

Tragedy, utopia and medical progress

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In this article, tragedy and utopia are juxtaposed, and it is proposed that the problem of “medicalisation” is better understood in a framework of tragedy than in a utopian one. In utopia, it is presupposed that there is an error behind every setback and every side effect, whereas tragedy brings to light how side effects can be the result of irreconcilable conflicts. Medicalisation is to some extent the result of such a tragic conflict. We are given power by medical progress, but are also confronted with our fallibility, thus provoking insecurity. This situation is illustrated by the sudden infant death syndrome (SIDS). Recent epidemiological investigations have shown that infants sleeping in a prone position have a 15–20 times higher risk of dying from SIDS than infants sleeping in a supine position. A simple means of preventing infant death is suggested by this discovery, but insecurity is also created. What else has been overlooked? Perhaps a draught, or wet diapers, or clothes of wool are just as dangerous as sleeping prone? Further investigations and precautions will be needed, but medicalisation prevails.

this development is driven forward by medicine itself.

I agree with Illich’s diagnosis that medicalisation is a substantial problem. I also agree with Illich that part of the problem stems from the overuse of medical technology.

But I disagree with Illich’s causal explanation. Illich argues as if the cause is always misuse of medical technology. I think he is mistaken. I think the problem of medicalisation is, to some extent, inevitable, because part of it stems from the best parts of medical practice—the parts we do not want to get rid of.

TRAGEDY AND UTOPIA

This line of reasoning is inspired by ancient Greek tragedy. I will use the contrast between the concept of tragedy and that of utopia to try to clarify my argument.

Aristotle and Hegel are the unofficial champions of analysis of tragedy, even though they present quite opposing interpretations of what tragedy is. Where Hegel sees an irreconcilable conflict as the characteristic trait of tragedy, Aristotle sees a flaw.^{4 5}

In this article, I will side with Hegel against Aristotle.

I will, in fact, use Aristotle’s conception of tragedy as a means for constructing an antithesis to my own argument. Aristotle’s *Poetics* is the most influential book on tragedy ever written. One of the most important concepts in this book is hamartia.⁶ Aristotle uses this concept to explain the fall of the tragic hero.

Scholars disagree on what hamartia really means. Some interpret it as a moral error, some as an error of judgement, others as an error of fact. There is, however, quite unanimous agreement that hamartia stands for a flaw or an error of some sort. This is enough for us, because it means that Aristotle explains the fall of the tragic hero by pointing at a shortcoming. The hero falls because he commits an error of some kind, not because he faces an irresolvable conflict.

This is characteristic of a utopian worldview. The utopian universe is permeated by a deep harmony, which ensures that good actions are always rewarded with good consequences and bad actions are always rewarded with bad consequences. Side effects and pathological effects can always be avoided, provided we pay proper attention to the problem and do the right thing. Everything matches up, so that every problem can be solved to the benefit and satisfaction of all.

The general outlook on the possibilities and the constraints of medicine has changed dramatically during the past 50 or 60 years.¹ Medicine was heading for the stars in the first decades after the Second World War, with optimism boosted after the discovery of penicillin, vaccines and powerful scientific methods. Medicine had solved the riddle of the Sphinx. No hero was bigger. The UK Minister of Health declared that medicine could soon fulfil the public need for healthcare.²

Today we see things differently. Unconditional optimism is replaced by a strange mixture of success and disappointment. The substantial growth in knowledge and power has ensured that today we can do things that were unthinkable 50 years ago. But this progress has been accompanied by a corresponding growth in the public need for healthcare.

Medicine has turned out to be addictive. The more you get, the more you crave for. Many people have tried to explain this apparent paradox and Ivan Illich³ is still the most well known of these. Illich coined the term “medicalisation” to describe the problem he identified. This means two things. Firstly, medicalisation means that people, to a larger and larger extent, tend to seek medical solutions to their different problems and worries. Secondly, it means that

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Abbreviation: SIDS, sudden infant death syndrome

Hegel's conception of tragedy is opposed to Aristotle's. Hegel sees an irreconcilable conflict between justified aims as the essence of tragedy.⁴ This strong conception of tragedy (as I will call it) is opposed to a utopian worldview. Strong tragic conflicts cannot be solved without substantial side effects. No utopian solutions exist.

Sophocles's play, *Oedipus the king*, illustrates just such a strong conflict.⁷ Plague has struck the city of Thebes, and the people call the authorities, in this case the king, to action. Oedipus is at the peak of his power and immediately takes on responsibility. He once solved the riddle of the Sphinx and considers himself quite an expert on human affairs (the answer to the riddle was "man"). He is confident that he will be able to solve the current riddle as well.

He starts his quest by consulting the oracle at Delphi. There he learns that the plague is a punishment sent by the gods. It will continue until the murderer of the former king is found and expelled. Oedipus promises to do everything in his power to track down the murderer and liberate his city from the plague. He starts an awe-inspiring cross-examination of everyone concerned. His quest for truth is unconditional.

Oedipus does not flinch when he discloses that he himself is the murderer of the king and the cause of the plague. He pushes forward until the whole truth is disclosed. The king he killed was his own father, and the woman he is married to is his own mother. Faced with the truth, Oedipus accepts his destiny. He blinds himself with a brooch, leaves the scene and saves Thebes.

It is important to note that Oedipus ends up humbled exactly because he succeeds in finding the truth. This tragic comprehension of knowledge adds something important to our modern comprehension. We tend to conceive of knowledge inside a utopian framework—that is, as something unconditionally good. This framework makes us blind towards the tragic sides of knowledge, and thus towards the tragic relationship between medical progress and medicalisation.

SENSE-TRANSCENDING TECHNOLOGY

The discovery of penicillin marks the beginning of a new era of medical efficiency. It is not completely unjustified to claim that the therapeutic, diagnostic, methodological and technological innovations of the past 60 years have improved medicine more profoundly than all the innovations of the 2500 years preceding this era.

Medicine has never been more powerful than it is today. Yet, we feel insecure. Not more insecure, perhaps, than we did 100 years ago. But, given our new powers, why do we not feel much safer? The story of sudden infant death syndrome (SIDS) can be used to shed light on the situation.

SIDS was identified in 1969, and it soon became clear that it was the most important cause of death in infancy in a large part of the Western world. Large research programmes were launched; to no avail, it seemed at first. The epidemic grew worse. Different hypotheses were put forward. Could the cause be maternal smoking, overheating, an infection or the material of the mattress?

It became clear that infants sleeping prone cried less, slept more and had better psychomotoric development than infants sleeping supine.⁸ Lacking hard end points, this was considered a good sign, and sleeping prone was recommended as a means of preventing SIDS. During the 1970s and the 1980s, more and more infants were made to sleep in a prone position.

The incidence of SIDS peaked. In Norway in 1989, 142 infants between the ages of 0 and 6 months died of SIDS. Then, in a conference late in 1989, a paediatrician pointed out that sleeping prone was a probable risk factor for SIDS. The media got hold of the story, and the snowball started to roll.

The epidemiological evidence was re-evaluated, and a different conclusion was drawn. Public recommendations changed almost overnight.

Now the parents were advised to make their infants sleep in a supine position. The effect of this simple measure turned out to be astonishing. Four years later, in 1993, no more than 42 babies died of SIDS in Norway. Today, we know that supine positioning reduces the risk of dying from SIDS by 10–20 times as compared with prone positioning.⁹

The story of SIDS brings out one important precondition for a successful quest for truth. To reach new knowledge, we must exceed the limits of unaided judgements. We must use technology—in this case epidemiological investigations—that transcends the unaided senses.

Sense-transcending technology such as *x* rays, blood samples and randomised controlled trials are the cornerstones of modern medicine.¹⁰ This technology makes it possible to see and manipulate entities and causal relationships that otherwise would have escaped our attention. Medicine without efficient technology would be on par with any experienced quack. Take the example of SIDS. It took large epidemiological trials to disclose a big (but surprisingly simple) difference.

Medicine can contribute immensely to the improvement of our health only by using sense-transcending technology. This goes for individual consultations as well as large-scale science. This means that medicine is at its best when it confronts us with our incompetence and shows us that we need technology to get things right. That is, medicine is at its best when it (justifiably) makes us lose confidence in ourselves.

Modern healthcare is thus characterised by a conflict between instrumental power on the one hand and confidence in our unaided judgements on the other.

Science has just the privilege of teaching us what we do not know, by ... clearly showing us the present boundaries of our knowledge. But by a marvellous compensation, science, in humbling our pride, proportionally increases our power.

Science increases our power, but humbles our pride. More importantly, science humbles our ability to reason. The result is cultural impoverishment,¹¹ which is one of the main causes behind the medicalisation of our lives.

CULTURAL IMPOVERISHMENT

Cultural impoverishment is one of the central concepts in Jürgen Habermas's philosophy. He describes it thus¹¹:

[T]he differentiation of science, morality, and art, which is characteristic of occidental rationalism, results not only in a growing autonomy for sectors dealt with by specialists, but also in the splitting off of these sectors from a stream of tradition continuing on in everyday practice in quasi-natural fashion. This split has been repeatedly experienced as a problem. ... *Everyday consciousness* is robbed of its power to synthesise; it becomes *fragmented*.

Medical technology causes impoverishment through three different mechanisms:

- an undermining of our unaided judgements;
- an escalation of possible dangers;
- tunnel vision.

Firstly, technology transcends both our senses and our common sense (or our "lifeworld", if we stay inside a

Habermasian framework). The condition is simple. Efficient use of medical technology presupposes some subjugation to the technology. We must be prepared to trust the technology more than we trust our own unaided judgements. The more successful the technology proves to be, the more justified this subjugation will be. Common sense is forced to dig its own grave.

The second cause of impoverishment is closely connected to the first, but is probably more important. If you think of knowledge as finite and of a well-defined magnitude, then one problem solved means one problem less to worry about. More concretely, if the question is whether the baby will sleep nose up or nose down, then the story of SIDS represents utopian and unconditional progress.

This conception of knowledge, however, is too narrow. Knowing something usually demands something much more than knowing which of two alternatives is the best one.

Knowing something, not least in medicine, normally demands that we have an overview; that we know which distinctions are relevant and which are not. Isolated pieces of knowledge obtain their importance through their positioning inside a larger framework. Technology impoverishes this framework by questioning our comprehension of the world. Technological progress challenges what Wittgenstein calls “the *scaffolding*’ of our thoughts”.¹²

We lose confidence in our ability to think straight. What else is dangerous? Are we able to draw the important distinctions in our lives, or do we need the help of medical technology to make even the simplest differentiations? The confusion opens up for a, in principle, limitless escalation of possible dangers. Like Oedipus, we are “at the mercy of every passing voice if the voice if the voice tells of terror” (Sophocles,⁷ p 211).

The recent—dare I say hysterical—public reception to the news of a possible causal link between infant measles–mumps–rubella vaccination and later development of clinical autism illustrates the situation aptly.¹³ This is a causal relationship so far fetched that most of us would have problems working it out even if we tried. Still, it is possible that such a relationship exists (although overwhelming empirical evidence shows otherwise).¹⁴ This was enough to stir up the public.

TECHNOLOGICAL TUNNEL VISION

Thirdly, medicalisation is also caused by the tunnel vision of medical technology. We tend to think of technological investigations as omnipotent, as if they disclose “everything”. The truth is the opposite. Technological investigations are extremely narrow minded. Almost everything is left out. Penetration is always—with no exception—bought at the expense of perspective.

This goes for *x* rays, blood samples, immunoassays, epidemiological investigations and randomised controlled trials. Technological investigations have tunnel vision; they highlight only a small spot of the possible field of investigation. The black areas dominate whatever we do, and the only way to highlight spots of these black areas is to refer to further investigations. A snowballing medicalisation is well on its way.

A thought experiment is perhaps the best way to illustrate the situation. Think of yourself walking the well-known route to your job. You feel confident and walk easily. Then one day someone offers you a newly developed *y* flashlight, designed to make walking safer. You take the flashlight with you and soon find that you cannot see the cobblestones properly when you use it. But 3 m to the left of your usual path you see a deep hole you have never seen before.

Slightly upset, you supplement the *y* flashlight with a *z* flashlight the next day. With this flashlight, you can see

neither the cobblestones nor the hole. But you see strange gas leaking out of a nearby pipe, and now you understand why you always cough during the last part of your trip. The next day you bring a big *w* flashlight. On using this slightly cumbersome flashlight, you can see neither the gas nor the cobblestones, but you see the hole and some green fluid at the bottom of it.

My conjecture is that this experience will do everything but put you at ease. The flashlights will make your walk to the job safer. Now you can take precautions so that you will not be poisoned. But your walk will be less relaxed. That is, your new power is paid for with a new type of insecurity. Which flashlights will you use? How many can you carry? And what about the hidden dangers you still cannot see?

If you only dispose of a small number of powerless investigations, you will have no problems deciding what to do. But if you dispose of a large number of powerful investigations, anxiety and uncertainty will creep in on you. The more powerful the investigations you dispose of, the more justified will your fear of overlooking an investigation become.

Tunnel vision is something that we must accept if we want to benefit from technological investigations, as there is no way around it. In each situation, we need to find exactly the right investigation. To do this, we only have recourse to common sense—the same common sense that is put under pressure by the very technology we are to decide on. It is a vicious circle.

THREE CHALLENGES

Our susceptibility to impoverishment and to medicalisation will, to some extent, depend on our medical competence. But the caricature of a self-confident and all-knowing doctor informing a bewildered and unknowing patient is hopelessly false. Justice is done to neither. Both patients and professionals face genuine uncertainty, and both are susceptible to medicalisation.

The patient obviously faces the most risk. His future health may be at stake. But the future of the doctor is also at stake. If he misjudges the situation, he runs the risk of legal prosecution, public exposure and condemnation from colleagues and from himself. Doctors are in fact quite scared.¹⁵

Patients and healthcare workers are thus in comparable situations. Both of them want to control the future of the patient,¹⁶ and they agree on the proper method for doing this. What is needed is technological intervention. Their hope is that technology will bring power and comfort. But, as we have seen, technology cannot do this.

Professionals must deal responsibly with this situation. It is of course nonsense to suggest that they should do as Oedipus did. To gouge out the technological eyes and leave the scene would be an intellectual suicide that no one would gain from, least of all the patients. Oedipus, nevertheless, points out a direction. He is a prototypical example of a man who accepts responsibility for the consequences of his actions, for all the consequences of his actions. He accepts responsibility also for the side effects that originated from his justified actions. This attitude makes him a hero.

But then again, Oedipus is a fictitious hero who reaches the end of a line. Modern medicine is not at the end of a line. Withdrawal is not an option, and martyrdom is not demanded. What is demanded is prudence and fortitude. Professionals must accept responsibility for the adverse effects of their justified actions.

Professionals do not have to accept responsibility in the sense of culpability—in the sense that they misjudged the situation and should have acted differently. But they must accept responsibility in the sense that they, whenever possible, should do their best to restrain the adverse effects

of technological interventions. The challenge is an ancient one: to prescribe the right technology, in the right dosage, at the right time. Three things are important for this.

Firstly, professionals must resist the temptation of over-selling their knowledge of the past, as well as their power over the future. Life is opaque, and brute measures are always in danger of doing more harm than good. Telling parents to make their babies sleep in a prone position turned out to be a bad piece of advice.

Secondly, holistic technology is as far away today as it ever was. It exists only in utopia. Thus, if we want to benefit from technology, we have to accept its tragic side effects, and deal responsibly with them.

Thirdly, professionals are caught in a squeeze between uncertainty and action. Medical knowledge is in constant flux. What is true today may be false tomorrow. This puts the healthcare workers in a bind. On the one hand, they know that they may be wrong. On the other hand, they have an obligation to evaluate the evidence and act on their best judgement. I do not know whether the evidence was sufficiently evaluated before the prone position was recommended for the prevention of SIDS. It seems probable, however, that the professionals gave in to the pressure that was building up. A solution had to be found, and the professionals presented a sturdier conclusion than was justified by the evidence.

This points to a general phenomenon. Our sometimes desperate wish for certainty and effective measures places a strong obligation for prudence and fortitude on the professionals. It is their job to try to separate the wheat from the chaff in the jungle of information. Hence, before they tell us that our present conception is wrong, they must be reasonably sure that they are telling us the truth. Even more importantly, they must be reasonably sure that the truth is important. (This last demand is the one that is sinned against most often.)

CONCLUSION

In this article, I have tried to point out two genuine heroes and one wannabe hero. The wannabe hero is medicine. People in white coats are often depicted as genuine heroes. I disagree with this. Genuine heroes must risk something themselves to benefit others. To the extent that healthcare workers do this, they are genuine heroes. But when professionals hide behind technological walls and juridical smoke screens, they are just ordinary human beings doing their job in the usual, slightly cowardly way.

This brings us to the genuine heroes. The first genuine hero is Oedipus. Oedipus really risks something himself and, faced

with the catastrophe, he carries the burden himself. He is almost too good to be true.

The second genuine hero is common sense. Common sense is the lifeblood of our comprehension. But it is really put under pressure in this technological age. It demands strength to get a foothold and not to give in to the wave of fragmented facts that sweeps over us every day. Medicine should help people get this foothold and support their judgements whenever possible, and not use every opportunity to question the reliability of the ground we are standing on. If it can be avoided, professionals should not use medical authority to go against common sense.

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