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Reflexive Remarks on Science, Ritual, and Neutrality in the Social Sciences

Introduction

"Usha Mehta, a veteran of India's struggle for independence, recalled being told more than 50 years ago of an incident involving Sir C.V. Raman, an Indian physicist who won a Nobel Prize in 1930 for breakthroughs in the study of light. Recounting the story in a weekend interview at her Bombay home, Ms. Mehta said the physicist had rushed home from his Calcutta laboratory to take a ritual bath ahead of a solar eclipse. 'The Nobel Prize? That was science', the physicist explained. 'A solar eclipse is personal'."

This anecdote is taken from an article in the New York Times and introduces nicely the focus of this paper. An even better example for the topic to be addressed is provided by a second anecdote of the mathematician, astrologer, and astronomer Ramanujan (not related to the famous mathematician Srinivas Ramanujan). His son, A.K. Ramanujan,² wrote the article "Is There an Indian Way of Thinking?", within which he recalls that the problem of whether there is an "Indian way of thinking" was posed for him personally at the age of 20 in the image of his father, the senior Ramanujan:

"My father's clothes represented his inner life very well. He was a south Indian brahmin gentleman. He wore neat white turbans, a Sri Vaishnava caste mark (in his earlier pictures, a diamond earring), yet wore Tootal ties, Kromentz buttons and collar studs, and donned English serge jackets over his muslim dhotis which he wore draped in traditional brahmin style. He was a mathematician, an astronomer. But he was also a Sanskrit scholar, an expert astrologer. He had two kinds of visitors: American and English mathematicians who called on him when they were on a visit to India, and

¹ Burns 1995: 4.

² A.K. Ramanujan was born in Mysore, India in 1929, but worked for most of his life as a poet, translator, linguist, and folklorist in the U.S. A.K. Ramanujan dedicated his poem "Astronomer" to his father, which is an attempt to make sense of his seemingly contradictory stance (see Ramanujan 1986).

local astrologers, orthodox pundits who wore splendid gold-embroidered shawls dowered by the Maharaja. I had just been converted by Russell to the 'scientific attitude'. I (and my generation) was troubled by his holding together in one brain both astronomy and astrology; I looked for consistency in him, a consistency he didn't seem to care about, or even think about.

When I asked him what the discovery of Pluto and Neptune did to his archaic nine-planet astrology, he said, 'You make the necessary corrections, that's all'. Or, in answer to how he could read the Gita religiously, having bathed and painted on his forehead the red and white feet of Vishnu, and later talk appreciatively about Bertrand Russell and even Ingersoll, he said, 'The Gita is part of one's hygiene. Besides, don't you know, the brain has two lobes?'"³

What is the point of these two stories of Raman and the senior Ramanujan? It is not only that two seemingly opposed perspectives on the world can be held by one and the same person. It is that leading *scientists* perform religious *rituals*. The point is that science and ritual for many people do not go together. While I consider this opposition problematic in many ways, my aim in this paper is to trace the history of this opposition in an exemplary fashion, and to advance the argument that its pervasiveness is not to be underestimated.

In order to do so, I will first engage with the alleged antagonism between ritual and science within ritual theory, and the different positions characteristic of the socalled "rationality debate". The specific focus is on the positions advanced by the anthropologists Robin Horton, John Beattie, and Peter Winch. Secondly, I will draw on my own ethnographic work in India to show that positions similar to those taken by anthropologists are to be found in public discourse. As a concrete example I will focus on the position taken by the rationalist organisation "Maharashtra Andhashraddha Nirmulan Samiti" ("Organisation for the Eradication of Superstition", abbreviated as ANiS). The declared aim of ANiS is to spread "scientific temper" within Indian society, and to eradicate "superstitions", some of which are, in their view, at the core of religious rituals. Engaging with the theme of "reflexivity", I will finally trace communalities and interdependences between public and scientific discourses on the opposition between science and ritual. This leads me to a discussion of the larger question: in what way does a position within scientific debates on "ritual" necessarily place a researcher with regard to the chosen object of inquiry, in this case the Indian rationalists, and its relevance for the ideals of "methodological agnosticism" and "neutrality" in the social sciences? In conclusion, the scope of this problem will be exemplified by a discussion of the position taken by the post-colonial historian Dipesh Chakrabarty on "science" and

³ Ramanujan 1990: 42–43.

"ritual", as well as on the two stories of Raman and the senior Ramanujan with which I started this article.

The Scientific Discourse on "Ritual" and "Science"

If one were to group approaches towards "ritual" very roughly, it could be argued that there are two ways in which the notion "ritual" has been conceptualised within ritual theory. One perspective is characterised by a description and analysis of stereotypic, repetitive, formal, patterned sequences of words and acts. In this group I would locate the structural analyses of scholars such as Arnold van Gennep (1909) and aspects of the approach of Victor Turner (1967; 1969). The clearest specification in this respect remains Skorupski's Symbol and Theory (1976), within which he criticises, at the same time, most of the classical approaches to ritual that come under the heading of the second perspective. This second perspective was aptly described by Gilbert Lewis, who suggested that the term "ritual" is often used as an adjective, by way of a compromise, to replace the ungainly "magicoreligious". A similar observation had already been made by Jack Goody, with regard to those colleagues who generally use "ritual" as referring to "a category of standardized behaviour (custom) in which the relationship between the means and the end is not intrinsic; i.e. is either irrational or non rational"5 and one could add "ineffective". While this quote of Goody already indicates that there are also theories that engage with both perspectives - apart from Victor Turner, I would mention Stanley Tambiah (1981) – it is this second line of argumentation that is under scrutiny here, although, given the limited scope of this article, and the fact that more thorough histories have been provided (for example, by Tambiah in his Magic, Science, Religion, and the Scope of Rationality [2006, first published in 1990], which can be read against the above-mentioned Symbol and Theory [1976]), exemplary positions will only be highlighted.

In order to trace the roots of this second perspective on "ritual", one has to go back at least to Victorian England. Basically, all the leading social scientists at the end of the nineteenth century wrote on the relationship between "ritual" (understood as "magico-religious" practices) and "science". Sir James Frazer, for example, saw magic, religion, and science as three systems succeeding and superseding each other. In this evolutionary scheme, science overtakes the old, logically and factually defective systems of thought. Other influential scholars theorising in related ways were the cultural evolutionists Sir Edward Burnett Tylor and Herbert Spencer. The legacy of this perspective later became an explicit

⁴ Lewis 1980: 10.

⁵ Goody 1961: 159.

⁶ See Sax 2010.

subject of discussion, probably most famously in the "rationality debate" of the 1960s and 1970s⁷, but implicitly this is the case also in most contemporary writing on these issues.⁸ In order to cut a swathe through the jungle of related arguments, I will outline briefly how Robin Horton – as a main recent representative of an "intellectualist" tradition – has argued that magico-religious practices of traditional religions should be compared with Western science, and not with Western religion. His and related positions have been opposed, for the most part, from two different directions. On the one hand, there are the so-called "symbolists" in the tradition of a certain reading of Émile Durkheim (arguing that religion is primarily to be seen as symbolic language that makes statements about issues like social order). This group of scholars, prominently represented by John Beattie, argued that ritual and science are not comparable, since the first is "expressive" while the second is "instrumental". On the other hand, the intellectualists' take on ritual has been opposed by scholars who see themselves in the tradition of the Ludwig Wittgenstein. Such a position was most famously taken by Peter Winch, who argued that rituals are embedded in a magico-religious world view and constitute a different language game than the language game of science. According to Skorupski this latter groups as well as symbolists get "to a similar endpoint by a very different route". 10

The anthropologist Robin Horton can be seen as following in the footsteps of the early intellectualists such as Frazer and Taylor (or "British empiricists", as Durkheim called them), if one focuses on his tripartite argument that "traditional thought" (a term that he introduces in his article "African Traditional Thought and Western Science" of 1974) is quite different from religion as practiced in the contemporary West, and has much more similarity with "Western science". In this view, modern Christianity has become more and more "anthropocentric", i.e. it focuses on moral and salvational aspects, and the nature of the relationship between humans and God. Western science and traditional magico-religious rituals are, in opposition to this; they are "cosmocentric", i.e. they look for an explanatory framework to establish unity, order, and regularity in the diversity and disorder of

⁷ The rationality debate is summarised in Horton & Finnegan 1973; Wilson 1974; Lukes & Hollis 1985. In Germany, the debate was revisited in Kippenberg & Luchesi 1995 and Dürr 1981

⁸ See Quack & Töbelmann 2010.

⁹ The term "intellectualists" was given to scholars in the tradition of Tylor who see religion as an attempt to provide "intellectual" answers to a set of questions centrally involving specific intellectual operations, such as observation, explanation, etc. These intellectual operations, grounded in our basic cognitive capacities, were further asserted to be universal, part of the common heritage of human beings.

¹⁰ Skorupski 1976: 13.

the external world, and try to establish effective interventions on that basis. Horton anwered his critics by arguing that, if one takes the reasons provided by those who perform rituals in a "magico-religious" framework at face value (rather than merely emphasising their further relevance for social structure or politics), one realises that they aim, as do scientists, at explaining or controlling (or both) the world immediately, or at least on a mediate level. The philosophers I.C. Jarvie and Joseph Agassi noted, with regard to Horton's position: "Once we compare the magical rite not with Western religious rites, but with Western scientific rites, such as decontaminating water by using chlorine rather than holy water [...] we see the similarity". 11

In his contribution to the volume Rationality, edited by Byron Wilson, Beattie summarises his position retrospectively:

"I developed the theme that the ideas and procedures which we generally call 'ritual' differ from those which we call 'practical' and scientific (or 'proto-scientific') in that they contain, or may contain, an expressive, symbolic quality, which is not found in technical thought or activity as such. [...] I argued that understanding religious and magical rites is in these respects more like understanding art than it is like understanding modern science. I went on to suggest that the belief in the efficacy of ritual (where, as it is usually the case, it is believed to produce results) is not, like the belief in 'science', however prototypical, based on experience and hypothesistesting, but is rather founded in the imputation of a special power to symbolic or dramatic expression itself."¹²

This position has been criticised not only by people such as Horton, but also by Jarvie & Agassi (1974), and most thoroughly by Skorupski (1976). Less influential, but, at the same time, also less criticised is a second line of argument objecting to the position of the intellectualists, as represented here by Robin Horton.

To see ritual and science as competitors in explaining and controlling the world is, for the philosopher of the social sciences Peter Winch, a "category mistake". In the rationality debate, Winch elaborated on the ideas propounded in his book The Idea of a Social Science (1965, first published 1958); the most debated point, in this respect, was his article "Understanding a Primitive Society", in which he argued, by referring to the ethnographic example given by Evans-Pritchard on the Azande, that

¹¹ Jarvie & Agassi 1974: 176.

¹² Beattie 1974: 240.

"the context of our scientific culture, is not on the same level as the context in which the beliefs about witchcraft operate. Zande notions of witchcraft do not constitute a theoretical system in terms of which Azande try to gain a quasi-scientific understanding of the world. [...] who is guilty of misunderstanding, not the Zande. The European is in fact committing a category-mistake." ¹³

Winch's position is based on the insights of Wittgenstein, who wrote explicitly on the relationship of ritual, magic, religion, and science in his Remarks on Frazer's Golden Bough¹⁴ and his "Lectures on Religious Belief" (to which I henceforth refer as Lectures). 15 In his Lectures, Wittgenstein argues for the suigeneris status of religious beliefs, and that magico-religious actions cannot be compared with scientific actions. His point is that "religion" or "ritual", if compared to science, is "on an entirely different plane", and needs an "entirely different kind of reasoning"¹⁷, because both are part of a different language game. ¹⁸ Parts of his argument read like the criticism stated by the symbolists, quoted above. Beattie holds that, unlike the belief in "science", the belief in the efficacy of ritual is not "based on experience and hypothesis-testing". 19 Wittgenstein holds with respect to the same topic: "We don't talk about hypothesis, or about high probability. Nor about knowing". ²⁰ For Wittgenstein, the rationality underlying the logic of ritual practices in traditional societies (one could add at this point the debates on the status of the sacraments with the Catholic Church) is essentially different from the rationality underlying Western science. And this difference is not only one of degree or quantity, but of kind or quality. In fact, Wittgenstein finds it "ludicrous" if people fail to see the difference between "religious uses of language"

¹³ Winch 1974: 93.

¹⁴ Cf. on this Quack 2010.

¹⁵ The "Lectures on Religious Belief" are reprinted in *Lectures and Conversations on Aesthetics, Psychology and Religious Belief* as compiled from notes taken by the students of Wittgenstein, Yorick Smythies, Rush Rhees, and James Taylor, and edited by Cyril Barrett (1978). They were not approved by Wittgenstein for publication. Concerning his *Remarks on Frazer's Golden Bough*, it can be added that Wittgenstein had at least two encounters with different editions of Frazer's Golden Bough, and there are several versions of his *Remarks*, none of which he released for publication. Here, I refer to the most comprehensive edition of Wittgenstein's writings on Frazer (edited by Klagge & Nordmann in 1993).

¹⁶ Wittgenstein 1978: 53.

¹⁷ Ibid.: 58.

¹⁸ Wittgenstein's notion of "language game" is not purely semantic, since "what is said in a language-game has the meaning it has in that context", so translation is actually "grasping their use in its context" (see Skorupski 1976: 15).

¹⁹ Beattie 1974: 241.

²⁰ Wittgenstein 1978: 57.

and "uses of religious language". ²¹ And it is this accusation that he would probably have made against the position on "ritual" held by a group of people to be introduced now, the Indian rationalists.

The Indian Rationalists on "Science" and "Ritual"

There might be all kinds of people in India who call themselves "rationalists" in one or the other context. But there are also specific rationalist organisations which gave themselves this name, because, for them, "rationalism" stands for a whole world-view that has relevance for, and repercussions on, all aspects of life and which should be spread all over the world.²² These rationalist organisations are generally part of the larger atheist, humanist, rationalist, and free-thinking movement within modern India. While many of them were founded in the middle of the twentieth century, their direct forerunners can be traced to the social reform and anti-caste movements in nineteenth- and twentieth-century India.²³ Yet, they also stress their intellectual roots in, and communality with, European enlightenment and specific anti-religious movements in Europe and the US, from the eighteenth century until today.²⁴ By far the most influential in this respect were the anti-religious groups and organisations at the end of the nineteenth century in Great Britain. In this paper, I focus on the perspective taken by representatives of the contemporary rationalist organisations in India on "ritual", and how it is embedded in their general world-view.

The ideology of rationalism that has emerged from these different roots is presented by the Indian rationalists themselves as based on a universal and ahistorical human faculty to reason, that is, based on naturalism, empiricism, and materialism. The rationalists separate the natural (and empirical) from the supernatural, while the latter includes virtually all beliefs and practices roughly labelled as "religious", ranging from the cosmologies of brahmanical Hinduism through

²¹ Ibid.: 53.

The ethnographic fieldwork on which this article is based was conducted mainly during three discrete blocks; two months at the end of 2006 and two further blocks of five months each in 2007 and one further visit of a few weeks in 2008 (see Quack 2009).

²³ The representatives of the contemporary rationalists locate their roots in the materialistic and nāstika ("non-Vedic", "heterodox", or "materialist") streams of Indian philosophy (especially Lokāyats or Chārvāka), a range of Hindu Saints, and some aspects of the bhaktimovement in India. Bhakti is an umbrella term for forms of "devotional religiosity", dating back to the seventh century C.E., that at times questioned the role of religious specialists and priests, "idol-worship", animal sacrifice, and other practices, which are also criticised by the Indian rationalists today.

²⁴ Part of this legacy is the position of Robert Green Ingersoll, mentioned above in the quote of A.K. Ramanujan. See on this especially the work of Klimkeit (1971: 123).

possession experiences and witchcraft accusations, to the adjustment of daily life, and to astrological prognosis, even though these beliefs and practices might be seen as quite "natural" to those who entertain them.²⁵ In short, the terms "rationalists" and "rationalism" refer in the following only to the people, organisations, and positions that share (among other things) this rejection of the supernatural.

While there are all kinds of different rationalist organisations in contemporary India – most of which are represented by the umbrella organisation "Federation of Indian Rationalist Associations" (FIRA) – the following observations will be based on extensive ethnographic fieldwork on the aims and activities of one specific rationalist organisation, called *Andhashraddha Nirmulan Samiti* (ANiS), in Maharashtra. ANiS is currently one of the most active rationalist organisations in India. They have local branches in most of the districts of Maharashtra (they claim to have 180 branches) and publish two monthly magazines, one in English and one in Marathi. All of the members work as volunteers for the movement. ANiS describes its aims as follows:

- Opposing all superstitions that lead to exploitation of ignorant and gullible people.
- Inculcating and spreading scientific attitudes and humanism among people.
- Adopting a critical attitude towards religion and spreading secularism among people.
- Planning and executing effective and useful programmes, keeping in view the importance and urgent need of extensive social reforms.²⁶

Much more could be said about this organisation, but, as I have done this elsewhere²⁷, and given the spatial limitations of this article, I will focus in the following particularly on the way in which the Indian rationalists differentiate between the notions "science" and "scientific temper" on the one hand, and "ritual" (as part of the semantic field of "religion", "superstition", and "pseudo-science") on the other. I will start with a brief analysis of the first two terms, "science" and "scientific temper".

Underlying most of the aims and activities of the Indian rationalists is their conviction that "science" holds the solution for the major problems India faces, that in principle all human problems and questions can be solved and answered by

²⁵ One of the main intellectuals of the Indian rationalist movement, emeritus professor D.D. Bandiste, wrote in his *Understanding Rationalism* that "Rationalism is that philosophy of life which is based upon reasoning faculty of man" (1999: 11) and "man has received his rationality not from 'above' but from 'below', i.e., from his biological ancestors" (1999: 13). 26 ANiS (n.d.) [2009].

²⁷ Quack 2009.

"science". For that reason, they happily quote on their homepage the first prime minister of India, Jawaharlal Nehru:

"It is Science alone that can solve the problems of hunger and poverty, insanitation and illiteracy, of superstition and deadening customs and tradition, of vast resources running waste, of a rich country inhabited by starving people. Who indeed could afford to ignore Science today? At every turn we have to seek its aid. The future belongs to Science and to those who make Friends with Science."28

As indicated by this quote to some degree, their conception of "science" is part of a larger epistemic-moral conceptualisation of an ongoing evolutionary progress, which includes developments in the realm of technology and productivity, just as in the realm of justice and equality.²⁹ Science provides for the rationalists in general the most effective means-ends relationship available for dealing with the problems that humans are confronted with in their lives. It is essential for ensuring human survival and progress. Therefore the spread of science is also a moral duty for the rationalists; even more so since they conceptualise science as universal. This includes not only observations such as that the laws of gravity work everywhere the same way, but the whole undertaking of science is seen as transcending divisions between countries, languages, caste, class, gender, and creed.

On this sweeping and abstract level, the rationalists further oppose "science" to "religion", "superstition", and "ritual". The underlying logic of such a world-view is crucially informed by the evolutionary theories of nineteenth-century Britain – including people like Frazer (who was himself close to the rationalist movement in England)³⁰, Tylor, and especially Spencer.³¹ The underlying conviction is that the

²⁸ ANiS (n.d.) [2009].

²⁹ The decisive point for most of the Indian rationalists that I spoke to is that, for modern science, there is no difference between castes and creeds, its universal truths are to be applied trans-historically and trans-culturally, and therefore unify humanity. "Science unites and religion divides." For many this is also what rationalism is all about: "all humans are equal". In short: for the Indian rationalists "religion" also means caste system and exploitation, while "science" means equality and empowerment.

³⁰ Jarvie and Agassi hold in their article "The Problem of the Rationality of Magic" that "Frazer was anti-religious", and with respect to his opus magnum they write: "His Golden Bough is obviously a conscious attempt to discredit religion - especially Christianity - by tracing its line of descent to primitive superstition [...] His dislike of religion was characteristic of the scientific humanism of the nineteenth century" (1974: 177). Further connections between social scientists and the rationalist movement in different countries can be traced up to the present day. The honorary members list of the leading rationalist, humanist, and atheist organisations in the world feature many representatives of academia. To give but one example, the anthropologist Edmund Leach (1970-1972) and the philosopher A.J. Ayer (1965-1970) were presidents of the "British Humanist Association", which was founded in

world is, in principle, explainable by science, and that science thereby replaces religion. In this position, it is also often pointed out that, during the eras of the Renaissance and Enlightenment, the West developed rationalistic thinking faster than the rest of the world, and, accordingly, the rationalists in India are stressing the need of similar developments in India "to catch up with the West".

But the picture is slightly more complex. The Indian rationalists differentiate between "science" and "scientific temper", because they have to deal with the problem introduced through the two anecdotes above. They have to face the fact that there are many scientists who perform religious rituals, rather than joining the rationalist movement. As a senior activist of ANiS from Pune told me with notable disgust: "Though we had a spread in higher education, the problem is that as soon as these people are out of the lab they go back into their traditional labs. I mean that Satyanaraina pujas are performed by the best scholars of Tata Industries." Another rationalist added that things are even worse; there are scientists who perform rituals in the lab. From the rationalists' perspective such positions, just as the position of Raman and the senior Ramanujan outlined above, are "schizophrenic", and they represent a central problem within the ideology of the rationalists: How is one to deal with someone who has obviously mastered the sciences, but is still "steeped in superstitious practices" such as religious rituals? This question is only a personalised version of the larger problem that lies behind their evolutionary hypothesis of "secularisation", "rationalization", "disenchantment", i.e. that the findings of science will, sooner or later, replace religious positions and ritual practices, and that the scientific age will replace the age of religion.

Most people, including many of the rationalists, agree today that this process did not take place the way in which many people at the end of the nineteenth century had expected it. There are several ways to deal with this observation. While most contemporary social scientists hold that it was wrong in the first place to oppose "science" to "religion" and "ritual" in such a way, the rationalists reformulated their basic assumptions by differentiating between "science" and "scientific temper". The replacement of rituals and religion does not come about by the proliferation of science alone, it has to be accelerated and supported by spreading the "scientific temper". On the importance and role of the latter, the head

¹⁸⁹⁶ as the "Union of Ethical Societies", and used to have close ties with the "Rationalist Press Association", which, since 2002, has been called the "Rationalist Association" and publishes the bi-monthly "New Humanist".

³¹ See, for an analysis of scholars like Tylor and especially Spencer of the emerging rationalist movement in Maharashtra, for example Ganachari 2005, McDonald 1966, Naik 1979; 1993, and the discussion in Cooke about the decline of the influence of Spencer within the rationalist movement of Great Britain (2003).

of ANiS, Dr. Narendra Dabholkar, made the following statements in a radio interview on 15 November 2007 in Vijayavada, Andhra Pradesh:

"Scientific temper – why is it so important? It tells that the universe is selfexisting, that it is bound by a cause and effect relationship. And cause and effect relationships can be tested in any event. That means that we should be sure that anything that is happening around us is not controlled by any external agency, good or evil. It therefore follows that we need not to worship any supernatural agency that is capable to do good nor do we have to appease any evil agency in order not to cause us harm. Nothing that is not in the realm of the natural laws can happen in this universe. And I hope that the denial of any outside controlling agency makes the live much less odious. That is the spirit of scientific temper that we would like to implement amongst the masses."

This position is representative for the general perspective taken by the Indian rationalists on "science": it is primarily used as a name for that part of social life within which rationality is most developed and is found in its clearest form. "Scientific temper" is an attitude towards the world that lies at the basis of science, and is often used as a synonym for rationality. But, although the scientific temper is constitutive for science, the rationalists realised that the spread of science, scientific findings, and technology is not enough to replace religions, ritual, and superstition with rationalism. This is because people apply different "ways of thinking", different "modes of thought" within different parts of life. The aim of ANiS and fellow rationalist organisations is therefore to spread the way of thinking that is constitutive for the scientific enterprise over all areas of social life. A scientific outlook should neither be seen as only one option among many other legitimate ways of approaching the world, nor should it be limited to one aspect of social life. Rather, it ought to become a "temper" or a "disposition" necessarily applied to each and every thing. Or, in the words of a senior rationalist, "you have to try to apply reason in every aspect of your life possible."

Spreading "rationalism" or "scientific temper" to every aspect of life means, among other things, that the rationalists reject religious rituals in general, and lifecycle rituals in particular, as unjust and irrational. On the one hand, rituals are seen first and foremost to be a central element in the reproduction and the upholding of the hierarchical logic of purity-impurity that underlies the Indian caste system. So there is a moral concern inherent in the rejection of all kinds of religious rituals. Rituals are, on the other hand, for the rationalists quintessentially irrational practices, because the relationship between the means employed and the end to be attained is seen as irrational. The ritualists fail in their attempts to explain and control the world, and accordingly they generally are seen to be ineffective and their actions a waste of resources. Although the issues of injustice and irrationality

are intimately linked for the rationalists, I want to focus here on the point of "irrationality", since this links so closely to many of the things that have been said above.

"Irrational", for the rationalists, is the idea that ritualised practices can somehow transcend everyday forms of "causality" and bring about desired ends that have no "rational" or "natural" connection to the means employed. In this respect, their understanding of ritual is similar to that of the anthropologists addressed by Lewis and Goody in the quotes cited above. Classical cases are rituals that supposedly enable someone to foretell the future, and rituals that supposedly prevent misfortune, or aim at changing someone's destiny otherwise. Even more often challenged are "healing rituals", that, in general, aim at removing "natural" symptoms by "supernatural" means or, to give a concrete example in this case too, aim at changing the sex of a foetus from female into male. Claiming to be able to bring about such effects by rituals should be made illegal, according to the rationalists; hence the many ritual practices listed in their Anti-Superstition Bill"³². Within the programmes conducted by the rationalists in villages, schools, and colleges to "spread scientific temper and eradicate superstition", the activists of ANiS target many further rituals that are commonly performed by the people in India. These include, besides the specific attack on healing rituals, for example common practices like vatpaurnima (a ritual during which a married woman circles a Banyan tree to secure the lives of her husbands and keep the same groom for several births to come). Here is a quote from one of these programmes, as carried out in a small town close to Nashik on October, 1st 2007:

"All regions in the world have superstitions, even a country like America. Superstitions exist everywhere, but in different forms. Our forms are very $m\bar{a}g\bar{a}$ (backward). We are lagging a century behind Europe. Their blind faith allows them to buy plots on the moon while ours worships the moon. Science has progressed so much that Sunita Williams, a woman with Indian origin rotated the earth in space for six months. At the same time our society is so backward that our highly educated women, including doctors and engineers rotate (circumambulate) a Banyan tree. Nobody knows

³² The Anti-Superstition Bill is the popular name of a bill initiated by the rationalists under the official title Maharashtra Eradication of Black Magic, Evil and Aghori Practices Bill, 2005. This bill aims at criminalising primarily low-caste and "tribal" healing practices (such as the phenomenon of "possession") that are considered to be "backward" and "superstitious", and was passed by the *Vidhan Sabha* (Legislative Assembly) in 2005, while implementation though the *Vidhan Parishad* (Legislative Council) has not yet taken place.

³³ Sunita Williams is an astronaut of Indian origin, but American citizenship, who holds the record for the longest spaceflight (195 days) for female space travellers, and who apparently had – to the disappointment of the rationalists – the Bhagavad-Gita and a statue of Lord Ganesh with her on her space trip.

whether this really works or not as nobody ever tried to verify it. We just never raise doubts or think about the issue. Our society continues to follow these traditions. The child does what his father does and his child follows him in turn. Nobody reflects on why we do what we do. From childhood onwards, as in nursery school, our teacher teaches us to keep quiet (hātacī ghaḍī toṇḍavar boṭ - hands folded and finger on the lips), in other words, stop talking, and do not ask any questions. If someone asks questions, they get a spanking. 'Keep quiet, no questions, let things happen the way they used to and always have'. Science insists on asking questions and encourages us to never believe anything blindly. Science asks you to check and and haśraddhā (superstition or blind belief) asks you to believe without doing the necessary check. We have to adopt a scientific temper because we and our parents get cheated. Our parents take us to such people. Our parents, grandparents and great-grand parents never went to school. That is why they do not have a scientific perspective. But we are science students; we should be more progressive these days. Long ago, human beings lived in the jungle. They had no clothes, and no shelter. Even though humanity has progressed gradually, it seems that we can not develop further. Superstition has hampered our growth."

Reflexive Conclusions

So far, the history of the opposition of (Western) science and (magico-religious) ritual has been traced within ritual theory by addressing, in an exemplary fashion, the intellectualist position of Horton, the symbolist position of Beattie, and the Wittgensteinian position of Winch. Very roughly, it may be said that, while the latter two argued that the opposition of (Western) "science" and (magico-religious) "ritual" is a disparate comparison ("category mistake"), Horton was defending just such a perspective. In a second step, I outlined how the Indian rationalists belong, to some degree, to the same tradition as Horton does. Also, the rationalists understand the ritual practices of their fellow Indians primarily as attempts to explain and control the external world. Yet, according to them, rituals are not only based on wrong and irrational assumptions, they are also embedded in larger schemes of injustice and exploitation.

Having said this, it has to be added that there are of course important differences between the postiions of the Indian rationalists and Horton. Although Horton argues that ritual practices cannot be defended, with regard to their seeming irrationality, by claiming that they should be understood as being primarily symbolic or metaphoric actions (the position of Beattie), or by establishing different kinds of rationality within different "language games" (the position of Winch), he would not label them per se as irrational and harmful, as the Indian rationalists do. After all, Horton admits that one of the reasons why he is living "by choice in a still – heavily – traditional Africa, rather than in the scientifically oriented Western subculture that I was brought up in" is the aim to discover "things lost at home" that were driven out of Western life by things like the "faith in progress", characteristic of the Indian rationalists. ³⁴ The Indian rationalists are, in that respect, closer to Frazer's over-all criticism of such practices, than to the more nuanced position of Horton.

To what degree the intellectualists' position is comparable to that of the Indian rationalists is a question which leads to another, reflexive question addressing the relationship between the researcher and the chosen objects of enquiry. By drawing on the material presented above, we can ask in what way any position on ritual within the social sciences implicitly, but necessarily, leads a researcher working on the Indian rationalists to engage on an argumentative level with the rationalists' position on ritual. Generally, the ideal-typical position of research, with respect to the beliefs and practices of any people being studied, is one of "methodological agnosticism" and "neutrality". Researching organised rationalism, for example, usually would not include an evaluation of whether the beliefs and practices of the rationalists are right or wrong, good or bad. With respect to the rationalists' criticism of (magico-religious) rituals, such a form of "neutrality" cannot, however, be upheld if one subscribes, for example, to the symbolists' position with regard to the relationship of "rituals" and "science". Willy-nilly they contest the rationalists' argumentational basis in their position, just as is the case for the Wittgensteinians. For different reasons, they would have to argue against their object of inquiry that the rationalists commit a kind of category mistake.

While such implicit interconnections between a researcher and the object of enquiry chosen exist in many instances, the example of the Indian rationalists is quite intriguing in this respect. This is already indicated by the fact that we are dealing here with "rationalists" on the one hand, and a debate between social scientists and philosophers, that became famous as "rationality debate", on the other. Yet things are more complicated than the observation of matching labels might suggest. Although the notion "ritual" was at the centre of these debates, this was only a rung for the discussion of "The Idea of a Social Science" (as both the contributions of Peter Winch and Alasdair MacIntyer to the volume *Rationality* are entitled). Moreover, the perspective of the philosophy of science was enriched in the subsequent volume of the rationality debate, edited by Lukes & Hollis as *Rationality and Relativism*, by scholars from the field of science studies on the one hand (Barry Barnes and David Bloor), and philosophers such as Ian Hacking and Charles Taylor on the other. On this basis, the focus on "reflexivity" can be expanded from the awareness of the ways in which one's own position can overlap

³⁴ Horton cited after Ulin 2001: 73.

or contradict the position of one's chosen object of enquiry, to an awareness and analysis of one's implicit positioning in the debates on the philosophy of science.

To show how all this can come together with respect to the position the Indian rationalists take towards ritual and science, I want to introduce a more recent voice in the social sciences. In his *Provincializing Europe* (2000), the post-colonial historian Dipesh Chakrabarty attempts to rethink a conceptual gift of nineteenthcentury Europe which he calls "historicism", and which he describes as the "idea that to understand anything it has to be seen both as a unity and in its historical development". 35 According to Chakrabarty, such a view of historical development is intimately linked to the conviction that differences in historical developments can serve as a measure of cultural distance, especially between the West and the non-West.³⁶ This is because such a historicism places all the seemingly "nonmodern" people in an imaginary "waiting room of history" by identifying certain elements in their present as "anachronistic." Anachronistic for the modernism of Western science is, according to Chakrabarty, not only the Indian "peasant" who lives in a "peasant-but-modern political sphere" that "was not bereft of the agency of gods, spirits, and other supernatural beings"; 37 anachronistic is also, and precisely, the Nobel laureate in physics who takes a ritual bath.

The detection of such anachronisms is, according to Chakrabarty, embedded in the "a priori valorization of 'reason' by social scientist", a position that he sees as "built into their knowledge protocols and institutional procedures." Accordingly, Chakrabarty raises the following questions:

"In what do we ground the 'reason' that unavoidably marks the social sciences, if not in a historicist understanding of history? [...] Can we give to reason the same historical mission all over the world? Does the coming of reason necessarily give us the same universal way of being human – liberal and rational?"39

These two questions show the direct link between the problems discussed by Chakrabarty and the rationality debate, in which Steven Lukes stated that the "problem comes down to whether or not there are alternative standards of rationality". 40 Just as most of the contributors to the rationality debate, Chakrabarty discusses the scope and limits of the social sciences by drawing on the example of history writing. Moreover, to assemble the points made above into a whole, Chakrabarty is not only continuing the rationality debate on a post-colonial key, he

³⁵ Chakrabarty 2000: 6.

³⁶ See ibid.: 7.

³⁷ Ibid.: 12-13.

³⁸ Ibid.: 236.

³⁹ Ibid.

⁴⁰ Lukes 1974: 194.

is also directly, albeit implicitly, addressing and challenging the position of the Indian rationalists. The two anecdotes with which this article started play a central role in the concluding section of Chakrabarty's *Provincializing Europe*. The way in which he comments on the position of Raman and the senior Ramanujan sounds, however, as if he were addressing the Indian rationalists directly. He writes:

"Interestingly, practicing Indian scientists – and I suppose scientists elsewhere as well – often have not felt any intellectual or social obligation to find one single overarching framework within which to contain the diversity of their own life practices (as distinct from their practices as scientists). In other words, the practice of 'science' does not necessarily call on the researcher to develop a 'scientific temper' beyond the practice of science itself."

And he adds that the stories of Raman and Ramanujan – whether true or not – help "to imagine an alternative location for 'reason' as we think about the subject of 'Indian history'" where there is no "need to totalize through the outlook of science all the different life-practices within which they found themselves". ⁴¹ Obviously, this is precisely what the Indian rationalists aim to do, i. e. to spread scientific temper to all aspects of life.

Reflexivity helps any researcher to rethink implicit relationships with any chosen object of enquiry. With respect to ritual theory and the Indian rationalists, I have outlined how the latter's position is to some degree akin to the intellectualists' tradition that originates with Frazer, Tylor, and Spencer. On this basis, I argued that the symbolist and Wittgensteinian criticism of the intellectualists' position necessarily rejects the argumentative basis of the aims and activities of the Indian rationalists in that respect, too. Finally, I introduced the voice of Charkrabarty to show not only the contemporary relevance of the rationality debate, but also its deeper roots in the philosophy of (the social) science(s). This shows that reflexivity also helps to specify the limits of common scholarly claims to methodological agnosticism and neutrality.

⁴¹ Chakrabarty 2000: 254.

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