“The best and most beautiful things in the world cannot be seen or even touched. They must be felt with the heart.”

— Helen Keller
Dear colleagues,

Our September newsletter discusses “emotional diversity” — the variety and relative abundance of the emotions that humans experience. Two cross-sectional studies with more than 37,000 participants revealed that “emotional diversity” is a significant and previously unidentified metric of human health.* The ability to experience many different emotional states (e.g., joy, excitement, happiness, and anger, shame, and sadness) may have more adaptive value than experiencing fewer, more global states (e.g., feeling good or bad), as these specific emotions provide richer information and enable more specific adaptations to a given situation.

Emotions are the most powerful force of human beings. Have you ever tried to stop someone who must reach their loved ones? Love and passion are unstoppable! Job applicants are asked about their passion, because people who are passionate about their work are highly motivated, creative, productive and successful. However, negative emotions can be very powerful as well: For example, anger causes explosions! But channeled carefully, anger can create real change. Managing our negative emotions effectively is closely linked to our resilience. In the hospital environment, we will encounter strong positive and negative emotions of our patients, trainees and co-workers. Understanding how people feel can shed light on their actions, and enable empathy.

Our cultural background substantially shapes how we experience and express emotions. Some people think that emotions originate in an individual, while others think that emotions arise between people. In Eastern cultures, self-control is very important. In some Western cultures, open expressions of both positive and negative emotions are considered integral parts of interpersonal communications. Our emotions are deeply personal and yet shaped by culture-specific traditions, norms and values. Thank you for joining us in exploring the colorful facets of “emotional diversity” at Stanford Radiology!

Heike E. Daldrup-Link, M.D, Ph.D.
Associate Chair for Diversity
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THE HISTORY OF HUMAN EMOTIONS

The words we use to describe our emotions affect how we feel, says historian Tiffany Watt Smith, and they've often changed (sometimes very dramatically) in response to new cultural expectations and ideas. Take nostalgia, for instance: first defined in 1688 as an illness and considered deadly, today it's seen as a much less serious affliction. In this fascinating talk about the history of emotions, learn more about how the language we use to describe how we feel continues to evolve -- and pick up some new words used in different cultures to capture those fleeting feelings in words.


EMOTIONAL LITERACY

Marc Brackett, Ph.D., is the founding director of the Yale Center for Emotional Intelligence, a professor at the Yale Child Study Center and the lead developer of RULER, an evidence-based, systemic approach to social and emotional learning. He describes the basics of emotional literacy. As he describes in his lecture, emotions affect our attention, decisions and performance.

https://www.youtube.com/watch?v=t8UhRBwmvd4

HOW YOUR EMOTIONS CHANGE THE SHAPE OF YOUR HEART

“A record of our emotional life is written on our hearts,” says cardiologist and author Sandeep Jauhar. In a stunning talk, he explores the mysterious ways our emotions impact the health of our hearts -- causing them to change shape in response to grief or fear, to literally break in response to emotional heartbreak -- and calls for a shift in how we care for our most vital organ.

https://www.ted.com/talks/sandeep_jauhar_how_your_emotions_change_the_shape_of_your_heart/transcript

THE GIFT AND POWER OF EMOTIONAL COURAGE

Psychologist Susan David shares how the way we deal with our emotions shapes everything that matters: our actions, careers, relationships, health and happiness. In this deeply moving, humorous and potentially life-changing talk, she challenges a culture that prizes positivity over emotional truth and discusses the powerful strategies of emotional agility. A talk to share.

https://www.ted.com/talks/susan_david_the_gift_and_power_of_emotional_courage?language=en

EXPRESSING EMOTIONS

Some things cannot be done without emotion. The group “RocknMob” is known for creating flash mobs to cover songs by artists like Linkin Park, Bon Jovi and others. Complete with guitarists, bassists, drummers, vocalists, and even a violin player:

https://www.youtube.com/watch?v=fpFhEp9RUJA
Before I was asked to write about emotional diversity, I didn’t even know that this term exists. Logically, I had to do some research to understand the basics of what is been referred to as ‘emotional diversity’ (ED) or ‘emodiversity’ in short. From what I learnt, ED is the bandwidth or number of facets of emotions a person can express either positive but also negative. Websites about ED confront you with studies that have been conducted to investigate the meaning of this phenomenon. One of the major studies is from France and had enrolled 35,000! participants (how could I possibly miss such a large study?). The study revealed, that the capability to express fewer emotions is linked to depression. A second study in 10,000 Belgium participants revealed, that ED is closely related to health. People that experience a broader bandwidth of emotions were less likely to visit a doctor, spend less time in the hospital and require fewer medication. Finally, in a study with 175 participations, surveys were conducted over a time period of 30 days and blood laboratory values of inflammation were sampled at six months. This study revealed, that participants with a broader range of emotions had lower levels of inflammatory blood markers (IL-6, CRP and fibrinogen, for those who are interested).

However, these studies open up more questions for me than they answer. I am assuming, ED is multifactorial: intrinsic, extrinsic, inherited, acquired, developed, lost over time or degenerating and so on. The studies that are been used to explain ED seem to reveal something that is very obvious and expected. As in my nature as a scientist, any time I am hearing about results that are so obviously matching the expectations, I become skeptical. Where is the bias here, what is the cause and what is the effect? What are the determining factors for the numbers of emotions we can express? Can this number change over time and does it depend on the situation? Can ED be learnt, trained, forgotten or neglected? How does personal interactions affect ED? A person may for instance express fewer emotions to someone he or she dislikes, but may express a huge bandwidth of emotions to someone he or she loves at the same time. What is considered normal, where does pathology begin? What can we do, to improve our ED to become healthier?

Another important question is, what is the consequence of the different degree of ED in various people, but perhaps more importantly how do we interact with different bandwidths? An important aspect certainly is, how different cultures are dealing with ED. I therefore like to compare the two cultures I am most familiar with, the German and the American one.

You may find it interesting to hear, that the German way of expressing and interacting with ED is very straightforward. It is not uncommon, that if Germans are confronted with negative emotions, they become rude and might yell at you even at work or on the street. From my experience however, the Americans may easily express positive emotions but like to withhold the negative ones. Are we happier, if we can express all our emotions and sometime yell at each other, like in Germany, or is it healthier to be exposed to monopolar positive emotions like in America, that may raise our own mood and make us feel better (and
thereby perhaps healthier)? Are negative emotions better been hidden and discussed behind closed doors for instance during counseling? Do we need to express ourselves at any time even if this may be perceived as disrespectful and insulting?

Another interesting story perhaps is, that Germans may have difficulties with the expression of emotions of other cultures. A large number of foreign workers in Germany are from Turkey. People with Turkish decent for instance have a completely different way to express grief. To cope with the lack of understanding for the grief and wide range of ED of people from Turkey, in Germany I often heard the term ‘morbys mediterrane’. I wish I would have learned about ED earlier to help me understand that people from Turkey were not only allowed but expected to express a broader range of ED compared to Germans. My perception is, that the population and cultural diversity here in America has probably made people here more aware and sensitive for the intercultural differences of ED.

In summary, I think there is still a lot more to learn about ED to understand its nature and meaning and find ways to improve our overall wellbeing. At least being aware of it is the first step for a better understanding. We will certainly see more studies to be published on this topic in the future. As of now, the key message for me is, as long as we lack sufficient understanding of the phenomenon of ED, we must not be judgmental, but more respectful for each other's emotional diversity.

Christoph Becker, MD
Professor
Stanford Medicine | Radiology
I have always joked to my friends that I have become very “emotionally constipated” because of how I was taught to suppress my emotions. I was raised by Chinese parents who were born and raised in Vietnam with very different cultural values than myself who was born and raised in the United States.

My family had a tendency to have very one-sided values for emotions due to some of the archaic traditions that they wanted to preserve. Positive emotions such as joy are meant to be expressed and shared whereas negative emotions such as dissatisfaction are meant to be kept to yourself. This difference in culture became very evident to me as I grew up in a predominately white community. I was taught in school that communication is key and that properly expressing our emotions and opinions is what allows us to keep healthy relationships. However, at home I was taught that I should not voice my dissatisfaction to my authoritative figures because they knew more than I and that it would be very disrespectful to question decisions. With my two very contradicting worlds I ended up taking a compromise of living a double life for a while. At home, I would keep my emotional expressions to minimum. Only when I went outside would I allow myself to express my emotions without inhibition. As the years have gone by, my parents are much more integrated into the American lifestyle and they have become more open to communication. I have been able to sit down with my mother and vent frustrations and had lengthy debates about our opposing opinions.

After more conversations with my mother, I have come to a better understand the origin and tradition of emotional suppression. My family has had two generations of immigrants. My grandparents’ generation emigrated from China to escape communism. My parents’ generation fled Vietnam after the Vietnam War and arrived in the United States. Since each generation was met with adversity and constant criticism, they developed a defense mechanism that worked with their values. It is a very important in the Chinese culture that your emotions appear calm on the surface no matter how turbulent it may be under the surface. The calm and near emotionless disposition is associated with strength and stability. This would enable them to reassure themselves, as well as, showcase to others that they were doing well.

To this day I still have heated debates with my family about emotional suppression. What I have come to learn from my experience is that is it not good to bottle up emotions for an extended amount of time because it will take a toll on your mental health. However, expressing emotions without any inhibitions can also create an impression of an extreme non-conformist if you come from a background such as mine.

Moving forward, I continue to walk a delicate tightrope, trying to find a balance between expressing my emotions while respecting my family’s cultural values.

Jaime Tran

Administrative Associate to Sanjiv Sam Gambhir, MD, PhD
Stanford Medicine | Radiology
Recently, a woman came to see me in clinic because she wanted to know what to do about a mass in her colon. The mass had been identified “incidentally,” which is doctor-speak for saying “on accident.” She had gotten a CT scan for a completely unrelated reason and the radiologist who read the scan noted she had a thickened portion of her colon. This lead to a colonoscopy, which demonstrated a mass in the part of the colon near her liver. Normally, this would have lead quickly to a surgery to remove the mass, but in light of the new cancer diagnosis, another astute physician took a second look at that original CT scan and noted a spot on her spine. In view of the new scenario, that shadow was read as being “suspicious” for a cancer spot and so she underwent a biopsy that, in fact, showed cancer.

My team and I supervised getting that biopsy and so, the second time I had ever met this patient, I had to explain to her that what we thought was an easily-removable cancer that could very easily be cured was, instead, a metastatic cancer of which she would likely never be rid. That was Wednesday morning.

Thursday afternoon, my team and I eagerly noted that another patient would be coming to see us in clinic. This man had a terrible tumor removed some four years ago. His cancer was, right from the get-go, very high risk for relapse and we almost assumed it would come back. True to form, one year ago a CT showed enlarging spots in the abdomen that almost certainly signified the cancer had returned. We ordered a PET scan and it showed that, indeed, the spots “lit up” and were very likely malignant. We ordered a biopsy almost as an afterthought, but the biopsy did not show cancer cells. We reviewed the scans and found them just as suspicious and then spoke with the doctor who had done the biopsy and had him tell us he was “100% confident” he has biopsied the right spot. Unsure what to do, we decided to get another scan in six months. We did so and, to our shock, those spots that been growing had reversed course and spontaneously started shrinking. Whatever they were, they weren't cancer.

Cancer doesn't shrink just for the fun of it.

We told that patient about his scan on Thursday afternoon.

This is the paradox of being a doctor, and especially of being an oncologist.

I was asked to write this essay on “emotional diversity,” a term I’d never heard before this request. At first, I puzzled over what to say about this, but then it occurred to me that wading through the wide gamut of human emotions is oncology’s most basic currency. In a standard day of clinic, my patients experience fear, elation, suspense, gratitude, anger, affection, animosity, pain, relief, joy, and, sometimes, serenity.
Meanwhile, we are present for whatever they choose to share (in clinic).

I recognize, of course, that patients likely hide much of this from us, and that probably is as it should be. Even the small part of which we are privvy, however, is enough to make one’s spine tingle. It is as if each of us has within us a small temple where we keep our most private emotions, a place to which we usually invite only those we know and love most dearly--but, as doctors, we are invited into these temples all the time.

Those invitations are perhaps the most beautiful part of what we do.

I wish I could say I always do this perfectly, but, of course, that’s nowhere near true. Perhaps there is no perfect; perhaps there is only my level best. Perhaps the closest I will ever get to perfect here is to attempt to approach each of these encounters with the grace, empathy, individual attention, and presence it deserves.

“Emotional diversity” is, then, the beating heart of oncology. Beyond understanding the chemistry of a blood gas, the pharmacology of chemotherapy, or the anatomy of the biliary system, at its most basic I believe oncology reflects what is most fundamental about all medicine: that matters of life and death take us to the extremes of the emotional spectrum and that, when we travel to those little-visited and much-feared haunts, we need a guide who is competent, but also kind: someone who, if only vicariously, has walked this path before. Our first responsibility as physicians is to do all in our power to ensure the final emotions a patient feels on that path are joyous ones. But we are equally responsible for ensuring a patient can confront even the hardest parts of the journey of life with equanimity and the assurance that we as doctors and nurses will always do in all our power to care for them, whatever that means in the end.

Tyler Johnson, MD
Assistant Professor
Stanford Medicine | Oncology
Several months ago, a friend of mine gave me a book. The book was entitled: “How To Be Happier At Home.” I put the book on my bedroom shelf and didn’t think about it for a while. Recently, I had the sudden curiosity of reading it. Interestingly, I discovered that being happier in the places you live in (home, office) is not just a matter of making your place nicer and more comfortable. It is instead about bringing the right mindset with you more than anything else. I have come to realize that we may not always have the right mindset that we all chase, like to keep seeing the beauty all around you, even during the very rough day, or to be polite and friendly with people you share a lot of time with, even when they make you crazy. Those thoughts and positive emotions can be difficult to find and keep in our fast-paced world, but it is a little shift of perspective that makes a lot of difference. So lately, I have been trying to change my mindset and bring these positive emotions with me into my workspace, which I have been sharing with my colleagues. I noticed that the more positive feelings I have towards the people around me, the more people around me reciprocate positive feelings. They smile and laugh more often; they seem kinder and more agreeable. So, I came to this conclusion: playing a role in making our environment a better place to live is one of the most important things in life.

Lucia Baratto, MD
Postdoctoral Research Fellow
Stanford Medicine | Radiology
On the bright and sunny Sunday that was June 30th 2019, Stanford Medicine was represented in the San Francisco Pride Parade for the very first time!

Combined with Stanford University Pride, Stanford Medicine had a larger-than-expected presence. All units of Stanford Medicine were represented in this contingent: School of Medicine, Stanford Health Care, and the Lucile Packard Children’s Hospital Stanford.

This vivacious crowd of LGBTQ+ folks and allies was composed of staff, medical students, faculty, physicians, residents, nurses, graduate students, post-docs, family members, and friends. As we gathered and marched, the laughter and smiles were plentiful. The celebratory mood was contagious. The camaraderie was unifying and the positive energy was palpable.

This experience was as energizing and invigorating for the attendees as it was for the organizers. We look forward to many, many more Pride marches.

So be loud, and be Proud, Stanford Medicine!

Jose G. Vilches-Moure, DVM, PhD
Assistant Professor
Stanford Medicine | Comparative Medicine

The 2019 Stanford Medicine presence in the 2019 San Francisco Pride Parade was initiated and organized by Dr. Vinnie Alford (Post-doctoral Scholar, Stanford Institute for Stem Cell Biology and Regenerative Medicine) with the help of Robert Victor (Program Officer, SoM Office of Faculty Development and Diversity).
“The emotion that can break your heart is sometimes the very one that heals it . . .”

– Nicholas Sparks