

### **The benefit of the doubt**

There were times in which my only dream for the future was to surpass Einstein. I had graduated in Physics at a young age, professors were lavishing me with praise, and I had an ambitious Ph.D. project. The road to success seemed short and straight. It did not take long before the first doubts struck. Theoretical physics was a summum of human intellect, but at the same time extreme in its abstraction and specialization. Minuscule “strings” which moved around in ten dimensions: no big deal for physicists. But for me the strings did not sound pure. The thought that my work was far removed from reality and that its societal relevance was out of sight was nagging. When it kept nagging, I joined, in 1998, the Young Socialists [*youth organization of the Dutch Labor Party*].

My political tendencies had not fallen out of the blue. As a 12-year old boy I had written a letter to the Labor Party in which I complained about the weakness of the progressive voice in the third Lubbers Administration [*Prime Minister of the Netherlands 1982-1994*]. The Labor Party had to become the champion of the poor again and put environmental issues much higher on its agenda – that was my expert opinion, as published in the periodical of the local chapter. Ten years later, I was working to invite Minister Hermans [*then Minister of Education of the Netherlands*] to a debate about the bachelor-master system and as a unrestrained rebel, I also questioned the *raison d'être* of the Young Socialists in an article in the Pro [*national periodical of the Dutch Labor Party*]. And I took every chance to talk with Members of Parliament about their work and life. Politics was passion and passion was seductive.

In the meantime, I dragged myself with great trouble towards my Ph.D. Immediately thereafter I got rid of my physicist's clothes and accepted a research job as a postdoctoral scholar in neuroscience, the science which studies what our brains do when we perceive, move, learn, forget, love, dream, commit crimes, or want to change the world. In short: the biological basis of who we are. The job was in California and politics stayed behind in Holland. I was saved for science and that Nobel Prize was just a matter of time, as the university newspaper of Groningen wrote. It would turn out differently.

My grandfather was, eighty years ago, one of the first Chinese who settled in Holland. My mother was born and raised in Amsterdam and my own passport mentions the lovely town of Delfzijl [*a tiny town*], but we have never lost our connection with China. In 2001 I visited China for the first time. We did not stay for long in big cities, because we went to visit our relatives in the countryside. It was a different world. I saw them battling poverty, draught and floods, a fragile village community, the prejudices of urbanites, and an educational system in which rural children had a huge disadvantage. Amidst all impressions I came home with two overwhelming thoughts. First: I could have been born there. Second: I need to do something about it.

Once in California I applied for a travel fellowship awarded by a foundation affiliated with my university, that would allow me to execute a project in China. Inspired by my long-standing interest in education and my observations in the village of my ancestors, I did

not have to think long about the topic: the differences in educational opportunities between urban and rural areas of China. I got the fellowship, and for two months I could talk with students, teachers, graduates, parents, university administrators, and educational experts. Gradually the contours of the system became clear to me.

All education in China is focused on the national examinations. The crucial moments in the life of a Chinese scholar are the admission exams for senior middle school and for university. Competition is cutthroat and students are under immense achievement pressure from family, teachers, and peers. In these exams, the large differences between cities and countryside become evident. Teachers in the countryside have a much lower level of education than those in the cities, and rural children have no access to libraries, Internet, world news, or tutoring. Classes of fifty or more students are common, many children have to walk to school for hours, and the school facilities are deplorable. Who gets admitted to senior middle school has to pay tuition fees comparable to the annual income of an average farmer. It is, therefore, no surprise that only 9% of rural children goes on to senior middle school (China Statistics Yearbook 2004). But that is not even the essence of the problems.

The essence is that the nine years of basic education which the 91% early drop-outs have received has, apart from literacy and basic math skills, not prepared them in any way for society. They have been trained perfectly in memorization and obedience, but through authoritarian and teacher-centered teaching methods all creativity, independent thinking, collaborative skills, self-confidence, and own interests have been quelled in the making. In the turbulent, uncertain society of contemporary China, such qualities are particularly of great importance. For instance, in rural areas, valuable natural resources are often left unused because the ideas and the enterprising spirit needed exploit them in a sustainable fashion, are lacking. Also, the migrant workers who come from rural areas to city in large numbers, often fall victim to maltreatment, suppression, and discrimination. The more I got to know, the more complex and overwhelming the problems of education in rural China seemed to me. Would I, as one person, be able to get anything done at all?

For those who want to realize ideals of social justice, politics' strength is also its weakness: decisions are made by majority and a political party is often an inert machinery. For young idealists, a non-governmental organization is therefore often the best choice to canalize social passion, initiative, and good ideas. I regard a non-governmental organization, no matter how small, not so much as an exercise as a road to something better, but as an integral component of a healthy civil society. I like to keep the famous quotation by the American anthropologist Margaret Mead in mind: "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has." Although I would not want to bet high stakes on the truth of this statement, it is a beacon of hope in the fight against the cynical voice in the backs of our minds.

In 2004 I turned words into deeds and founded the Rural China Education Foundation (RCEF), a non-governmental organization with a mission to improve the lives of rural children in China through quality education: curriculum and teaching methods which stimulate a well-rounded development, foster joy in learning, and prepare students to make positive change in their communities. Our first core strategy consists of summer programs in which selected volunteers, after intense preparation, give experimental lessons for two weeks in Chinese village receptive to that. Our second core strategy is

teacher training: educational experts with a good understanding of local circumstances train rural teachers in student-centered education and follow up with observation and evaluation throughout the school year. We collaborate closely with organizations of university students in China involved in social activism; they themselves are often from rural areas and belong to a small minority who want to put their efforts into rural development. This collaboration is for us not only important because local knowledge is indispensable, but also because we envision social volunteering in China to play a key role in closing the gap between urban and rural areas. Civil society is a relatively new concept in China, which only took shape in the mid 80s, and the students with whom we collaborate now are pioneers in mobilizing urban citizens to contribute to tackling China's growing social inequalities.

In contrast to regular exam-centered lessons, RCEF volunteers bring students into contact with ideas and activities which stimulate their active participation, collaboration, creativity, critical thinking, and joy in learning. Such skills can help students to use the full potential of their minds and to later gain better chances in an unstable, competitive labor market. Moreover, we hope that rural children, through designing and executing community projects in their village – like new ways of collecting garbage, or assisting the elderly – can learn that they themselves can lead the sustainable development of their community from within. That education can not only be a way to escape from the countryside, but also a tool to help improve their rural communities: a philosophy which seamlessly fits with Banning's plea for the "free development of individuals in solidary communities".

A new NGO is like a start-up company. You need a management structure, a Board of Directors, a business plan, and venture capital. You have to build a track record, be accountable, apply good governance, and profile yourself publicly. Apart from that you need to create a strong foundation in contents, in our case in the areas of educational psychology, sociology, developmental aid, and Chinese politics. Those are no small tasks, but luckily we have in RCEF a number of motivated, capable young people who share common ideals but who, at the same time, stand with both feet on the ground. Even though they have widely different backgrounds and live in different continents, they are for me the reason to truly believe in Margaret Mead's quote and to persist, against all odds.

"Wei Ji is a talented young man, but he has to decide finally that he wants to be a scientist." I heard that a neuroscience professor I know had recently said that about me. He was exactly right. He knew that besides my scientific work I had always felt an irresistible urge to be directly involved in social action. And indeed that had been at the cost of my dedication to science. In the past years. I have asked many prominent scientists whether a successful scientific career could be combined with a "side job" like leading an NGO, and the answer was inevitably "no". A scientist stands, in their opinion, for a choice: total focus or a place in mediocrity. Doubt? Go do something else.

Like other young idealists I know that I would never be able to get full satisfaction from a job which has little to do with social justice, no matter how challenging, high-status, or well-paid. Therefore, I gradually become more convinced that I would be able to reconcile myself with a place in science's rank-and-file, as long as I can successfully continue my NGO work. That would have been a shock for Wei Ji Ma from ten years ago, but now I consider it as a useful lesson from my work for RCEF. Modern idealists often

automatically end up in an eclectic split between career and NGOs, which is not that bad after all because they can take the best from two worlds: the benefit of the doubt.

There is a second lesson I have learnt. The letter which I wrote as a 12-year old, the organization of an education debate, talking with relatives in the countryside of China, being active in progressive clubs: they always seemed loose, undirected activities, but now I see how together they formed the perfect preparation for what I undertake with RCEF. Sometimes you do things in your life which you cannot place well at the time, small paths which deviate from the marked routes. But who is self-confident and does not betray his ideals will notice that these detours will at some point converge, that apparently random thoughts crystallize out and that in hindsight everything has had meaning.

Even my switch to neuroscience seems to fit into the picture. Who wants to develop effective, meaningful teaching methods for students has to understand how children learn. That differs between cultures and individuals, but the universal basis is how the human brain functions. Creating a social learning environment, relating to existing knowledge, and letting students experiment for themselves are good teaching methods *because of* the ways in which the brain creates new connections. My dream for the future is now to be for one half professor of neuroscience and for the other half make RCEF into an effective and respectable organization, from the US, Holland, or China. In science, I prefer relevance over sophistication. I have come full circle, and Einstein can rest in peace.