

The science behind fonts (and how they make you feel)

By Mikael Cho, January 24, 2014

I've noticed how seemingly small things like font and the spacing between letters can impact how I feel when reading online.

The right font choice along with the absence of sidebars and popups makes everything feel easier and better to read.

Websites like [Medium](#), [Signal vs. Noise](#), and [Zen Habits](#) are like yoga studios for content. Their presentation of content puts me at peace while reading, allowing me to fully focus on the stories without distraction.

Do you shed tears when you see poorly designed sites or hear someone talk about 'font keming'? [Click here](#) to join the 7,034 people who received our weekly newsletter.

Just look at the difference between Medium and [Cracked](#):

Exhibit A) Medium.com

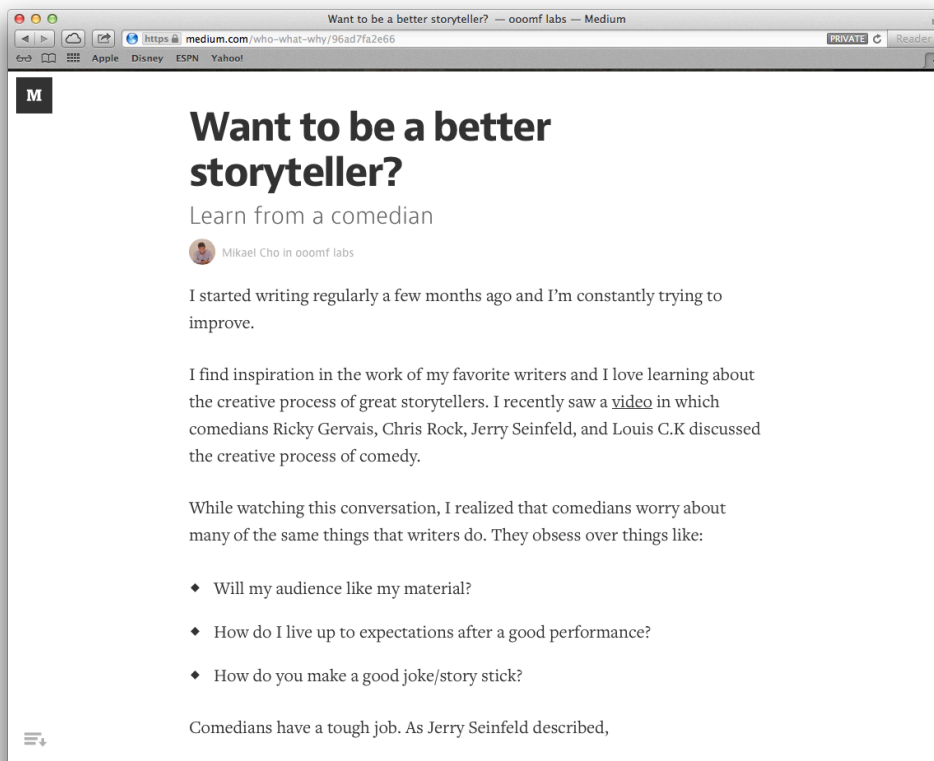
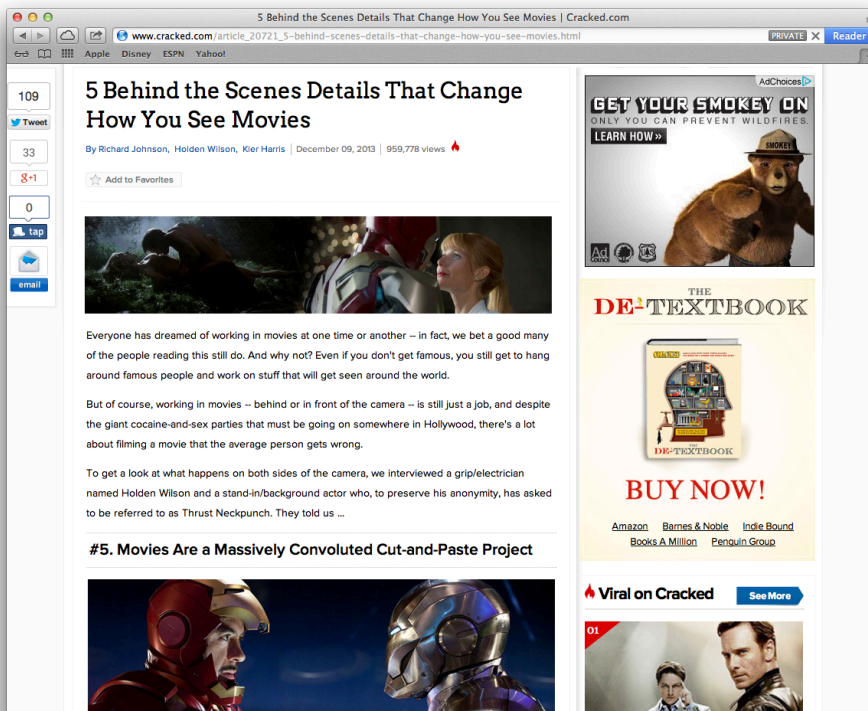


Exhibit B) Cracked.com



When you compare the two, it's obvious which one makes you feel like crud. The Cracked layout is painful to look at. Your eyes squint and dart, constantly second-guessing what you're reading now with what you should be reading next.

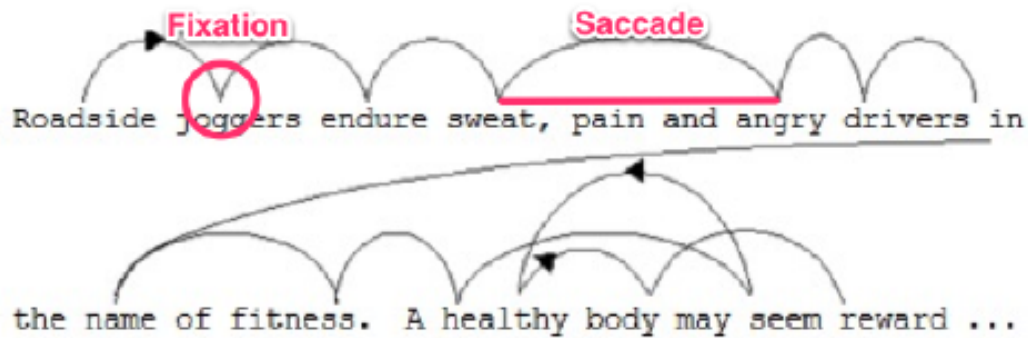
After experimenting with how we display content on [the Crew blog](#), I discovered there's an element of science behind why we feel this way toward certain typefaces and layouts.

For more life hacks, social psychology, and design thinking, [click here](#) to join the 7,034 people who receive our weekly newsletter.

How we read

When we read, our eyes follow a natural pattern called a [Scan Path](#). We break sentences up into scans (saccades) and pauses (fixations). Here's the [Scan](#)

[Path for a typical reader](#):



Your eyes typically move across a page for [between 7-9 letters before needing to pause](#) to process what you're reading. As you scan a sentence, no useful visual processing is happening in your brain. Visual processing is completely dependent upon the information taken in when you pause.

So why does this matter? Understanding the way we read is important for designing how words look because you can directly impact someone's connection to your writing with the right font and layout.

Why the right font layout makes you feel good

When I set out to write this post, I wasn't sure I'd find scientific backing for why we feel a certain way toward certain fonts.

I thought choosing font was mostly art, with a sprinkle of science. That was until I came across a [study](#) by psychologist Kevin Larson. Larson has spent his career researching typefaces and recently conducted a landmark study at MIT about how font and layout affect our emotions.

In the study, 20 volunteers- half men and half women- were separated into two groups. Each group was shown a separate version of The New Yorker- one where the image placement, font, and layout were designed well and one where the layout was designed poorly:

Bad Design



Good Design



The researchers found that readers felt bad while reading the poorly designed layout. Sometimes, this feeling would be expressed physically with a frown.

The corrugator supercillii facial muscles that help produce a frown [have been linked to the amygdala](#), an area of your brain responsible for emotion.

Meanwhile, the participants who read content from the good reading layout, felt like it took less time to read and felt better.

People exposed to the well-designed layout were found to have higher cognitive focus, more efficient mental processes, and a stronger sense of clarity.

The researchers concluded that well-designed reading environments don't necessarily help you understand what you're reading better, but they do make you feel good, causing you to feel inspired and more likely to take action.

Culture impacts your preference for fonts

One explanation for why some fonts make you feel a certain way is because of deep links in culture. For instance, [Courier fonts](#) were designed to resemble old memos written on typewriters:





Many people relate Helvetica with the US Government because it's used in tax forms.

These associations are difficult to remove and should be considered when deciding on a font choice. Here's how Bank of America's website would look with the Impact font associated with News headlines:

Original Bank of America website:

Which credit card is right for you?

Share: [f](#) [t](#) [in](#)



Let us help you find the card that's right for you.

[Find my card](#)

More about this topic

- [Choosing a rewards card](#)
- [Basic facts about APRs](#)
- [The advantages of credit cards](#)
- [Five key facts about credit](#)

A credit card can benefit you in many ways. We're here to help you learn more and find the credit card that's right for you.

How do you find the right credit card for you given the many choices available today? We've made a list of some things to consider so you can find a card that fits both your lifestyle and your finances.

First, what types of credit cards are available?

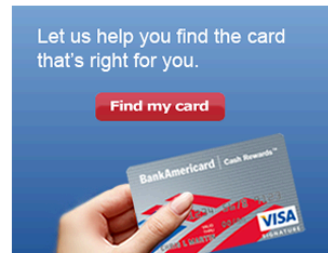
Get started by learning about the different types of credit cards:

- **Standard credit cards** typically have lower credit limits, fewer benefits than premium cards and are designed to provide basic credit card services.
- **Premium credit cards**, such as platinum cards, offer higher credit limits and usually have extra features, including product warranties, purchase protection, travel insurance and emergency services.

Bank of America website with Impact font (associated with newspaper headlines):

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When the fonts are changed to Impact, Bank of America doesn't exactly seem trustworthy.

Because fonts are designed by humans, there is usually some meaning attached to them. You don't want to choose a font that is easily associated with something in our culture that's markedly different than the vibe you're trying to give off.

How to design better content

The quality of your content is the most important thing but how you present that content by choosing the right font and layout still has its place.

As French poet Paul Claudel put it, 'The secret of type is that it speaks.'

So how can you design your words to help elicit positive feelings in people? Here's a few techniques from typography experts that you might find useful:

1. Choose an anchor font

Type designer Jessica Hische [recommends](#) first selecting a typeface for the content that is most prevalent in your project (most likely your body copy).

This will be the typeface that you base your other font decisions on like headlines and subheads.

There's four [main categories of fonts](#) to choose from:

Serif Fonts – Letters with short lines coming off the edges. Viewed as more formal and traditional.

Best suited for print.



Sans-serif Fonts – Letters without serifs. Viewed as informal and playful. Best suited for digital.

Script Fonts – Resembles handwriting and often used in formal invitations. Not ideal for body copy.

Decorative Fonts – Informal fonts viewed as original. Best suited for headlines but not body copy.

For reading on the web, it's best to stay away from script or decorative typefaces. Most Script and Decorative fonts have low legibility which slows down your reading because you are busy trying to figure out what letters are.

You don't want your readers asking, "was that an 'a' or an 'e'" every word.

If you're scrunching your eyes trying to figure out a word that's a signal that your brain is dedicating unnecessary energy to identifying words.

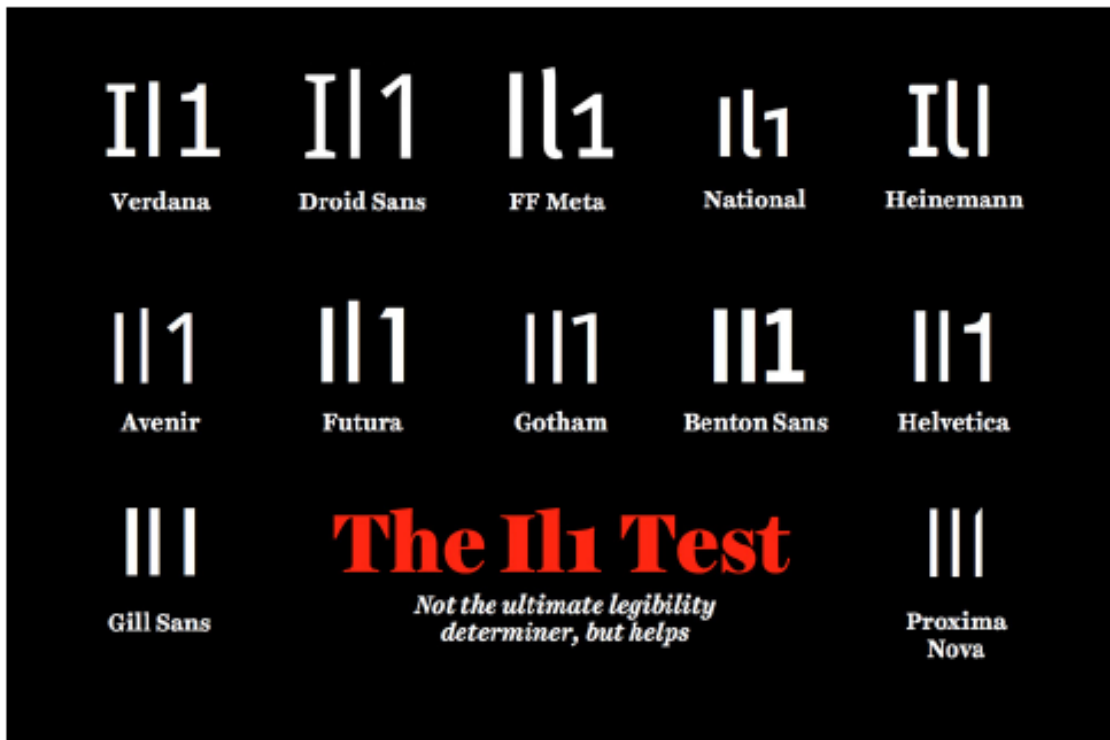
Decorative typefaces should be used for content that is meant to be seen at a glance, like in a logo, rather than read as multiple paragraphs in body text.

When choosing a font for body text, it's usually best to stick with a Serif font or Sans-serif font.

Some typography experts [recommend](#) sans-serif fonts for reading online because the quality of screen resolutions is less than in print. But, as screen resolutions dramatically improve, Serif fonts are becoming easier to read on the web. Content heavy websites like Medium use a Serif font (probably to give off the vibe of a print editorial).

The most important thing with choosing a font is to make sure the letters are easily decipherable from one another so your readers don't have to spend precious mental energy identifying letters.

There's a trick that Hische uses to make sure your font choice is a good one. She [recommends](#) that you make your fonts pass the Il1 test:



2. Pick a font size bigger than 12pt

In 1929, a [study](#) was conducted called the “Hygiene of reading.” One thing researchers were trying to determine was which font size would be best for reading. The study looked at 6pt, 8pt, 10pt, 12pt, and 14pt type sizes.

The researchers concluded that a font size of 10pt font is the most efficient for reading but a lot has changed in how we consume content today compared to the 1920s.

However, as more reading shifts to digital and screen resolutions improve, the way we read content is changing. Many designers mention that [16pt font is the new 12pt font](#). A [recent study](#) has also shown that larger font sizes can elicit a stronger emotional connection.

Medium has one of my favorite reading environments online and they use a 22pt font size. Several of my other favorite websites have adopted a font size over 20pt for their content:

Medium – 22pt

37Signals: Signal vs. Noise – 22pt

Zen Habits – 21pt

While having a huge font over 30pt most likely wouldn’t make sense, many blogs have font in the 10pt-12pt range. Try increasing your font size. If you’re using 12pt font, try increasing to 16pt font. If you’re using 18pt font increase to 22pt.

You can feel the difference.

3. Watch your line length

The line length is how far your sentences stretch across the page. The [ideal line length](#) should be between about 50-75 characters.

Here's an example of the longest line length from Zen Habits. It's 78 characters, about 6.5 inches:

So I don't take any special credit for running the race. If anything, most of the credit belongs to my friend Scott Dinsmore, who encouraged me to run it and then played a huge role in getting me to the finish.

This line length has been shown to be most effective in helping readers move through their Scan Path.

If the line length is too short, your reader's rhythm will break because their eyes must travel back to the left of the page too often.

A line length that is too long makes it hard to find where lines of text start and end. It can make it difficult for your reader to get to the next line without accidentally jumping to the wrong place.

Research [shows](#) that your subconscious mind gets a boost of energy when jumping to a new line (as long as it doesn't happen too often) but this energy dwindles as you read over the duration of the line.

Here's the line lengths from the sites mentioned above:

Medium – 75 characters

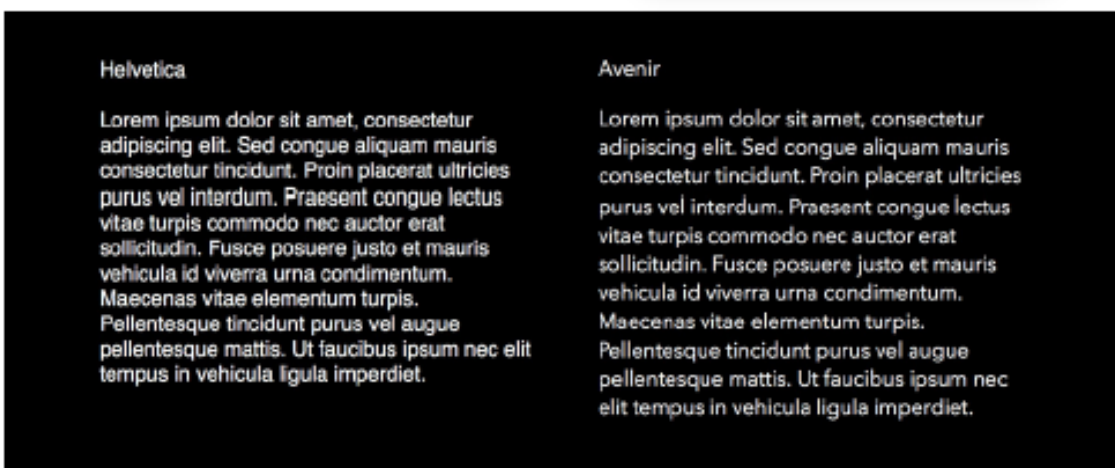
37Signals: Signal vs. Noise – 76 characters

Zen Habits – 78 characters

4. Mind your spacing

Adequate spacing between letters is important for your readers to be able to move through sentences fluidly. The tighter your letters are together, the harder it is for people to identify the shapes that make up different letterforms.

Take a look at [another example](#) from Jessica Hische of the readability of Helvetica versus Avenir. Hische recommends Avenir because of its more open spacing:



Proper spacing makes your readers feel good. Here's [5 recommended font combinations](#) from Google Web Fonts that have good spacing for reading long blocks of content.

I decided to put these tips into practice with our Crew email newsletter campaign. Here's a comparison between our original campaign and our new design:

Initial Email Campaign Design

Wandering for clarity is a secret of the literary greats. Writers such as Rousseau, Dickens, and romantic poets such as William Blake and John Clare, all [used wandering](#) to clarify their thoughts. It seemed to de-stress their minds and gave them an opportunity to think up great ideas.

Dickens supposedly logged in 20 miles every day.

Dickens's walks served him in two ways. On one level, they were fact-finding missions during which he recorded with his keen eye the teeming urban landscapes whose descriptions were his stock-in-trade...But Dickens's walks played another, more important role in his life. They were, in a sense, acts of self-preservation... [he] found composition to be hard, painful work. The hours he spent at his desk agitated him tremendously, and walking served as a kind of safety valve. — [Frisky as the Dickens](#)

I decided to give it a go myself. Everyday for the past two weeks, when my thoughts weren't flowing, I got up and left. I would prance around the neighborhood or leave for a stroll in the park and my thoughts would begin to "flow" again. It was the perfect get-away to plan my next step.

There was something about leaving my desk and being outside that gave my troubles some context so I wanted to understand why this happens.

Font Family: Helvetica

Font Size: 15px

Line Height: 22px

Current Email Campaign Design

Ever heard of grim5next? Didn't think so.

I'd always dreamed about being self-employed, and one morning I woke up with the idea to make it happen. I decided to assemble a team of artists to create an interactive anthology about the Apocalypse. It was the summer of 2012, the 'End of the World' was nigh, so of course I wanted to take advantage of the mass freakout.

I started a group on [Goodreads](#), invited a ton of people, and sent a bunch of hyper messages that set everyone on fire. In a very short time I was working with writers, editors, illustrators, and I felt like such a big shot.

Then, after the initial buzz wore off, it started feeling like a chore.

I didn't have the experience, or the right tools, and I definitely didn't have an endless supply of energy, so I started flailing. Coffee didn't help and Red Bull failed to give me wings.

Font Family: Georgia

Font Size: 18px

Line Height: 27px

By changing the font and increasing its size, our email content felt much better.

Packaging content the right way is important and knowing why we feel the way we do about the look of content will hopefully help next time you design content for a project. As Aarron Walter, author of [Designing for Emotion](#), writes,

“People will forgive shortcomings, follow your lead, and sing your praises if you reward them with positive emotion.”

It's important to remember that while there is a science connected to how your words are designed, no amount of good design can save bad content.

Write well first. Design well second.