



Meaning, Happiness, and Science

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- First I want to express my deepest gratitude to the College and University for the honor of holding the Roesch Chair. I hope my efforts in the next four years will enhance the position—and the social sciences—at UD.
- I don't mean to launch any personal, existential crises—especially not this late on a Friday afternoon. But I'll start by asking: *Who are we? Why are we here?* What are we doing? What *should* we be doing? What would we *like* to be doing? How should we *think about* such matters?
 - You'll be happy to know that I have the answer to those questions. But you'll have to stay till the end of my talk.
 - Ultimately these questions about meaning and happiness are about the question: What is a good life? For thousands of years, philosophers have contemplated the notion of *eudaimonia*, which can be interpreted as “human flourishing.”
 - The words “meaning and happiness” don't capture the *full* force of *eudaimonia*. But as the philosopher Owen Flanagan has pointed out, meaning and happiness are two key *ingredients* of *eudaimonia* that are especially amenable to *scientific* study.
 - Nearly 2400 years ago Aristotle provided a definition of *eudaimonia*. In a nutshell, his equation was this: *eudaimonia* = pleasure + *arete* (or, roughly, excellence of character) + leisure + luck. Leisure and luck come first; without them, it's hard to have a life of pleasure or other, higher aspirations. Throughout this talk I'll make reference to this formula as it relates to findings from modern scientific research.
- Historically the academic world has left the topic of meaning and happiness up to the humanities and arts: philosophy, religious studies, literature, poetry, art, history, etc. But increasingly science has had something to say.
 - I don't think the sciences are, should, or even could replace the humanities on these matters. Meaning and happiness are *big, enduring* questions, and there's room enough for everyone.
 - So I am calling for a *transdisciplinary* study of meaning and happiness. Transdisciplinarity, as described by physicist Basarab Nicolescu at UNESCO, goes beyond interdisciplinary research by aiming to integrate the various disciplines and their multiple methods and points of reference toward a more comprehensive knowledge about life's big questions and how they shape our everyday lives.
 - As I see it, every discipline in some way addresses a piece of “what's important in life.” Not just the humanities, arts, and sciences, but education, engineering, technology, business,

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law, medicine, health sciences, and more. Yes, some of us are studying the topic of meaning and happiness more explicitly, but all the disciplines are working on topics that promote human flourishing in the 21st Century.

Science

- When you think of scientists talking about meaning and purpose in life, the likes of Stephen Hawking or Richard Dawkins might come to mind—physicists who study the origin of the universe or biologists who study the origin of our species. That’s one way to study meaning in life scientifically, to study physical origins. But such meanings and purposes are often more abstract and distal than the meanings and purposes that people use to make sense of and guide their everyday lives.
 - The interdisciplinary field of neuroscience is increasingly studying meaning and happiness. With brain imaging and neurofeedback, they’re mapping out what the brain does as people think about their lives abstractly. Perhaps you’ve read in the news about studies with monks and meditators on the control of attention and emotion.
- But I want to talk about another scientific approach to studying meaning and happiness in life where the focus is on how meaning and happiness *function*, how they work, and what makes meaning and happiness likely to *appear* or *disappear* as we do things and share things and make decisions in *everyday life*. It’s the approach of the *social sciences*.
 - Now, I envisioned a little groaning at this point, something like: “When Bauer said, ‘Meaning, Happiness, and Science,’ I thought he meant *real science*.” I envisioned the look my daughter Grace gives when she hears someone refer to me as “Dr. Bauer” and she says, “He’s not a *real doctor*.”
- I understand the skepticism in the general public, and even in academia, as to the scientific status of social science.
 - So as part of my new role here in promoting the social sciences, I’d like to note, first, that *science is not simply the study of planets, plants, and protons*. Things are not “scientific.” Painters and poets study planets, plants, and protons, but for other purposes, namely art, not science.
 - The problem is measurement. Can you *really* measure meaning and happiness as reliably as planets, plants, and protons? Well...of course not. It’s not even close. But can we measure them reliably enough to make predictions and explanations about everyday life? Certainly.
- One hindrance to a science of meaning and happiness is the fact that they are *subjective* interpretations. But so what? Social scientists aren’t interested in capturing the first-person *feel* of subjective interpretations. We’re interested in third-person predictions and explanations of their presence and functioning. However, this demands that we observe and measure the first-person interpretations in the first place.
- Consider these three points about subjective phenomena, such as thoughts and feelings or meaning and happiness:
 1. *Subjective* phenomena are *natural* phenomena. We don’t have to be transported to some parallel universe to recognize thoughts and feelings. We can observe them and study them as they happen.
 2. Subjective phenomena are not random. We don’t interpret an event to mean just *anything*. We don’t feel happy in response to just *any* event or just *any* interpretation. Some interpretations are more *likely* than others, sometimes due to the situation, sometimes due to the individual person. This opens the door for systematic study.
 3. Subjective states *cause* objective events. Do me a favor: Wiggle your fingers like this [wiggle fingers] [be sure to take a photo]. You had a thought, and you turned it into an action. This is what goals do, they’re subjective states that elicit action. We can

- measure goals (just ask: what are you trying to do? wiggle my fingers) and then measure what happens next. Here's the photo.
- Of course, our methods in the social sciences are much more sophisticated than that!
 - The social sciences—particularly psychology, sociology, anthropology, economics, political science, social work—have developed a vast range of reliable, replicable measures of all kinds of subjective phenomena, including meaning and happiness.
 - Happiness is easy. You simply ask people “how happy are you?” in various ways and have them indicate on a scale of something like 1-10 or 1-7 how happy they are.
 - Yes, the reports subjective, but they can be measured quantitatively, consistently, and reliably over time. They have good statistical properties. And what's more, they predict things. These measures of happiness can be correlated with other quantitative measures: income, age, residence, brainwave patterns, heart rate, political beliefs, beliefs in God, shoe size, your prom date's shoe size, you name it. Plus, you can experimentally manipulate people's positive moods in the short term—just play music in the key of C.
 - Now, subjective thoughts are not always rational. But they're often systematically irrational. Research psychologist Daniel Kahneman not long ago won the Nobel Prize in economics for demonstrating how consumers' behaviors are far from rational, such as people spending more money on gas than they saved, after driving all the way to a station with lower prices.
 - But so what? What can we learn? Can it help make the world better? I think so.
 - I'll try to show how by focusing on eight problems of meaning and happiness in contemporary society, and how social science can help understand them and possibly help correct them. The problems are:
 1. Not having enough money
 2. Having enough money
 3. Genes
 4. Free time
 5. The Internet
 6. Balance
 - 7 & 8. Fundamentalism and Scientism
 - There are other problems of meaning and happiness in the world, but these are all you get to hear about today. Actually, I won't even get to the last two. So just beware of both fundamentalism and scientism.

Problem #1: Not having enough money

- Foremost among the problems of meaning and happiness is the sheer number of people on the planet and in our community for whom meaning and happiness are scarcely options for consideration. I'm referring to people living in poverty, which ties readily to systematic forces of dehumanization and denials of basic human rights.
- The social sciences have produced a wealth of information on poverty and eudaimonia. What do we learn?
 - When it comes to happiness, money matters—at least for those living in poverty. People who routinely don't have enough money for food and shelter are less happy on average than people who do. This is true around the world, whether studying individuals within a country or country-to-country comparisons.
 - Of course, one can be poor and happy. But it's not the norm. The notion of the happy peasant is an anomaly; it simply doesn't stand up to the data.

- Just like Aristotle said about leisure time and Maslow said in his hierarchy of needs: If you're struggling for physical survival, it's unlikely you'll be able to focus on maximizing things like pleasure and personal growth. Such concerns are luxuries.
- Here's where social science can help: Social-science measures of well-being and human rights are increasingly being considered in measuring economic activity.
- Amartya Sen, a philosopher and winner of the Nobel Prize in economics, is a great example of someone who's integrating ideas across the social sciences and humanities.
 - I'll try to summarize. Sen advocates a free-market economy in which policy-makers and consumers understand that the purpose of economic development is freedom. Economic growth creates freedom, and freedom creates economic growth. But it works in reverse too. Where poverty reigns, so do unfreedoms in the form of systematically lessened capabilities (think education), which then hinders the potential economic growth for society as a whole.
 - He has helped develop instruments like the Human Development Index—which measures GDP but also life expectancy and literacy. The aim of such measures is to boost both economic growth and the *possibility* of eudaimonia for *all* individuals.

Problem #2: Having enough money

- Now let's look at money and happiness beyond the poverty line. Ancient wisdom says that money can't buy happiness. But as it turns out, more money actually does relate to more happiness. So what's the problem? The money-happiness relation is nuanced and makes us question where to place our efforts.
- Nuance #1: Beyond the poverty level, *huge increases in income correspond to very small increases in happiness*. Economists have shown that it takes an increase of about \$75K per year to coincide with a just-noticeable difference in happiness on average. The rich *are* on average happier than the middle class, but only by a small margin (there's a lot of overlap).
- Nuance #2: *Sudden increases in happiness generally don't last*. Basically, people adapt. On the hedonic treadmill (or let's say the hedonic stairmaster), with each small gain we change our expectations to want more, keeping us right where we always were in terms of happiness.
- Nuance #3: *Happiness can buy money*. We usually assume the causal direction works the other way—that higher income *leads* to higher happiness. However, the reverse is also true: Longitudinal research, that is, studies that track the same individuals over time, shows that increases in happiness *lead to* increases in income. Also, happy people now make more money later, controlling for present income.
 - Why might this be? Well, research shows that people who are happier can more easily get others to like them *and* their work. Not only that, but happier people think more optimistically about the future and are more likely to invest accordingly.
- Nuance #4: *If you don't think money buys happiness, then you aren't spending it right*. This is the title of a recent article from the field of consumer psychology, which is often housed in schools of business. Researchers there distinguish *experiential* purchases from *material* purchases. Experiential purchases are activities, material purchases are things, and here's the difference: Spending \$100 on a baseball game or a concert is more likely to bring lasting happiness than and spending \$100 on a pair of shoes.
 - Consider studies in which people are given some money and are randomly assigned to one of two groups: one has to spend it on activities, the other has to spend it on things. After time passes, people answer questions about their purchases. People in the activity group are found to reminisce more about the *activities*, find more meaning in them, grow tired of them more slowly, and (this one's especially important) share them more with others.
- Nuance #5: *It's not what you do, it's why you do it*. And if you want to be happy, the *reason* to do things is either that you like doing them or that you want to share them with others. In

study after study, in every age group and around the world, we see that people who emphasize intrinsically motivated values in their life—like meaningful relationships, helping others, and pursuing interests you just love to do—are happier on average than people who hold extrinsically motivated values—things that derive value from external appraisals, things you do to gain *status* or others’ approval. Essentially it’s a matter of humanistic versus materialistic values.

- Now, when it comes to any one major life decision like choosing a career or a life partner, people of course have multiple, often conflicting motivations, including *both* intrinsic and extrinsic concerns. What seems to matter for predicting happiness is the *individual’s relative, subjective emphasis* on one or the other.
- So back to the economy. Noting all the research that shows income’s diminishing returns of happiness beyond the poverty line, psychologists Ed Diener and Martin Seligman have proposed that the U.S. include measures of well-being as key economic indicators.
 - They write: “Economic indicators omit, and often mislead about, much of what society values.”
 - Here is some of their rationale for how measures of well-being could make for better economic policies and decisions: Happy people earn higher incomes. Happy workers are more productive. Happy workers are better organizational citizens, and organizations with happy workers have happy customers. Happy people are healthier and they live longer (and it’s not just that healthy people are happier). Happy people have stronger support networks (again, it’s not just reverse).
 - An undercurrent of their work is that the engine of the economy is people, and people’s subjective states influence objective results.

Problem #3: Genes

- The interdisciplinary field of behavioral genetics demonstrates a stark truth in Aristotle’s formula for eudaimonia. Remember how he said a good life depends in part on luck?
 - Well, it turns out a good deal of our happiness is (in part) genetically predisposed. This comes from research comparing identical twins, who share the exact same genes, with fraternal twins, who do not (plus, twins in both groups had been separated at birth and raised in different environments). It turns out that the identical twins have levels of happiness that are more similar than are the happiness levels of fraternal twins.
 - Plus, it turns out we have a *happiness set-point*, or more precisely, a range of happiness levels that we tend to stay in. This is part of what pulls our happiness back when we make more money. But on the bright side, it’s also part of what pulls us up when we lose it.
 - Jonathan Haidt, in his excellent book *The Happiness Hypothesis*, calls this “the cortical lottery.” Not that you’ve got a lottery’s chance of being happy, but that much of it is a matter of biological luck.
- Having said that, it’s very important to note that it’s not *all* genetic. You’ll be happy to know that there’s also research to show that people can alter their set-point long-term, and that they do this by changing their actions, not their circumstances. In addition, my colleagues and I have found that how people *interpret* and *plan* their lives now predicts increases in happiness years later.

Problem #4: Free time

- Here we’ll see that, even if we do have adequate leisure time to pursue meaning and happiness in life, that doesn’t mean we *actually will* pursue them.

- Joseph Campbell, the late literature professor and mythologist, said: “People say that what we’re all seeking is a meaning for life. I don’t think that’s what we’re really seeking. I think that what we’re seeking is an *experience of being alive*, so that our life experiences on the purely physical plane will have resonances within our innermost being and reality, so that we actually feel the rapture of being alive.”
- Well, some activities yield a sense of being alive, a sense of vitality, and some don’t.
 - Many of the ones that do have been called “flow” experiences by research psychologist Mike Csikszentmihalyi. Flow is the experience of being in a groove, being focused, being in the moment, where you’re performing optimally without being self-conscious or thinking about time. It feels effortless.
 - People who have high frequencies of flow experiences are happier and feel higher levels of meaning in their lives.
- Leisure activities that regularly produce flow include sports, movies, reading books, socializing, hobbies, sex, and work activities, even if you don’t like your job.
 - Activities that typically don’t produce flow include TV shows, idle time, and resting—all of which accompany a neutral mood, on average.
- Here’s the problem: People on *average* spend only 20-25% of their free time on active, flow-producing leisure. Why?
 - First, flow takes some initial effort. Flow activities are *challenging activities*—not excessively challenging, but not too easy either.
 - Second, flow activities are *structured*, with clear rules, yet *some* room for creativity.
 - So the problem with free time is that it is *free*. By definition it’s not structured. You have to take it upon yourself to put the structures in place. After a long day at work, it’s much easier to plop down and turn on the TV.
- So even leisure time is a problem for meaning and happiness. Csik has concluded: “The average person is ill-equipped to be idle.” (If it helps, ample leisure time for the masses is a relatively new phenomenon in history. Maybe we haven’t figured it out yet.)
 - But creating flow is a habit. Once the initial effort is spent and the flow kicks in, you’re back to feeling effortless. But unlike watching TV, when you’re done, you’re energized. You’ve had the experience of being alive.

Problem #5: The Internet (really, information and knowledge)

- A lot of free time these days is spent on the Internet, especially for youth but increasingly for every age group. A lot of that time is spent in social networking sites like Facebook and virtual worlds like Second Life.
- When Facebook first came out, I thought, like many in my generation and older: Who’s got time to record their every little action...and who cares anyway?
 - Actually, I haven’t got past that.
- But as a researcher of identity development, I also thought, “What a fabulous means for identity exploration!”
 - Identity exploration is the process of *critically examining* the beliefs and lifestyle that you’ve always had; it’s about stepping outside your comfort zone to learn about new ways of thinking and being.
 - So I envisioned an entire generation, the Millennial Generation, surfing the web and wading through Facebook, reading about all kinds of people and cultures and ways of life that they hadn’t previously known.
- When I looked for research on the topic, I turned to sociology—and was horrified. Sociologists have a term called “homophily,” which is the tendency for like to attract like. What seemed to be the case was that, far from exploring new ideas and life perspectives, people on the

Internet were drawn even more toward their own kind, toward ideas that served only to validate—not challenge—what they already thought.

- The problem here really isn't the Internet; it's about the future of critical thinking as a mechanism for meaning-making. We have more information than ever, but information is not knowledge, as so many public intellectuals have warned (first I ran across the idea: Librarian of Congress James Billington).
 - Martha Nussbaum, in her recent book, *Not for Profit: Why Democracy Needs the Humanities*, calls us to recognize that the value of education lies not merely in its ability to produce specialists in the labor force but also in education's ability to produce citizens who can think critically and humanely about complex issues.
 - Jaron Lanier, the computer scientist and innovator of virtual reality, advises us of one of the great dangers of social networking. He warns us not to become defined by how we present ourselves to others and instead define ourselves by something more internally driven.
 - This has been the call of the wise to the young since the beginning of history, from what I can tell. But it's good advice.
- On the bright side, the early research from the 1990s and early naughts showing how unhealthy the internet was seems now to be outdated. Yes, excessive use is dangerous, but by definition. And there may be an addition-like downside to the sense of flow we experience on-line. But it turns out there actually is some identity exploration going on.
- And what of the Millennial Generation, those born roughly in the two decades after 1980? Maybe you've heard about "Generation Me" as a way to characterize them. Research suggests that they're more narcissistic, anxiety-ridden, and cynical than others before it.
 - Other research suggests that, essentially, the kids are alright, that the differences are a matter of development: Every generation of youth is narcissistic because, as a matter of psychological, developmental fact, youth is a time of self-focus. The capacity for routinely focusing on society and the next generation generally develops later.
 - As for being more cynical and less trusting than previous generations, I interpret this as a sign that the younger generation *can* think critically and have a much greater awareness of the world than previous generations had.
 - I'll add that, despite their distrust, some researchers are calling them "Generation We"—a generation highly aware of and concerned for the plight of others—notably marginalized populations—as well as for the future of humanity.

Problem #6: Balance

- By the time you're talking about things like planning a life around flow experiences and how to create knowledge and identity in the modern age, you've probably got leisure and luck relatively on your side, and you're well into the territory of concerns over Aristotle's other two ingredients of eudaimonia: Pleasure and *arete*.
 - By pleasure Aristotle means roughly what we *today* call "happiness."
 - The word *arete* in ancient Greece means excellence, and in the context of a person's life, *arete* refers to something like excellence of personal character, or virtuous character.
 - *Arete* has also been interpreted as human flourishing or self-actualizing.
- For Aristotle and many other ancient Greek philosophers (Plato, Epicurus, the Stoics), these two go together: Excellence of character is *supposed to naturally bring about* happiness.
 - This idea persists today, but Philosopher Owen Flanagan notes that the idea is mistaken.
- Psychological researchers measure *arete* in many ways: complexity in moral reasoning, wisdom, perspective-taking, and how complexly in general one thinks about the self and others—call it *arete* in meaning-making.

- And the research shows consistently that these measures of *arete* do not correlate with measures of happiness. In other words, people who *think* complexly about the self and others are just as likely to be happy as not happy.
- In other words, *thinking* complexly about life and *feeling* good about it have little to do with each other. Eudaimonia involves a *balance* of the two. One does not *produce* the other.
- Research, including my own, has shown that happiness and *arete* in meaning-making develop independently in the life course, along separate paths. It seems that the conditions and personal concerns that foster happiness are distinct from the conditions and concerns that foster *arete* in meaning-making.
- Here’s a take-home message from that research: If you want to be happy, plan for a life focused on personally meaningful relationships and activities and contributing to society, not on appearances, status, and material things.
 - But don’t think that will lead to a deep understanding of life. Instead, if you want *arete* in meaning-making, plan for a life of learning and intellectual challenge, seeking new points of view. Research shows that such goals and actions are likely to lead to maturity or *arete* in meaning-making. But they won’t make you happy; you’ll just understand things more.
- There is a way to do both. In a nutshell: Plan for a life of learning and seeking new perspectives *on* the very kinds of things that bring about happiness—personally meaningful relationships and activities. Many studies have shown that people who do both end up with eudaimonia, both happiness and *arete*.
- If only life were that simple. The findings are clear, but making eudaimonia happen as you create and carve out life is, shall we say, less clear. And *that’s* if you’ve already got leisure and luck.
 - Now, at this point I would love to talk on and on, into your weekend, about how I do research on the murky world of meaning-making and happiness in the context of people’s actual lives.
- But I’ll spare you my rhapsody on the scientific study of narrative self-identity and instead just summarize: I study people’s life stories.
 - People create meanings in life as they create their self-identity in the stories they tell of their lives. People use *themes* to give these personal narratives meaning, the same themes that authors use to write fiction: Themes of *power, love, growth*. These themes tell us what the stories are *about*, and they can be studied systematically, reliably, and quantitatively.
 - Such measures may not capture the experience of the story or the person’s life, but they can predict how people’s lives turn out.
- And I won’t go on about *another* great research interest of mine, the problems of egotism and the benefits of transcending self-interest.
 - I mean, how much *meaning and happiness* can you be expected to take at this point?
 - I’ll just say that the research is clear: Individualistic self-interest is not even in your own best interest.
 - Transcending self-interest, which is to say, balancing the interests of the self and others—which you can experience in forgiveness, gratitude, humility, honesty, mindfulness, compassion, and identifying with people who aren’t in your everyday circle—these kinds of things predict happiness and meaning in life.
- What’s the underlying theme to my narrative today? As the Buddha said: “Our lives are shaped by our minds. *We become* what we think.”

- In other words, just as subjective goals guide our actions, our *subjective interpretations* of ourselves and others (and the behaviors they elicit) guide our happiness and meaning—our pleasure and *arete*—in life.
- ...with one important caveat: *If we have leisure and luck.*
- May we work toward a eudaimonia for every individual, a global human flourishing.

So in conclusion...

- If you're interested in any of these topics, and you are interested in being part of a transdisciplinary project on eudaimonia, particularly a *global* human flourishing, please let me know!
- We at the University of Dayton are well positioned to foster such a project. Just about every university has the goal of general *arete* or excellence, loosely defined. But the University of Dayton, particularly in its Marianist mission as I see it, has the goal of a particular kind of *arete*—a humane kind of excellence, an excellence in service of humanity.
- There are many scholars in this room and throughout UD who are working on this kind of *arete*. I would like to see that we capitalize on that fact—and to do our best to, as Studs Terkel said, “make a dent.”
- I promised you the meaning of life...
- At the end of the Monty Python *film*, *The Meaning of Life*, a woman, played by Michael Palin, says, “Well, that's the end of the film. Now, here's the meaning of life.” She's handed a golden envelope (thank you, Bridgitte), pulls out a letter, and says, “Well, it's nothing very special. Uh, try and be nice to people, avoid eating fat, read a good book every now and then, get some walking in, and try and live together in peace and harmony with people of all creeds and nations.”
 - So there it is, the meaning of life.
- So now I'll do my part to make you happy and end my talk