

## Engaging publics with theatrical debate

*Imagine it is 2035. Your husband passed away a few years ago and at the age of 92 the doctor just told you have a cancer, which can be cured with a new type of treatment: bio-engineered cells that travel through your body to search, find and destroy cancer cells. Your 70-year old daughter insists you take the cure. She wants you to stay with her. But you hesitate. You've had a good life and you don't want to take another cure that maybe extends your life with another 1, 2, 3, maybe 4 years.*



This is just one of the scenarios that was recently depicted by 3 actors, Maaïke, Mark and Bartelijn, on a Thursday evening in Utrecht, The Netherlands. Prior to this scene moderator Frank Kupper asked the audience who would have her/his DNA changed to live longer. Some people say: "Yes, I would if it would prevent me from getting a serious disease that cannot be cured with current medicine." Someone else argues that we should accept that there is a limit to extending life. The moderator then asks the audience what the mother should do. The actors pick up the public's suggestions and, with a good deal of humour, continue playing the next scene, depicting the potential consequences and dilemmas.

### Plastic eating bacteria

In the next scene the audience is asked to act as members of a committee that assesses and grants funds to research proposals. One of the actors explains that he plans to develop bio-engineered bacteria that can 'eat plastic' and lists the advantages, highlighting the possibility to get rid of the plastic soup that endangers ocean life. Although this sounds like a positive application to several members of the audience there is also people who raise the question of unexpected effects that cannot be controlled once the bacteria are out on the ocean. Another person thinks this is a typical example of targeting symptoms instead of focusing on research on developing sustainable products. When the scientist is pretty eager to include additional research on risks the audience thinks that the scientist seems to have too much an interest and decides to grant funding provided that there is independent oversight. Asked who should be responsible for this oversight the public mentions NGOs and public authorities.

### Fuels from algae and Do-it-Yourself biology

A woman is busy harvesting algae from a pool in her backyard. She uses it to produce fuel. It is illegal, she says, so she has to make sure she is not being watched. She talks how she will distribute the harvest among herself and family members. At the same

time two people from an oil company are discussing how to sabotage innovations that allow small-scale, decentralized fuel production with a PR campaign. This scenario triggers a discussion on the ownership of and access to technology. How is power distributed and who benefits?

The final scene is introduced with a brief explanation on Do-it-Yourself biology. The actors represent a manufacturer of living toys, a bio-artist and a hobbyist who experiments with bioengineering in his home lab. Asked what each of them should work on the audience suggests smileys made from living cells using a 3-D printer for the toy maker, fluorescent mushrooms that produce psycho pharmaceuticals for the bio-artist and a dog with increased capacity to trace narcotics. After the actors showed how they are proceeding with their 'innovations' the audience is asked to applaud for each innovation two times. The louder the applause, the lower the trust in the person and the more support for the application.

### Follow-up

The performance in Utrecht was one of a series of 3 performances in the Netherlands. The initiators from the Athena Institute in Amsterdam will work with different partners to put this performance on stage in other European cities. The approach also seems very suitable to introduce students in natural sciences to the societal and ethical dilemmas that may come with the introduction of new technologies, both on high school and university level.

### Added value

Using interactive theatre is one of the tools used in SYNENEREGENE to engage wider publics in a debate on the potential societal and ethical impact of an emerging technology in an early phase of development: a phase where it is hard for most people to imagine what a technology may bring and it is difficult to reflect on opportunities and threats. Although the audience in Utrecht was relatively high educated and more interested than the average public, their response to what they had experienced tells us something about the added value of theatrical debate. "This made me think about issues I never thought about before, such as the impact of technology on free choice", one member of the audience said after the performance. "I always look at technologies in a rational way, but the scenes made me use the part of my brain that has to do with feelings and moral judgement", another member of the audience added.

*For more information about the theatrical debate and possibilities in other countries or cities, please contact:*

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