

Chapter 5

Bioethical Decisions and the Public Sphere: A Cross-Cultural Perspective

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In his account of the 'ethos of science' of 1942, sociologist Robert K. Merton quoted an illustrative sentence from Louis Pasteur: '*Le savant à une patrie, la science n'en a pas*' (Merton 1968: 608). Pasteur's statement, in Merton's text, was evidence of the norm of 'universalism', which was the first of four constitutive features of his account of the normative framework that makes a search for knowledge 'scientific'. Mertonian scientific knowledge should be unbiased and 'objective'. Its norm should not be bound by a particular tradition or culture (or nation), or by the idiosyncratic taste and preference of an individual. There might be 'styles' in science, culturally inspired frames, terminology, metaphors and images, research priorities and problem definitions. Certainly there are national funding patterns, but there is no English, Chinese or French scientific 'truth', no Eastern or Western methodology in science. This has been largely uncontested. There might be other forms of knowledge beyond science. I do not use the derogatory word 'pseudoscience' here (Lakatos 1977), because I am thinking of such indispensable things as moral wisdom, life experience, body knowledge etc., for which culture is indeed constitutive. But for scientific knowledge, cultural interpretations can only be irrelevant.

Accordingly, the discourses in the 'scientific community' are essentially international and cross-cultural, represented in internationally accessible scientific journals, most of them written in English as the *lingua franca* of science. We could even say that, in the 20th century, a distinct 'scientific culture' emerged, defined by its international and cross-cultural nature that embodies scientific forms of openness and criticism characteristic of scientific research collaborations and technology development. Science, according to its enthusiasts, has the potential to build an overarching, rational and essentially common understanding of the world, for the benefit of all global citizens, unhampered by culturally-specific metaphysics and religion.

But, as we know, science is not just about knowledge. The life sciences are also a technology – and practice-related endeavour. Biological research is intricately bound to new technological developments like genetic engineering or genome sequencing. Medicine improved tremendously in the 20th century and there is a great desire for further progress. The 'therapeutic promise' (Rubin 2008) is omnipresent, surprisingly flexible and immune to disappointments, and influences

strategic decision-making in bio-politics. Science is not just cognitive, but also practical: involving experimentation, tinkering, planning, cooperation with other groups internationally, and the setting up of research agendas that can be more or less responsive to the most urgent problems of individual societies.

Beginning in the 1960s, a new awareness of the ethical implications of research and technology development in the life sciences grew, which led to the development of 'bioethics' as a specialized discourse (Jonsen 1998). It focused on questions about the moral limits of genetic engineering, the acceptable use of technology in medicine, and also on questions about the ecological and social implications of research. Large research programmes, most notably the strongly international Human Genome Project, have been accompanied by initiatives to foster reflective interdisciplinary research into their ethical, legal and social aspects or implications ('ELSA', see Glasner and Rothman 1998, Clayton 2003). And increasingly, awareness has grown that ecological risks and industrial accidents on an ever larger scale are normal and endemic in the cause of scientific-technological progress. Reviewing these disturbing phenomena, of which Bhopal, Chernobyl and Global Warming are but prominent examples, Sheila Jasanoff (this volume) calls for a new approach to technology, based on humility instead of hubris. It should acknowledge the limits of prediction and control, and get to grips with the unknown, the ambiguous, and the uncontrollable. Above all, technologies of humility are reflective and participatory, characterized by a self-understanding of science and technology as social and political action.

Knowledge about the ethical, legal and social aspects of science and technology, however, cannot meet the norm of universalism, at least not in the same way as scientific knowledge itself. Ethical issues in genomics, biotechnology or medicine, and also the methodologies for investigating and resolving them, are evidently and necessarily bound to ways of life within their concrete history. They arise locally and contextually, within the particular structures of a society. The destruction of early human embryos in stem cell research, to pick just one example, is considered an insurmountable problem in the moral and legal traditions of Germany, Austria and Italy, while being a moral and legal non-issue in China. The discussion of moral issues is inseparable from meaningful interpretations originating in rich, cultural contexts, that provide frames and narratives. But some of the eco-social issues (the loss of biodiversity, the greenhouse effect etc.) are indeed international, and they systematically cross cultural divides.

There is a problem here. How can ELSA research and communication about ethics meet the diverse requirements of local and cultural circumstances, and at the same time adequately tackle international and cross-cultural dimensions? Which approach to the ethical component of ELSA is suitable for multicultural deliberations? Such an approach should pave a way between the *Scylla* of abstract moral universalism and the *Charybdis* of moral relativism. The first is too theoretical and lacks a basis in the perceptions and concerns of real people, while the second gets stuck in the particular and prevents rather than facilitates cross-cultural understanding.

This chapter adopts a politico-ethical perspective, and argues that a third way between universalism and relativism is possible and indeed recommendable for the international space. The central idea that I will explore and advocate is the 'public sphere'. It corresponds to a modest meta-ethical position that acknowledges the essential cultural nature of ethical discourse, but does not reject the possibility (and necessity) of cross-cultural understanding. Drawing on literature from critical theory, I shall explain and discuss the concept of a trans-cultural international public sphere as a normative idea. My instinct is that cross-cultural ELSA could be both an opportunity for and a real step towards creating a trans-cultural and international public sphere. 'Public' decision-making must essentially be a joint enterprise, i.e. a social practice. This means that we cannot understand public decision-making as an extrapolation of individual decision-making, which we perhaps think we know better from our own day-to-day experience as individual perceivers and actors, and from the strong individualist traditions of modern Western ethics. I start with this question: what, in a multicultural and increasingly also post-national constellation, makes a public 'public'? And what kind of 'publicity' is necessary or helpful when tackling the ethical, social and political implications of the biological sciences?

Decision-making and the public sphere

The *public sphere* can be a central concept in cross-cultural engagement in ethical, legal and social issues in and around the life sciences. Unlike the atmosphere or the biosphere, the public sphere is not an empirical term. It is a normative idea. But *like* the atmosphere and biosphere, the idea of the public sphere is a spatial image: a space not somewhere else but a space that surrounds us, encompasses us and connects us with others. The public sphere, in contrast to other 'spheres', is not a natural element. It has its structural roots in various public 'arenas' and also depends on our personal engagement with them and on *how* we engage with and connect ourselves to others. This means that the public sphere is a genuinely social and political space. It has a political and cultural history and a structure that depends on how people communicated in the past, and on how those with political power organized the relevant parts of social interaction so as to constrain how people communicate and what they communicate about in the present and, possibly, in the future. It is also a fluid and complex space for communications, which is composed of multiple publics, including, what Nancy Fraser (1992: 116) has called 'competing counterpublics'.

Contemporary discussion of the public sphere has been inspired by Jürgen Habermas' historical study of the 'structural transformation of the public sphere' in Europe (Habermas 1962), which investigated the changes from a feudal model of the state that lacked a public sphere to, in the 18th century, a 'bourgeois' liberal model, through which a new kind of journal or newspaper emerged that not only reported news but publicized opinions and assessments that were then open for discussion. The social welfare state in developed industrial societies, with its

mass democracies, changed once again the structural constellation of the public sphere, introducing new mass media and new challenges such as confluences of information with entertainment and the selection of issues that are reported. This history makes the public sphere of great relevance to technology discussions and discussions of the media.

For Habermas, the first defining element of the public sphere is the social space that is generated by an open exchange of opinions about matters of common concern. Flows of communication are 'filtered and synthesized' to form topically-focused public opinions (Habermas 1992: 435–437) But what is a public opinion?

According to Habermas, a public opinion is not just an opinion that is publicly shared or publicized. It is not what is in fact public, in the sense that it is made public by some sort of public media. It is essentially an opinion that is developed in the realm of a 'reasoning public'. Habermas explains this by contrasting it with cultural attitudes and the traditional opinions of some groups within society. 'Though mere opinions (cultural assumptions, normative attitudes, collective prejudices and values) seem to persist unchanged in their natural form as a kind of sediment of history, public opinion can by definition come into existence only when a reasoning public is presupposed' (2006: 74). Clearly this is relevant to the public discussion of bioethical issues, particularly across different cultural traditions. In bioethical matters, public statements by stakeholders contain many cultural assumptions (e.g. assumptions about what counts as 'progress'), normative attitudes (e.g. about justice in health care), collective prejudices (e.g. expectations regarding the role of genes in human life) and collective values (e.g. regarding the moral dignity of human embryos). Public opinion can come into existence if, and only if, these assumptions, attitudes, judgments and values are aired and challenged in an open and reflective public discussion (what in German is called *Öffentlichkeit* – a word that has direct semantic roots in 'openness'), where they are scrutinized against the alternatives by asking why they might be valid, or why they are worth adopting. A public opinion is essentially an assembly of critical views. Therefore, the public sphere can function as a 'warning system with non-specialised sensors' (Habermas 1992: 435).

Thus it contributes to political legitimacy, which is the first of two essential features that characterize the concept of the public sphere. The second one (Fraser 2007: 7) is political efficacy. In order to have impact, the concept of a public sphere needs an element of power: the power of decision-making in practical matters. In the modern state, the political public sphere wins an institutionalized influence over the government through the instrument of law-making bodies. State authority, insists Habermas (2006), is not part of the public sphere. Rather, the communications, which make up the public sphere, address the sovereign power, and it depends on the structure of the political institutions whether and how well they can respond. Fraser (2007: 7) explains this relation of the public sphere to political authority as follows. It 'is supposed to discredit views that cannot withstand critical scrutiny and to assure the legitimacy of those that do. [...] In

addition, a public sphere is conceived as a vehicle for marshalling public opinion as a political force’.

While maintaining the original intention of the concept, Fraser has criticized Habermas’ formulation as too narrow and also too idealistic (Fraser 1992, see also Benhabib 2002: 142–145). The political, as she sees it in a post-national constellation, is no longer restricted to the sovereign territorial nation-state. In order to include other, non-state powers on a larger or smaller scale – whether international (regional trading blocks like the European Union or NAFTA, bodies like the World Bank, the IMF or the World Medical Association), sub-national (municipal and provincial agencies, universities, corporations and associations of all kinds) or transnational cooperations (e.g. in ethical governance of research) – the concept of the public sphere must be broadened, and the political influence of public opinion must not be restricted to national parliaments. This conceptual move represents, as Fraser (2007: 15) puts it, ‘another structural transformation of the public sphere’ and is important for cross-cultural ELSA.

What is won by emphasizing the role of the public sphere in bio-political decision-making? I see two essential advantages for public decision-making over exclusive, more authoritarian, or expert-bound styles of decision-making. The first is cognitive: a public decision can consider many more perspectives, experiences and views, some of them unexpected and unavailable in the sphere of established expert knowledge. In genetic medicine for instance, the lay knowledge of patients and their families can provide important information about a disease and its implications, about their relationship with medical professionals, etc. Therefore a public decision will be based on an enlarged knowledge resource. The second advantage is the moral recognition of those affected. To be included in, rather than excluded from, the decision-making process, makes a huge difference to those who have to accept the implications of a decision. I hesitate in using the loaded term ‘autonomy’ here, but to have the chance to be included in the decision-making process suggests a degree of respect for the autonomy of those who will be affected by the decision. Even if an individual does not actually participate in the decision-making process, having the opportunity to participate is a recognition of their moral capacity to do so and their relationship to the outcomes of the process will differ as a result, perhaps becoming more affirmative. Whatever it may mean in concrete terms, the decision has, at least to some extent, been made democratically.

In ELSA topics, decisions frequently have implications for lifestyle, health and environmental risks. The acceptability of those implications, in the views of those affected depends, among other things, on having the chance to participate in decision-making (Rehmann-Sutter and Vatter 1996). To be included in the process of decision-making via participation in the public sphere is not the same as informed consent in clinical medicine, where the concept of autonomy has been used extensively, but both concepts share the ideas of recognition and respect.

Practical challenges in public decision-making

When the idea of public decision-making is put into practice in multicultural settings, a range of problems arise that are important to address. One of the most basic problems is that of inclusion and exclusion. Let me give an illustration. Today's version of the article on the 'public sphere' on the Wikipedia website (3 January 2009) shows, as the first of five images, an old black and white photograph of twelve, mostly white-bearded men in turbans sitting on a carpet, out in the open, drinking coffee from small cups and grinding more coffee beans in a dark stone mortar. The picture is taken from a stereoscope card in the Keystone collection. According to the caption it is a coffeehouse in Palestine in 1900. Some of the men are talking. Others are quietly holding their cups. The atmosphere seems to be relaxed and quiet. This picture is meant to be a symbol of equality and mutual recognition. But of course it can also be read as a symbol of the logic of inclusion and exclusion. Where are the women, the younger people, those who don't have time free from labour, those with different faiths, those who cannot walk? How would this atmosphere of demonstrative equality be changed if those whose inequality is obvious were present? There are obviously rules that govern this one public sphere, of which variants can be found everywhere: rules that define who can take part, with whom it is easy and attractive to communicate, and how those who take part should behave.

Fraser (1992) criticizes the 'bourgeois' conception of the public sphere, which is perhaps similar to this picture of the free, honourable men in the coffeehouse. She argues that it is not in fact possible for interlocutors to bracket status differentials and deliberate as if they were social equals, when they are not. Societal equality, she concludes, is a necessary condition for political democracy. However, in the current post-national constellations, with phenomena such as migrations, diasporas, dual citizenship, indigenous community membership, multiple residency and multiculturalism, Fraser recognizes that 'often the interlocutors are neither co-nationals nor fellow citizens' (Fraser 2007: 16). Under these circumstances, new patterns of inclusion and exclusion have emerged, which cannot be addressed by the classical approaches of formal equality for everybody through citizen's rights. Challenges to inclusiveness and participatory parity (Fraser 2007: 20) also apply to ELSA and to the corresponding cross-cultural public spheres to which ELSA contributes. Political equality and the public sphere therefore need to be re-thought.

Cross-cultural communication, in the present constellations of post-nationality and multiculturalism, has both a national and a transnational dimension. Multiculturalism is no longer an international phenomenon, since it is increasingly bound by the borders of states. This has two advantages: firstly, we do not need to look far to find situations where inclusion is problematic; and secondly we can hope that improving international cross-cultural understanding will also have a positive effect on *intra*-national cross-cultural understanding.

In a multicultural setting, equal and open access to the public sphere in ethical, legal and social aspects of the life sciences is challenged in many ways. Some of them are obvious but should be noted anyway.

1. In order to understand many ELSA topics (like personalized genomics or genetic engineering), which involve scientific, medical *and* social aspects, a broad higher education is needed, to provide a minimum level of 'literacy' in the language of the sciences, the humanities and medicine. However, inter- and intra-national distribution of education across cultural communities remains unequal.
2. Access to relevant information is not straightforward. The media are a key means of distributing important knowledge to a broad audience, and they should not be criticized for doing this in a necessarily simplified format. However, simplification also creates a division between those who can look beyond the popular version and those who cannot. Simplified information packets provided by the media are not, therefore, always free from selection and interpretative bias.
3. Access to the media is itself limited and unequally distributed. In many parts of the world, computers with Internet connections are rare and international newspapers are unavailable or unaffordable for many, never mind books, scientific journals or libraries.
4. The media themselves are not always interested in providing information on all the relevant topics at an appropriate time for decision-making, because they select 'stories' according to their attractiveness to local markets and to the advertisers who provide the main part of their income (Michelle 2006). There is, therefore, some degree of self-interest on the part of TV channels or newspapers, which influences their selection of information and the way it is presented. This self-interest can conflict with the public's best interests.
5. The time and resources that an individual can devote to each ELSA topic are naturally limited. Modern technological societies are highly complex, and there are many more publicly-relevant decisions needing to be taken within a given timeframe than could possibly be achieved through an extended public decision-making process. Therefore, only a small fraction of the relevant themes can be broadly and openly discussed. Public decision-making is necessarily selective; otherwise social life and economic development would come to a halt.¹
6. The style and terminology that predominate in ethical discussions can be exclusive and (like Western 'bioethics') obviously depend on a particular discursive culture rooted in the occidental (mainly Greco-

1 In my home country, Switzerland, which is a direct participatory democracy, public national referenda are held four times per year, on fixed dates, each time with a relatively low number (ca. 2–6) of decisions. In addition there are also periodic parliamentary elections and votes at cantonal or community level.

Roman) philosophical tradition. Not all groups have the communicative power or interest to propose a change of style or develop new frames and terminologies rooted in more exotic cultural traditions.

7. Many international participatory exercises and organized discourses (like conferences, symposia and workshops), even if they are publicly accessible at low cost, are formal, and can only involve a small selected number of people who are used to appearing on such platforms.
8. One of the exclusive factors for cross-cultural understanding can be culture itself. Culture, as I use the term here (for discussions see Eagleton 2000 and Inglis 1993), means a sphere of socialized and accumulated practical habits, narratives and values among a large group of people who share something like a collective memory bank and sometimes also a dominant language or religion. These narratives and values might be fractured, in-homogenous, contested and contestable for participants (Benhabib 2002: 5), but they are used to frame old and new topics and issues in daily life. They are, as Ngugi wa Thiong'o (Ashcroft et al. 1995) has expressed it, 'the set of spiritual eyeglasses' through which participants come 'to view themselves and their place in the universe'. Cultures are stabilizers in a fluid world, but they are themselves 'constructed, flexible and subject to renewal' (Jasanoff 2005: 22). If a communicative setting is dominated by participants from one culture, the participation of other participants can be difficult.

Taking these points into consideration, we see that the construction of a cross-cultural public sphere on ELSA topics demands skilful science communication and careful attention on a case-by-case basis. Interest and understanding among the concerned public does not always arise naturally. The groups with a high level of interest in participating may or may not coincide with those who are affected by an issue. *How* to achieve involvement in as-fair-as-possible public spheres should itself be a topic for ELSA research. Empirical research about public arenas, and also about failures in constructing a public sphere in some instances can form a basis for developing new methods and improving inclusion-exclusion effects.

Public versus individual decision-making

The concept of decision-making in the public sphere has the advantage that it does not treat public decisions as enlarged versions of individual decisions. Individuals take part in social processes that lead to public decisions, but the decision-making body is not a super-organism built on the model of an individual self. When considering issues of public decision-making about the societal implications of biomedicine and biotechnologies, it is therefore important to recognize the main differences between individual and public decision-making. I see four: public decisions are collective, explicitly processual, they are made on different levels of organization, and they are genuinely political.

Taking decisions together means that, as a participant, I am identifying myself as part of a *collective*. This collective can be either a real community of identified others (like my family or in-group), or a virtual community of potential stakeholders. My role as an expert participant is not to make the decision *for* a community, but to assist in a common undertaking to find the best decision for all. I can contribute to this in many different ways, for instance by raising helpful questions, by listening to the experiences of others and helping others to be heard, by asking for evidence to support claims that are on the table, by shifting the discussion to a meta-level, and by discussing the decision-making process itself. Sometimes, as a bioethical expert I can also help by suggesting a potential solution, but very rarely can I help just by arguing for what I personally see as the right decision and by defending my arguments as if I were in a discussion among colleagues. The latter strategy would be a conflation of the individual and the collective. The approach would be understood by others as if I were publicizing the viewpoint from my personal *forum internum*, and treating the public decision like this would be a generalized version of my individual decision. Others in the field would then be framed as competitors proposing their own solution as I proposed mine, and communication would become mutually defensive and much less constructive than if the group were on a learning track.

Secondly, public decisions are *processes taking place over time*, not events taking place at a given point in time. They are prepared, contested in discourses, and they emerge. Even if they are ultimately taken by powerful individuals fulfilling their executive roles, they are very rarely ‘snap decisions’ taken in one moment. This difference is closely related to the first, but it is less of a black-and-white contrast with personal decision-making. Like discourse, which can be a common learning process, individual decisions can also – if the circumstances allow it – be essentially perceptive and deliberative processes (on moral perception see Nussbaum 1990, Blum 1994) that involve several steps and loops over time.

Public decisions, thirdly, are *multi-layered*, in the sense that they involve more than one organizational level of decision-making. There is an overlap here with modern theory of governance (Kjaer 2004), which analyzes plural levels, both in institutions and in multi-institutional settings, where steering takes place, rather than the top-down approach of government.

And fourthly, the concept of the *political* is broadened accordingly. Wherever the rules of the game are publicly set or managed, wherever control, steering and accountability are sought in institutions and multi-institutional settings, decisions are genuinely political. Individuals’ awareness of the political dimension of their engagement is essential for any self-assessment of their roles. I agree with Benhabib (2002: 144) that ‘political discourse and moral discourse are not identical. Political discourse is a mixed mode in which universal justice claims, agent- and group-relative strategic reasons, and culturally circumscribed ethical considerations, which are relative to “we communities, mix and intermingle”’.²

2 In an earlier paper I have argued on the basis of theoretical considerations that bioethics, if it deals with social rules applicable to more than just one individual, is

The political process is a mixed mode and the different components do not have the same weight distribution as in individual decision-making.

In all four respects, impartiality is a crucial criterion for legitimacy. But impartiality with regard to recognition of others in the public sphere, the fairness of the decision-making process, the selection of appropriate levels of steering, and the mix of moral and strategic considerations, is different from impartiality in an individual moral analysis.

It is also different from the ideal of objectivity through universality that is sometimes stressed in regulatory bioethical work. This raises the question of how ethical arguments, with their claim of generality (or non-relativity), can contribute at all to public decision-making. If ethical arguments are brought into the public sphere with the attitude that there is only one universal rationality, bioethics itself can become dogmatic and an obstacle to, rather than a facilitator of, mutual understanding. However, the end point of a controversy does not necessarily need to be a consensus on the basis of one shared rationality, but moral compromise can be a form of joint moral learning (Benhabib 2002: 145).

This does not necessarily limit or exclude bioethics from the public sphere, a point I can illustrate with an example from the stem cell debate. In a recent article, Harvard bioethicist Dan Brock addresses what he sees as the main obstacle to a consensus on the use of human embryos for research: the belief of many people that the deliberate destruction of human embryos is morally wrong because the embryo deserves the same respect as a human individual. He then criticizes this belief as based either on a religious dogma, which, in his view, is 'largely impervious to rational argument', or, if it is secular, as based on weak reasoning. Space does not allow me to parse the normative force of his arguments here (for this, see the critical paper by Deckers 2007). I am, however, interested in its typical form and style. One of the arguments for the moral status of the embryo is potentiality. As Brock (2007: 8) puts it: 'The relevant question for potential's impact on the moral status of an embryo is whether the fact that an embryo has the potential to develop into a human person, even though while still an embryo it is not a human person, is sufficient to confer on the embryo the moral status it will later have after it becomes a human person'. He rejects this using the analogy of a hypothetical case: Sarah has a terminal illness and writes her will leaving her house to her daughter. Her daughter is then potentially the inheritor of the house. However, until she actually is the inheritor, not just the potential inheritor, she evidently has no right to sell the house. Like Sarah's daughter, the human embryo cannot be endowed with moral rights before it has the characteristics necessary to qualify for those rights. From this and similar hypothetical cases Brock concludes: 'Moral rights in

accountable politically (Rehmann-Sutter 1991). Now I would broaden this argument by acknowledging that, in political discourses, agent- and group-relative strategic reasons, *together* with moral considerations and cultural values, play a role. This is sometimes difficult to accept for bioethicists, who tend to defend the view that moral considerations should be superior to and outweigh strategic reasons.

general have this character – they are grounded in the actual, not just the potential, properties of a being' (2007). If this is true and embryos lack the actual properties that confer on them moral rights, the conclusion seems inevitable that they do not have moral rights.

This argument, however, is based on several tacit assumptions. Firstly, that embryos are individuals, which start their existence outside the moral sphere and acquire their moral status by developing certain intrinsic capabilities that are considered essential for having moral rights. Secondly, that secular philosophical analysis can judge which capabilities are essential. And thirdly, that any ethical responsibility for embryos is based on their individual rights. There are other views in the debate, which do not share these assumptions. The view that moral dignity is conferred by God, or comes with a transcendent soul, or is bestowed on the embryo by a relationship of maternal care, must not be considered irrational because their set of assumptions differs from those accepted by Brock. Each of their assumptions can be explained transparently by providing reasons and Brock's assumptions are no less cultural than those of others. But by discussing these reasons, and by an act of hearing and understanding the reasons that are given for a view that one does not share, the debate shifts to a learning track, can reach a deeper level, and becomes a more sensitive and respectful communicative practice. Despite scepticism over moral rationality, I do not see a reason for excluding such a style of argument, typical of bioethics, from a cross-cultural dialogue, as long as one condition is fulfilled by their proponents: they should not insist that their approach to rationality is the only one possible, and that everything else is by definition irrational and not worth taking seriously. The general validity claim of the arguments, however, is not the problem; the problem is more a claim of exclusivity. General validity claims of arguments can, by contrast, be facilitators of discussion across cultural divides. Without such *general* validity claims, each individual or culture would just express local opinions. Then there would be no appeal to take each other's points seriously, and everybody could just say what she or he liked, without expecting that others would critically examine the framing, the reasons, the conclusions and the implications.

In the example given above, Brock's model of the emergence of moral responsibility for embryos at the IVF–stem cell interface, together with its explicit and tacit assumptions, and the conclusions he draws from them, can be taken both as a question and a challenge. They help to clarify one's own point of view regarding the moral status of extra-corporal embryos and their implications determine *whose* views should decide the ethical legitimacy of spare embryo donation for stem cell research and bring these views into the forum of public discourse.³

3 Patients' ethical views and perceptions may differ and be considerably more complex than professional bioethicists' theoretical accounts. See results from our own interview studies in IVF clinics in the UK and Switzerland: Haimes et al. (2008), Scully et al. (in press).

Why ELSA?

In a world of technology there is a tendency to understand the language of communication in instrumental terms: words as transmitters of information, which need to be decoded by the receiver.⁴ This interpretation misses the point Hans-Georg Gadamer has made in his philosophy of language: we do not really understand how language works if we reduce it to a means to an end. Communication is a practice in which the participants realize and live a community. It would therefore not be accurate to say that there is a community which now uses this or that language. Language *builds* and *actualizes* a community. Language also constructs the meaningful world of those who participate in the language. It would be similarly inaccurate to say that there is a world of existing meanings which then becomes the topic of a language. Language and communication bring a world about (Gadamer 1986: 450–454). When we apply these ideas to ELSA, we can say that cross-cultural communication about ethical, cultural and societal aspects of the life sciences builds a larger and more inclusive community, where a relevant aspect of the world is brought about. Biotechnology and medicine (as parts of the social world) were not already there before communication began. However a previous ‘world’ of biotechnology and medicine could have been the world of a smaller group, perhaps an ‘expert world’. Biotechnology and medicine, as they are developed in the broad and cross-cultural context of a meaningful social world, are brought about in language and communication about their meanings and implications. That is perhaps the most salient answer to the question of why we need ELSA research in the life sciences: we need to understand what is going on in our world and our language(s).

This concerns not only decision-making processes. Stressing the point of understanding, Ellen Clayton has formulated the aims of ELSA research (in genomics) as follows: ‘Much effort is being devoted to trying to anticipate, understand, and address the ethical, legal, social, and political implications of genetics and genomics. This inquiry is complex. Understanding the social effects of genomics requires an analysis of the ways in which genetic information and a genetic approach to disease affect people individually, within their families and communities, and in their social and working lives. Genomics presents particular challenges with respect to clinicians’ ethical and professional responsibilities, including the appropriate use of genomic information in the health care setting’ (Clayton 2003: 562). She refers to the ways in which genetics affects people individually, within their families and communities, and in their social and working lives. These suggest responsibility, but go far beyond the dilemmas of decision-making that genomics can entail. In order to understand what is at stake in such decisions, and in order to find the criteria for ethically good decisions, a

4 The *locus classicus* is Shannon and Weaver (1975). See the critical discussion in Manson and O’Neill (2007).

broader perspective on cultural and social implication is a precondition. Therefore, interdisciplinary ELSA research is necessary, and not just work in bioethics.

Bioethicists tend, for their own good reasons, to be sceptical about democratic processes of decision-making. 'Democratic legitimation is ethically unreliable' argues O'Neill (2002: 169). Politics, because it is a 'mixed mode' of decision-making (see above), may have ethically unacceptable outcomes, or it may not produce what would be ethically required. Ethical scrutiny is also needed to determine the fairness of the process. However, certain decisions, such as those related to good governance of international research in reproductive medicine, drug development, genomics, etc., need to be taken in public, and they need to include transnational and multicultural communities in order to be politically and ethically legitimate. Of course we cannot assume that the results of a discourse in the public sphere are always ethical. The concept of the public sphere, however, with its critical function, can be a normative criterion to assess the 'quality' of public discourses.

Anne Fausto-Sterling (2003) speaks of 'cultural fingerprints' that can be found in the process of scientific research. But what about the cultural fingerprints in *bioethics*? I am sure that bioethics carries such cultural influences, and would not be possible as an objective, neutral science, independent of culture and language. Liberal individualism, which characterizes large portions of professional bioethical discourse and has inspired its core governance concepts (e.g. autonomy, informed consent), has its roots in Western traditions, and is not understood equally in Eastern societies where, for example, assisted reproductive technologies are integrated in ideals of a harmonious society and family consent.⁵ Cross-cultural communication can demonstrate the narrow framing of some predominant views in bioethics. Stem cell research presents a bioethical problem, not only in terms of the moral status of the embryo, but also in terms of other, unexpected aspects. In China, for example, the role of IVF within the one-child policy renders surplus the embryos left over after successful IVF, but also enhances the desire for a child and can lead to considerable stress on a marriage in the case of infertility (Mitzkat 2009). Such issues, which are likely to be unfamiliar to outsiders, can be perceived through cross-cultural communication.

I see ELSA research and communication in bio-societies as having a twofold function. Firstly, it works towards *acceptability of biotechnological innovations*. Not to be confused with acceptance, acceptability includes legitimacy: acceptable practices are not merely accepted 'in fact', but are seen as good, helpful, empowering, responsible, etc. by participants, with regard to their culturally-inspired visions of a good life. Secondly, ELSA contributes to the *trustworthiness of science as a generator of progress*. If science and technology legitimize themselves (in their internal vision of what is needed out there in society) according to the concept

5 Xu (2008). I thank Joy Zhang for providing a review of Chinese conceptions of good governance of research that contains this reference. See also Prainsack et al. (2008) and, with regard to China, the workshop and conference reports on www.bionet-china.org.

of progress, there is a clause of trustworthiness. Society has good reason to trust scientists' assessment of societal needs and of the expected benefits from new technologies if, and only if, their internal assessment of what would be good for societies is accurate and in harmony with an independent assessment of societal problems and needs. Both functions cannot be fulfilled by bioethics alone.

Research funding agencies and policymakers may prefer a more pragmatic view of the aims of ELSA research. ELSA should help to keep the gap between science and society from widening, and place or shape technologies in a socially responsible way (*integrative ELSA*). Another reason for financing ELSA activities is to avoid or alleviate potential conflicts over technology (*preventive ELSA*). Some see the main reason for ELSA as lying in finding the limits for socially and environmentally acceptable technology. Human rights (in regulatory approaches) and values of safety (in risk assessment) can also be defended by ELSA (*limitative ELSA*). Each of these pragmatic research policy aims is grounded in ELSA's fundamental purpose of generating social legitimacy and trustworthiness. It is evident that many issues around the biosciences can be treated adequately only from a cross-cultural perspective.

However, ELSA also needs to develop a perspective on its own research culture and on its own cultural references. The mix of disciplines seen as necessary for ELSA differs considerably in different countries. In some nations, bioethics predominates and the empirical social sciences are less developed, whereas in others, the strength of ELSA derives from sociology, cultural studies or science and technology studies (STS) with less weight on philosophical bioethics. Contrasting cultures of ELSA and their roles in public decision-making processes need to be investigated and clarified. ELSA, which can be seen as a reflection loop in dynamic biotechnological societies, itself needs a reflection loop. Its own processes and patterns, and its effects on society, also need to be investigated by ELSA research. If ELSA were reduced to bioethics, decision-making processes (the focus of ELSA) would be under-investigated. Therefore the concept of the public sphere can act as a barometer for good science communication, indicating how well reflective initiatives like ethical advisory committees, risk discourses and ELSA research programs fulfil their social and political roles. It therefore becomes clear that ELSA, as an essentially interdisciplinary and cross-cultural approach, is much more ambitious than either the 'public understanding of science' or even the 'public relation' to science.

Conclusion

I have suggested a vision of deliberative democracy for technology. Discussing the questions of why and for what aims bio-societies need ELSA research was not possible for me without committing myself to a political vision. A socially robust science is not a science that is immune to social criticism and conflict. The vision is about a different science/technology with a different concept of

objectivity. Objectivity, with regard to *technological* practices, is not separate from responsibility (Heldke and Kellert 1995). The scientific-theoretical ideal of objectivity as freedom from bias, where bias is understood as prejudice, has its complement in an idea of practical impartiality in technological decisions, where bias is understood as dependency on particular interests.

The social responsibility of science can be fostered by science communication. Science projects ideas of social needs and aspirations outwards, but often there are no institutionalized channels for societies to communicate in the other direction, back to science and technology. If such channels are not open there is a risk of misunderstanding, or even non-understanding. A meta-reflection on the social construction of ELSA could therefore pay dividends for science communication. It could help to clarify the ethical responsibility of science communication, both with regard to normative decision-making (practical responsibility), and with regard to understanding and explaining science. This would help decisions involving scientific knowledge (or promises) to be responsive and reflective. Cross-cultural differences play a role on three different levels: first, the perception, social use and significance of technology; second, the construction of social and ethical issues; and third, how social and ethical implications are investigated (i.e. the social construction of ELSA). On all levels, cultural symbols and metaphors are used, and worldviews and historical experiences are integrated. Cross-cultural ELSA is therefore not comparative ELSA (I tell you what 'we' believe, you tell me what 'you' believe), but a contribution to a more open, international space (Dickins and Salter 2008) for decision-making. Cross-cultural ELSA, done well, is an opportunity to create a transnational bio-political public sphere.

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