

Chapel Talk
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Thinking outside the Box

This winter, I had a chance to listen to physicist Brian Greene, one of my heroes, describe a rather unusual encounter with a five year old. Greene, who makes his living theorizing about string theory and the unified theory of the universe, decided to go back to a kindergarten class and quiz the students on their mathematical prowess. Perhaps overestimating their ability a bit, he asked them about division, specifically he asked, "How can you put three into six?"

Then one kindergartner stood up, walked to the board, drew a big six and then drew a small three inside the six.

Greene relayed another story about a teacher overseeing kindergartners who were drawing. The teacher approached one boy and asked, "What are you drawing?"

To which he replied, "I am drawing the face of god."

The teacher asked, "How are you going to do that, no one's seen it before?"

Nonplussed, the child replied, "In a minute they will."

Now you may laugh at the absurdity of these children's ideas, but Professor Greene believes that the behaviors these children exhibit is essential to the future of science. In his words "our emphasis on being right confines us to a limited corridor of reality - the best scientists are the ones who never lose the sense of child-like wonder, and the ability to explore and go forward."

We call it “thinking outside the box”—and it’s something most children do quite naturally. But what does it mean to think outside the box? And why is it that by the time kids become adults, “thinking outside the box” is so rare?

Perhaps we can shed some light on this by looking at what it means to think “inside the box.”

We think inside the box when we consider a place like St. Andrew’s to be simply a school, where students come to learn, and teachers come to teach.

We think inside the box when we approach a test question simply by looking for an answer rather than understanding.

We think inside the box when we see elected positions like Residential Leader, and president of the Honor Committee as the only way serve as a leader in this community.

We think inside the box when decide that that we can’t do well on an English paper because we are not a “humanities person,” or that we can’t truly understand a scientific concept because we are not a “math/science person.”

We think inside the box when we assume that the colleges we have heard of are the best for us and that four years spent on one of those campuses will be a ticket to happiness, success and fulfillment.

But given all the choices we face, it’s easy to see how our thoughts and aspirations can be confined to such a small corner of reality. It all makes sense when you consider all the demands placed on our time and imagine the countless number of decisions we must make every day.

A few years ago, I spent a day at The Hill School, shadowing a young woman as she went through what was probably for her a typical day. For me, it was anything but. I struggled as we dashed from class to class, and just as I felt I was getting the hang of the math lesson,

suddenly we were off to Spanish class, where I literally had no idea what the teacher was discussing, but before I could really be bothered, we were off and running to a voice lesson. With almost no warm up, the young woman I was shadowing began to sing in tune. It wasn't until four class periods had gone by that I was able to stop my host just for a moment to point me in the direction of a bathroom. I kept wondering when I would get a break, but it never seemed to arrive - a mid-morning chapel seemed only to provide my host a moment to catch up with all of her friends, and for me a moment of self-reflection to wonder if I could make it through the rest of the day. How, I wondered, does she do it? She seems to magically be able to shift her focus from algebra to the Spanish subjunctive, and then from the finer points of a musical solo to the latest goings on in the social lives of her friends. Somehow she seemed to juggle all these demands almost effortlessly with the aid of color-coded binders and a daily planner, but does she ever find time to reflect, relax and think outside the box? At the end of the day, as I left to drive back to St. Andrew's, and she left for basketball practice followed by musical rehearsal, I couldn't help but wonder if something was missing. If our daily lives present us with almost no time for introspection, how can it be possible for us to find the time to step out of our limited corridor of reality?

In his latest book, *The Paradox of Choice*, Barry Schwartz chronicles this phenomenon of "choice overload" with a trip to his local supermarket, where he is faced with "230 soup offerings, including 29 different chicken soups. 22 types of frozen waffles, 285 types of cookies and 20 different kinds of goldfish crackers." The choices are staggering, organic, semi-organic, free range, no preservatives, low fat, no fat, sugar free, diet, low calorie, no calorie. It all reminds me of the paradox of Buridan's ass that Mr. Goldsberry presents to his sixth form philosophy class - where a mule, faced with two equally wonderful piles of hay, will starve to death because it cannot choose. Even though I always manage to free myself of this dilemma when I am shopping at Acme, I still shudder at raft of unimaginable choices that face me every day. Did you know that Amazon sells more than 100 versions of Hamlet, including one in Klingon? Did you know that there are over 4,000 four-year colleges in the U.S. to which one could apply? How can you possibly learn enough about any of them to find 10 to which you will apply? Schwartz's argument is that this overwhelming number of choices is ultimately detrimental to our psychological and emotional well being, creating decision-making paralysis, anxiety, and perpetual stress.

And ultimately, I would claim that all of these choices distract us from the real choice we have of choosing whether to think inside or outside the box.

We as humans have devised a vast range of strategies for managing the demands on our time and endless choices we face every day. We have schedules, daily planners, Google, and “best” lists that rate everything from applesauce to colleges in order to help us to choose. Armed with these tools, we are able to navigate the well-trod path through our daily lives, moving from class to class without having to give too much thought about what it is we are actually doing.

But in this process, we also reduce stories to numbers - an 85 is not good enough, overlooking the satisfaction that can be found retracing and improving the argument of the paper; a 6:50 on the erg is a mark of distinction, forgetting that erg scores alone don't make boats move; and wouldn't it be nice to go to a school ranked in the top 10 on US News, without thinking how ridiculous it is to try to rank something as complicated as a college in the first place.

All of this leaves us unable to step outside our narrow corner of reality, afraid to risk making the wrong decision, unable to “think outside the box.”

And to Brian Greene, this doesn't bode well for science, or for humanity, for the greatest challenges we will face in the future will require us to think outside the box - picture global warming, the plague of AIDS, and the need to address global poverty.

But after this year, I think St. Andrew's has shown us a way to overcome this challenge, and in the process, given me great hope for the future. While I think every year I've spent at St. Andrew's as remarkable, I believe this past year has been particularly extraordinary, especially if one is looking for opportunities to transcend the narrow corridor of reality. Almost continuously, this community has worked to raise its global consciousness. We have been presented with opportunities and role models from every corner to help us escape the

confines of the busy, disconnected, self-centered reality that draws us in. Instead we are pushed enter a world of ideas where we are empowered with an ability to change the world.

This year, we have been presented with opportunities to leave campus to engage some of the most notable speakers of the day, including Cornell West, one of the leading scholars on African American History and Culture, Richard Clark, a former counterterrorism advisor to President Bush, and Gloria Steinham, one of the founders of the feminist movement. Just last week we were inspired by two young alumni who have returned to campus to tell us how they are using their St. Andrew's educations to make a difference in the world. John Eisenbrey described how he's built upon the science education he gained at St. Andrew's to aid the development of a novel form of chemotherapy, and Ewurabena Hutchful, who last Friday came to invite us to join her in an effort to fight world hunger. Each of these small moments, savored by a few students and faculty make it more possible for us to re-envision our reality.

Then there were the shared moments, the special programs that opened up vast new vistas for the entire community. Alan Lightman showed us that there it is possible for the sciences and humanities to co-exist in a way that is mutually enhancing. Michael Abelman challenged us to think critically about the food on our dinner plate and make an effort to reconnect with the farmers who work to bring it to our tables. Lani Guinier invited us to re-examine the mine that is college admissions, recognizing that the usual debate on affirmative action is a tired one, and offering you, the student, a perfect blueprint for transforming the entire landscape of college admissions. What if you followed up on her ideas? What if you researched Fairtest, the national organization working to end the misuse of standardized testing and to devise ways of evaluating students that are fair, open and educationally beneficial? What if you joined their effort as the first Delaware representative, and drew other students from around the country into the cause? Imagine including a polite letter in your college application asking the college not to judge you by your standardized test scores, but instead by the English paper you've just included. Now imagine inspiring your peers from schools all across the nation to do just the same, drawing the attention of the national media. Could you, one student, transform the entire college process?

If you think this impossible, then you have not absorbed the message of Paul Farmer, perhaps the single most transformative moment I've witnessed as a part of this community. The energy of that night was palpable - each of us saw in Dr. Farmer a completely new paradigm for leading our lives. Dr. Farmer's passion and optimism are contagious - here is a man who seems to be driven by a single unifying purpose to improve peoples' lives by bringing quality health care to those most in need, and to serve as an "antidote to despair." As many of you know from reading Tracy Kidder's book, this purpose guides every aspect of Dr. Farmer's life, from how he chooses to live in a tiny apartment in Boston, to how he sees obstacles in his life merely as the beginning of a conversation, rather than an end.

I think this approach - centering one's life around a deep desire to make a difference in the world - is the recipe for how we break free from the narrow corner of reality that seeks to confine us. I'd like to imagine that Paul Farmer, and the many other "outside the box" thinkers out there, are able to overcome the busyness, information glut and paralyzing choices by shaping everything they do around a desire to make a difference.

Imagine if you were to do the same. What if you tried to take everything you are doing now, and connect it to the desire to change the world? First, you'd need to identify exactly how it is you want to change the world - not an easy task. And you might be tempted to think that here again, you are faced with a paralyzing number of choices - should you work to make a difference by fighting AIDS in sub-Saharan Africa, or working as an investment banker with a great passion for donating money to aid public school systems? But here the real choice you are making is an easy one: would you rather spend your life overwhelmed by the numbing choices of consumerism - which is the best frozen waffle to buy from the grocery case; or facing choices that are empowering, uplifting and life transforming - choosing to change the world?

And in this rich environment of St. Andrew's, opportunities to make a difference seem to pop up almost magically. Consider the incredible work done by students to organize three busloads of students to travel to Washington DC for the Rally to Save Darfur, or a recent email Mr. Gilheany sent to the junior class inviting them to join him in an effort to develop a homeless information card - a small card that you could offer to the next homeless person

you encounter on the street, giving them information on nearby shelters, food and health services. Astonishingly, such cards exist only for a few cities in the US - could you create one for your hometown?

Once you select how you will change the world, you can then focus on the choices that matter, and you will be surprised just how quickly the busyness of your daily life will give way to empowering purposefulness. Suddenly, the English journal you are writing has meaning far beyond your grade - your ability to remove yourself from your own experience, and connect with that of a character in the novel while critically analyzing the diction of the author will be allow you to better empathize with others who you are trying to help, or enjoin in your cause. The work you are doing in pre-calculus to study exponential growth and logarithms will be critical to understanding the numerous challenges facing our world, from the melting of the Greenland ice sheet, to the staggering 900% inflation that is currently devastating the citizens of Zimbabwe, raising the price of toilet paper to over \$417 per sheet.

Perhaps more importantly, structuring your life around a purpose like this will force you to examine all the moments of your life where you are just “busy” for no particular reason. You will learn to challenge everything you do with the ultimate question, “how will this help me to make a difference?” Some things, like understanding the meaning of imaginary numbers, or the form of iambic pentameter might not be immediately obvious - and these are fruitful moments for you to engage your teacher, politely and genuinely, with the question “what is the point?” But then, be ready to listen and work with your teacher to find the answer - often, there is much to learn simply by studying how your great minds in the past have thought outside the box by devising new poetic forms or systems of numbers. Some things in your daily life will also not stand up to this questioning, and you will discover that they are merely fillers that prevent you from reflecting more deeply on what matters to you, and distract you from forming stronger connections with others.

Above all else, you must develop a desire to sustain this commitment, since almost assuredly you will not change the world in a single hour, day or even a year. Imagine if Paul Farmer had decided to redirect his focus just after helping his first patient, or building his first clinic? How easy would it have been for him to simply return to Boston, with the feeling of great

satisfaction knowing he'd made a difference, and then wrap himself in the comfort of the Harvard Medical School and hope that others might carry his cause forward?

The challenge you face is similar - here in this magical place, each of us has been presented with a virtually limitless number of ways to change the world, and a large cohort of friends and mentors willing to help us. If you listen at all to Mr. Roach, the choice is clear; the tremendous opportunity St. Andrew's gives us carries with it an equally large obligation to use this opportunity to change the world. But at the same time, the world around tries every day to push us back into that narrow corridor of reality, filling our schedules with busyness, dazzling us with information from every corner, and overwhelming us with superficial choices to be made. And yet, the solution is equally clear if you listen to Paul Farmer - let these obstacles be the start of the conversation, rather than the end, focus on making a difference, ask meaningful questions, stay committed to your cause, and approach each day with a sense of child-like wonder.

Finally, as I prepare to head off to an unfamiliar city, a new school, and begin a marriage with a person I love, I want to take a moment to thank you - the students and faculty of St. Andrew's - for the past eight years. The strength of this community has inspired me each and every day. Individually and collectively, I have been moved by your energy, your wisdom and your friendship, and I know the person I am today, even the thoughts I present to you tonight, would not have been possible without the magic of this place.

Thank you.