



"Virtual peer networks" are displacing face-to-face interaction, eroding thousands of years of human development in showing and reading emotion, says William Bukowski, director of the Centre for Research in Human Development at Concordia University.

Showing your emoji to your friends

The rise of online friendships is having an impact on children's health and emotional development, says Concordia University psychologist

Social media has exponentially multiplied the number of friends we have, given young people networks of virtual contacts and turned the word "friend" into an oft-used verb.

But it's face-to-face relationships, starting early in life, that bring the greatest societal and personal benefits, including better health, studies have found. To William Bukowski, a professor in the department of psychology at Concordia University in Montreal, relationships among even very young children bring lifelong advantages that cannot be overlooked.

"Children's peer groups are a training ground for what they're going to experience in life," says Prof. Bukowski, who is the director of the Centre for Research in Human Development at Concordia. "The best predictor of well-being in adulthood is functioning with peers during childhood."

Personal contact is critical in an era of disbanded families and virtual connections, according to Susan Pinker, a psychologist, journalist and best-selling author. In her most recent book – *The Village Effect: Why Face-to-Face Contact Can Make Us Healthier and Happier* – Ms. Pinker contends that the uninterrupted time we spend with those intimately tied to us is crucial for learning, happiness and health. More casual encounters create resilience too, she says, making a rich in-person social life a more powerful predictor of longevity than exercise.

'We're losing some critical features of interaction that are essential – not only for our health, but also for how well we learn, how long we keep our memories and how we deal with stress.'

Susan Pinker
Psychologist and author

She and Prof. Bukowski are participating in "Connecting and Wellness: Your Brain Matters," part of Concordia's 2016 Thinking Out Loud conversation series, held in partnership with The Globe and Mail. The event takes place on Feb. 11.

Prof. Bukowski notes the importance of studying pro-social behaviour relationships and well-being in youth. People think of the primary

social context for children as the family, but many kids spend long hours in daycare and after-school programs, he says, "so they grow up in a peer-rich environment," which can help those in difficult family environments and set a course for what happens later in life.

"If you went into a bunch of school-age classrooms and tried to find the kids who have the least satisfactory relationships with their peers, those are the ones most at risk for problems during adulthood," Prof. Bukowski explains. "If you want to find out who's going to end up in a psychiatric hospital, who's going to end up in prison, who's going to get booting out of the army, who's never going to finish high school and who's going to be unemployed, the best indicators of these negative outcomes are measures of functioning with peers during childhood."

Positive behaviours emerge in peer relationships, he says, including various forms of co-operative skills. Kids develop empathy, work out what it means to get along with others and learn to derive positive features from relationships.

Ms. Pinker, a clinical psychologist, says her focus on the impact of face-to-face interaction was prompted by one of the findings in her previous book, *The Sexual Paradox: Men, Women, and the Real Gender Gap*. In every developed country, women live an average of five years longer than men, she discovered. One reason for women's increased lifespans is that most of them are deeply interested in establishing and maintaining social bonds through social contact. Notes Ms. Pinker, "Our social lives have a biological impact on us."

Talking to friends at a cafe, on the street corner, over the fence or on the porch – "the metaphorical village," she says – helps to preserve our memories and extend our life spans.

Ms. Pinker reinforces the benefits of the village effect by referencing a University of California study of 3,000 women with breast cancer, which found that those with larger networks of friends were four times more likely to survive. And among 50-year-old men who had had heart attacks, those with active face-to-face friendships were less likely to have repeat heart attacks than solitary men. "Research shows that men who have had a stroke are better protected from grave complications by friends than by medication," she says. "And the lowest rates of dementia are found in people with active social lives."

According to Prof. Bukowski, studies of children show that "the need to activate the body's stress response systems is minimized for those who are friended." Levels of cortisol, a hormone that helps the body deal with stress, are reduced in youths exposed to stressful experiences in

the presence of a friend. Friendship also provides security, he notes, and gives children a more realistic and positive view of themselves.

The fact that children now sleep with smartphones under their pillows means "virtual peer networks" are becoming more and more prevalent, points out Prof. Bukowski, who has begun research on "the digital self."

"Over tens of thousands of years, we have developed ways of reading people's emotions and understanding the effects of what we say and do," he says. This is something that is not possible to do via email or other electronic communications.

Ms. Pinker worries that among children, "screen activities" displace other kinds of interaction, play and learning. It's important to look at the advantages and trade-offs of different forms of communication, she points out, whether it's in person, on the telephone or by text.

"We're still at the stage of thinking that as long as you get your message across, it doesn't matter how it gets there," she says. "But we're losing some critical features of interaction that are essential – not only for our health, but also for how well we learn, how long we keep our memories and how we deal with stress."

She points out too that our "looser" social bonds with people we meet on the street, at the library or in the classroom are vanishing. "We have our close-knit contacts, we have our distant contacts, which are often on the Internet, but the middle layer has disappeared," she says. "Those relationships are gone." This, she notes, has a tremendous impact.

"When you communicate with someone face-to-face, give them a pat on the back, a handshake or a high-five, oxytocin and other neurotransmitters are released that affect your mood, your behaviour, your immunity and your resilience," she explains. "That downstream aspect of non-verbal interaction gets obliterated in most on-line communication. It just doesn't exist."

Ms. Pinker feels that today's virtual relationships are "a social experiment" with an unknown result. "We are more connected now than ever," she says, "but we've never been lonelier."

THINKING OUT LOUD

For more conversations between Concordia researchers and their public counterparts, check out the Thinking Out Loud conversation series and register for upcoming talks at concordia.ca/tol.

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JUST TALKING

A web of friends

Concordia University professor William Bukowski and author Susan Pinker explore whether real friendship is going offline



William Bukowski



Susan Pinker

Q Why is connecting with others so important?

William Bukowski: We're social beings and we function better with people than without people, even though that might not seem the case all the time.

Susan Pinker: Although we evolved as a social species, we're now getting farther and farther away from that. Just as our food got farther and farther away from organic and local, and now we're trying to move back, I think our social interaction is moving further away from the in-person contact we need to thrive. We may want to examine what we actually need to get through our day, to be happy.

Q Why is face-to-face contact critical?

Pinker: When you communicate face-to-face, a cascade of neurotransmitters is released that transforms you. Non-verbal communication, such as eye contact, touch and mirroring the other person's movements – what we used to call chemistry – has an impact.

Bukowski: You can pick up a lot of information face-to-face that you can't pick up in other ways. For example, you can see people's facial responses to things that you've said. If you don't know what kind of an effect you're having on someone else, that makes it more difficult for you to regulate your own behaviour. So non-face-to-face interaction denies us some important sources of information.

Q Do our social relationships improve our health?

Bukowski: I would argue that one of the most important characteristics of relationships is security. When people are threatened, a lot of bad things can happen physically. It can be a source of

preoccupation, [which] can lead to anxiety; secure relationships can be a good antidote to that. It's not entirely surprising that positive peer relationships that create a secure context for people put less stress on the body.

Pinker: The connection between real social contact and health is strong. You have a 2-to-15-year survival advantage if you get out regularly to share meals, play cards or hockey, or just meet for a coffee. You will live longer, on average, than loners. This research is incontrovertible.

Q Why and how should these connections start during youth?

Bukowski: Peer experiences are important for children because they provide opportunities for security, stimulation and ego validation. They do things that parent relationships can't do.

Pinker: Friendship teaches us how to get along with people – how to figure out their intentions and what their inner worlds are like. It gives us that essential sense of belonging and starts very early in life. When children play side-by-side with other children and use imaginary play to practise what might happen if they say or do things differently, they are rehearsing their social skills. Then they progress to playing games with other people, during which they learn how to negotiate and resolve conflicts, to take their turn, to absorb different points of view. You can't learn any of this without social contact, without friends.

Bukowski: These connections should always start during youth. This is a critical function of schools – to help kids develop group skills. It's also something that happens in daycares, sibling relations, neighbourhood experiences and so forth. These skills, like conflict resolution, are so important for functioning in the adult world.

William Bukowski is a professor in the department of psychology at Concordia University. He is the director of the university's Centre for Research in Human Development. Susan Pinker is a psychologist, journalist and best-selling author. Her latest book is *The Village Effect: Why Face-to-Face Contact Can Make Us Healthier and Happier*.