



SOCIO-ECONOMIC DEVELOPMENT

How glasses or a cup of tea can change the world

Some of the most basic inventions and discoveries can have a profound impact on the wellbeing of society. With the help of researchers and government funding, much can likely still be done to effect change in the developing world.

I got my first set of glasses at the age of 16. I vividly remember sitting at the back of the physics class and squinting to read the formula on the blackboard, and the embarrassment of having to move to the front. I also vividly remember the joy of facing my friend in the nets when, wearing new contact lenses, I could finally “read” his spinners.

Invented in Italy in the 13th century, glasses were initially used by scribes to allow them to remain productive long after their natural eyesight had deteriorated. But the technology improved over time, and has allowed me and many generations of young and old, male and female, doctors, soldiers, clerks, truck drivers, computer scientists and athletes with hyperopia (farsightedness) to remain productive members of society.

But many millions are not so lucky. The World Health Organization estimates that at least 20m Africans are visually impaired, and hopes to reduce this figure by 25% by 2020. Many of these are children in schools, struggling to read the board or their prescribed books. This is an example, it seems, where developmental efforts should be focused: an inexpensive solution with long-term benefits for the recipients.

A new study published in the *Journal of Development Economics* attempts to measure the gains from just such a programme. Paul Glewwe, Albert Park and Meng Zhao report the results from a randomised control trial in Western China that offered free glasses to rural primary school students. Almost 10% of primary school students in these areas have poor vision, but very few of them wear glasses. The authors find that wearing glasses for one academic year increased the average test scores of students with poor vision by an amount equivalent to 0.3 to 0.5 years of additional education.

That is a massive economic return to a small investment, which should raise the question: Why don't parents make this investment themselves? For poorer families, it seems that glasses are still too expensive. But other factors matter too: parents often lack awareness of their children's vision problems, and it seems like girls are more likely to refuse wearing glasses. Maybe it's time to introduce more glasses-wearing female characters in children's programmes. (Apart from 78-year-old Carl in *Up*, I can

think of few Pixar/Disney movies with a lead character who wears glasses.)

This type of research allows policymakers to identify the low-hanging fruit of development. Whereas more textbooks, or higher teacher salaries, or even deworming programmes (all policies that have been tested in schools) can be expensive, free glasses will, with a small initial investment, yield large returns for the (often marginalised) individual and society.

Initiatives to improve health can have many other benefits too. Randomised control trials have been done on the impact of everything from washing hands and better toilets, to home-visitation programmes for teenage mothers and promotion programmes aimed at reducing open defecation.

South African researchers are making progress in identifying the low-hanging fruit for local communities. Ronelle Burger, Laura Rossouw and Anja Smith, three researchers at Stellenbosch University, are investigating the impact of the **Thula Baba Box**, a box filled with baby products, clothes, information brochures, basic medicines, toys and other items, given to young mothers. If the results show a large, positive impact on maternal and child health, there is no reason why the Thula Baba Box cannot be provided, free of charge, to all mothers in the country. Not only is it morally just, but it is a clever investment strategy too.

Sometimes, though, the low-hanging fruit can be as basic as a cup of tea. A new study by Francisca Altman of the University of Colorado-Boulder investigates the custom of tea drinking in 18th-century England. One of the unintended consequences of tea drinking, which happened even among the lower classes, was an increase in the consumption of boiled water. She finds that regions in England with lower initial water quality had larger declines in mortality after tea drinking became widespread. This “accidental improvement” in public health, she argues, happened at the same time as people were moving into cities, thus providing a healthy pool of labour needed for industrialisation.

The next time you sit down with a cup of tea and a good book (remember those glasses!), remember the profound effect those simple “technologies” have had, and, with the help of researchers and government funding, is still likely to have in much of the developing world. ■

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Thula Baba Box, founded by Ernst Hertzog of Action Hero Ventures, and Frans de Villiers.

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