What did sociologists ever do for us?

I have just discovered that I am a baby boomer. Actually, that is not quite true; of course I knew I was born during the period that defines the boomer generation (the late 1940s to early 1960s, although sociologists argue over the boundaries), but I had not appreciated that my boomerhood defines the way that I think and react.

You see, boomers in the UK and western Europe were raised in a time of postwar rationing by parents who had gone through the deprivations of the war. Hence, from an early age, we were instilled with a tendency to clear our plates at meals, despise waste, prefer to make do and mend, and expect to save to afford what we want to buy. On a more positive note, we boomers recognize the value of education as a way to make the best of life, and accept that those who achieve deserve to be rewarded.

But what of those who just missed out on being baby boomers? Sociologists call them Generation X. Born somewhere between the early 1960s and the early 1980s, Gen-Xers are more nihilistic as a result of their experiences of recession, the Vietnam War, the Winter of Discontent in 1978–1979 , and the stock-market losses of the late 1980s. However, they also experienced the impact of human-rights activists challenging the status quo: think of Nelson Mandela and Amnesty International. Gen-Xers value personal freedom, and at work they look for job satisfaction and a work–life balance. They are prepared to invest in things they value and they also enjoy treating themselves to nice homes, smart cars and good holidays. Finally, they actively seek out the fun side of life and believe they deserve "me-time" (this is why "activity days" and spa outings are currently so popular) to contrast with the negativity that underpinned their early experiences.

This is all well and good, I hear you say, but what does it have to do with physics? Well, the fact is that realizing how generations are influenced by world events in their formative years (and by the approaches taken in their upbringings) has suddenly given me an insight into why young people have not been persuaded to study the physical sciences beyond secondary school for the past 10–15 years.

Because, you see, the present generation of school and university students is Generation Y. Born from the early 1980s onwards, members of this generation have been very fortunate. Until very recently, they have enjoyed the fruits of a booming economy. At home, they have been indulged by their boomer and Gen-Xer parents. Gen-Yers have been the centre of their parents' attention, with a comprehensive programme of clubs and activities set up for their delectation: think violin lessons, gymnastics, trampolining, drama classes. From an early age they have been given choice: picture two year olds being asked "Do you want chicken nuggets or burgers for dinner?".

The social life of Generation Y children is hectic, possibly because Generation X and late-boomer parents are often dual-career families who feel the need to organize "quality time" for their offspring.The result is that the Gen-Y child craves continuous stimulation, is unable to organize his or her own time, and often hates being alone. Being part of a thriving social group is essential. For a Gen-Y child, the universe revolves around them: they expect choice and they expect to negotiate terms, whether for bedtimes, allowances, school subjects or careers.

Sociologists have studied these different generational motivators. They have found that, when asked, Generation Y youngsters say that the most important thing for them is to be famous, with being rich running a close second. This stands in sharp contrast to Gen-Xers, who put job satisfaction and "me-time" at the top.

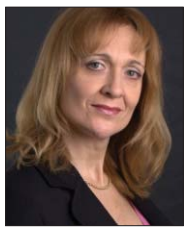


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For the future of physics, these differences are crucial. When we try to increase the number of youngsters choosing to study physics after age 16, we are effectively "selling" them the subject and hoping to change their behaviour. Simple marketing theory states that to change behaviour you have to address your audience's motivators, but this is where we have been failing.

When Gen-Xers talk to Gen-Yers about how physics is interesting, exciting, fascinating and offers job satisfaction, we are not addressing their motivators. Gen-Yers will enjoy the "fun demos" and the hands-on activities – after all, they crave stimulation and have always had their time organized – but enjoying the event and finding it interesting does not mean that they plan to change their behaviour and subject choices as a result. A Generation X person may be persuaded by these arguments, but a Generation Y person will not. If we really want to communicate with Gen-Yers in terms that they appreciate, we should talk in terms of physics being an important and communal activity that offers high status and well-paid jobs. These are Generation Y motivators, and this is the message they need to hear.

I do not advocate stopping all those whizz-bang outreach activities, but if we want to change behaviour and attitudes to physics, then we have to do other things as well. To go back to marketing theory, "you can only sell benefits, you can't sell features"; we need to "give them the message they are seeking to hear". Physics has benefits that appeal to our Generation Y students and they are waiting to hear the message. Let's give them the good news!



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