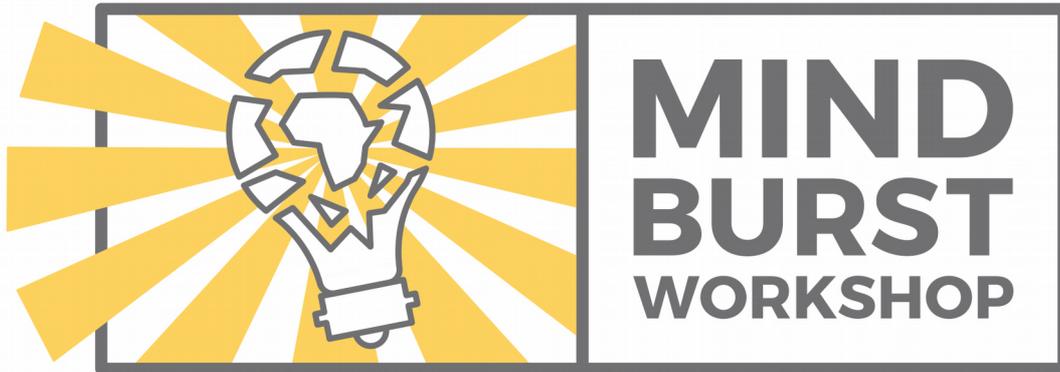


Be a nuisance where it counts

a slightly adapted version of a talk
given by André Croucamp of MindBurst Workshop
to Kingsmead College at their Human Rights Assembly
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“Be a nuisance where it counts.” Those are the words of Marjory Stoneman Douglas, an American journalist, women’s rights activist and environmentalist.

As we approach Human Rights Day, I want to convince you that being a nuisance where it counts is the purpose behind protecting the freedom of speech. Having freedom of speech is not just an opportunity for self-expression. It is what makes it possible for you to participate in the decisions that will shape your future, being an active part of our democratic processes. It also makes it possible for you to collaborate in the creation of new knowledge, playing a role in innovating solutions to the problems that face us all.

It is a pity that the way we teach and assess learners tends to encourage the skills required for the reproduction of existing knowledge and does not often encourage the skills required for the production of new knowledge. The ability to memorise information or faithfully reproduce a procedure is rewarded, but this is something computers already do far better than us. Let’s face it, graduating from school with the skills of a poor computer is not a strategy for thriving in the 21st century. The skills that will give you the greatest advantage in our rapidly changing world, and the ones that will be most valued in the future, are the skills needed to produce new knowledge - and that, I will try to show you, means learning how to *be a nuisance where it counts*.

What is our most reliable source of knowledge?

Consider for a moment the success that science has had at creating effective explanations, basing technologies on those explanations, and deepening our understanding of the nature of reality. This success of science is not just due to its use of evidence, or its design and performance of experiments, or its willingness to risk using its theories to make predictions. Science's success is largely a product of its willingness to doubt itself. Many knowledge systems use evidence, test their ideas through experiments and make predictions, but science is the only knowledge system that consistently says: "Don't believe me."

Science actively invites you to prove its ideas wrong, because it is not trying to maintain certainty or protect an identity. It is trying to open up new possibilities by constantly creating better explanations for things. In many other knowledge systems doubt is the thing that excludes you from membership. Questioning authority, tradition and dogma is taboo. But in science doubt is the key to entry - allowing you to be a nuisance where it counts.

Our most reliable source of knowledge is not that we have found a reliable way to prove something is true. We haven't. What we have discovered are effective ways for identifying error.

Our education system and popular media has created the impression that scientists have a special genius for having ideas about the nature of reality. But the source of scientists' ideas is no different to those of artists, philosophers, poets, mechanics, gardeners and daydreamers. Democritus' idea that everything is made of irreducible atoms was speculation. Fleming's discovery of penicillin was an accident. Kekulé imagined the circular structure of the benzene molecule during a dream about a snake biting its tail. The idea that led Newton to conceive of the law of gravity was the wild conjecture that the moon, like an apple dropping from a tree, is in free-fall. Mendeleev's periodic table started out as an analogy based on the card game of patience. Einstein's ideas about relativity began as a fantastical thought experiment, where he imagined himself travelling on a beam of light. Wallace's vision of the Tree of Life and the interconnectedness of all species (before Darwin) was the product of a fever-induced hallucination when he had malaria. Scientists' ideas, just like any other new ideas, are based on clever guesses, mash ups and fantasies. Just like them, in order to create new ideas, you need to harness the unexpected advantages of your imperfections and the happy accidents of your spontaneous improvisations. Scientists don't have a special talent for having ideas, but they do have a special commitment to criticising ideas and identifying error once they, or someone else, has had them. Science is a tradition of criticism. That is its strength.

**There is no reliable source of knowledge,
but there is a method for identifying error
- allowing you to be a nuisance where it counts.**

When we read that 97% of scientists support the idea that climate change is caused by humans, that is not science. It is sensational media – propaganda. I do believe that climate change is caused by humans, but not because 97% of scientists believe it (they could be wrong!), but because I have reviewed the evidence, read about the experiments that have been conducted, listened to alternative points of view, and think that the idea that humans are causing climate change by increasing greenhouse gasses in our atmosphere is the best explanation we have so far.

In science truth is not something fixed that needs to be defended. Truth is whatever opens up possibility and grows our understanding. Yes, some scientists say things like, “Evolution is true,” but that is not a scientific statement. The Theory of Evolution is a powerful explanation, and it is a useful tool in things like conservation, medicine, economics and machine learning. We can say that it is the best model we have so far to explain the diversity of species and the way they change over time. As a model for the way nature innovates it communicates profound insights that can inform our own processes of innovation. But we cannot really say that it is true. Outside of mathematics you cannot prove anything. And in maths you can only prove things because maths talks to itself. It is a self-referential system. In science we cannot prove anything. We can only identify error and speak of the best model we have so far ... until someone identifies an error, by designing a better experiment, or inventing a technology that improves our perception, or uses the same information to come up with an alternative explanation.

By embracing its own potential for error, and encouraging disagreement, science grows knowledge faster than any other knowledge system in history. In the short term, scientific research may often be determined by who is funding the research, which interest groups the research serves, who controls access to technology, and ideological perspectives that determine research priorities. In the long term however, the errors of the past are identified, explanations improve and new innovations in technology make more accurate measurements and calculations.

Is this some kind of cultural domination, protecting a particular worldview? Or is it the opposite – a reliable process for identifying error in any argument, in any context? If you disagree, and think you know of more reliable criteria for assessing knowledge and identifying error, it is the nature of that tradition of criticism we call science to welcome your suggestions.

What I want to propose is the following: Knowledge *spreads* when people agree with each other – a bit like a joke or an Instagram post.

**While knowledge *spreads* when people agree,
knowledge *grows* when people disagree.**

This is why social media, which is good at spreading rumours and creating trends, is so terrible at *growing* knowledge.

If you are committed to becoming agents of your own knowledge production, to participating in solving the problems of our democracy, to finding work in the global knowledge economy, to thriving in the Fourth Industrial Revolution and to solving the problems our planet faces, you need to protect the freedom to disagree, and be a nuisance where it counts.

As Rosa Luxemburg, a Polish philosopher, economist and anti-war activist, said, “Freedom is always the freedom of the dissenter,” what she called, *der Andersdenkenden*, the one who thinks differently. We protect freedom of speech so that we can continue to disagree with each other.

Disagreement is more likely to be mutually beneficial, to benefit everyone, if we are all trying to solve the same problem. Then it should be in everyone’s interests to come up with the best solution possible. This is not about winning a debate, or the victory of one position over another, or protecting an identity, or shaming someone for being politically incorrect, or claiming the status of victim. It is about having a conversation in order to understand, because understanding what is going on is more valued, by all involved, than being right.

**Have a conversation in order to understand
rather than an argument in order to win.**

In addition to sharing the same goals, the mutual benefit of disagreement is more likely if the participants agree on the criteria for disagreement. While the skills set of dialogue does include asserting your point of view with confidence, it also includes:

- giving reasons for what you believe;
- agreeing with others on a description of the problem you are trying to solve together and on the definition of the words you are using to solve it;
- building onto each other’s ideas with the purpose of improving a collective understanding of a specific phenomenon;
- giving and receiving feedback honestly;
- challenging all generalisations, categories, assumptions and stereotypes;

- exploring the historical sources of what you believe;
- critically analysing the logical structure of your claims, explanations and arguments;
- being vulnerable to points of view different from your own;
- grappling with evidence and resisting the temptation to jump to conclusions;
- designing experiments that test your models and explanations; and
- reflecting critically on the process of knowledge production itself.

These criteria can of course only be used to criticise the kinds of ideas that can be evaluated using rational methods – in other words, ideas that explore the natural causes of things. Supernatural causes, whether they are gods, or ancestors, or fairies, or demons, cannot be proved or disproved. While these kinds of beliefs belong to knowledge systems that create meaning by telling powerful stories that make sense of our experience, they do not offer ideas whose errors can be identified by analysing arguments or grappling with evidence or performing experiments. Science cannot say anything about this kind of knowledge. You are free to make up or believe any story that reduces your suffering, gives you a deep sense of meaning, and makes you feel like you are part of something bigger than yourself. Your story may even be true, but human beings have not yet discovered a rational method for showing that it is.

Unlike these kinds of knowledge systems, science is not a collection of beliefs or truth statements, but a process, a method that encourages creative guesses and then ruthlessly criticises those guesses, according to strict criteria for disagreement, seeing which ideas are the least prone to error, and then working with them, not as the truth, but as the best models of reality that we have so far.

In science today, a well-designed experiment is not one that is designed to prove your theory, but one that is designed to disprove it. A well-designed experiment is also one that can be repeated by anyone, regardless of her prejudice, scepticism, language, beliefs, cultural assumptions or what she had for breakfast. In this way science has tried to create a universal method for assessing knowledge, free of subjective points of view and cultural assumptions.

Of course we must appreciate that criteria for disagreement that try to transcend cultural context run the risk of offending the beliefs of all cultures with their abstract rationalism. Ayaan Hirsi Ali, a Dutch politician and feminist, said, “Free speech is the bedrock of liberty and a free society. And yes, it includes the right to blaspheme and offend.”

Should there be limits on the freedom of speech?

Section 16 of the Bill of Rights in our Constitution protects freedom of expression, with one exception – hate speech. Hate speech is speech that deliberately attempts to harm others and violate their rights. We need to think carefully about how playful teasing, name calling and labelling can easily become bullying and hate speech. If you are calling for the harm of a certain group of people, based on ethnicity, race, gender, sexuality, religion, or nationality you are using hate speech. If you are using extremely derogatory terms, recognised as ways of signalling the inferiority of others and justifying some violation of their rights, you are using hate speech. But if you are using the criteria for disagreement, not to attack a person, but to criticise their idea, you are free to do so. And they are free to criticise your ideas too, even if they are much younger than you, less privileged than you, from another tribe or are a total stranger. In that moment of mutually beneficial disagreement you become a community of fellow seekers united by a shared desire to know what is really going on. It is a strangely powerful kind of community that is bound together by a willingness to question and doubt each other.

At this point we should stop to appreciate a principle that is often misunderstood. Our Constitution protects your right to have an opinion and express it freely, but it does not protect your right to have your opinion respected.

No one is obliged to respect your opinion.

No one is obliged to respect your opinion, even if that opinion is religious, or patriotic, or based on some terrible personal trauma. In the process of democratic dialogue, other people have the right to publically criticise your opinion. In turn, you have the right to express how offended you are by that criticism, but you do not have the right to limit the freedom of others to disagree with your ideas. As the French philosopher Voltaire put it, “I disapprove of what you say, but I will defend to the death your right to say it.” Or as the English author and playwright Oscar Wilde put it, “I may not agree with you, but I will defend to the death your right to make an ass of yourself.”

Have you ever been in a situation when you hear someone disagreeing with a friend of yours and you say, “Wow, she actually has a strong point.” And your friend turns around to you and says, “What are you saying? I thought you were on my side.” What you should say is, “I am on your side which is why I feel free to disagree with you and am willing to work things out together with you, so that you and I have a better understanding of what is really going on.”

Obviously, if your final objective is to have a conversation that comes as close to understanding reality as is possible, you have to proceed with the kind of respect that invites and maintains the participation of the other person, because if you genuinely want a deeper understanding of what is going on, you need to be able to risk their disagreement – because knowing what is really going on is more important to you than being right. It is this commitment to engaging the disagreements of others fully, giving them your time, energy and attention, and perhaps this commitment alone, that can ensure respect in dialogue. If we do not make an effort to understand each other's perspectives we cannot solve anything together.

Mutually beneficial disagreement is more likely if we agree on the criteria for disagreement.

Agreeing on the criteria for mutually beneficial disagreement is not about criticising each other, but about criticising each other's ideas, and agreeing to be vulnerable to the process of having our thinking habits challenged by others.

If you fear failure, you are unlikely to risk exploring something unfamiliar. Without the freedom to make mistakes and integrate insights from those mistakes you cannot stay in the critical conversation long enough to benefit from all its possibilities.

Neuroscience teaches us that people are more likely to avoid failure than risk success. What does that mean for you? If you want to be successful you have to be willing to fail and learn from it. If you are not failing at something you are not learning anything new. If you are only doing what you know you can always succeed in, those who are willing to risk failure will overtake you.

This means that you need to be vulnerable in order to experience the thrill of discovering knowledge. As Brené Brown, a professor of social science at the University of Houston, put it, "Vulnerability is the birthplace of innovation, creativity and change." A culture in which being wrong is shameful is a culture that has stopped growing and cannot innovate. Producing knowledge is not about shaming people, it is about criticising ideas. There is a big difference between doubting an idea you have had and doubting your ability to have ideas. Whether you like it or not, your ability to have new ideas is actually the product of your willingness to risk making mistakes. Your imperfections are the source of your improvisations. Allow them to be strength. As Brené Brown puts it, "Vulnerability sounds like truth and feels like courage. Truth and courage aren't always comfortable, but they're never weakness ... Staying vulnerable is a risk we have to take if we want to experience connection." She defines connection as "the energy that exists between people when

they feel seen, heard, and valued; when they can give and receive without judgment; and when they derive sustenance and strength from the relationship.” Thriving in the 21st century *is* all about being able to work things out for yourself, but we are wrong to think that exceptional ability is individual rather than the product of dynamic collaboration between diverse individuals in dialogue with each other.

The source of most of the innovation that is so valued in the knowledge economy is collaboration, collective intelligence. Collective intelligence doesn’t refer to a group of people agreeing with each other, but a group of people who experience disagreement as mutually beneficial – diverse points of view formed by individual self-determination but driven towards solving problems shared in common. The suppression of difference and the denial of diversity is a kind of tyranny that obstructs collaboration and innovation.

Certainty can lead to dogmatism, authoritarianism, fundamentalism, and totalitarianism. For this reason we need to resist the politics of seeking single and total solutions, and resist setting up different points of view as irreconcilable and antagonistic opposites. There is great value in allowing disagreements to keep our search for solutions dynamic, helping us reach the best solutions possible. If there is no single, ideal and inevitable solution, we have to be prepared to grapple with each other’s perceptions, feelings, ideas and performances.

When you believe the truth has been revealed to your people and your people alone, then you may feel that you have a special responsibility to defend it against other claims to truth. You may resist the principle of mutually beneficial disagreement fearing that your beliefs could become infected with other beliefs, losing their purity and unique identity. Sadly, whenever a group of people believes its answers are final, total and complete, their conflict with other groups inevitably escalates into violence. This is why we need to protect the freedom to disagree and why you need to have the courage to become a nuisance where it counts.

The philosopher, Richard Rorty, said, “If we take care of freedom, the truth will take care of itself.” If we protect the freedom that allows error to be exposed, we will be able to continue growing and building knowledge together, wherever that takes us.

For any dialogue to be productive, for understanding and knowledge to increase, there needs to be a willingness to admit you could be wrong, a willingness to embrace change. If your primary outcome is to stay in power, and you do not want to give up anything, your capacity for being vulnerable to criticism, for risking experiment and

for actively exploring the growing edges of your knowledge is immediately reduced, shrunk.

If we look at the history of human rights we learn that those in power very rarely gave rights to others. In most cases people had to fight for their rights through protests, boycotts, strikes, civil disobedience, rational arguments in courts of law, new theories of what it means to be human, satire, protest art, and revolution. It was a result of people who were a nuisance where it counts that our ideas of what should be regarded as human rights have grown. The rights of women and workers and LGBTIQ individuals and children are protected because someone had the courage to disagree. Practicing freedom of speech takes great courage, because it often means questioning tradition, authority, and power at the risk of offending or threatening it.

Being a nuisance where it counts doesn't only mean having the courage to stand up and speak up. Practicing freedom of speech is not necessarily about being tough. It also means having the courage to be vulnerable to a process of criticism, to having the errors in your creative guesses exposed, being willing to say, about the most precious ideas you hold, "Don't believe me."

"Don't believe me"
My need to know is stronger than my need to be right.

How can you ensure that you will thrive in the future?

You need to become more than a consumer of knowledge or a reproducer of knowledge, because machines can already memorise and reproduce information better than you. You need to become a producer of knowledge, and the best way we know of doing that is being a nuisance where it counts. It is easy to be a nuisance, but being a nuisance where it counts means being willing to grow your knowledge of what's really going on, protecting the freedom to disagree, being able to defend the reasons behind your ideas, learning to apply rational criteria for disagreement, being willing to experiment and risk being proved wrong, because that will enable us to grow and build knowledge together. Finally, as the American civil rights activist Rosa Parks said, "Stand for something, or you will fall for anything. Today's mighty oak is yesterday's nut that held its ground."