Derek Parfit

Derek Parfit – Logic and Philosophy

"for his ground-breaking contributions concerning personal identity, regard for future generations and analysis of the structure of moral theories"

What is morally right, what is wrong? How do we act responsibly in relation to future generations? Can rational thinking provide answers to these and other moral matters?

With the publication of his ground-breaking work *Reasons and Persons* in the mid-1980s, Derek Parfit set the direction for the mainstream of moral theory. The book's impact was momentous, not only by virtue of the ideas put forward, but also by its style, characterized by numerous examples appealing to the reader's intuitions about moral matters.

To begin with, Parfit shows how the prescriptions issued by moral theories may defeat the objectives these theories put forward. Common-sense morality, for instance, requires a particular consideration for our nearest and dearest; however, if practised by everyone, it may well lead to an outcome that will be suboptimal for everyone concerned. The same goes for self-interest theory which prescribes exclusive attention to our self-interest, but as this theory does not purport to be a moral code – a code for the collective – it has to be criticized in another way. Parfit argues that self-interest theory is inconsistent; it privileges the self but not the present. It gives the same weight to preferences one holds at different times – in the present and in the future.

The temporal aspect is also important in relation to personal identity, because, as Parfit argues, there is no underlying "I" that survives time passage. This is yet another reason, he maintains, to revise our self-centred attitudes – in addition to his above mentioned arguments against common-sense morality and self-interest theory.

Most attention has been given to Parfit's analysis of moral issues relating to future generations. It might seem self-evident that our decisions today concerning, say, how to deal with global warming, might harm people in the future. However, as Parfit points out, these choices also affect which people will live in that distant future. If they would not even be born if we chose differently, how can they be harmed by choices that enable them to exist?

A question that Parfit leaves unanswered concerns the so-called "repugnant conclusion". He shows that seemingly reasonable ethical principles lead to the conclusion that a future world populated by people enjoying a high quality of life is worse than a world with a much larger number of people whose lives are barely worth living. This absurdity requires that some of the principles be rejected. But which ones to keep remains uncertain, as does the overall possibility to formulate an ethics for future generations.

Derek Parfit is a British philosopher born in China in 1942. He has spent his entire academic career at Oxford, as fellow of All Souls College, where he presently is Emeritus Senior Research Fellow. He is Visiting Professor of Philosophy at New York University, Harvard University and Rutgers University in USA. *www.all-souls.ox.ac.uk/people.php?personid=49*
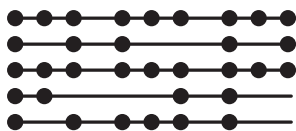
Yitang Zhang

Yitang Zhang – Mathematics

"for his spectacular breakthrough concerning the possibility of an infinite number of twin primes"

In April 2013, Yitang Zhang, a relatively unknown lecturer at the University of New Hampshire, stunned the mathematical world with an article on one of the oldest unsolved problems in mathematics, the so-called "twin primes conjecture". Prime numbers, that is, integers greater than 1 and only divisible by 1 and themselves, have fascinated people ever since Antiquity (the sequence begins: 2, 3, 5, 7, 11, 13, 17…).

They do not seem to appear randomly; quite the opposite, prime numbers exhibit several different regularities. Nevertheless, it is not possible to specify clear rules for where in the whole number sequence prime numbers will appear. It is known, however, that the further along the number sequence, the longer the distance between the primes – they become ever more rare. Do they ever stop appearing? The answer is no, and was given already 2 300 years ago by Euclid of Alexandria who proved that there is indeed infinitely many prime numbers.

A puzzling characteristic of prime numbers is that they sometimes appear in pairs, following each other. When separated only by 2, they are called twin primes; for instance, 5 and 7, 17 and 19, 101 and 103, or even $3\ 756\ 801\ 695\ 685 \times 2^{666\ 669} - 1$ and $3\ 756\ 801\ 695\ 685 \times 2^{666\ 669} + 1$, which is the largest known twin prime pair. Are there an infinite number of such pairs? The proof of this so-called "twin prime conjecture" has been elusive. No one has yet been able to provide a definite answer, even though the question has engaged many well-known experts in analytical number theory.

Yitang Zhang brought mathematics one important step closer to the answer. He managed to show that there are an infinite number of prime pairs when the distance within the pair is less than 70 million. Zhang worked alone on the problem for many years, using an innovative approach, building on and developing previous work in various sub-fields of mathematics.

His results were ground-breaking and spurred great activity across the world. In a few months, a team of mathematicians, led by Professor Terence Tao of the University of California, Los Angeles, managed to shrink the distance between the prime numbers from 70 million to 4 680. A young post-doc at the University of Montreal, James Maynard, developed entirely new ideas and has now joined the collective endeavour. Together, they have reached the lowest limit of 270 between the primes in a pair.

It remains uncertain, however, if this distance can be reduced all the way down to 2. Meanwhile, Yitang Zhang is taking on new challenges while continuing his mathematic career at the University of New Hampshire, USA.

Yitang Zhang was born in China in 1955 and studied mathematics at the University of Beijing. He moved to the USA in 1985 and defended his doctoral thesis at Purdue University in 1992. After that, he held various casual jobs until 1999 when he joined the University of New Hampshire, where he recently was appointed Professor of Mathematics. Not long ago, he was awarded the Cole Prize in Number Theory by the American Mathematical Society, in addition to several other prizes.
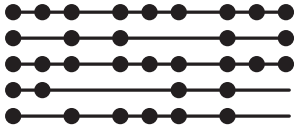*www.unh.edu/news/releases/2013/12/bp02zhang.cfm*

www.rolfschockprizes.se

Herbert Blomstedt

Herbert Blomstedt – the Musical Arts

"for his invariably enlightened musical performances, which he imbues with insightful humanism and a compelling depth of emotion; for his ability to create meaningful musical contexts in his interpretations that touch music lovers across the world; and for his great generosity towards younger generations of musicians and conductors"

The musical achievements of conductor Herbert Blomstedt embody a combination of mature artistry and boundless curiosity. His artistic hallmarks are quality, honesty and profound cultural insights, which lend an extra dimension to his interpretations. With natural authority and a unique feel for the architecture of music, he draws out the long lines embedded within the score, creating an understanding of the musical content, where sounding structures come to life and become carriers of deep emotions.

Herbert Blomstedt was born in the USA of Swedish parents and was educated at the Royal College of Music in Stockholm and at Uppsala University. He subsequently studied conducting at the Juilliard School in New York, contemporary music at Darmstadt, and early music at the Schola Cantorum in Basel. After debuting in 1954 with the Royal Philharmonic Orchestra in Stockholm, his conducting career gained momentum, and for many years he has performed with the world's foremost symphonic orchestras. Blomstedt's interpretations of the vast orchestral literature have received international acclaim, and he has also contributed considerably to spreading Swedish music abroad. For instance, his concerts and recordings of music by Ingvar Lidholm and Sven-David Sandström have been met with great appreciation.

In addition to innumerable concerts worldwide, his list of recordings with leading orchestras is long, and many are award-winning. His discography includes, among other works, the complete symphonies of Ludwig van Beethoven, Franz Schubert and Anton Bruckner. Many people consider that his recordings of the complete symphonies of Carl Nielsen and Jean Sibelius set the standard of performance.

While honouring his numerous conducting assignments, Herbert Blomstedt has also willingly shared his rich artistic experience, mentoring younger musicians and conductors in the beginning of their careers.

Herbert Blomstedt was born in 1927. He has been principal conductor of the Swedish Radio Symphony Orchestra, the Danish National Symphony Orchestra, and the Staatskapelle Dresden. He has also been artistic director of the San Francisco Symphony, the NDR Sinfonieorkester in Hamburg, and the Gewandhausorkester in Leipzig. He has been appointed Honorary Conductor of five orchestras: the Gewandhausorkester in Leipzig, the NHK Symphony Orchestra in Tokyo, the Danish National Symphony Orchestra, the Swedish Radio Symphony Orchestra and the Bamberg Symphony. In addition, he regularly performs with many of the world's other leading orchestras, among them, the Vienna Philharmonic, the Berlin Philharmonic, the Royal Concertgebouw Orchestra, the New York Philharmonic and the Los Angeles Philharmonic. Herbert Blomstedt has been awarded several honorary doctorates as well as the Seraphim Medal and the Order of Merit of the Federal Republic of Germany. Since 1965 he has been a member of the Royal Swedish Academy of Music.
www.ks-gasteig.de/en/kuenstleragentur/artists/conductors/herbert-blomstedt/biography/index.html
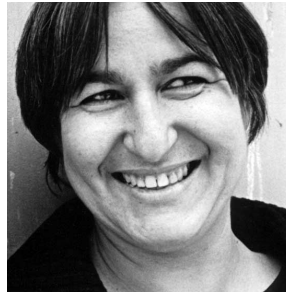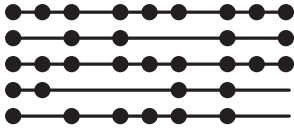
Anne Lacaton   Jean-Philippe Vassal

Anne Lacaton and Jean-Philippe Vassal – the Visual Arts

"for their sensitive and reflective efforts emphasizing voices of the locale while simultaneously marking it with a distinct signature; in a forward-looking manner they engage dialogues with users and residents and acknowledge the value of keeping and developing that which already exists"

French architects, Anne Lacaton and Jean-Philippe Vassal, have been collaborating since their days at university in the mid-1980s. Today, they run an architectural firm together in Paris – Lacaton & Vassal. Their projects are characterized by close dialogue with users, a great consideration for social context and a clear attachment to local space. They work in a manner similar to that of the script-writer, assembling parts of an overarching theme or narrative. The key words are simplicity, proximity, well-being and user-friendliness.

With their understated and sensitive architecture, the duo also raises interesting questions about city planning; carefully utilizing existing space and structures, taking them as a point of departure rather than tearing down and building anew. Their work contributes to urgent debates and discussions about societal sustainability in the long-term, and to the rehabilitation of existing buildings in order to meet ever-growing needs of continuous maintenance and development with scarce resources.

Materials used are often inexpensive and simple. Facade elements in polycarbonate and glass constitute a signature mark, while external surfaces and additions to a building's existing body increase quality of living. Characterizing the architecture is a constructive sincerity, which creates the backbone that enables a flexible use of space. Their radically pared-down re-imagining of the Palais de Tokyo in Paris (2002-2012) first met with surprise, but has since become a very much appreciated venue for contemporary art and culture. Deserving mention among the duo's other projects are Place Léon Aucoc, Bordeaux (1996) and the Tour Bois-le-Prêtre renovation in the 17th arrondissement in Paris (2011).

Anne Lacaton was born in 1955 in Saint-Pardoux-la-Rivière (Dordogne), France, and graduated in Architecture in 1980 at the École nationale supérieure d'architecture de Bordeaux and in City Planning in 1984 at the University of Bordeaux. She has been appointed Visiting Professor at the École polytechnique fédérale de Lausanne (2004, 2006 and 2010-11), at Harvard University and at GSD Studio in Paris (2010-11). Since 2007, she is Visiting Professor at the Escuela Técnica Superior de Arquitectura de Madrid.

Jean-Philippe Vassal was born in 1954 in Casablanca, Morocco, and graduated in Architecture in 1980 at the École nationale supérieure d'architecture de Bordeaux. He was city architect in Niger (1980-85), and has been appointed Visiting Professor at architectural schools in Versailles (2002-06), Bordeaux (1992-99), and elsewhere. Since 2012, he is Professor at the Universität der Künste in Berlin. *www.lacatonvassal.com*