

The integration of citizens into a science/policy network in genetics: governance arrangements and asymmetry in expertise

Geneviève Daudelin PhD,* Pascale Lehoux PhD,†‡ Julia Abelson PhD§¶ and Jean L. Denis PhD†**

*Research Assistant, Institute of Public Health Research at the University of Montreal (IRSPUM), Faculty of Medicine, University of Montreal, †Researcher, Institute of Public Health Research at the University of Montreal (IRSPUM), Faculty of Medicine, University of Montreal, ‡Full Professor, Canada Research Chair on Innovations in Health, Department of Health Administration, University of Montreal, Montreal, QC, Canada, §Associate Professor, Department of Clinical Epidemiology and Biostatistics, McMaster University, ¶Director, Centre for Health Economics and Policy Analysis (CHEPA), Faculty of Health Sciences, McMaster University, Hamilton, ON, Canada and **Full Professor, CHSRF/CIHR Chair on Governance and Change in Health Care Organizations, Department of Health Administration, University of Montreal, Montreal, QC, Canada

Abstract

Objectives While there are increasing calls for public input into health research and policy, the actual obtaining of such input faces many challenges in practice. This article examines how a Canadian science/policy network in the field of genetics integrated citizens into its structure and then managed their participation.

Methods Our ethnographic case study covers a 5-year period (2003–08) and combines four data sources: observations of the network's meetings and informal activities, debriefing sessions with the network's leaders, semi-structured interviews with network members ($n = 20$) and document analysis.

Results When setting up the network, the leaders wanted to include a range of perspectives (research, clinical and policy) to increase the relevance of their research production and knowledge-transfer activities. After 2 years of operation, the network's members agreed to also include citizens who were not knowledgeable in genetics and policy issues. As neither the structure nor the dynamics of the network were modified, the citizens very soon started to feel uncomfortable with their role. They doubted the relevance of their contribution, pointing to an asymmetry in knowledge between them and the expert members. There were significant tensions in the network's governance and the citizens' concerns during the process were not fully addressed.

Conclusion The integration of citizens into transdisciplinary networks requires recognizing and addressing the asymmetry of expertise that underpins such a collaborative endeavour. It also requires understanding that citizens may feel uncomfortable adopting the pre-defined role ascribed to them, may need a space of their own or may even withdraw if they feel being used.

Correspondence

P. Lehoux PhD
Researcher
Faculty of Medicine
Institute of Public Health Research at
the University of Montreal (IRSPUM)
University of Montreal
P.O. Box 6128
Branch 'Centre-ville'
Montreal
QC
H3C 3J7 Canada
E-mail: pascale.lehoux@umontreal.ca

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Introduction

In the past decade, the production of socially and politically relevant knowledge that can provide solutions to real-world problems has come to be seen as 'the right thing to do'.¹ Research funding bodies have been fostering this ideal in many fields, notably in the health sector. The goal, among other things, is to produce what Maasen *et al.*¹ call 'transdisciplinary research' – research that includes, at some stage, non-academic actors such as policy-makers, practitioners, and representatives of the public and industry, and in which problems are defined according to the conceptual frameworks of several disciplines. The complexity of the social problems being addressed plus the uncertainty surrounding decision- and policy-making represent key arguments in favour of knowledge-production processes tailored to the application context.^{2,3}

The network we studied, GeNet (a pseudonym), is a Canadian science/policy network in the field of genetics. It adopted such a transdisciplinary approach: academics and non-academics were invited to share knowledge and set research priorities with the aim of developing policy-oriented research and strengthening linkages between the worlds of academia and policy making. But GeNet also integrated, 2 years after its launch, four members of the public. This decision came from a general will to increase the social relevance of research and policy, along with a desire to make GeNet's own policy-oriented research production and knowledge transfer processes more 'democratic'. But this decision, as we show in this article, was not reached and implemented without some difficulty.

Findings from the literature on public involvement

Encouraging the public to participate in policy-oriented discussions is not a new phenomenon. What is new, however, is the emphasis in academic and political discourse on the relevance and importance of this involvement, as if the

governance of techno-scientific issues *must* involve the public. Indeed, public involvement in policy-making is being increasingly promoted as decision makers and other stakeholders recognize the need to generate a wider range of policy options, increase the legitimacy of public policies and, more generally, improve the public's understanding of science. Or course, political accountability and 'policy politics' also play a role in this trend.

The literature indicates that there are many public involvement mechanisms but no 'gold standard' as the mechanisms must be adapted to the goals, issues and questions being addressed and, where applicable, the decision-making context.⁴⁻⁶ For example, setting up a deliberative forum may be effective at eliciting values or at choosing between pre-defined policy scenarios, but less so for solving crises.⁷ It has also been shown that in certain situations, members of the public prefer to play a consultative rather than decision-making role.^{8,9}

The literature also suggests that members of the public see themselves as a source of knowledge, rather than simply a reservoir of so-called social values.^{10,11} Public involvement has, in fact, often been pursued with the primary goal of eliciting values. This tendency is even strengthened by scholars in science and technology studies, who call for public involvement 'upstream' of research activities, in tasks such as research agenda setting.^{12,13} However, evaluative studies suggest that non-experts, when provided with appropriate information and tools, can in fact contribute actively to discussions on complex topics about which they do not possess in-depth knowledge.^{3,14} Some experiences in the area of genetics^{3,11,13,14} and nanotechnologies¹⁵ attest to this.

Many of the public involvement experiments conducted so far have relied on short-term and experimental mechanisms rather than longer term or permanent mechanisms.^{15,16} Research has shown that whatever the type of mechanisms used, non-experts need to feel their participation and contribution will influence the process and its outcomes. Otherwise, they may feel that they are being used.^{9,10} Here then, beyond the public

involvement mechanism being applied, it is the governance of the goals, processes and outcomes of public involvement that matters. Such governance can be achieved through diverse means, but it demands time and deliberate, sustained efforts from all participants and institutions involved in the process.^{13,15}

To our knowledge, a case like the genetics network that we examined in this study (GeNet) has never been reported in the literature. Yet current knowledge suggests that an in-depth examination of the functioning of GeNet can provide some important lessons because this network faced governance challenges that are likely to arise in other public involvement initiatives, including managing the asymmetry of knowledge between lay and expert participants and the distribution of power and authority. The members of the public chosen to participate in GeNet were called ‘citizens,’ reflecting the network’s desire to engage ‘disinterested’ citizens who had little or no exposure to genetics in the context of their health system experience. For consistency, and to reflect this conceptualization, we use the term citizens when referring to our empirical observations throughout the article.

In contrast to other cases examined in the literature, the citizens involved in GeNet were invited to participate in the same way as expert members (researchers, clinicians and policy-makers) – that is, as equal contributors to GeNet’s activities. Although the network’s initial goal was to produce transdisciplinary policy-oriented research and to foster knowledge transfer and exchange (KTE), in the end it functioned more as a KTE *forum*. The network did not, in fact, achieve all of its expected research production outcomes. Furthermore, the citizens were integrated into a network that was already in operation, after key decisions had been made regarding its research priorities. As a result, the citizens were invited to participate mainly in KTE activities; they were not involved in problem-solving discussions or in debates around the values of genetics research and policy-making. We will examine this issue in greater detail later.

Hence, this article seeks to contribute to the current literature by examining how GeNet’s leaders and members conceived of the integration of citizens and how the participation of these citizens was governed (for an in-depth discussion of the network’s overall governance and epistemic production, see¹⁷). In the context of this article, governance is defined as the steering of the network’s processes and outcomes and the vision underlying these activities.¹⁸ Thus, governance would include the handling of asymmetries in expertise and power between the members. While there are different forms of public involvement in policy-making and research, and particularly in areas that raise significant techno-scientific issues, the current literature shows just how complex it is to apply the ideal of public involvement and how adequate governance strategies are key. Our goal is to contribute to a better understanding of public involvement within transdisciplinary networks so that promoters of such involvement can refine their methods and strategies.

Methodology: an ethnographic case study

Description of GeNet

GeNet is a science/policy network in the field of genetics that brings together key actors from five Canadian provinces. The project is led by health technology assessment researchers and the network included, at the onset of our study, a total of 33 members: university-based researchers from several disciplines, clinicians, policy-makers, researchers from advisory bodies and, later in the process, four citizens. It began operations in 2003 with funding from the Canadian Institutes of Health Research (CIHR). It was created to support transdisciplinary policy-oriented research and to promote active strategies of knowledge translation. The overall goal was to increase the usefulness and usability of research evidence for policy-makers. The network chose to focus on three areas in the field of genetics: health services, public health and public involvement. The latter led to the integration of citizens into the network 2 years after the network began operations.

A scientific director and a coordinator see to the network's day-to-day functioning and organize the network's activities (see Table 1). After 1 year of operation and following a lively discussion among members, GeNet selected six research priorities for the upcoming years. They drew up plans for conducting research, contextualizing research results and producing policy briefs. They also planned to repeat the priority-setting exercise. However, the network's ambitious programme was never fully realized. In the years following the initial prioritization process, several research projects were initiated, but the contextualization stage has been reached for only one project. Moreover, there has been no second priority-setting exercise.

Methods

Our team obtained external funding to conduct this ethnographic case study from 2003 to 2008. We systematically observed network and co-investigators meetings, as well as the meetings of ad hoc working groups, panel discussions organized by GeNet at scientific conferences, and informal activities of the network. Observation notes were rapidly recorded on-site during the events and then elaborated afterwards (by GD and PL). Regular communication with the net-

work's coordinator greatly facilitated the continuous data collection process. Documents such as agendas, meeting minutes, newsletters and activity reports were collected and analysed. The field notes included general observations and syntheses about the network and its exchanges with our research team, including debriefing sessions (held twice a year, after the formal meetings). We conducted individual interviews with members ($n = 20$, including three of the four citizens), which we recorded with their consent and transcribed. Ethics approval was obtained from the University of Montreal. The interviews lasted 30–90 min. The observation notes and interviews were all integrated into an electronic database. Our analyses relied on open and axial coding, using both emergent and pre-determined categories.¹⁹ We sent copies of this manuscript to all four citizens and to the network's leaders for their input (no requests for modifications were made). Here, we present only our findings related to the integration of citizens into GeNet.

Results

We first describe the perspective of GeNet's leaders and expert members on the integration of citizens – the arguments they raised in support

Table 1 An overview of GeNet's activities and their attendance by members

Activity	Frequency	Objectives	Members invited	Members participating
Network meetings	2 per year	Exchange, information sharing and communication of research results	All members	Variable; a core of about 12 people were always present Citizens were always present after their integration
Co-investigator meetings	At least 2 per year	Administrative decisions and allocation of training grants	Only co-investigators (researchers with whom the grant proposal was developed)	5–7 co-investigators
Ad hoc working groups	As needed (e.g. one group met at least once a month)	Development of research projects; literature reviews	All members External experts	Interested members External experts Citizens did not join
Informal activities	Variable Network meetings were always preceded by a dinner	Exchange, linking and information sharing	All members	Interested members who were available

of/against citizen involvement and their rationale for choosing a particular kind of citizen. Second, we describe how citizens were integrated into the network, including the role played by the asymmetry in expertise between citizens and expert members. Finally, we show how the network's leaders never re-examined their abstract conceptualization of the 'citizens' and overall failed to address citizens' concerns through the governance of GeNet.

The perspective of leaders and expert members on the integration of citizens into GeNet

Public involvement in genetics was one of GeNet's key areas of interest. The network chose to develop this research theme by integrating citizens into the network itself. This decision was only reached after much heated debate among the expert members. The *ad hoc* working group on public involvement suggested that the best way would be to integrate public members into the network's regular activities and exchanges. The working group recommended adding 4–6 people from health care organizations such as community groups and arm's length governmental agencies – people who would be familiar with deliberative processes and health care issues. The discussions among network members around this proposal revealed their conflicting ideas about the network itself and the potential role of citizens within it.

The working group championed the integration of citizens into the network for several reasons. First, it would bring diverse 'rationalities' together and introduce into their deliberations a fresh, 'naïve' point of view – not tainted by current debates in genetics. Second, the perspective of citizens who are 'outside' the world of genetics research and policy-making would be instructive for insiders who are citizens themselves, but who may have 'forgotten' their citizens' point of view. As one leader put it:

'What we wanted was the perspective that all of us here in the network have, but which would be less tainted by our own particular concerns, fields of speciality, subjects of interest, etc.... This is the

perspective that we all have, but which we lose sight of because of all the different hats we wear...' (Interview, CD11)

The third reason for championing the participation of citizens was that it would shed light on the social values that should inform knowledge and policy-making, as well as orient knowledge production. Citizens would represent the common interest of the public, a counterpoint to the ethos of experts, which is tainted by the interests specific to this group. In essence, the pro-integration members advocated a reduction in the democratic deficit through citizen participation; they believed it should be a requirement for all organizations concerned with the well-being of society.

While some members expressed support for integrating the public into GeNet, others were ambivalent or opposed. Some saw a threat to GeNet's internal balance, pointing out that dialogue and trust between researchers, clinicians and policy-makers had been difficult to establish and remained fragile. Adding citizens from health care organizations would add too many points of view and more vested interests, thereby increasing the risk of greater tension. Those who were opposed to citizen integration considered it irrelevant because GeNet's purpose was not to make formal policy decisions. As one member stressed, no decision requiring 'citizen approval' was ever made within GeNet (Observation notes, November 26, 2004). According to this anti-integration position, reflecting on the issue of citizen involvement was relevant, but experimenting with it was not.

The final decision represented a compromise: GeNet integrated four rather than six people, and it selected individuals who were not affiliated with any formal organizations so as to avoid potential biases. The members thus reached consensus and overall felt it would be a valuable learning experience.

The network's leaders proceeded carefully when selecting the citizens. They looked for individuals who would easily be able to join an already formed network of experts, and who could respectfully share opinions and discuss issues with others. The individuals also had to be

from outside the field of genetics and not hold any pre-formed ethical position relative to genetic issues. This would eliminate, for example, any genetics services users and their relatives. Health professionals were also excluded. The network sent out invitations to community organizations and individuals who had participated in a previous public forum on genomics. An information meeting was held with the ten individuals who had contacted GeNet following the invitation, nine of whom had participated in the forum. GeNet's leaders judged the suitability of the candidates by observing their interactions during the information meeting and by seeking the advice of the forum's organizers who had interacted with most of the candidates.

How the citizens were integrated (but not fully so) into GeNet

Four citizens (three men and one woman) satisfied the network's criteria, being deemed capable of articulating a coherent discourse about complex issues. These citizens, all white and well-educated (like other GeNet members), were then invited to attend their first network meeting. To this end, they were provided with information about the network along with its members and functioning. They also received basic information on genetics issues, but great care was taken to avoid influencing the citizens' views. At the first meeting attended by citizens, some research results were presented by members and guest speakers. It was a busy agenda, which was typical of these meetings. From then on, the citizens were essentially treated like the expert members, save for some friendly reinforcement of their interventions at the first two meetings. They were invited to biannual network meetings, *ad hoc* working group meetings and informal activities like dinners. However, they only attended the biannual meetings and the dinners preceding them. They did not participate in any *ad hoc* working groups due to time constraints (e.g. difficulty taking time off work) and uncertainty about their contribution. As GeNet had already completed its priority-setting exercise, the citizens only participated in meetings devoted to

KTE activities. Typically, these activities included follow-up on the activities of the *ad hoc* working groups and of the network in general, and information sharing regarding external activities such as conferences, symposiums, etc. At each meeting, guest speakers were invited to address various topics, including public policies in genetics, specific research projects and strategic information about research funding policies. The expert members also regularly presented research results or projects.

It is noteworthy that the leaders did not organize presentations on the social dimensions of genetic research or the views of the users of genetic services; nor did ever ask the citizens to speak about such themes. In fact, no changes were made to either the content of the meetings nor the process by which agendas were established (only the leaders made these decisions). The citizens attended meetings and, occasionally, expressed opinions or asked questions. However, the citizens did not really have any space to engage in 'deliberations' that could have had a tangible impact on the network's operations or on the expert members' views about genetics and its role in health care systems.

Not long after their integration into the network, the citizens requested a meeting with the network's leaders. They expressed some discomfort about their role, saying they were unclear about what was expected of them. They felt that the relevance of their contribution depended on their ability to express opinions, yet they found it very challenging to formulate pertinent, well-founded opinions, that they felt were worth sharing with other members.

'As citizens we don't already have set opinions on the subjects being discussed. By the time we have integrated the information and then came up with an opinion, it's too late' (Observation notes, April 13, 2007)

Furthermore, they questioned the very relevance of their participation. The 'citizen territory' was not as clearly delimited as they had expected. They argued that expert members are citizens too and can therefore speak as citizens during meetings.

'Every person in that room is a citizen. And what does the lay person have that the "expert citizen" doesn't? If you can separate yourself from your professional interests, then you are a citizen, just like everybody else. Not everyone can do that... but some people can...' (Interview, Citizen 1)

They were sceptical about the relevance and importance of the so called 'naïve' perspective in the context of GeNet. The following brief exchange shows the gap in thinking between the leaders and citizens.

A leader: 'Your presence is important because it reminds us of the importance of reflecting on the implications of genetics.'

A citizen: 'The opinions of citizens are important, but are they relevant?... Round table discussions are good for social questions; the scientists are open minded and not just focused on their work. So maybe that's why we feel we are not really needed that much.' (Observation notes, April 13, 2007)

In discussing the relevance of their contribution, the citizens pointed to the epistemic asymmetry between themselves and the other members – their lack of knowledge about genetics, the health care system and health policy. They did not feel that they were in a position to acquire and enrich such knowledge. During one meeting, a citizen noted that is the specialists' 'job to think about these topics' and he did not see how citizens 'can do it any better than them' (Observation notes, April 13, 2007). Another citizen also expressed this strong feeling of asymmetry.

'There's a big difference between citizens and members. In between the two meetings we have during the year, the members are *doing* genomics all the time. The citizens, or at least me, I'm not doing genomics. So I am always having to start over again, to get re-connected.' (Interview, Citizen 3)

The citizens also pointed out that while expert members may not always be expert in the specific issues being addressed by GeNet, they do possess a minimal understanding of health care and genetics – something they lack.

So the citizens requested more information on the issues or policy/practice context to be discussed, so as to be better prepared for meetings.

They also proposed that separate citizens' meetings be held so that they could share their views and formulate solid opinions that could then be shared with other members at the subsequent GeNet meeting. According to one citizen, deliberation among the citizens themselves is an important mechanism for the constitution and validation of knowledge:

'Unlike scientists, our opinions aren't validated by any evidence. It is done more through exchanges with other citizens. But there is no time for this in the network.' (Observation notes, April 13, 2007)

The network's leaders were surprised by the citizens' observations and requests. They felt the citizens' interventions during meetings had been relevant. They nevertheless agreed to provide citizens with more information before meetings. They initially opposed the idea of a separate forum, but then finally agreed to it. However, such forums were never held, mostly due to geographical and time constraints, and the citizens resorted to short meetings following the network meetings and e-mail exchanges. No changes were made to the meeting agendas so as to provide space for discussions between citizens or between citizens and expert members. One citizen decided to withdraw from the network, and another became much less enthusiastic, disappointed by the network's lack of responsiveness.

Despite such basic shortcomings in the citizen integration process, the GeNet experiment did generate one very concrete positive outcome: members who were initially sceptical about citizen involvement were, in the end, won over. Clearly, the experience reduced the members' anxiety about public participation by making it feasible and non-threatening. The expert members appreciated the 'difference' of the citizens' interventions, and their 'freshness' due to their position outside of the health care system and field of genetics. But the members' narratives about the actual contribution of citizens were remarkably limited. After the decision was made to integrate citizens, the issue all but disappeared – it ceased to be problematic or even a salient matter of concern.

Discussion: could GeNet's governance have better addressed the citizens' concerns?

As demonstrated in our empirical observations, the inclusion of four citizens did not significantly change the established dynamics of GeNet. By examining the 'micro politics' of the network's governance, our discussion will first seek to clarify why GeNet's KTE processes remained unaltered. We will then explore what would have happened if GeNet's leaders had responded to its non-experts' requests.

According to Barnes *et al.*,²⁰ a form of 'micro politics' operates when members of the public are transformed into suitable 'actors' by those who conceive of, and organize, deliberative forums. These micro-politics become manifest through four components: (i) discursive practices – defining the 'right' participants; (ii) competence – defining the knowledge and experience they hold; (iii) skills – defining their capacity to integrate information and participate to deliberative processes; and (iv) practices of participation – defining the rules, logistics and accessibility of the processes.²⁰

Examining each of these components brings more clarity to the way GeNet's leaders governed citizen involvement. First, after heated debate, they established selection criteria for defining their suitable citizens – absence of any given expertise related to the core issues to be debated, absence of strong ethical preferences and ability to deliberate (with experts). Gender, class and ethnic origin were never proposed as criteria, which is somewhat surprising given the historical context in which medical genetics emerged and the current socio-ethical debates surrounding its applications. Hence, through its careful selection of the 'right' citizens, GeNet's discursive practices emphasized a form of abstract, disembodied and ethically uncharged citizenship.

The second component of micro politics came into play when the network selected educated but 'disinterested' citizens whose knowledge was not to be found in an experiential or formal understanding of genetics, health care systems and health policy, but which would, in principle,

be deployed through their refreshing, 'naïve' point of view (on the quest of 'ordinary' citizens, see²¹). Furthermore, GeNet's leaders wanted to avoid as much as possible any potential 'contamination' of the citizens by expert knowledge. From the onset, GeNet's leaders saw the citizens as *a priori* competent but vulnerable. As we saw, the very nature of this competence, supposedly grounded in their mere identity – and divorced from, among other things, their own professional background – was contested by the citizens themselves.

Due to this conceptualization of citizens as naïve and vulnerable, GeNet's leaders did not address the issue of what skills these citizens possessed or would acquire through their participation. Perhaps because they saw the citizens as not capable of resisting – let alone critiquing – the experts' knowledge and viewpoints, they sought to protect them rather than empower them. For instance, when the citizens acknowledged their inability to grasp the issues being discussed during the meetings and asked for additional information, the leaders agreed, but distributed only scarce information, fearing the citizens would be co-opted by expertise-derived tools. Moreover, although GeNet's leaders succeeded in creating a climate that was generally receptive to its non-expert members, they did not really support the citizens' request for a space of their own in which to discuss the issues among themselves and strengthen their contribution. They did not see the formation of opinions through sub-group deliberations as legitimate.

The final component of the micro politics concerns practices of participation. While GeNet's practices were initially consistent with the network's conceptualization of citizen involvement, the leaders chose not to adapt their practices, even in face of the citizens' increasing expressions of discomfort. Was this because the leaders believed their whole concept would collapse if they abandoned, in practice, some of the components of their ideal model? Or was it because they did not *see* what was really happening in practice? Perhaps both of these factors came into play. For instance, acknowledging the

relevance of parallel sub-group meetings would have required that GeNet's leaders abandon their rule of equality which held that for deliberations to be valuable and democratic, they had to engage *all* of the network's members. The leaders would have had to acknowledge the asymmetry in expertise acutely experienced by the citizens. The relative incompetence of the citizens needed to be addressed, and the citizens themselves came up with a solution that would help them make sense of the information, formulate more relevant contributions and engage more actively with expert members. Paradoxically, had the leaders supported this emergent practice, it may have had generated the 'other rationality' they were seeking. Such new practices could have enabled citizens' views to be shared more actively with expert members, eventually influencing or challenging the expert rationality.

So, what lessons can be learned from the GeNet experience? First, it is important to note that while there were weaknesses in the GeNet's vision and citizen integration process, it is also true that the network's leaders and members were genuinely engaged in this public involvement experiment. Their actions and decisions were neither improvised, nor haphazard. For GeNet's leaders, public involvement represents a valuable means to improve the social relevance of research and policy. Hence, what we observed in GeNet could happen in other similar, well-intentioned initiatives lead by serious scientific organizations.

What our findings make more explicit is the fact that the appropriateness of a given public involvement mechanism varies depending on the goals pursued. What works in one set of circumstances and for one organization may not work for other.^{5,7,22,23} In GeNet, there was a clear misfit between the citizens selected (not knowledgeable about or with a direct personal stake in the core issues) and the forum in which they were integrated (a science-driven KTE setting). If the same citizens had been integrated into GeNet right from the very beginning, they would have felt more comfortable over time. However, active support and tools to address

asymmetry in expertise and authority would still have been necessary.

Our study shows that it is necessary to more carefully consider how public members' skills and research uptake capacity can be strengthened.^{14,15,24-26} Bennett and Smith¹⁴ found that a citizens' jury held over a 3-day period supported the inclusion of lay knowledge into policy-making and contributed new knowledge when participants were 'equipped with a wide range of perspectives and arguments which they are free to evaluate.' (p. 2497). In the case of GeNet, the citizens recognized that attending meetings only twice a year and pursuing their 'normal' life in between these meetings made it more difficult for them to fully engage intellectually in GeNet's KTE processes. For reasons indicated above, they also wanted to hold sub-group meetings. While public involvement organizers may feel it is risky to provide all the space and tools requested by non-expert participants – resources that the participants feel enable them to contribute in a meaningful way – doing so may prove more productive than efforts focused on reinforcing superficially the participants' sense of worth.

Powell and Colin¹⁵ argue that engaging in long-term public involvement processes is also difficult for researchers, and they recommend that such projects include 'capacity building, incentives, and training for scientists.' The goal is to improve communication with lay publics and to foster inclusive and interactive deliberations. These authors also stress that public involvement represents a political process, where there is unequal power between participants and where exchanges may be contentious. In our case, expert members received no specific training and were not asked to adapt their communication strategies. Furthermore, the citizens' requests clashed with the leaders' political ideal which posited disciplined and ordered deliberations between equal members as preferable to discussions that could generate 'eventfulness'¹⁶ and in which there existed asymmetry between members and discomfort on the part of citizen members. Perhaps the asymmetry in knowledge and authority could have been lessened had the

citizens been integrated right at the outset; this would have given more time for a rapport to develop between citizens and the experts and enabled the citizens to participate in the research priority-setting exercise and thereby concretely influence GeNet's research production and KTE processes.

Conclusion

This article has described how the leaders and expert members of a science/policy network in genetics governed the citizen involvement in the network, e.g. how they conceptualized public involvement and actually integrated four citizens into its KTE activities. The micro politics manifested within GeNet through its practices and discourses was built around a disembodied notion of citizen and fuelled by a moral imperative supporting public involvement. However, the citizens who participated in the process never felt that their views were as relevant as those of expert members.

The inclusion of non-experts in transdisciplinary science/policy networks is still a relatively recent phenomenon, and it should not be abandoned because of the significant challenges faced. Developing socially and politically relevant policy-oriented research cannot, however, be achieved by simply gathering together a transdisciplinary constellation of people. The issue of asymmetry in expertise and authority between participants needs to be addressed, a fact that GeNet's citizens realized early on. Idealized and inflexible models of public involvement are problematic for all parties concerned. Citizens' perceptions about the relevance of their contribution are crucial. When citizens feel being used²⁷ in processes that do embody a genuine desire for increased democracy, the whole exercise loses its meaning.

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