University of the Third Age

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The Smile

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It is impossible to persuade a man who does not disagree, but smiles.

Muriel Spark
“I just think a big smile and feeling confident makes you beautiful.”
“We all have our down days, but it’s not hard to smile and say “Thank you”.”
“Smile and gratitude will make you stronger.”
“The world always looks brighter from behind a smile.”
“A smile appeared upon her face as if she’d taken it directly from her handbag and pinned it there”
“Everyone smiles in the same language.”
“Worry less, smile more. Don’t regret, just learn and grow.”
“What Mary is when she a little
smiles,
I cannot even tell or call to mind,
It is a miracle so new, so rare.”

Percy Bysshe Shelly,
The Vita Nuova
Some songs with the word smile in the title

You’re never fully dressed without a **smile**, Sia, 2014

**Smile**, Uncle Kracker, 2009

**Smile**, Lilly Allen, 2008

**Smile** like you mean it, The Killers, 2004

When I see you **smile**, Bad English, 1989

Can’t **smile** without you, Barry Manilo, 1978

Your **smiling** face, James Taylor, 1977

Smile a little **smile** for me, The Flying Machines, 1969

**Smile**, Nat King Cole, 1954

When you’re **smiling**, Louis Armstrong, 1929
Smile
Nat King Cole
‘Hey, I’ve got nothing to do today but smile.’

Paul Simon
“A smile is the light in your window that tells others that there is a caring, sharing person inside.”
“A smile is like an instant facelift and an instant mood lift.”
“When you smile at someone, nine times out of ten the other person will smile back and you’ve made two people’s days brighter and better.”
THE WORLD ALWAYS LOOKS BRIGHTER FROM BEHIND A SMILE.
LIFE IS LIKE A MIRROR. SMILE AT IT AND IT SMILES BACK AT YOU.

Peace Pilgrim
A smile is formed primarily by flexing the muscles at the sides of the mouth. Some smiles include a contraction of the muscles at the corner of the eyes, an action known as a *Duchenne smile.*

Among humans, a smile expresses

- **Delight**
- **Sociabiliy**
- **Happiness**
- **joy**
- **amusement.**
A **Grimace**: to make an expression of pain, strong dislike, etc. in which the face twists in an ugly way.
It is distinct from a similar but usually involuntary expression of anxiety known as a *grimace*.

Although cross-cultural studies have shown that smiling is a means of communication throughout the world, there are large differences among different cultures, religions and societies, with some using smiles to convey confusion or embarrassment.
YOU CAN CHANGE HATER’S MIND WITH YOUR SMILE.
The **Duchenne smile** is an expression that signals true enjoyment.

It occurs when the zygomaticus major muscle lifts the corners of the mouth at the same time the orbicularis oculi muscles lift the cheeks and crinkle the eyes at the corners.
The **Duchenne smile** is named after **Guillaume Duchenne** (1808-1875), a French anatomist who studied many different expressions of emotion, focusing on the smile of pure enjoyment. He identified the facial movements that make this smile different from other types of smiles.
If the mouth corner muscle alone activates: "social" smiling

Genuine smile muscle

orbicularis oris

orbicularis oculi
A **Duchenne smile** engages the muscles around the mouth and eyes.

A Duchenne smile involves contraction of both the zygomatic major muscle (which raises the corners of the mouth) and the orbicularis oculi muscle (which raises the cheeks and forms crow's feet around the eyes).

The Duchenne smile has been described as "smising", as in "smiling with the eyes".

An exaggerated Duchenne smile is associated with lying.

A non-Duchenne smile involves only the zygomatic major muscle.
Duchenne smile

Research with adults initially indicated that joy was indexed by generic smiling, any smiling involving the raising of the lip corners by the zygomatic major.

More recent research suggests that smiling in which the muscle around the eye contracts, raising the cheeks high (Duchenne smiling), is uniquely associated with positive emotion."
The **Pan Am smile**, also known as the "Botox smile", is the name given to a fake smile, in which only the zygomatic major muscle is voluntarily contracted to show politeness. It is named after the now-defunct airline Pan American World Airways, whose flight attendants would always flash every passenger the same perfunctory smile.

Botox was introduced for cosmetic use in 2002. Chronic use of Botox injections to deal with eye wrinkle can result in the paralysis of the small muscles around the eyes, preventing the appearance of a Duchenne smile.
Evolutionary background

Primatologist Signe Preuschoft traces the smile back over 30 million years of evolution to a "fear grin" stemming from monkeys and apes who often used barely clenched teeth to portray to predators that they were harmless, or to signal submission to more dominant group members.

The smile may have evolved differently among species and especially among humans.
Social effects of smiling
Social effects

A smile seems to have a favourable influence upon others and makes one likable and more approachable.

In the social context, smiling and laughter have different functions in the order of sequence in social situations:

Smiling is sometimes a pre-laughing device and is a common pattern for paving the way to laughter;

Smiling can be used as a response to laughter.

Smiling is a signalling system that evolved from a need to communicate information in many different forms.
Social effects

One of these is an advertisement of sexual interest. Female smiles are appealing to heterosexual males, increasing physical attractiveness and enhancing sex appeal.

However, recent research indicates a man's smile may or may not be most effective in attracting heterosexual women, and that facial expressions such as pride or even shame might be more effective.
As reinforcement and manipulation

The influence of smiling on others is not necessarily benign.

It may take the form of positive reinforcement, possibly for an underhand, manipulative and abusive purpose.
Cultural differences

In the late 19th century and early 20th century, photographs didn't often depict smiling people in accordance to cultural conventions of Victorian and Edwardian culture. In contrast, the photograph *Eating Rice, China* reflects differing cultural attitudes of the time, depicting a smiling Chinese man.
Cultural differences

While smiling is perceived as a positive emotion most of the time, there are many cultures that perceive smiling as a negative expression and consider it unwelcoming. Too much smiling can be viewed as a sign of shallowness or dishonesty.

In some parts of Asia, people may smile when they are embarrassed or in emotional pain. Some people may smile at others to indicate a friendly greeting. A smile may be reserved for close friends and family members.

Many people in the former Soviet Union area consider smiling at strangers in public to be unusual and even suspicious behaviour, or even a sign of stupidity.
A Systematic large cross-cultural study on social perception of smiling individuals documented that in some cultures a smiling individual may be perceived as less intelligent than the same non-smiling individual (and that cultural uncertainty avoidance may explain these differences). Furthermore, the same study showed that corruption at the societal level may undermine the prosocial perception of smiling—in societies with high corruption indicators, trust toward smiling individuals is reduced.

Cheek dimples are visible indentations of the epidermis, caused by underlying flesh, which forms on some people's cheeks, especially when they smile. Dimples are genetically inherited and are a dominant trait. Having bilateral dimples (dimples in both cheeks) is the most common form of cheek dimples. A rarer form is the single dimple, which occurs on one side of the face only. Anatomically, dimples may be caused by variations in the structure of the facial muscle known as zygomaticus major. Specifically, the presence of a double or bifid zygomaticus major muscle may explain the formation of cheek dimples.
In animals, the baring of teeth is often used as a threat or warning display—known as a snarl—or a sign of submission. For chimpanzees, it can also be a sign of fear. However, not all animal displays of teeth convey negative acts or emotions. For example, Barbary macaques demonstrate an open mouth display as a sign of playfulness, which likely has similar roots and purposes as the human smile.
Beyond real and fake: 10 types of smiles

Human beings smile for a number of reasons. You may smile when you spot your long-lost bestie in baggage claim, when you engage your co-workers during a presentation, or when you imagine your ex’s lawyer tripping on the way into the courthouse. People are fascinated by smiles — all of them. From Mona Lisa to the Grinch, we’re captivated by those both genuine and fake. This enigmatic facial expression has been the subject of hundreds of studies.

Here’s what we know about the 10 different types of smiles, what they look like, and what they mean.
The social functions of smiling

One of the most useful ways to categorise smiles is according to their social function, or the purposes they serve in groups of people.

Broadly speaking, there are three kinds of smiles: smiles of reward, smiles of affiliation, and smiles of dominance.

A smile may be among the most instinctive and simple of expressions — just the hoisting of a couple of facial muscles.
The social functions of smiling

As a form of social interaction and communication, a smile is complex, dynamic, and powerful. Studies have shown that people are incredibly perceptive when it comes to reading and recognising these smiles in social situations. Many people are able to correctly identify which kind of smile they’re witnessing, and seeing
The 10 most common types of smiles

1. Reward smiles
2. Affiliative smiles
3. Dominance smile
4. The lying smile
5. The wistful smile
6. The polite smile
7. The flirtatious (sexy) smile)
8. The embarrassed smile
9. The Pan Am smile
10. The Duchenne smile
1. Reward smiles

Many smiles arise from a positive feeling — contentment, approval, or even happiness in the midst of sorrow.

Researchers describe these as "reward" smiles because we use them to motivate ourselves or other people.

Reward smiles involve a lot of sensory stimuli. Muscles in the mouth and cheeks are both activated, as are muscles in the eye and brow areas.

More positive input from the senses increases the good feelings and leads to better reinforcement of the behaviour.
1. Reward smiles
For example, when a baby unexpectedly smiles at their mother, it triggers the dopamine reward centres in the mother’s brain. (Dopamine is a feel-good chemical.). The mother is thus rewarded for her baby’s apparent happiness.
2. Affiliative smiles

People also use smiles to reassure others, to be polite, and to communicate trustworthiness, belonging, and good intentions. Smiles like these have been characterised as “affiliation” smiles because they function as social connectors.

A gentle smile is often perceived as a sign of compassion. These smiles involve the upward pull of the lips, and according to researchers, often trigger dimpling in the cheeks.

According to research, affiliative smiles can also include a lip pressor, where the lips remain closed during the smile. Keeping the teeth hidden might be a subtle reversal of the primitive tooth-baring aggression signal.
3. Dominance smile

People sometimes smile to show their superiority, to communicate contempt or derision, and to make others feel less powerful. You might call it a sneer. The mechanics of a dominance smile are different than reward or affiliative smiles.

A dominance smile is more likely to be asymmetrical: One side of the mouth rises, and the other side remains in place or pulls downward.

In addition to these movements, dominance smiles may also include a lip curl and the raising of an eyebrow to expose more of the white part of the eye, both of which are powerful signals of disgust and anger.
3. Dominance smile

Researchers tested the saliva of people on the receiving end of a dominance smile and found higher levels of cortisol (the stress hormone), for up to 30 minutes after the negative encounter.

The study also found that the sneer raised heart rates among the participants.

This kind of smile is a nonverbal threat, and the body responds accordingly.
4. The lying smile

If you’re looking for a fool proof lie detector, the face isn’t it.

According to research, even the most experienced law enforcement officials only spot liars about half the time.

Nevertheless, there have been studies that revealed smile patterns among people who were actively trying to deceive others in high-stakes situations.
4. The lying smile

A 2012 study conducted a frame-by-frame analysis of people filmed while publicly pleading for the return of a missing family member. Half of those individuals were later convicted of killing the relative. Among the deceivers, the zygomaticus major muscle — the one that pulls your lips into a smile — repeatedly fired. Not so with those who were genuinely grief-stricken.
"one may smile, and smile, and be a villain!"

William Shakespeare (Hamlet)
5. The wistful smile

A the Wistful Smile is when someone is genuinely happy and sad at the same time. It may be reminiscing about the past, or being happy for someone else's victory, or maybe a situation has many meanings for them.

There are some circumstances where these are almost expected, a father giving away his daughter at her wedding, realising that She's All Grown Up, or parents sending their child off to college, for much the same reason.
5. The wistful smile

A character who makes a Heroic Sacrifice and then Go Out with a Smile may have one of these, though they're just as likely to have a genuinely happy smile, as well.

A Wistful Smile is about showing that a character is genuinely happy and sad at the same time.
The polite Smile

People dispense a polite smile surprisingly often: when you first meet someone, when you’re about to deliver bad news, and when you’re concealing a response you believe someone else won’t like.

The list of social situations requiring a pleasant expression is a long one.

Most of the time, a polite smile involves the zygomaticus major muscle, but not the orbicularis oculi muscle.

In other words, your mouth smiles, but your eyes don’t.
6. The polite Smile

Polite smiles help us maintain a kind of discreet distance between people. Whereas warm smiles sparked by genuine feeling tend to draw us closer to others, that closeness isn’t always appropriate. Lots of social situations call for trustworthy friendliness but not emotional intimacy. In those situations, researchers have found the polite smile is as effective as a heartfelt one.
7. The flirtatious (sexy) smile

Dating, psychology, and even dental websites offer advice on how to use your smile to flirt with someone.

Some tips are subtle: *Keep your lips together and lift an eyebrow.*

Some are coy: *Smile while tipping your head down slightly.* Some are downright comical: *Smile with a little whipped cream or coffee froth on your lips.*
7. The flirtatious (sexy) smile

While there’s a lot of cultural influence on these tips and comparatively little evidence to back their effectiveness, there’s proof that smiling makes you more attractive.

One study found that attractiveness is heavily influenced by smiling, and that a happy, intense smile can “compensate for relative unattractiveness.”
8. The embarrassed smile

An oft-quoted 1995 study found that a smile provoked by embarrassment is often accompanied by a downward tilt of the head and a shifting of the gaze to the left.

If you’re embarrassed, you’ll probably touch your face more often, too.

A 2009 study on embarrassed smiles did confirm the head movements. However, it didn’t confirm that people who are embarrassed usually smile with their mouths closed.

Their smiles tend to not last as long as amused or polite smiles.
9. The Pan Am smile

This smile gets its name from the Pan Am flight attendants who were required to keep smiling, even when customers and circumstances made them want to throw peanut packets across the cabin. Widely regarded as forced and fake, the Pan Am smile might have appeared extreme.
The Pan Am Smile

Studies show that when people are posing, they use extra effort to yank on their zygomaticus major muscle.

As a result, the corners of the mouth are extra high, and more of the teeth are exposed.

If a posed smile is asymmetrical, the left side of the mouth will be higher than the right side.

If you’re one of the nearly 2.8 million people employed in the customer service industry, or if your job requires you to interact regularly with the public, you might want to reconsider relentlessly deploying the Pan Am smile, as it could affect your health.
The Pan Am Smile

A recent study found that people who have to fake happiness regularly at work often end up drinking off the stress after they clock out.

Duke K. Faking happiness at work can make you ill. BMJ. 2006 Apr 1; 332(7544): 747.
Other types of smiles
The erotic smile
The orgasmic smile
Post-Coital Smile(s)
The enigmatic smile

The adjective enigmatic describes what is hard to solve or understand. An enigmatic person is someone who is a bit mysterious to others. Behind an enigmatic smile are thoughts impossible to guess.
The **sneer** is a facial expression of scorn or disgust characterised by a slight raising of one corner of the upper lip, known also as curling the lip or turning up the nose.

In *The Expression of Emotions in Man and Animals*, **Charles Darwin** defined a "sneer" as "the upper lip being retracted in such a manner that the canine tooth on one side of the face alone is shown."

Darwin related the sneer to the snarl observed in non-human animals, particularly carnivores.
The snarl

A snarl is a sound, often a growl or vicious utterance, often accompanied by a facial expression, where the upper lip is raised, and the nostrils widen, generally indicating hate, anger or pain.

In addition to humans, other mammals including monkeys, rabbits (yes dear little bunnies), cats and dogs snarl, often to warn others of their potential bite.

In humans, snarling uses the *levator labii superioris alaeque nasi* muscle. The threatening vocalisations of snarling are often accompanied by or used synonymously with threatening facial expressions.
The **levator labii superioris alaeque nasi muscle** is, translated from Latin, the "lifter of both the upper lip and of the wing of the nose". It has the longest name of any muscle in an animal.
The orthodontic smile-$$$$
Summary

Smiles vary. Whether they express genuine bursts of feeling or they’re intentionally created to suit a specific purpose, smiles serve important functions in systems of human interaction. They may reward behaviour, inspire social bonding, or exert dominance and subservience. They can be used to *deceive*, to *flirt*, to *maintain social norms*, to signal embarrassment, to *cope with pain*, and to *express rushes of sentiment*.

In all their ambiguity and variety, smiles are one of the most powerful means we have of communicating who we are and what we intend in social contexts.
Smile lines

- Sometimes called laugh lines, are types of wrinkles that primarily develop around the sides of the mouth.
- Sometimes smile lines can also occur around the eyes.
- They are more noticeable when smiling.
- As one ages, these types of wrinkles may be inevitable.
“He does smile his face into more lines than is in the new map with the augmentation of the Indies.”

William Shakespeare, Twelfth Night, Act 3, Scene 2
The primary causes of smile lines:

- a loss of elasticity (collagen)
- dehydrated skin
- genetics
- smoking
- sun damage
Preventing smile lines

- Some of the causes of laugh lines may be prevented with good lifestyle habits as a young adult. For example, wearing sunscreen every day to prevent wrinkles that are related to sun damage.
- Keeping the skin hydrated also goes a long way, whether smile lines are present or not.
- Drink plenty of water every day, and avoid drinking too much caffeine or alcohol — both have diuretic effects.
- Wash your face once or twice a day and follow up with a moisturiser tailored to skin type.
- Exercise and a plant-based diet can also help keep the skin in good health.
- Quit smoking
**Treatment options**

**Injectable fillers**

Injectable fillers are among the top choices for people looking to get rid of smile lines without undergoing surgery.

Many are made from *hyaluronic acid* and are injected at the crease that goes from the mouth to the nose. The results typically last several months. However, after repeated injections, some scar tissue may be left behind.

These injectable fillers last about 6 to 12 months at a time.

Side effects can occur right after the initial injection and include headaches and allergic-like reactions.
Hyaluronic acid
**Botox (Botulinum toxins)** Botox, Dysport, and Xeomin) are also injectable fillers, though they work differently. A dermatologist injects the substance with a small needle into the area of concern. The substances work by weakening the muscles in the given area, which makes lines and wrinkles more relaxed and less noticeable. Results can be seen within a few days of the initial injection. Botox injections may be performed by a dermatologist, ophthalmologist, or plastic surgeon. Some common side effects include headaches and redness or irritation at the injection site. Botox injections last approximately three months.
Botulinum toxin is a neurotoxic protein produced by the bacterium *Clostridium botulinum* and related species. It prevents the release of the neurotransmitter acetylcholine from axon endings at the neuromuscular junction, thus causing flaccid paraBlysis. The toxin causes the disease botulism.

*Clostridium botulinum*  
Botulinum toxin structure
Botulinum toxin: mode of action
Surgery

Surgery may be an option for more significant results that last longer. A facelift (rhytidectomy) is the most all-inclusive and permanent solution for smile lines. This can address lines around your mouth and your eyes all in one procedure. Your plastic surgeon might recommend eyelid surgery in conjunction with a facelift. Aside from being among the most expensive options, facelifts also take the longest to heal, with a total of three months on average.

The greatest risk associated with a facelift is infection. Rare side effects include scarring, pain, and nerve damage.
Laser treatments

Laser treatments refer to a type of skin resurfacing technique that removes the top layer of skin cells. The procedure is meant to decrease skin spots and wrinkles by revealing the lower layer of new skin. Swelling and pain are common side effects, but these subside after a few days. Scarring and infection are also possible. Recovery time is one to three weeks. You’ll likely need another treatment within a few months and the cost per treatment is high.
Collagen induction therapy (also called microneedling or skin needling) aims to increase natural collagen production in your skin. As skin ages, it loses collagen and therefore loses elasticity, so the thought behind needling is that more collagen can fill in wrinkles, such as smile lines. The procedure uses a roller with small needles. The American Academy of Dermatology says that the results from needling are gradual, with the full results expected within nine months. As the skin heals, there might be some bruising and redness. Most people need three to six treatments total.
Creams

Creams offer more affordable wrinkle treatment options. **Retinol** is among one of the more studied ingredients because of its claimed ability to break down the free radicals that can lead to wrinkles.

One study published in the *Archives of Dermatology* reported significant results in patients with fine lines and wrinkles who used retinol treatments of 0.4 percent. Participants used retinol lotion three times per week for six months.

Vitamin C, peptides, and hydroxy acids are also used to treat wrinkles. The downside to creams is that they can take months to work, and you won’t get permanent results. Side effects can include redness, rashes, and burning.
Home light treatment
Aside from OTC creams, there are also light kits available on the market that you can use at home for smile lines. One such product is the SpectraLite Eye Care Pro, a device approved by the U.S. Food and Drug Administration that uses LED lights to increase collagen around the eye area. The product can be used every day for three minutes at a time. While there are no reported side effects, the efficacy of at-home light kits is questionable.

Essential oils
Essential oils are another potential option in wrinkle treatment. These are made from plants that are touted as offering natural skin benefits.
Summary on smile lines

Smile lines are a normal part of the aging process. As one gets older, any lines or wrinkles can deepen or multiply in number. Still, there are steps that can be taken to minimise this process.

Treatment options for laugh lines abound. Consult with a doctor about the options that are best for your individual needs.

Surgery is an option, but it’s not always necessary. May be able to prevent smile lines from getting worse as one ages.

Keeping skin hydrated and taking care of overall health goes a long way.
How to smile in a COVID-19 World

As people navigate a masked world, they will need to focus more on the eyes and voice to connect with those around them.
What happens when our faces are hidden behind a facial covering?

The face coverings that are the most relevant now cover the nose and mouth.

These face coverings make it harder for people to see others’ emotions, including their smiles, which facilitate social connection.

This is particularly true for Caucasians, who tend to focus on more people’s mouths when reading their emotions.

Since researchers have shown that in many East Asian cultures, people tend to focus more on the eyes, covering the mouth may interfere less with their feelings of social connection.
What are some non-verbal communication strategies that people can use when trying to connect with other masked people?

People will have to learn to smile with their eyes and voices, and to read the eyes and voices of others more.

There are other innovative workarounds. Many people have already come up with a few. For example, some people have created surrogates for smiles, like the health care workers at Stanford who pasted their smiling pictures on their lab coats, or the emergence of novel masks designed to show or even emulate the mouth..
These and other simple solutions might offset the costs of covering smiles.

In the meantime, it might be safest to assume the best – that under their masks, people are still friendly, trustworthy, and deserving of help – particularly since they are trying to protect others as well as themselves from illnesses like COVID-19.
Here's wishing you the smiles o' life and not a single grumble.

Irish Blessing
The phrase "sardonic grin," commonly used to describe a bitter or scornful smile, has its roots in a highly poisonous plant indigenous to the Mediterranean island Sardinia, according to new research. ... "Indeed, the plant produces a state similar to drunkenness as well as locked jaws."
The **Sardonic Smile** (Medical): The Journal of the Norwegian Medical Association. ... In medicine, it is defined as a smile-like facial expression induced by involuntary muscle spasms most often caused by toxins released by tetanus bacteria (*Clostridium tetani*).
It's all in the eyes I was once told.
A smile isn't genuine,
unless the eyes smile too.
Words mean nothing,
unless the eyes speak them too.
Second Semester 2021

All Tuesdays at 12.00 noon ZOOM

27th July  The Smile
24th August  The story of Lithium
7th September  Irritable Bowel Syndrome (IBS)
21st September  Nausea & Vomiting
19th October  Post Traumatic Stress Disorder (PTSD)
16th November  Urinary Tract Infections (UTIs)
A row of bottles on my shelf
Caused me to analyse myself.
One yellow pill I have to pop
Goes to my heart so it won't stop.
A little white one that I take
Goes to my hands so they won't shake.
The blue ones that I use a lot
Tell me I'm happy when I'm not.
The purple pill goes to my brain
And tells me that I have no pain.
The capsules tell me not to wheeze
Or cough or choke or even sneeze.
The red ones, smallest of them all
Go to my blood so I won't fall.
The orange ones, very big and bright
Prevent my leg cramps in the night.
Such an array of brilliant pills
Helping to cure all kinds of ills.
But what I'd really like to know...........
Is what tells each one where to go!
Thank You!
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