community-strenghtening religion (Islam).

In Singapore's social and political context, this last criterion has turned out to be the most important defining element, and the influence of religion is prevalent at the retail level of Malay pharmaceuticals. *Jamu* is only one segment of the goods offered at most of the 80-100 small and moderate-sized *jamu* shops and stalls; religious paraphernalia are also staple items, including praying carpets, a wide range of Islamic clothes and books, Islamic art, stickers with Koran verses and sometimes halal food (prepared according to Islamic rules). These shops are concentrated in predominantly Malay areas, but can also be found all over the city.

The religious embedding of *jamu* is also apparent in some of the corresponding product names. "Jamu Arab", for instance,

Fig. 1
The term jamu as both a self-reliant expression and a super-category

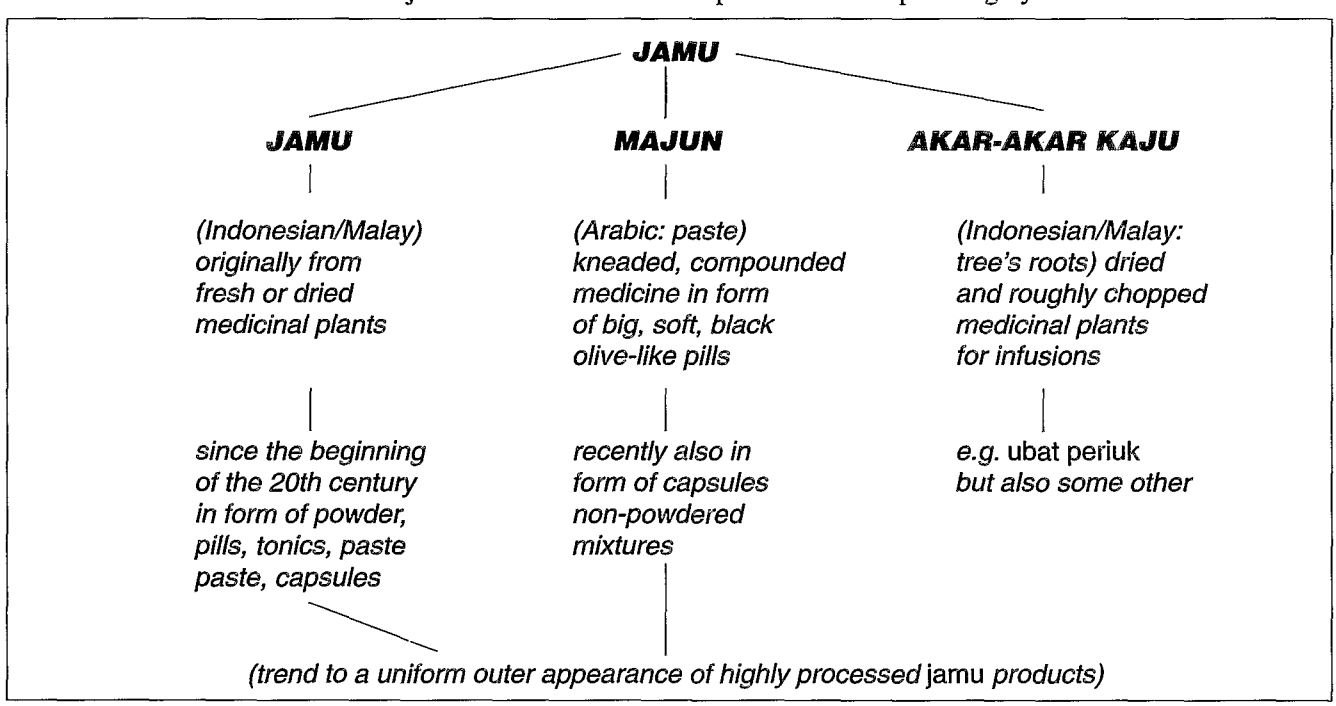
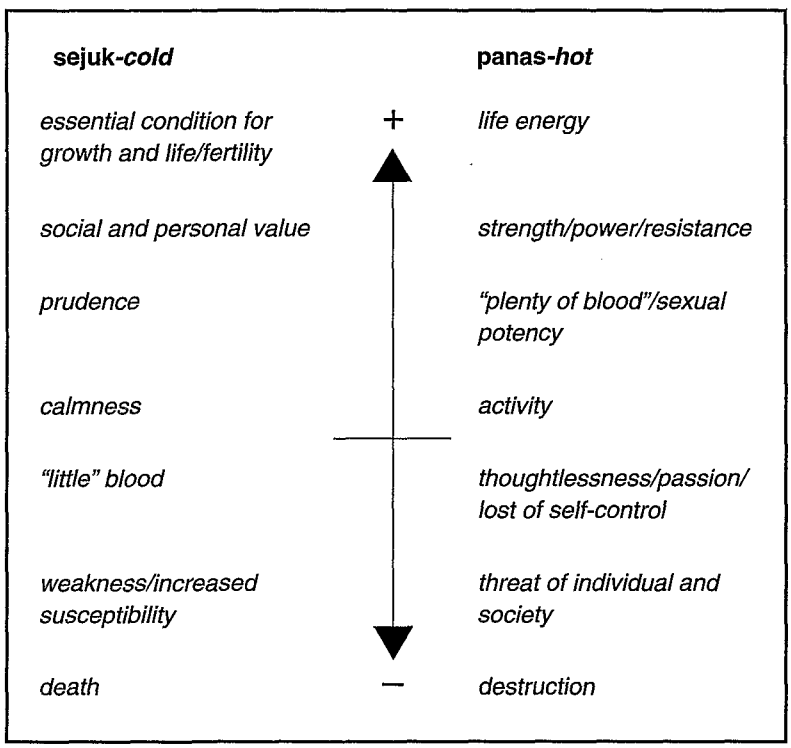


Fig. 2
Spectrum of intensity of sejuk-cold and panas-hot between the extreme positive and the extreme negative. In the positive both are basic for life, in the negative its elimination.



refers to the Arabic origin of its particular *jamu* recipe (although sometimes it is also claimed by Singaporean producers). "Zulfakar" is named after a mythical sword with supernatural powers which is famous among the Muslims. It is said that the Prophet carried this weapon, and with it vanquished all enemies. By attributing this name to his *jamu* variety, the producer creates a parallel between the sword's mythical power and that of his product, which is also supposed to be able to vanquish all "enemies", or in this circumstance, "germs". "Majon Lokman" refers to "Luqman the Wise", who is described in Surah 31 of the Koran and believed to have had healing power. The use of Jawi (Malay in Arabic spelling) is also quite common on packaging and package inserts, and some *jamu* — imported from Aceh/North Sumatra — have instructions written exclusively in Jawi; the insert is also in Malay. Many sellers explained that such Jawi packaging was beneficial "for image". Generally, Malaysian medicines have a stronger Islamic appearance, while the Indonesian varieties bear an appearance more reminiscent of traditional Malay culture. But this is not always the rule, as products like the ones from Aceh (where Islam is more powerful than in other parts of Indonesia) illustrate.

There are also an increasing number of products which are not sold as *jamu* but as *majun*. As there are no longer differences in the outer appearance of the modern *majun* and *jamu* (both are made as capsules containing the powdered plant ingredients as detailed in Fig. 1), it is at the producer's discretion to market a product as *jamu* or *majun*. The frequent choice of the latter has become a symbol of the supposed Islamic historical and philosophical background of the popular remedies.

The few Singaporean *jamu* producers tend to keep their product associations with the Islamic images. They claim an Arabic-Islamic origin of their recipes and view their products strictly in this context. They do not refer to their parents' and grandparents' tradition, which in a sense is no longer their own, but rather to much more remote Arabic roots. Singaporean producers and sellers have created an "Islamic *jamu*" image; and, there is even a tendency to foster an "anti-myth" of *jamu*'s classical Javanese origins in an effort to strengthen claims to Arabic-Islamic roots. This "anti-myth" is so far-reaching that sometimes any link to the Indonesian "ancestral heritage" — there so emphatically stressed — is denied. These efforts can be regarded as endeavours to stress a common cultural Malay-Singapore context in spite of the inhabitants' different geographic origins. This reinterpretation of *jamu*'s history seems to be an important factor of Malay culture.

Jamu promotion is another area where distinctive Malay roots and tradition are still vivid. The Malay image is used as an important sales strategy, and is expressed in product names like "Majun Arjuna". Arjuna is a figure representing power and vitality from the famous Hindu Mahábhárata epos. "Majon Cap Kancil" is another *jamu* example of Malay syncretism, combining the Arabic *majun* with the Malay *kancil*, a clever dwarf deer and the sly protagonist of many folklore legends. "Jamu Darmi" is a product simply decorated with the drawing of a *jamu gendong* woman.

One seller, an ethnic Javanese, exclusively refers to the aspects of Indonesian *warisan nenek moyang* (the ancestors heirloom) and tries to emphasise an image of all-natural products, a quality which is very precious — and of course expensive — in our modern times. He is pursuing a strong promotion strategy, sponsoring a whole broadcasting programme on traditional Malay medicines with an eye for

eventually exporting to Japan. It is clear that an Islamic *jamu* image would not serve his purposes.

PRINCIPLES OF JAMU MEDICATION AND THEIR SOCIAL IMPLICATIONS

Jamu is not a pharmaceutical in the Western sense: it is food supplement, prophylactic and curative remedy all in one. *Jamu* concentrates on certain aspects and interrelationships which Western medicine does not take as seriously: the notion of "care" and "therapy", for example, are not kept as separate as they are in Western medicine. It is believed that keeping healthy also necessitates staying beautiful and attractive as long as possible — a perspective that might more generally be appreciated as the macrocosm reflecting the microcosm; the outer appearance reflecting or expressing the inner qualities. Cosmetics and the use of general tonics or aphrodisiacs are very popular, and have considerable stature in *jamu* medicine. It is not surprising that women represent the majority of *jamu* consumers and customers, since they have primarily responsibility for the health and well-being of their families in addition to being concerned about maintaining their appearance along the traditional norms of beauty.

The qualities and effects of *jamu* are embedded in the widely discussed principles of the Malay humoral system (HART 1969; LADERMAN 1981; MANDERSON 1981; LADERMAN 1987; MANDERSON 1987; TUSCHINSKY 1992), balancing between the poles of hot (Mal. *panas*) and cold (Mal. *sejuk*). In Malay humoral theory, both poles are essentials of a healthy and satisfactory life: neither of the poles is exclusively positive or negative, and the qualities of hot and cold are not just health indicators, they imply individual and social values.

Jamu is used to treat usual bodily complaints and health disturbances indicating an imbalanced humoral condition, but the qualities and effects of the *jamu* variety is not as well distributed between hot and cold as one might expect. There are very few cooling *jamu:* so few, in fact, that the idea of a cooling *jamu* incited considerable amusement in Singapore's Malay respondents. Months after the initial inquiries about cooling *jamu*, many still asked laughing "Well, did you find your cooling *jamu?*", convinced such a search was futile. There are, however, a limited number of cooling *jamu*; *sariawan* is used for the treatment of "inner heat" and lip blisters, and some *jamu* exist to improve the conditions for pregnancy, since coolness and humidity are seen as basic conditions for fertility and begetting.

Jamu consumers and producers in Singapore are more concerned about keeping heat in the body than suffering from too much heat. According to Malay healers, it is easy to cool somebody: "This is no problem, you just have to drink water or eat papaya. But to "give heat" is very difficult." — "If something is cold, it is no medicine", offered a Malay woman who produced *jamu* at home for her family. The cold threats are considered to come from wind and rain, from constant working in air-conditioned rooms, from energy-consuming activities, but also from the process of ageing. Getting colder implicates a "loss of blood", or by extension, of life energy.

Jamu kasih panas - jamu gives heat, if there is an increased need for it. But this particular *jamu* has other common uses, since many consumers also believe it is a useful food supplement for people whose basic condition is "hotter" than others. This is particularly true of men who are believed to be "hotter" than women. To keep their level of heat, they require a higher intake of hot *jamu*, and such beliefs are reflected in the existence of special product categories for men and women - an important part of the profitable *jamu* business. Women are supposed to avoid too much heat, and such *jamu* is forbidden for unmarried women; on the other hand, women must be "hot" enough — in any sense of the word — to be attractive. During pregnancy heat is considered to be dangerous because it can induce an abortion, as the embryo needs coolness for growing. There is consequently also a warning on many *jamu* packages: "Forbidden for pregnant women!"

The hottest *jamu* are those used to increase male potency, often sold as *majun*. *Majun* is made of dried and powdered medicinal plants, which are roasted and mixed with honey and beef oil. This procedure also increases the heat of the hot plants, and *majun* is consequently a special product exclusively for men. Only old women who suffer from rheumatism are permitted to take *majun*, but in all other cases it is considered too hot for them. "If women eat this, men will get problems...", jested a successful Singaporean *jamu* businessman. Heat is synonymous with life energy, potency, and power, and women should not have too much of these qualities — or at least less than men. In this respect, the Malay humoral system and its hot-cold categorisation also serves as a stabilising factor for sexual hierarchy.

This categorisation is meaningful not only in comparisons between the sexes, but also between different ethnic groups. Singapore's most dominant ethnic group is the Chinese, and as the biggest minority the Malays talk frequently about the Chinese way of life and how it compares to their own. Both share the principles of humoral medicine systems, albeit with some variations. Malay people, for instance, consider themselves to be hotter than Chinese men and women, with all individual and social implications that the term "hot" entails. The Malay reasoning is as follows: they need more heat to maintain their hotter state, and consequently use more chili in their food, proving the hotter bodily state; for the same reason, they eat *jamu*, since they have more temperament and passion and are more attractive. The Chinese medicines are

also well-known among the Malays, but in general the Malays consider them too cold and therefore inappropriate. The opposite is also supposed to be true of the Chinese, at least from the Malay perspective: Chinese people supposedly do not eat *jamu*, because it is too hot for them, such being the case because they are colder people. Chinese women are in particular said to be "colder" in all senses of the word, especially compared to the "hot-blooded" Malay women.

Malay men's interest in increasing potency by using special *jamu* seems to be surprisingly high. The topic arises in talks with *jamu* sellers and customers, in newspaper articles, and magazines. Many young and healthy looking men enter the shops asking vendors for "special" products to strengthen male vitality. This initially seems to contradict the Malay male self-perception as strong and lively men (an opinion which is often expressed). But if one bears in mind that the necessary condition for potency is heat, and that a high potency requires that a correspondingly high level of heat be maintained, the increased need for heat appears to be justified — particularly since sexual activity is heat-consuming.

When one considers all elements, the existence of a serious health — or potency — problem among Malay men seems to be very unlikely, despite conclusions one might draw from the high sales level of men's *jamu*. The preoccupation with potency and the comparisons to the allegedly weaker Chinese men instead points to the social implications of heat: power and strength, which favour the Malays — perhaps not in the political context, but at least in an essentially personal and physical sense — and provides a feeling of strength and value. The humoral system fixes the limits of the ethnic group in positive categories, and not in stigmatising terms of weakness and inferiority as it is in the political context of Malay day-to-day experiences. In this respect, the hot-cold categorisation serves as a means of expressing power and indicating individual and social values.

PHARMACEUTICAL CONCEPTS IN THEIR CULTURAL CONTEXT

In medical anthropology, a medical system is seen as part of the social, cultural and/or cognitive system, including the ideas of health, illness and healing based on religion, philosophy and general world-views (WOODWARD 1985). There is consequently a clear connection between pharmaceuticals as an element of a medical system, and the cultural ideas behind the conception of the world. Western world-views can be very broadly characterised as individualistic; they are bound to the principles of linear thinking and the ideas of cause and effect, concentrating on the explanation of isolated phenomena at the micro level. By contrast, the Malay world-view, and in this generalisation the Southeast-Asian world-view, is sociocentric, embedded in the idea of microcosm in macrocosm, where every thing, plant, animal, human or spiritual being has its proper place; individual and social endeavours aim to maintain balance and harmony at all levels of existence. In this philosophy, *jamu* plays its small part: It increases the amount of blood and of life energy, and keeps the blood flowing — a means of balancing the state of health between the poles of hot and cold.

The different concepts of medication reflect their different philosophical backgrounds. In general, Western pharmaceuticals are molecularly-defined active biological substances or mixtures of substances. The definition of phytopharmaceuticals has various levels: Ideally it is one molecularly-defined active substance of plant origin, which, once analysed, can also be synthetically produced. Many Western phytopharmaceuticals made this way from complex to pure substances, and sometimes the origin falled into oblivion. Usually, these products are not regarded as phytopharmaceuticals any more.

Standardised phytopharmaceuticals represent the second important category and are still considered to be "real" pharmaceuticals: If scientists succeed in analysing the main active ingredient(s) of a plant, they are able to standardise the product, which means the amount of the active substance(s) is guaranteed and always consistent. In nature, the amount differs in plants with regard to location, climate or way of cultivation.

Entire plant extracts represent the third group of plant medicines, consisting both of complex compositions from several active substances and of elements which we call "inactive" — meaning that the efficacy is not yet proven. Moreover, there are ingredients in many plants which are simply unknown. These products fall into a grey area of the Western concept of pharmaceuticals, since they do not fulfil all of its requirements. For example, unknown and "inactive" substances are avoided in Western pharmaceuticals, since they are considered superfluous or even dangerous. The basic principle is that one substance cures one symptom or symptom complex; the less ingredients, the less undesired effects, or so-called side-effects (ETKIN 1988). The single ingredients are chemically known, identifiable and tested by repeated experimentation, with the idea of one cause and one effect being the underlying paradigm.

Jamu represent a forth group of phytopharmaceuticals which — in this form — is not included in Western pharmacology. These products are made of numerous medicinal plants, some recipes based on up to forty different varieties. *Jamu* contain no extracts, but rather preparations of the entire plant, with all active, "inactive" and unknown substances including all fibrous material; this is true regardless of whether the *jamu* preparation is in the form of powder, pills, tablets or capsules. This fact explains the high amount of *jamu* that has to be taken daily, *i.e.* 20-30 pills, and should not be mistaken as a high dosage.

In this pharmaceutical concept of *jamu*, frequently criticised as "old-fashioned and unscientific" from Western point of view, the corresponding Malay world-view becomes clear: the most important "ingredient" is the abundance of medicial plants with all their constituting elements, and the complexity of the composition; each element has its proper place of fulfilment and acts only in coexistence with all its partners. There are central, stronger, and weaker, peripheral factors, being essential for the balance of the whole, and only this totality is a balanced energy potential. In other words, there is no hierarchy of "main", "leading", "active", "inactive", "unknown", or "superfluous" substances, whose constituents can be singled out. *Jamu* is a whole "cosmos of medicine", a microcosm within a macrocosm, a body within another bigger one, like every spiritual, social, human, animal-like or plant body.

In 1948, the famous scholar Sastroamidjojo, author of the Indonesian essential book on *jamu*, expressed these basic ideas of Indonesian and Malay thinking his way:

"In other words, our skin does not really border our bodies from the outside world. Our bodies have an interrelationship with the cosmos, much like the cells constituting our body, and the atoms which make up each of those cells. Unity/oneness, in this case constituted by our bodies' cells, forms a part of the cosmos that cannot be separated from the big universe, which is infinite. This unity, microcosm and macrocosm together, is always in a state of balance. In nature there really are no sharp and straight borders/boundary lines, *natura non facit saltus*." (SASTROAMIDJOJO 1988/1948; translation by C.T.)

In general there are two ways in Western phytopharmaceutical research: In the first, phytopharmaceuticals have molecularly definable, active ingredients and their efficacy is seen as their sum total; any function of unknown, less active or "inactive" substances is denied. Or, as a more recent development, scientists try to concentrate on the total composition, which can be investigated only as a total extract or preparation and places less emphasis on the search for "main" or "leading" active substances; qualitative interrelations are considered more important than material/quantitative ones. But this latter field of science still lacks Western scientific methods, for what scientific processes can be used to experiment with or investigate total extracts? How would primary and secondary effects be elucidated? What can be said about the characteristics of a pure and absolute substance in comparison to a total extract or an entire plant preparation? How can synergism and risk reduction be proved? Both of the above ways are discussed with considerable controversy and emotion, and each raises questions beyond pharmacology and natural science. They are based on different paradigm and world-views which, as cultural constructs, have considerable influence on scientific work.

This very discussion of synergism and risk reduction was started by the Indonesian natural scientist Sutrisno in 1976, but clearly lacking the "correct" scientific means. He formulated a SEES (Side effect eliminating substance/Secondary effectiveness enhancing substance) theory, postulating fewer side effects and a well-balanced total efficacy of entire plant extracts. In the West, the SEES-theory was not accepted (REHM 1985) due to the lack of an experimental basis and "sufficient" scientific proof. Western scientists, working on the explanation of isolated phenomena at a micro-level, look for analysis and experimental proof of single constituents. Sutrisno's attempt to develop an underlying theory has a clear relation to his world-view: if every level of existence is modelled on "the whole" — in the last consequence on the divine power — why shouldn't a scientist work on a theory using "the whole"? It might add new aspects to the appraisal of this theory, or any scientific theory for that matter, to bear in mind different world-views — and their existence is a cultural constant — behind opposing scientific statements.

BETWEEN TWO WORLDS - JAMU IN SINGAPORE

Singapore is a Southeast-Asian melting pot for different, and sometimes, contradicting traditions and world-views: on the one hand it is strongly oriented towards Western standards of science, business and fashion; and on the other, Southeast Asian's social, cultural and philosophical values do not always parallel this Western orientation. In the *jamu* products, the two world-views and their resulting scientific approaches meet.

The different concepts of medication cause problems for a state so oriented to Western standards of science, business and fashion. Singaporean health authorities would like to treat the *jamu* products in the same manner as Western pharmaceuticals, *i.e.* to analyse all ingredients, standardise them, and describe their components and functions exactly. In 1989 there was a plan to investigate all non-Western pharmaceuticals, including *jamu*, after completing the registration of Western drugs in 1991; this would have provided one legal category of medicines with one set of laws and rules (Singaporean Ministry of Health Official; personal communication 1989).

This corresponded to Western scientific thinking: Much as Western pharmaceuticals move along a scale from the complex to the pure substances, scientists try to develop the phytopharmaceuticals of the aforementioned group three and four into those of group two. Much research has been done in Western and Southeast-Asian laboratories to screen and analyse all *jamu* ingredients in order to be able to standardise them and to test the products for security and efficacy. In this process, empirical knowledge does not count, yet. Standardisation is

the "magic word" for scientists and producers; if they succeed in this endeavour, *jamu* would be able to compete with other pharmaceuticals and could be exported to the West. But the analysis of all *jamu* ingredients soon reaches methodological limits, and can only be completed for a few of the substances of some medicinal plants. Until now, it has been impossible to completely analyse a plant's entire preparation — and the task is made that much more difficult in compositions of dozens of plants as are found in many *jamu*.

Industrial producers would also like to fulfil the demands of Western science and technology standards, but these standards are not their own and sometimes hard to understand or fulfil. If producers could satisfy the West's criteria, they could export to Western countries and receive international recognition. On the other hand, they want to continue producing medicines according to non-Western traditions and know-how.

Singaporean (and Indonesian) producers, sellers and authorities know about Western standards in spite of being unable to adapt *jamu* to them. But the pressure to make accommodations to this ideal is high, coming also from better educated urban customers. In Singapore, this has led to what is sometimes a very odd mixture of old fashioned *jamu* promotion with modern medical accessories. On registered (or tested) products, one finds the registration number (for products from Indonesia) or a supplement to the same effect indicating testing by the Ministry of Health. For consumers, this creates the notion that the ingredients have been comprehensively tested for their efficacy, when in fact it means little more than "tested for toxic substances", which cannot exceed certain limits. In Singapore, the substances are mercury (limit: 0.5 ppm), lead (20 ppm), copper (150 ppm) and arsenic (5 ppm) (Ministry of Health Official; personal communication 1993).

Occasionally products are also screened for mixing with registered, *i.e.* prescription drugs; sometimes producers are tempted to "improve" the efficacy of their *jamu* by adulteration with painkillers or even hormones. In 1985, a popular imitation *jamu* for rheumatic disorders with the brand name "Air Pancur" (a derision of the Indonesian *jamu* factor's name "Air Mancur") had to be recalled from market shelves; it was found to contain Diazepam, Indomethacin and Phenylbutazone, although this example is nothing extraordinary compared to medicine scandals that have occurred elsewhere in the world. According to Singaporean health authorities, there are not many cases of adulteration or contamination. At any rate, unsafe medicines are only brought to the attention of authorities if there are incriminations. "But Malays seldom complain. They are not the people to complain..." (Ministry of Health Official; personal communication 1993).

The market is big enough to support fakes and imitations, too, terms which are etic ones in this context: Consumers usually are indifferent about brands and labels unless their attention is drawn to it. The impostor products can be sold in many different ways: many products are sold with no label at all, since they are well known to consumers; alternatively, they are sold under an original or very similar brand name; there are also "Indonesian" *jamu* packaged and sometimes also produced in Singapore or Malaysia, although only the raw ingredients are imported from Indonesia. The existence of the warning *Awas barang tiruan!* (Beware of fakes!) is helping to create consciousness of brand names.

But Singaporean consumers are often too aware of the outer indicators of "progress", and attach great importance to them even if the indicators do not tell them anything. Occasionally, imitations or fakes of *jamu* brands carry imitated registration numbers which, for example, read: "doctor number A7/47721" — enough to satisfy the customer's expectations of a modern, "tested" *jamu* product.

It is difficult to monitor situations such as those described above as they relate to "traditional modern" *jamu* in Singapore, but "developing" *jamu* into standardised phytopharmaceuticals would not make the task any easier. First, because of the technical impracticability of this undertaking; even if were possible, it would consume the energy of generations of scientists. Second, and more importantly, *jamu* cannot be translated into a Western scientific system. It would of course be possible to produce standardised phytopharmaceuticals with one or two active ingredients, but these would not be *jamu*. And third: Why should a phytopharmaceutical like *jamu* be forced to conform to Western standards?

In the face of these problems, Singaporean health authorities did not proceed with the plan to register non-Western pharmaceuticals in the same way as Western ones. They merely maintained common regulations for "traditional medicines", which do not require registration or licensing as long as the packages show a product composition written in English on the label; any adulteration is prohibited. Furthermore, producers are prohibited from promoting their products for any of the following nineteen specified diseases and conditions: blindness, cancer, cataracts, drug addiction, deafness, diabetes, epilepsy or fits, hypertension, insanity, kidney diseases, leprosy, menstrual disorders, paralysis, tuberculosis, sexual function, infertility, impotency, frigidity, conception and pregnancy (Ministry of Health Official; personal communication 1993).

In fact, the majority of the popular *jamu* are indeed used for the treatment of some of the listed diseases or conditions. Producers and sellers try to skirt the prohibition by using linguistic tricks and sometimes by just crossing out the incriminated terms on the original packaging. In this manner, the *jamu* products are allowed to continue their century-old career in Singapore. So far, this has been the only way to handle the "modern traditional" *jamu*, since a general ban would be unjustified and create significant social and political awkwardness.

The shifting of the discussion between tradition and modernity, between Indonesia, Malaysia and Singapore blurs another aspect of *jamu* trade which often escapes the public's notice: the very "modern" profit. Singaporean *jamu* sellers take advantage of low prices and production costs in Indonesia and Malaysia, and use the manifold marketing possibilities offered by their metropolitan city state. Some *jamu* businessmen are registered only as "general importers and exporters": they buy the raw ingredients from Indonesia, mail them to Singapore, export them to Malaysia where they own factories, and re-import the ready-made product to Singapore. One doesn't even need an office in Singapore for this job, an adequate representative car is enough. If one considers only the difference in sale prices between Indonesia and Singapore (and of course wholesalers do not buy at retail prices, although they may have other cost factors), the profit is between 200-500% — and there is no tax or customs on the import of Indonesian goods. The businessman who disclosed confidentially: "The profit is really very, very good" was surely not telling lies. And certainly this factor is another strong argument for Singaporean health authorities to keep *jamu* alive.

NOTE

1. "Malay" is an ethnic category and refers to the ethnic Malay people and their language. Malay people live in varying proportions in the states of the whole Malay Archipelago.

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