

- With PowerPoints, most presenters lead with the history of their company, their technology, their products, their services, their customers. Remember that the primal brain favors personal stimuli; therefore communicate your value prop in a few seconds so your audience will be motivated to invest their full attention on your presentation.
- With a voicemail, are you starting with: “Hi my name is John Smith...Many people will erase the voicemail of those they don't know...without listening to the entire message! Instead, consider starting with “what if you...”

So, change the order, break the status quo of the way most people communicate, eliminate information that has no value for them. Deliver a grabber that focuses on their pain and presents a strong proof of gain. Making sure it fits your audience style and culture use a prop, a minidrama, a story, a wordplay or any other creative ways you can think of to get their attention!

YOUR CLAIMS

“Tell them what you're going to tell them, tell them, then tell them what you told them.”

– Aristotle, Greek philosopher and scientist

In [Chapter 6](#), Differentiate Your Claims, we described how identifying the top three reasons why your customers should buy from you satisfies the primal brain's need for a *constrastable* stimulus. As you build a persuasive message, you will need to make sure that your argument is built within a maximum of three chapter(s) titled “*Your Claims*” and you will need to repeat those claims throughout your message. The repetition of your claims will signal to your audience's brain how important and urgent they are to solve a critical pain.

When an audience is presented with a message, the primal brain has one priority: to quickly understand its relevance and importance. Yet, when a presenter communicates a message, her objective is double: to be understood *and* to be remembered. These objectives are sometimes conflicting, and we believe that claims maximize both understanding and memorization [[145](#), [190](#)]. Although finding good claims is challenging, communicating them visually is also an important step few companies take as seriously as SalesBrain does. Our clients understand that claims have not reached their full potential until they are paired with what we call *NeuroIcons*. NeuroIcons are to the claims what logos are to a brand. They add a visual and emotional stamp to the expression of unique

benefits. Erin MacDonald, a Stanford researcher, wrote: “In text-only an attribute repetition cancels its importance in decisions, while in image repetition of a feature reinforces its importance” [143].

Let's review a few more examples of effective claims and their associated NeuroIcons.

Example of Claims: ShotSpotter

ShotSpotter is a Silicon Valley-based company that provides police departments with a real-time detection of gunshots – detection includes the number of shots fired, type of weapon used, and location accuracy within a few yards ([Figure 8.10](#)). Using an array of microphones spread over a city or a campus, ShotSpotter detects gunshots in real time. When nearly 80% of gunfire events go unreported to emergency services, ShotSpotter:

- **Detects** outdoor gunshots and alerts law enforcement to the precise location within 30 to 40 seconds, giving them greater chances to engage perpetrators or assist victims and retrieve physical evidence (gun shell casings) and interview witnesses.
- **Protects** law enforcement officers as they can now enter an active shooting event better prepared for a given threat. This, in turn, better *protects* the residents in underserved communities.
- **Connects** the law enforcement departments to their local communities. Before, because 80% of all gun activities were not reported and therefore had no law enforcement response, the local communities had grown distrust of their police department. Now, because of ShotSpotter, they see better, faster, and more effective interventions of the law enforcement agencies. ShotSpotter *connects* communities to police departments.



DETECT



PROTECT



CONNECT

Figure 8.10 ShotSpotter claims.

“I had been looking for an effective way to upgrade our messaging to reflect our new services business model pivot. Because of our technical culture we were more focused on the what we were doing – the technology is both awesome and complex! – than the why police departments should consider ShotSpotter. But after working with SalesBrain we quickly aligned our executive team on a set of three Claims: Detect, Protect, Connect. It was an eye-opener as immediately our prospects started to understand our value proposition. The NeuroIcons are extremely effective because these three simple yet meaningful visuals communicate the whole story about why law enforcement agencies should consider our gunfire detection solution.”

– Ralph Clark, CEO

Example of Claims: Mann's Packing

Mann Packing is a large, Monterey County, California–based producer of vegetables including sugar snap peas, fresh-cut vegetables, vegetable platters, veggie bowls, and more. They even introduced the world to a new vegetable: Broccolini (a cross between broccoli and Chinese broccoli). Before working with SalesBrain, and similar to all their competitors, they claimed to offer fresh vegetables and to work diligently with all their customers: large groceries, club stores, and food-service distributors. After brainstorming about their value proposition, the executives zeroed-in on their claims: Fresher Ideas, Fresher Experience, Fresher Results.

Notice in [Figure 8.11](#), the three subclaims under each claim.



Figure 8.11 Mann's Packing claims

Providing a clear path to the next level

We've been investing in private companies for over 15 years and are here to help you achieve your goals for your business.



Clear Principles

We do what we say. We're good people to work with.



Clear Journey

We've done this before. We can help determine the best path forward.



Clear Outcomes

Our results speak for themselves. We have a proven track record of creating value.

Figure 8.12 ClearLight claims.

Note that these claims are not for the consumers: they are relevant only to the purchasing managers of food distributors. Nevertheless, the sheer repetition of the word *fresher* sends a strong signal about Mann's commitment to providing the freshest produce. The word *fresher* can still be used with any consumer campaign. About her claims, Lorri Koster Chairman and CEO of Mann Packing Company, stated,

We work in a very traditional industry, in a sea of producers offering the same items at similar prices. Many of us are multi-generational, family-owned business with the best quality and best service. Finding a differentiation had always been a challenge. So before working with SalesBrain our presentations to the buyers were boring and we were not getting much more margin than our competitors. But by starting to consistently and repeatedly use our set of three fresher claims, we were able to help our buyers understand how committed we were to deliver the freshest produce with the best quality and service. We are not just in the fresh produce business—we are in the “fresher” produce business. Not only was it useful externally but the “fresher” mantra also became effective

to help our own employees understand that we are not so much in the produce business but that it is all about speed and accuracy: we are the experts at delivering freshness!

Example of Claims: ClearLight Partners

ClearLight Partners LLC is a private equity firm located in Orange County, CA. A few years ago they contacted SalesBrain to help them communicate their competitive differentiation to business owners thinking about bringing on a partner. After a thorough reflection on what made them unique, the team categorized their benefits under the three chapters of

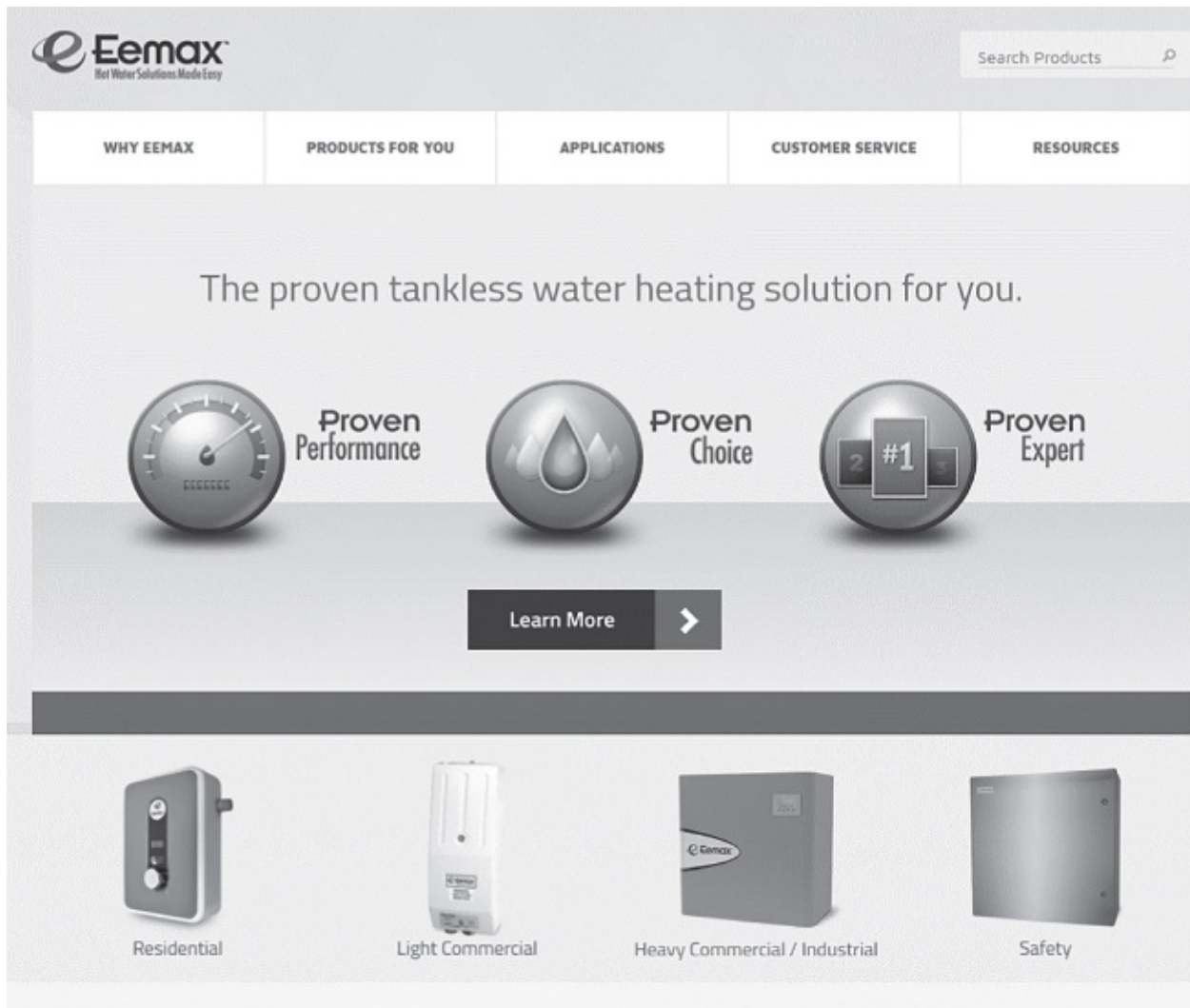
- Clear principles
- Clear journeys
- Clear outcomes

Notice how these claims nicely tie in with the name of the company to create a strong branding image. Michael Kaye, Founder of ClearLight Partners said, *“SalesBrain was helpful in guiding us towards a concise presentation of our key points of differentiation and unique offerings as a firm. They were important contributors to the aesthetic of our website and other marketing materials. We have received positive feedback on these revised materials from all constituents in our network – business owners, intermediaries and executives.”*

Example of Claims: Eemax

Eemax is the number 1 supplier of tankless water heater solutions in the United States. For over 25 years, they've offered energy efficient, on-demand hot water heaters for commercial applications, residential homes, industrial and safety applications. Their green, environmentally friendly water heaters offer the largest selection in the industry.

Jens Bolleyer who runs marketing at Eemax reported: *“As soon as we integrated claims and visuals in our website we saw a 54% bounce rate reduction”* ([Figure 8.13](#)).




[Figure 8.13](#) EEMAX claims on home page.

Example of Claims: Digitech Systems

Through software and services that deliver any document, anywhere, anytime, Digitech Systems bring all the benefits of enterprise content management to small, medium, and large organizations. H. K. Bain, the CEO of Digitech Systems, said: *“Having claims has completely changed the way we sell our solution. It makes selling especially easier with our network of resellers who no longer have to wonder what the three unique compelling reasons are why companies should choose the Digitech Systems solution”* ([Figure 8.14](#)).






EFFICIENCYNOW

Is document retrieval slowing you down? Speed up!


[LEARN MORE ►](#)



CONTROLNOW

Are you worried about data loss? Get control!

[LEARN MORE ►](#)



MONEYNOW

Losing money on your filing system? Earn more!

[LEARN MORE ►](#)

Figure 8.14 Digitech Systems claims.



Figure 8.15 Shepherd Color claims.

Example of Claims: Shepherd Chemical and Shepherd Color

Headquartered in Cincinnati, OH, Shepherd Chemical manufactures high-quality compounds. One of their divisions called Shepherd Color specializes in color pigments such as the ones used in paints. A few years ago, they contacted SalesBrain to help solidify the claims of a new type of pigment called dynamics.

Notice how they present dynamics under the three chapters of pure convenience, pure consistency, and pure profitability ([Figure 8.15](#)). Further notice that each of these chapters is segmented into three subclaims or subchapters.

Shepherd Color also endorsed the claims of more expertise, better performance, and best value as their corporate claims ([Figure 8.16](#)).



Figure 8.16 Shepherd Color corporate claims.

Notice how they wisely created a tab labeled Why Shepherd? on their website, where those three claims are prominently displayed ([Figure 8.17](#)).

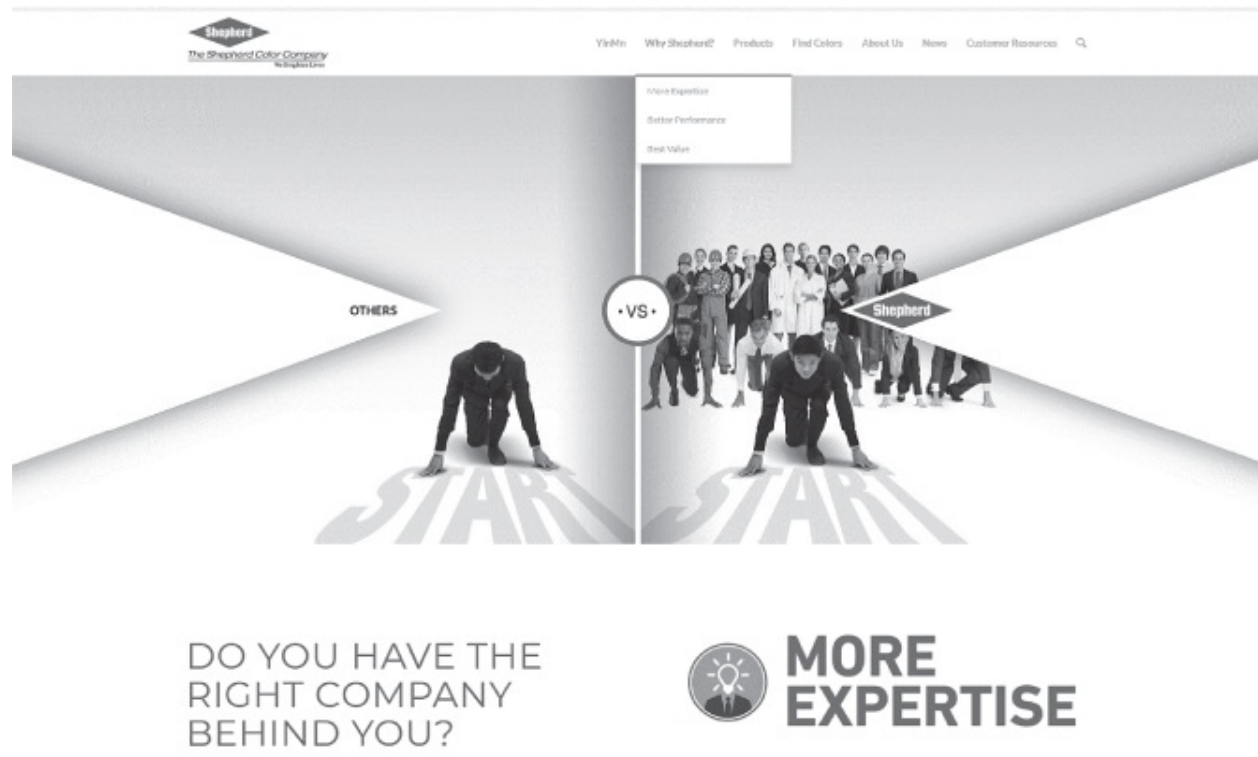


Figure 8.17 Shepherd more expertise.

Tom Shepherd, the Shepherd Companies' owner and CEO, said: “We come from a very technical culture with lots of chemists and engineers on the team. Using a consistent set of claims helped us come up with a better story to explain ‘Why Shepherd?’ That story is really centered on the unique value we bring to our customers. We are still material science experts, but the difference is that our claims now help our customers and prospects understand why they should choose us rather than someone else. It helped us move from a technology-driven sales effort to a more customer VALUE sales effort. As a result our business has grown more than 25% in the past five years.”

Chris Manning, sales and marketing manager, also said: “When we present in the SalesBrain style in conferences and public presentations, everyone listens, and we have received several recognitions for best presentations. This has been an exciting journey and has certainly had an impact. Giving up words and details entrenched in our style for so long and moving into claims and graphics is hard but well worth it.”

Example of Claims: IBA Dosimetry

Headquartered in Nuremberg Germany, IBA Dosimetry manufactures sophisticated medical devices used to calibrate radiation devices for cancer treatment. They started to work with SalesBrain 14 years ago and, since then, whenever they introduce a new product, they never fail to apply NeuroMap. In 2015 they introduced a revolutionary new product called Dolphin. Dolphin allows for the real-time measurement of the amount of radiation received by a patient. After a two-day brainstorming session the marketing team selected the claims of

- Care
- Control
- Confidence ([Figure 8.19](#))

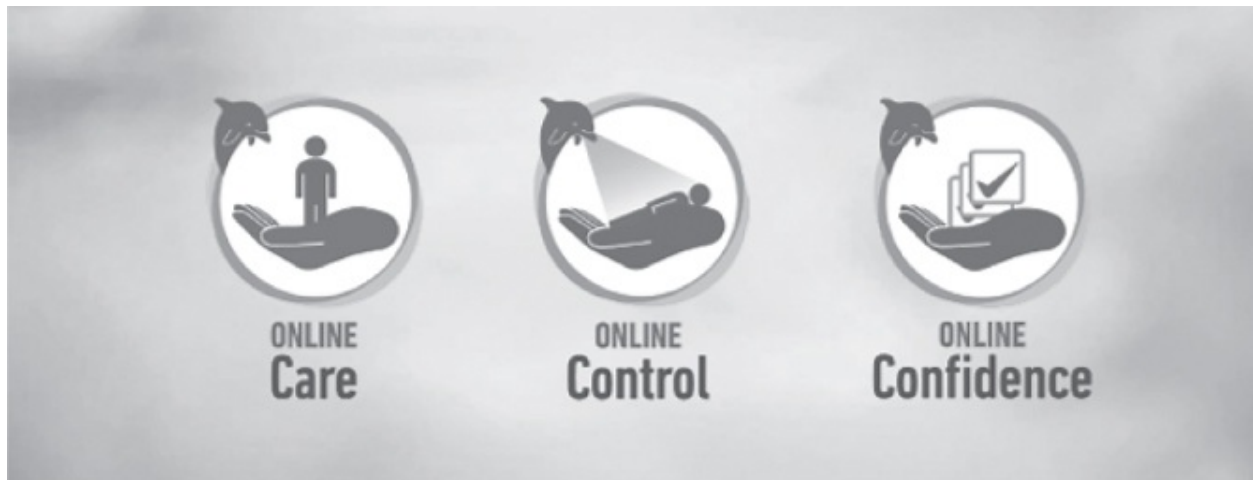


Figure 8.18 IBA claims.

In their presentations they often highlight the contrast between the existing solutions and theirs as illustrated in the big picture ([Figure 8.19](#)).



Figure 8.19 IBA Dolphin claims.

Ralf Schira, vice president of marketing, IBA Dosimetry, said, “We have been using our corporate claims of *Fastest, Most Accurate, Most Reliable* for over 12 years and these have been instrumental to our growth. When we launched Dolphin it was obvious that we needed to organize its *VALUE* proposition under three chapters and we chose the claims of: *Care, Control, Confidence*. Lead by the SalesBrain Team, the in-depth customer pain analysis and claim workshop – helped us define the best claims and better understand the needs of our customers. I can't say for sure that our business success came just from communicating these clear, consistent, and compelling messages but the discipline we created around these sets of claims certainly helped. Since we started to work with SalesBrain back in 2004 our business grew between 5% and 15% every year, year after year; and I don't think it's a coincidence.”

Example of Claims: Mountz

Based in the heart of Silicon Valley, Mountz Inc. provides torque tools to industries such as aerospace, automotive, medical, electronics, and more. Chances are very high that the tiny screws in your cellular phone were fastened with the right amount of force (torque) using a tool from Mountz.

Although Mountz enjoys a leadership position in their market, they do have competitors, and when they reached out to SalesBrain a few years ago, their objective was to solidify a clear set of claims that could become their mantra and help them emphasize their differentiators. During a constructive two-day claim

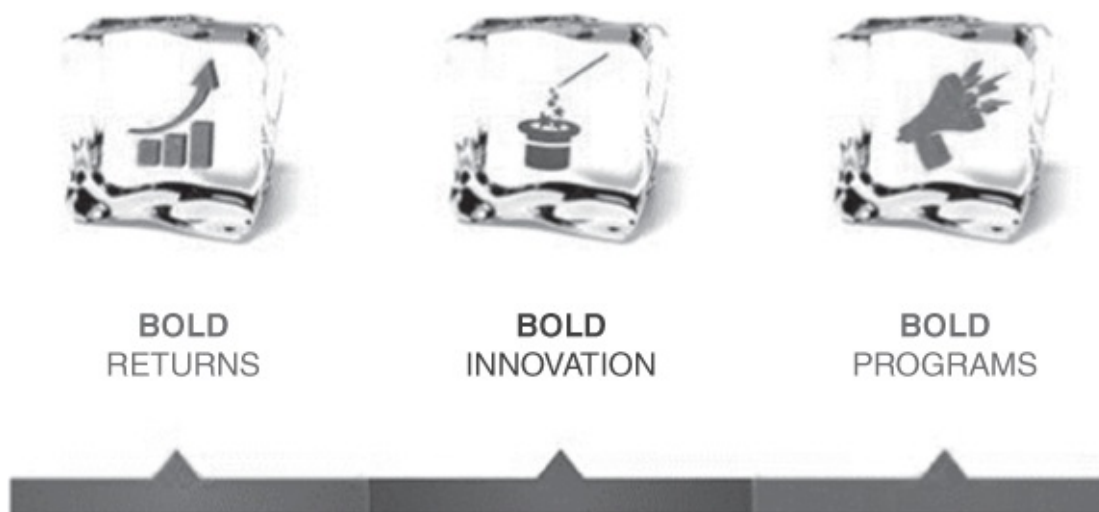
help them emphasize their differentiators. During a consultative two-day claim session, the executive team reached consensus on their claims:

- Guaranteed quality
- Guaranteed expertise
- Guaranteed support

Brad Mountz, CEO and president, reported, *“It was not easy for us to align our message on 3 simple reasons why our customers should choose us. But in the end, our commitment to delivering on our promise is really what sets us apart: our people know more about torqueing than anybody else in the industry, and we can guarantee our quality, our expertise and our support. Creating that level of clarity on what makes us unique and guaranteeing it helped our business grow nicely in the last years. In the competitive world we live in, I am proud and happy with those results.”*

Example of Claims: Talking Rain

Based in Seattle, Washington, Talking Rain Beverage Company is an industry leader that creates brands using innovative ingredients and ideas. A few years ago, the vice president of marketing reached out to SalesBrain to help them improve their sales message. The Sparkling Ice brand had always been strong at a consumer level, but they had a tough time linking it to business value for the resellers – big retailer chains. SalesBrain showed them how they could unify benefits under three claims ([Figure 8.20](#)). Here's a testimonial from Chris Hall, COO:



[Figure 8.20](#) Talking Rain business claims.

A few years ago, we reached out to SalesBrain to improve our sales message. Our branding had always been strong, but we were looking to link that strength to actual value for our resellers. SalesBrain showed us how to unify our benefits under three claims. As a result our business presentations have gotten shorter, clearer and more effective. We have trained our entire sales and marketing team and we now share the same way of presenting our unique value proposition. Our distributors hear a consistent and differentiated message about why they should put our products on their shelves...this has been a critical component to our rapid growth!

What to Remember About Your Claims

- Use up to three claims. Note that at SalesBrain we do not recommend using just two claims: just like a painter would draw one apple or three apples or many apples, the obvious symmetry of two is not appealing to our brains [[191](#)].
- If necessary, create subclaims – the subchapters in your book. These should follow the same rules of simplicity and tangibility as the main claims.

In the case of HSI presented earlier in this chapter, notice how they also present subclaims ([Figure 8.21](#)).

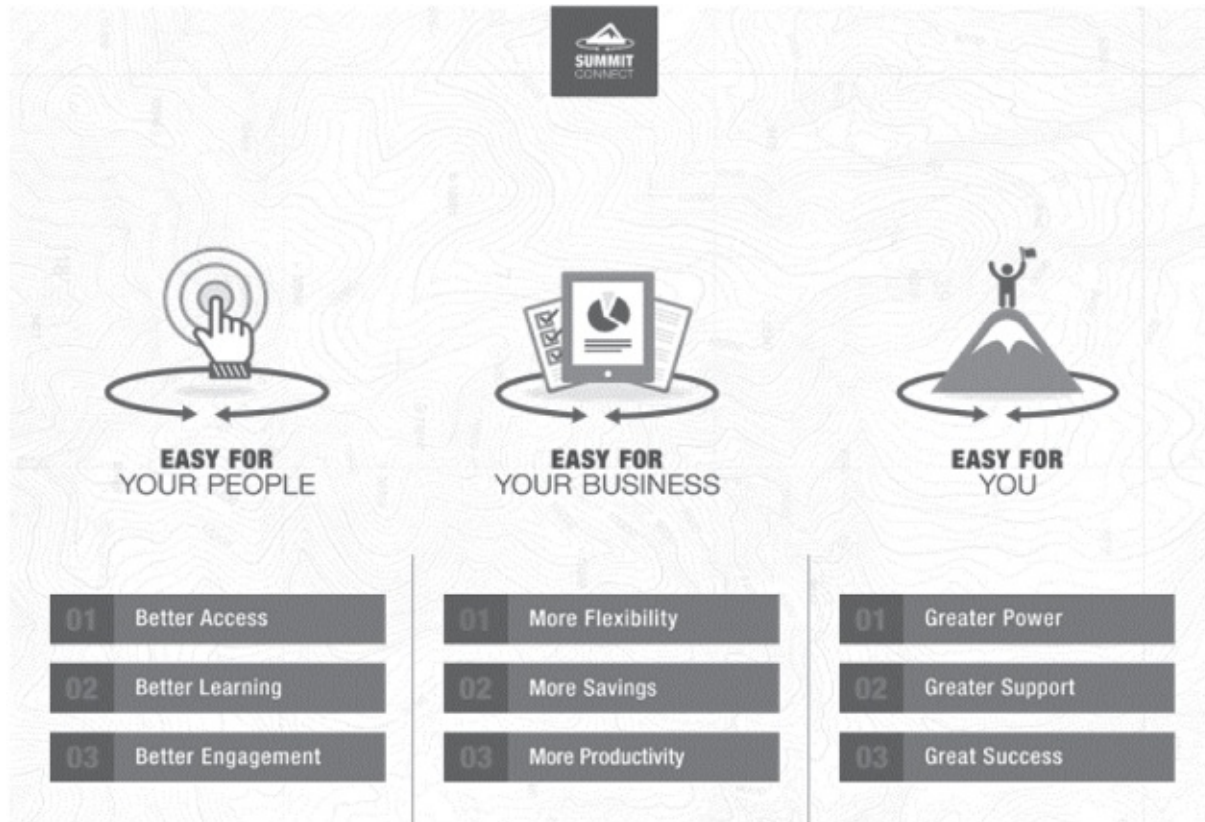


Figure 8.21 HSI subclaims.

- The music behind the words is more important than the words themselves. Make your claims rhyme – like pain, claim, gain, brain! Repeat the same word three times or use any other creative technique to make them sound better and more mnemonic.
- Use simple and tangible words and don't use more than three words per claims. The shorter the claims, the better: avoid words that have more than three syllables. Note that pain, claim, gain, brain are monosyllabic words.
- Look for the possibility of using various forms of abbreviations of your claims. For example:

Diagnose the pain

Differentiate your claims

Demonstrate the gain

Deliver to the primal brain

Can become pain, claim, gain, brain or diagnose, differentiate, demonstrate, deliver.

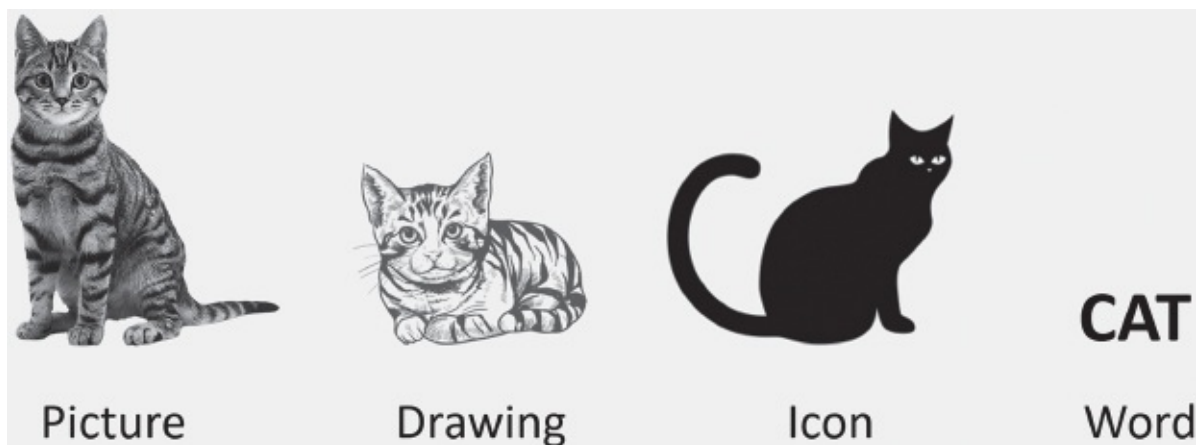
- Once you have solidified your claims, make them even more primal brain friendly by creating NeuroIcons. It will further accelerate your audience understanding of why they should buy from you or adopt your ideas.

BIG PICTURES

“Of all our inventions for mass communication, pictures will speak the most universally understood language.”

– Walt Disney, cartoonist

You learned earlier that the primal brain has a visual bias! There is ample proof that using visual cues to influence people is effective. We start to think in pictures and as our brain matures, we later acquire the capability to think in more abstract ways. Although the four items shown in [Figure 8.22](#) represent the same concept, our brains gradually learn to decode the meaning of the concept with a stimulus that is more and more dissimilar to the original concept we want to communicate, in this case, a real cat.



[Figure 8.22](#) Communication options.

The Science of Pictures

Visual information is processed in the back of the brain (occipital lobe) but reading a word recruits multiple brain regions including the auditory cortex and the frontal lobes. Reading text is far from being a visual task, except for the very first step, which consists in recognizing the shapes of the letters.

Outside of the world of advertising where professional communicators understand the power of using images, the average business executive typically uses words – not images – to communicate and influence. We have all attended

agonizing presentations using dreadful PowerPoint slides. Every day, we receive emails, proposals, legal documents and surf web pages with a ton of text and little or no images. Likewise, we are regularly exposed to messages that include images that are not related to the topic at hand: like the ubiquitous smiling person on the phone in her office!

A revealing research study on visual cues demonstrated the potency of visual information. Brian Wansink of Cornell University conducted a test with 54 participants who were asked to eat soup from a bowl [192]. Half of the participants had a normal bowl that provided for an accurate visual cue of the quantity of soup they would eat. The other half ate from a self-refilling bowl (biased visual cue). The self-refilling bowls were strictly identical to the normal ones, and the refilling process was made slowly and imperceptibly to ensure the participants were not aware they were eating from a self-refilling bowl.

Measurements included participants' soup intake volume, their intake estimation, self-perceived consumption monitoring, and satiety. The researchers found that participants eating from self-refilling bowls ate 78% more soup than those eating from regular bowls. Yet, those eating from the self-refilling devices didn't believe they consumed more nor did they report being more satiated than those eating from normal bowls. The visual cue dominated their perception and overrode other sensory impressions! The researchers concluded that the amount of food on a plate or in a bowl provides for a visual cue or norm that influences how much one will eventually consume. They further recommended that to eat less: people should simply eat from small containers!

If eating from a small plate can help a person eat less, what visual information do you need to present to your audience to help them understand why they should buy from you? The answer is a big picture.

Before we go further into this concept, grab your phone, call one of your best friends and ask him or her to draw the shapes shown in [Figure 8.23](#) on a letter-size piece of paper in landscape format:

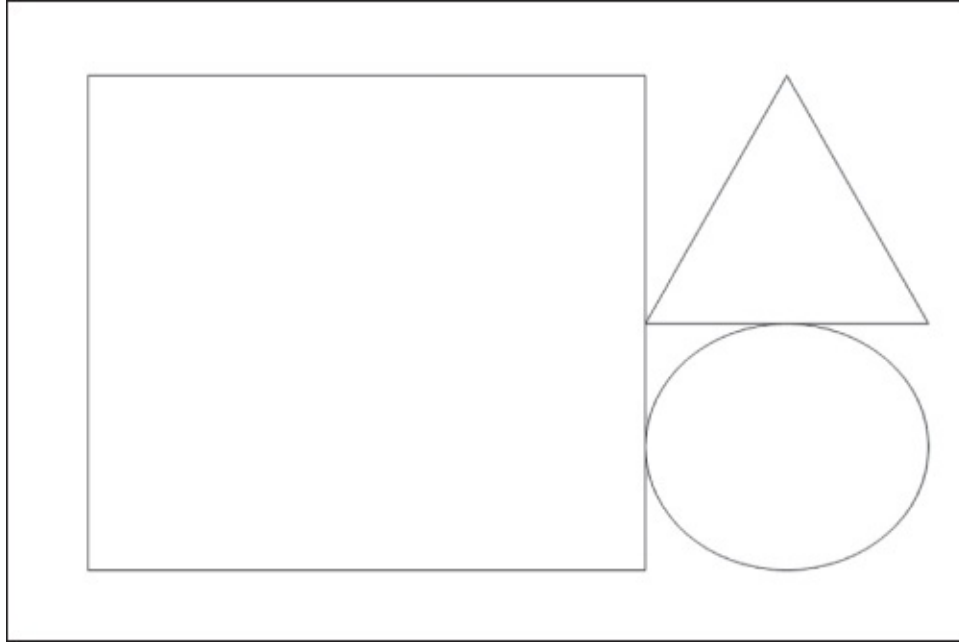


Figure 8.23 Geometric shapes.

Of course, you cannot send them the image of that page; you can only use words to guide their drawing.

How long did it take both of you to complete the task? Did either of you experience some frustration in the process? How similar is the final drawing from the original?

Did you notice how difficult it is to perform this task (fundamentally a visual exercise) by using a different modality, in this case, words? Since your audience's primal brains are strongly biased toward visual stimuli, you need a good picture: a big picture.

Let's start with a precise definition of a big picture: **A visual or graphical representation of how your product or service will impact the world of your prospects.**

Figures 8.24 and 8.25 show two examples of big pictures, the first one (Figure 8.24) for a hair regrowth product.



Figure 8.24 Before and after hair visuals.

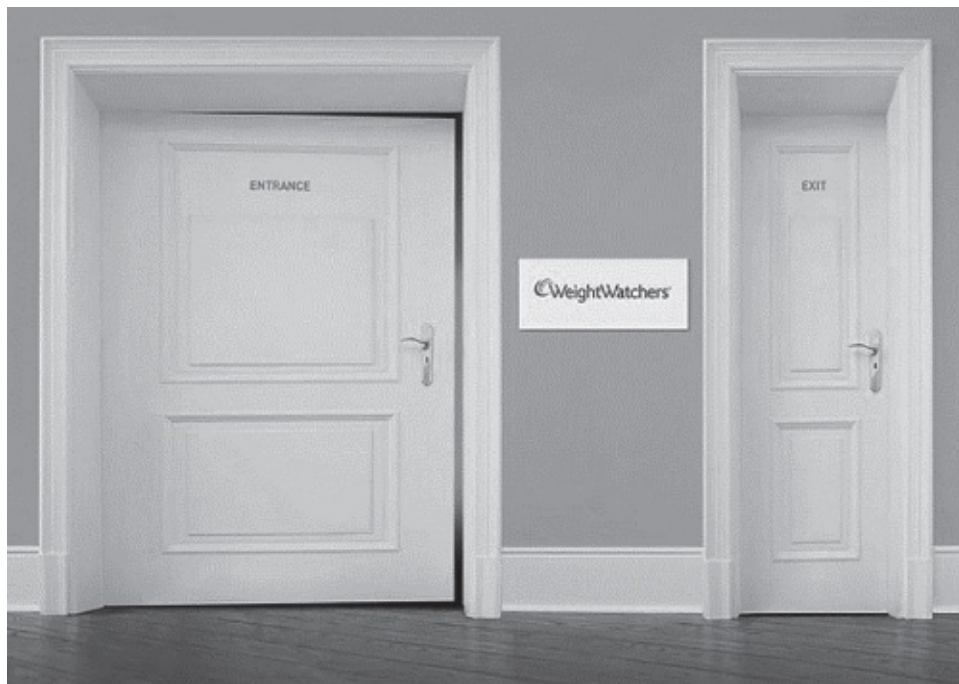


Figure 8.25 Weight Watchers ad.

And [Figure 8.25](#) is a twist on another familiar one: the value of joining a weight loss program!

Notice in both examples the use of contrast to further appeal to your primal brain. Notice also that in these ads the before is on the left and the after is on the right (or if written vertically the after should be located under the before). This is because, in the western world, we read from left to right and, conventionally, the future flows to the right. In other cultures where it is the opposite, the picture should be modified accordingly to avoid creating cognitive dissonance.

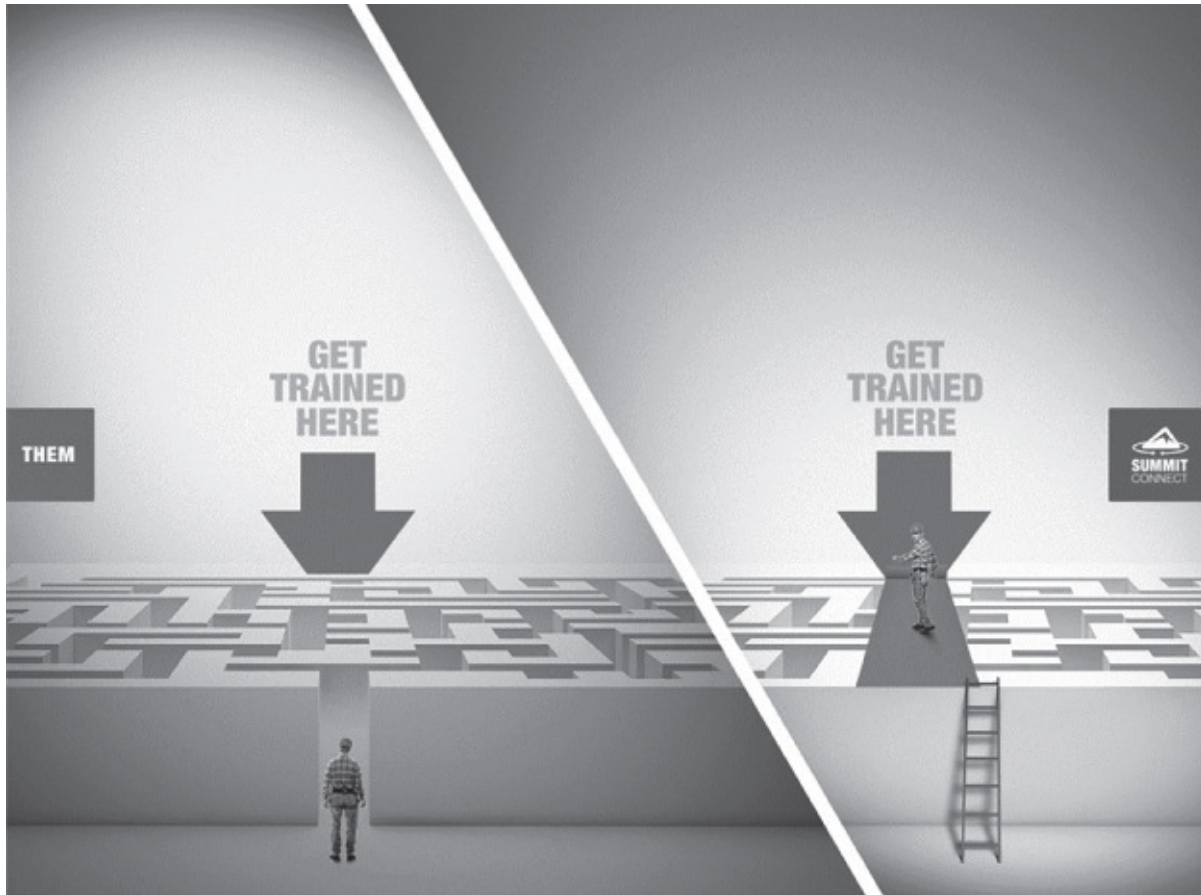
A good big picture helps your audience understand “visually,” that is, with little or no text, in one simple concept, what you can do for them!

You should notice that any image that represents your world, as opposed to the world of the prospect, cannot, according to our definition, be called a big picture. All too often, marketers who use images fail to provide the proper brain's response, because they are

- Self-centered: The image provides a picture of the vendor's world, not the customer's world.
- Not related to the value proposition of the product. You often see pictures of smiling people, but it is not clear how the smiles are linked to the value proposition.
- Too complex to be assimilated by the primal brain. Pictures that include too much text, or complex hierarchical representations like an organigram do not qualify as a big picture, because their complexity will require a lengthy cognitive analysis.

Other Examples of Big Pictures

[Figures 8.26](#) and [8.27](#) are examples of big pictures developed by SalesBrain.



[Figure 8.26](#) HSI big picture.



Figure 8.27 Tovar big picture.



Figure 8.28 Bill.com big picture.

Remember HSI ([Figure 8.26](#)) and their “easy” claims. Notice how the concept of easy is now conveyed with a contrasted visual!

Remember Tovar, the snow removal company ([Figure 8.27](#))? Notice how their big picture focuses on the pain with the assumption that, if you choose Tovar, a “slip and fall” will not happen in your parking lot. Meanwhile, the big picture for [Bill.com](#) ([Figure 8.28](#)) shows the sharp contrast of continuing to handle bills the old way versus the new way. And Talking Rain ([Figure 8.29](#)) shows through their big picture that retailers who reference their brands will receive bold merchandising programs.



Figure 8.29 Talking Rain big picture.

PROOFS OF GAIN

“Raise the roof, that I might see the stars to gain wisdom and see things for what they are. Please I need proofs.”

– **Barry Privett, musician**

We have already discussed the topic of demonstrating the gain in the third step of NeuroMap. Yet, it needs to be reviewed again here. Now that you are building your message, your proofs of gain represent another persuasion element. In fact, these proofs represent the core of your message.

Remember:

- Your grabber is a high-level snapshot of the pain of your customers typically followed by a brief inspirational representation of the relief of the pain reinforced by a prop, a minidrama, or a story. It appeals to the *personal* nature of the primal brain and its desire for *memorable* information
- Then, your claims communicate through *contrastable* benefits the top three unique reasons why your prospects should decide to buy from you.
- Then, your big picture represents *visually* how your solution will impact the world of your prospect.

- Now, you finally need to present your proofs of value to demonstrate what the prospect will gain. This needs to be done *tangibly* and simply to appeal to the primal brain.

The Dos About Your Proofs of Gain

- Because they offer so much persuading power, customer testimonials are not optional; they are mandatory. Please note however that they should not be presented as a long list typically displayed on a web page called “Our Customers.” If you use all your customers' names under a single tab, your communication appears to use the law of social proof to convince them. This is not effective, because persuasion works better when the persuadee is not aware he/she is being persuaded. Instead, your customer stories should be used as a visual and emotional medium to demonstrate the value of your claim.
- Because videos provide the strongest narrative transportation the best medium to communicate these customer testimonials is to make them like short movies. At SalesBrain, we call these videos NeuroTestimonials. Check this example from the CEO of HSI: <http://youtube/UMNEg5z6BKw>.
- The second-best would be short-written testimonials of the customers including their names and pictures. Provided there is no confidentiality issue; you should avoid using anonymous customer cases: it is too difficult for the primal brain to believe these are real.
- These customer cases need to appear as genuine as possible, and even in their shortest expression, which could be only two or three sentences, they need to tell a story that sounds, looks, and feel real. Nothing pushes back a prospect as much as the fake sounding corporate voice that claims that a customer is “*delighted* by the *extraordinary* solution” of their vendor.

It should be short and to the point. Ideally, the customer should use the same words used in your claims. In fact, a well-structured customer testimonial would start with a sentence that specifies the pain, shortly followed by the delivery of the punch line where the customer state that her pain was eliminated by your solution. Sometimes, to build theatrical tension, you can also include a sentence that demonstrates that there were one or more obstacles before the value could be experienced. Yet in the end, you the vendor still delivered. For example, assuming you were selling seat belts, here is a good testimonial given by Johann Swenson, purchasing director at Volvo:

I had been looking at procuring new seat belts for years [the pain]. Our research showed that drivers were looking for more comfortable seat belts without sacrificing anything to safety, not to mention that we have drastic cost reduction objectives, so it was not an easy problem [the *obstacle* to build narrative tension]. Yet, when we switched to ABC seat belts, we saved \$7 per car resulting in an annual saving of \$3.5 M [financial value], while increasing the safety index of our cars by 3 points [strategic value]. As a result, our entire purchasing department received the “Best Department Contribution” award directly from our CEO [personal value].

- Your value needs to be quantified, and the demonstration of the value needs to be done simply, logically, and fully. For example, note the progression in this example:
 1. “My solution will save you money.”
 2. “You will work 10% faster with my solution.” Now it's quantified.
 3. “Because you will work 10% faster, you will save 8% on your manufacturing cost, and you will be able to launch new products 5% faster.” Now both a financial and a strategic value have been quantified.
 4. “Because you will work 10% faster, you will save \$80,000 yearly on your manufacturing cost, and you will be able to shorten your time to market of new products from 18 months to 12 months giving you an advantage over your competitors current 18 months.” Now, both the financial and strategic values have been fully quantified and translated into a tangible number. Note the strategic value has also been contrasted with that of the competition.
 5. “After purchasing ABC Systems, we saved \$80,000 yearly on our manufacturing cost, and we were able to shorten our time to market of new products from 18 months to 12 months giving us a competitive advantage.” – John Smith, ACME Manufacturing. Now you have proven it with a customer case.
- With the preceding example in mind, notice how most companies fall short on their demonstration of the gain. For instance, they only provide a long list of past customers without quantifying the value or using a strong proof.
- Many companies confuse the concept of value with the concept of proof. For example, you will often see law firms, accounting firms, financial advisers, or real estate brokers claim: “We have 150 years of combined experience.”

In this case, maybe the strategic risk of choosing them is lower because they bring much experience, so the statement can serve as a proof, but this is not a value, rather a feature. In fact, the primal brain will probably associate all these years of experience with a higher sticker price!

- Lastly, your gain should be so obvious that the whole gain equation should fit on one page. Although this is often done in B2C sometimes with just one image with little or no words, like in this example, in complex B2B transactions, it is almost never done.

At SalesBrain, we have helped countless corporations improve the demonstration of their gain by presenting the value and the cost on one page... And the following testimonial from Olivier Legrain, CEO, IBA, is the proof!!!

With SalesBrain, we learned the impact of eliminating the guesswork from our customers on the value they will receive from us. With highly complex medical solutions costing \$50MM and more, being able to synthesize the value is an excruciatingly difficult exercise. At the end of a “salesbrained” presentation, when many of our customers tell us “I get it now” and you win the deal, the effort was well invested.

OBJECTION REFRAME

“Logic will never change emotion or perception.”

– Edward de Bono, psychologist

Most salespeople are uneasy when their prospects object: they feel it is a sign of rejection when it should be considered a request for more information. As the prospect gets closer to deciding, the fear of regret – of making a wrong move – will impact their decision and prompt for additional information [[193](#)].

Consider the most frequent objections: “Yes I like your solution, but you're too expensive.” Even if you are indeed more expensive than your competitors, is this a valid reason for your prospect not to buy from you? Are they comparing apples to apples? Often, with a price objection, the customer is only comparing the cost of each solution without comparing the value of the respective offers. Have you properly demonstrated all the gain or is some of your value still unveiled, unquantified, or unproven? Before deciding if you need to implement an objection reframe, be sure that you have fully demonstrated the gain.

Objections come in two forms: objections that arise from a *misunderstanding*

and objections that come from *perceptions*. Misunderstandings can be addressed by using logic and by providing additional information. Imagine your prospects said you're too expensive, but they hadn't seen that your price includes a 12 months warranty. Realizing that none of your competitors offer that warranty might be enough to change their opinion on the price difference.

By contrast, objections based on perceptions cannot be dissolved using logic. If your customers believes – rightly or wrongly – that your solution is too expensive, no amount of rational information will change their minds. The objection is simply the expression of the fear of potential regret. NeuroMap proposes that the best way to handle such an objection is to reframe it using a story, an analogy, or a metaphor. Doing so will produce a positive emotion to counteract the negative emotion associated with the fear of regret.

Do you remember the story Wilson Churchill told to convince the Parliament to increase the budget for new weapons development? (See the Stories subsection in the Grabbers section.) Now imagine if the objection of your customer had been: “Your solution is interesting, but we are concerned about this modern technology: it might be too *bleeding edge* for us.” You could use the Churchill story and simply change the punch line: “The outcome of the battle was devastating for the Dervishes. 12,000 were killed, 13,000 were wounded, and 5,000 were captured compared to only 50 killed and 400 wounded on the British side. The Dervishes capitulated shortly after the battle was raging...and this is what our modern technology could do for you: it will help you give a major blow to your competitors!”

How should you handle the objection?

1. Agree or respectfully disagree with the objection.
2. Step into the objection.
3. Highlight a positive side of the objection using a story, an analogy, or a metaphor.

Agree or Disagree with the Objection

Although many sales books recommend never disagreeing with a customer, we believe your persuasive effectiveness is higher if you state your own opinion because (1) the customer is not always right and (2) their primal brain will quickly detect any sign of manipulation or dishonesty, and do so often unconsciously [194]. Stating your opinion demonstrates that you stand by your own truth and are not afraid to disagree with your customer, a form of

fearlessness that works well on their primal brains.

Robert Cialdini also established that whenever you mention something negative about you or your solution (hopefully lightly negative) whatever you will mention just after that will be more believed by your audience [\[195\]](#). Imagine for example that you disagree with your prospect about the fact that your solution is too expensive. You might first say something negative like, “Although, as you pointed out, our customer service is not operating 24/7.” You can then follow with, “I believe we are not more expensive than our competitors,” which will more effectively help your customer let your statement on price influence her. Go for the truth even if in the immediate moment you feel that a small lie would serve you better.

Step into the Objection

Assume you are selling face-to-face to your prospect and they start raising an objection. We recommend that you step into the objection, which means that you need to move closer to the person you are trying to persuade. By doing so, you will show that you are not afraid of the objection. The absence of fear will confirm to his primal brain that the objection is not relevant, and this happens below their level of awareness. On the other hand, a physical retreat movement would be the surest way to confirm that the objection is supported by truth. Using Pr. Mehrabian's approximation, you can dissolve 55% of the objection subconsciously by just using your body language [\[195\]](#).

The amount of forward movement should be proportional to the distance between you and the prospect. If you are sitting close to him, then lightly leaning forward is enough but if you're standing on a large stage, you should be making several steps in the direction of the person who worded the objection.

Highlight a Positive Side of the Objection Using a Story, an Analogy, or a Metaphor

When an objection is expressed, regardless of the force of the reframing counterargument, the prospect will rarely surrender and admit: “You're right, your solution is not too complex, or you're not too expensive.” Your objective here is to eliminate or at least decrease the negative emotion at the origin of the objection. To do this, logic is not effective. Instead, you need to find a source for a positive counteracting emotion, and we recommend using a story, an analogy, or a metaphor to communicate that emotion.

Some Common Objections with Their Positive Side and Some Story Tracks

Objection: You Are Too Expensive. To reframe this common objection, you need first to find a positive aspect of being expensive. Typically, expensive products offer better quality and last longer. Then, you need to find a story, analogy, or metaphor that can communicate the value of better quality and a longer lasting product. Here is an example: before you launch into the reframe, agree or disagree based on your own conviction. For instance, if you agree, just say: “You're right, we are a few points more expensive than our competitors. But I do not believe that this is not a reason for you to turn us down.”

Then introduce your reframe. You could say: “This reminds me of the last time I bought new tennis shoes. As a tennis player, I have always played with a pair of Adidas that cost \$100. I was always happy with the grip, stability, weight, and looks of their shoes. I also loved that their soles lasted at least for 25 games before being worn out. Then recently I bought another brand [name withdrawn] because they looked quite similar to the one I was regularly buying, and they were discounted at \$50...a good deal indeed. Or so I thought! Although at first, my new shoes felt as good as the one I was accustomed to, after only a couple of games it became obvious that they were wearing out faster, much faster. In fact only after five games a hole appeared at the toe and they needed replacement... So, 25 games on, my \$100 shoes turned out to be much better than five games on the \$50 shoes. We might be a bit more expensive than some of our competitors, but our solution will give you much greater mileage!”

Notice the punch line and how it matches the story on shoe qualities.

Objection: You Are Late to Market. A positive side of this objection is that solutions that are late to market are often more robust because the vendor had time to work out the early bugs and provide a more robust solution. Here is how you could reframe the objection using the story of Tesla: “Yes, it's true we've been delayed in our product introduction. That reminds me the story of Tesla: Their first model, the Roadster, was delayed numerous times, as was the model S, and more recently the model X also launched with a delay of over two years. Despite all these delays, Tesla users report one of the highest satisfaction ratings. Similarly, if you choose us, once the solution is deployed, you can expect to experience the highest level of satisfaction.” Notice that if the objector is a Tesla driver this story will resonate even more with him!

The more you know about your prospect, the better because it will help you choose the best possible reframing story: the story that will produce the strongest

choose the best possible remaining story: the story that will produce the strongest positive emotion needed to counterbalance the negative emotion attached to the fear of regret.

Objection: Your Solution Is Too Complex. You could use the analogy with a car automatic gearbox: indeed, from the inside it looks complicated, but its usage is simple: park, reverse, neutral, and drive, and a gearbox is very reliable. So, you could say: “You're right when you look under the hood, our solution is quite complex.”

Notice that by starting to agree with the objection – a negative trait for you – they will be more open to letting the positive emotion generated by your upcoming story dissolve the negative fear of regret.

“It's a bit like an automatic gearbox. These devices found on all modern cars are quite complex. Yet for the users they are very simple: just select drive or reverse and off you go. Notice that most modern gearbox now provide 250,000 or even 300,000 trouble-free miles: these devices are very reliable and long lasting. And so will be our solution if you choose to work with us: complex on the inside but simple and reliable to use.”

The Dos of Objection Reframes

- Consider the objection as a gift: it's a signal the prospect is getting closer to deciding, and it shows they are afraid of making the wrong decision. By considering it a gift, you will minimize the amount of unconscious fear you are displaying through your words, your tone of voice and body language.
- Remember if you are standing in front of your prospect, step forward; that movement alone could dissolve 55% of the objection. If you are sitting at their desk, simply lean forward to shorten the distance between the two of you. The amount of forward motion should be proportional to the distance between you.
- Coming up with the perfect story, analogy, or metaphor that will generate a strong positive emotion in their brain is challenging. And coming with those on the fly is almost impossible, *even for the best sales and marketing people*. It means that you should prepare a list of the most common objections you hear together with a list of possible stories to use. Then, using your knowledge of the personality, behavior, activities, and passion of your objector, you should select from your list of possible reframing stories, the one you believe will generate the best positive emotion. If you know he plays tennis, the tennis-shoe story will most likely have a good impact.

- Because emotional responses can vary greatly from the same stimulus, testing the stories on others and practicing your delivery is key. What you think can create a positive response might not have the desired effect on a given prospect.

Now that you have reframed their objections, it's time to close!

CLOSING

“One doesn't leave a convivial party before closing time.”

– Winston Churchill, former British Prime Minister

The subject of closing remains one of the favorite topics of sales methodologies. However, none of them suggests a simple yet scientific and effective way to help the brain of your audience progress on the persuasion continuum: from suspect to prospect, to hot prospect, to becoming a customer!

In a face-to-face situation, to achieve that outcome systematically, we believe the most effective way is to close by

1. Repeating your claims
2. Asking “What do you think?” and waiting
3. Asking “Where do we go from here?” and waiting

Notice that in all other elements of NeuroMap, we encourage you to be creative and add bells and whistles to increase the saliency of your message. But closing is where a more standardized, scripted process that consists of three simple steps including two short questions will bring the best results.

Repeat Your Claims

Your claims represent the top three *reasons* why your prospects should buy from you and the best way to clearly highlight their importance is to consistently repeat them. Because the closing happens toward the end of your message, the recency bias will help them remember those words more than what you presented in the middle of your message. As you near the end of your communication, we recommend that you state your claims one last time:

“In conclusion, today we discussed how only our company can help you protect your time, protect your dime, protect your peace of mind.”

Ask, “What Do You Think?” and Wait

Do you remember the six laws of influence as demonstrated by Robert Cialdini?

Notice that all these are promoted by NeuroMap. For example, the law of scarcity applies when you state your claims: “Only with our solution will you be able to: claim 1, claim 2, claim 3.” Or the law of social proof will work in your favor when you use strong customer cases to prove your value.

So, after you've repeated your claims, you will trigger people's *law of consistency* by asking, “What do you think?” and by waiting for their answer. This will reduce your audience's resistance to later change their mind and increase cognitive fluency.

The Law of Consistency

Inconsistency is simply not a desirable personality trait. People find it positive to be consistent. The law of consistency can be witnessed in many situations and the simplest demonstration was made by psychologist Thomas Moriarty [\[196\]](#). Moriarty staged a test on a beach in New York. It involved two research accomplices:

- The first one laid down a beach blanket and a portable radio a few yards away from a randomly selected subject. After laying down for a few minutes, the researcher stood up and went for a walk on the beach, leaving his blanket and radio unattended.
- A few minutes later the second researcher, acting as a thief, picked up the blanket and the radio.

The test consisted of observing the behavior of the selected subject who stood close to the blanket and radio and had obviously witnessed the thief misdeed. In the first test conditions out of 20 trials, only four subjects tried to stop the thief. Understandably, few people are willing to intervene, risking being aggressed for protecting the valuables of a stranger. How could the law of consistency be used to reverse the odds and have 19 subjects out of 20 try to stop the thief? The researchers found the solution by asking a simple question. Before leaving his belongings for his walk, the first researcher just asked the neighboring subject: “Could I ask you a favor: would you mind watching my blanket and radio?” and for waiting for the subject to provide a verbal and public approval. Because people want to be consistent, those who responded positively will later feel obliged to act resulting in 19 subjects out of 20 trying to stop the thief.

Social psychologist Steven Sherman was able to increase the number of volunteers who would go door to door to collect donations for a charity by 700%. How? Instead of asking people to commit right away to volunteer, they introduced a step before. They called people and asked them to guess how many including them would agree to spend three hours collecting donations for the American Cancer Society to which question, the clear majority respond: a large majority would. When a few days later the same people received a call from the American Cancer Society asking them to volunteer, wanting to remain consistent with their earlier prediction (and implicit commitment), the number of volunteers was seven times higher than before because most said they would agree to serve as a volunteer on a prior call [\[197\]](#).

In Dallas, Texas Daniel Howard, a consumer researcher, helped the Hunger Relief Committee recruit more volunteers to host sessions at their home where cookies would be sold, the proceeds from which would be used to feed those in need. The standard direct approach of asking to volunteer returned an 18% success rate. However, by simply adding a question at the beginning of their standard request like “How are you feeling this evening?” the researcher found that of the 120 people called, 108 replied the expected response of “Well,” “Fine,” or “Real good.” Of these 108 individuals, 35 agreed to host the cookie party almost doubling the initial closing ratio from 18% to 29% [\[198\]](#).

In a California residential area, psychologists Jon Freedman and Scott Fraser asked residents if they would agree to display a large and ugly billboard in their garden. The sign simply read “Drive carefully” [\[199\]](#). Unsurprisingly, only 17% agreed. That percentage jumped to 76% when two weeks before being ask for the permission to put the large billboard; residents were asked to display in their window a post card sign that read: “Be a safe driver.”

So how do you use the law of consistency to perform a persuasive close?

After you have asked, “What do you think?,” you should wait. At that point, if they don't say anything, you might be tempted to suggest a few positive comments about your solution but remember that they must make that first positive statement without pressure or incentive. Your objective is to sit quietly and wait until what they say creates a positive momentum in your direction. By pronouncing a few positive statements, regardless of how insignificant these may seem at first, you are on track to close successfully. To further strengthen the law of consistency, make sure you are not the only one in the room to hear the positive feedback: you may want to have your prospect state it in a public forum with many of their own employees witnessing the moment.

The Power of Public Commitments

Notice that most people finish their presentation by asking, “Do you have any questions?” Yet, asking “What do you think?” is more effective, because although they may not have any questions, they will undoubtedly have opinions and most people are eager to share their opinions publicly.

Social psychologists Morton Deutsch and Harold Gerald asked students to evaluate the length of lines drawn on a piece of paper [\[200\]](#). The students were organized into three groups:

1. The first group had to publicly commit themselves to their initial estimates by signing their name and turning their estimates to the experimenter.
2. The second group committed themselves privately by simply writing their estimates on erasable pads and erasing it before turning the pad to the experimenter.
3. The third group was just asked to keep the numbers in mind.

Later, the students were presented with additional information about the lines' length and were asked if they wanted to revise their estimates. Students of group 3 were the most likely to be influenced by the additional information and they changed their estimates. Students of group 2 were more resistant to change. Students of group 1 most strongly refused to change their minds even in the presence of the new evidence; the fact that they had committed publicly to their first estimates made them stick to it!

When you ask people publicly what they think of your presentation, they will feel compelled to provide their opinion to illustrate their understanding and eventually showcase their mastery of the subject. Remember, your objective is to make them say a lot of positive comments – even if small – and to make these comments publicly.

Often, people object to this type of closing arguing: “But what if they say something negative about my solution?” Most likely the objection would have surfaced anyway, and it is better if you are in the room when they express it because you'll have a chance to respond. If the feedback is:

- Negative, treat it as an objection.
- Positive, congratulate yourself because using their law of consistency you have helped them build positive momentum toward buying your solution. In the future, it will become harder for them to diverge from this initial

direction.

Ask, “Where Do We Go from Here?” and Wait

Similar to the question, “What do you think?” this last question is designed to trigger their law of consistency and have *them* suggest or confirm the next step: not *you*. Notice also that, in this sentence, we have now switched from using the word *you* instead of the word *we*. Although the difference is subtle, it implies that after hearing their response to the question “What do you think?” they now agree to a next step regardless of how far they are from buying. Yet, because they expressed enough positive interest, the *you* has become a *we* because you earned their trust and you allow them to think of you as an extension of their team. The objective of that question is to start a dialogue in which you will want your prospect to state publicly what they see as the next steps. You should be ambitious but realistic in how far you can push them to bring them closer to a final decision. If you are selling a complex solution costing millions with a typical sales cycle of one year or more, and this is only your second visit, trying to close the deal would be premature. By contrast, if you're selling a car, and both husband and wife have been with you driving the car and discussing it for two hours when you ask: “Where do we go from here?”, you should stop at nothing short of “Where do I sign the contract?”

What to Remember About Closing

- Start by repeating your claims: it's your last chance to tell them *why* they should choose you. Most people feel uncomfortable repeating their claims, yet persuasive communicators do it naturally to help their audience understand the relevance and importance of their claims.
- Ask, “What do you think?” and wait. Encourage them to talk. Let your prospect freely express her opinion. Do not interrupt her; instead, demonstrate a genuine interest in her comments. Ask for clarification and drive the discussion to encourage her to state as many positive points as possible.
- Ask, “Where do we go from here?” and wait. If at first their initial responses are not moving fast enough toward a final decision, you may want to suggest a next step yourself. Then re-ask: “What do you think?”

Let's now review the persuasion catalysts.

SEVEN PERSUASION CATALYSTS

SEVEN PERSUASION CATALYSTS

Remember that if the persuasion elements are the basic building blocks of what you need to communicate, the persuasion catalysts represent a way to amplify their impact on their primal brain. They represent different communication techniques to further increase the persuasive effect of each persuasion element. Each of the persuasion catalysts can and should be used on any of the persuasion elements. Persuasion catalysts turn up the heat on the impact of your message.

WORD WITH “YOU”

“A gossip is one who talks to you about others; a bore is one who talks to you about himself and a brilliant conversationalist is one who talks to you about yourself.”

– Lisa Kirk, American book publicist

Of the long list of word choices, you can make at any point in time when you communicate, there is a simple yet effective communication strategy that will help you create and deliver your message with the strongest influencing power. The strategy is called “Wording with you,” a simplified version of what communication experts call “self-referencing.” Using the word *you* is an easy way to address the primal brain with a personal stimulus!

Researchers showed that on average, people spend 60% of conversations talking about themselves [201], and this jumps to 80% on social media platforms like Twitter and Facebook. The reason is simple: talking about themselves makes people feel good as demonstrated by the Harvard Social Cognitive and Affective Neuroscience lab [202]. In an fMRI experiment, 195 participants were asked to discuss their opinions and those of others, showing that talking about them triggered the nucleus accumbens and the ventral tegmental area, two regions associated with rewards and pleasurable feelings such as sex and tasty food!

Further, out of the 188 cognitive biases presented earlier, about 40 can be logically explained by the stimulus of personal such as the blind spot bias, the choice-supportive bias, the confirmation bias, the conservatism bias, the curse of knowledge bias, the illusion of control, the law of the instrument, naïve cynicism, the overconfidence effect, the self-relevance effect, the spotlight effect, and so forth. Since people are so consumed by their own lives, an effective way to get the attention of their primal brain is to use the word *you*.

Consider the following statements:

- “The new process is 40% faster than the current one” versus “You will save 40% of your time thanks to the new process.”
- “This copier includes a sorter and a stapler” versus “You will no longer waste time sorting and stapling.”
- “We are the leading provider of...” versus “You can minimize your risk by choosing the leading provider of...”

Or even in a shorter format consider these slogans:

- “Do you Yahoo?” – Yahoo
- “I want you” – Uncle Sam
- “Obey your thirst” – Sprite
- “Because you're worth it” – L'Oréal
- “You have 30 minutes” – Domino's Pizza

Or the new mantra of IBM: “you IBM.”

Or even these slogans:

- “Got milk?” from the California Milk Board
- “Just do it!” from Nike
- “Think different” from Apple

Notice in the preceding slogans that, although the word *you* is not explicitly written, it is implicit as in “You got milk?” or “You just do it!”

When you use the word *you* (or *your*), you create instant rapport between the writer and the reader because you put the reader at the center of your story!

The Science of Using You

Burnkrant and Unnava, from Ohio State University, showed that increasing self-referencing (processing information by relating it to oneself or our personal experiences) can lead to increased persuasion [203]. Later, Jennifer Escalas proposed that *even* when an ad uses a weak argument, the narrative self-referencing will have a persuasive effect through transportation: people will be moved by the story [204].

When you hear “You have 30 minutes,” your brain engages in a story of all the things you could do before eating your pizza. Notice how this conveys a positive

concept, rather than having to suggest that you may have to wait 30 minutes!

The Use of You in Claims

Do you remember the company HSI and their “easy” claims? *Easy for Your People, Easy for Your Business, Easy for You*. Do you also remember the “protect” claims of the law firm Carothers, DiSante and Freudenberger: *Protect Your Time, Protect Your Dime, Protect Your Peace of Mind*. These claims are effective not only because they emphasize the single concept of protection – a critical value for a law firm – or because they rhyme, but also because there is an emphasis on the word *you*!

The next time you write an email, a brochure, a web page, or any other communication just reread it one more time and see how you can use the word *you*. Make a point of minimizing the use of *I, we, our, the company* and replace them with sentences that use the words *you* and *your*. You will also notice that forcing your thinking around the notion of *you* will naturally de-emphasize the message from the functions and features of your solution. Instead, it will anchor your message in the benefits for your audience!

TELL STORIES

“The one who tells the story rules the world.”

– Hopi Native American Tribe proverb

Earlier we described stories as a type of grabber. Because stories are highly effective on the primal brain, they can also enhance the persuasive effect of any of your ideas, arguments, concepts, or persuasion elements. Therefore, in the NeuroMap model, stories represent not only a form of grabber, but they can also augment the persuasive effect of any of your persuasive elements such as your big pictures, your proofs of gain, or your objection reframe. Stories work as a persuasion catalyst.

BE CREDIBLE

“The reason we're successful, darling? My charisma, of course.”

– Freddie Mercury, lead singer, Queen

Imagine two different people delivering the same message: Will they have the

same impact on the audience? Will both generate the same persuasive energy to move the audience to act? Of course not: it's a matter of credibility or charisma!

Most people think that “you have it or you don't but you can't do much about your charisma.” However, we believe learning the science of charisma can help increase your persuasive power. We will attempt to define it scientifically and remove as much of its mystical aspect as possible. More important, we will show that it's all about the primal brain! You will note that this section is the longest in the book. Why? Because even with an inferior product or solution, the more charismatic salesperson win most deals!

We believe that your charisma or the level of credibility you have with an audience is a function of six attributes:

1. Similarity: the common traits or beliefs you share with your audience.
2. Expression: what you communicate through your *words*, your *tone* of voice, and your *body language*.
3. Creativity: the imagination you use to deliver many “aha” moments that helps your audience grasp what you say with less cognitive effort.
4. Passion: the love and enthusiasm you display for your topic or expertise.
5. Fearlessness: the confidence you exude when you are not attached to the outcome.
6. Integrity: the evidence that creates solid trust with your audience.

Your Similarity

“If you wish to persuade me you must think my thoughts, feel my feelings and speak my words.”

– Cicero, Roman statesman

For decades, empirical sales models have recommended looking for similarities with your prospects. Many sales executives quickly jump on an opportunity to talk about golf if they discover their prospect is a golfer. John Bargh, an expert on the unconscious mind, reported: “Baby animals in general have evolved a predisposition to stay close to those who are similar to them,” [205]. We look for similarities with our prospects to build rapport more effectively. Rapport is defined as “a positive emotional connection” [206]. It is about building relationships through a sense of mutual trust and confidence, establishing effective communication and identifying common beliefs and knowledge.

Rapport can simply be described as a feeling you experience when you are with someone you intuitively like.

Researchers have coined the term in-group, out-group bias. They showed that people in groups – even totally artificially created groups, such as when the groups were defined by the fact that people had randomly drawn either a blue versus a red ball out of an urn – who were given the opportunity to share money, would give more to those who had drawn the same color ball as them [207].

Multiple types of research showed that a powerful way to build rapport and to start an effective communication is to “mirror” or match the behavior of the other. This includes body postures and gestures, dress code, energy level, speaking habits including vocabulary and tone of voice, and even breathing synchronously. When two individuals are in good rapport they will naturally and unconsciously adopt the same attitudes [208–210]!

Essentially, the conclusion is this: the more similar you sound, look, and feel to your customers, the faster and stronger the rapport will be and as result, the more charismatic you will appear to them. This will shorten the sales cycle because rapport and credibility are the basis of trust. We tend to trust members of our own tribe we respect.

What to remember about similarity:

- The concept of similarity applies to everything: if your customers dress conservatively, so should you. Remember the days when the employees at IBM wore a three-piece suit with a tie? By contrast, if today you are trying to sell to a young start-up south of Market Street – the digital center of San Francisco – wearing casual dress will surely lead to a better connection with your audience than a three-piece suit.
- You should speak the same language as your customers. Remember every industry uses its own vocabulary, so it is your job to learn their language: they shouldn't have to adapt to your expression style. If your customers use long pauses, so should you.
- Mirroring: In his book titled *Mirroring People: The New Science of How We Connect*, Marco Iacoboni [211], professor at UCLA, made a great case for the science of empathy.

He recommends mirroring (not mimicking) the person you are trying to build rapport with. Neuroscientist Antonio Damasio and colleagues showed that when we act like our listener, it helps us live an experience from the standpoint of the

other party and this mirroring behavior triggers the neural mechanism of authentic empathy [212].

- If your customers notice that you are mirroring their behavior, it may produce the opposite effect, because persuasion works better when the persuadee is not aware she is being persuaded. So, make sure your audience doesn't notice that you are making a deliberate attempt to dress like them, speak like them, or move like them! The more genuine you are in your practice of similarity, the stronger the rapport will be.

For the primal brain, seeing or hearing another individual with great similarity provides a safe environment from which trust can be built.

Your Expression

“He who wants to persuade should put his trust not in the right argument but in the right word. The power of sound has always been greater than the power of sense.”

– Joseph Conrad, novelist

Logic commands that, if we were rational decision-making machines, we would only consider the meaning of the words of people on a mission to influence us. We wouldn't be influenced by other factors such as the tone of their voice, the style of what they wear or their facial expressions. Unfortunately, because our primal brain plays a dominant role in our decisions, the music, tone and rhythm we hear from the presenters' voice, what we see (i.e., what they wear and their body language) all matter more than the words they use.

Because there is no record of spoken languages, evolution experts use a large spread of estimates to describe when homo sapiens first started to use words, how language evolved, and what impact this had on the brain. Studying the changes in the hyoid bone – the only bone not connected to other bones, which is only found in Neanderthals and humans and is the foundation of speech ability – researchers hypothesized that words appeared about 300,000 years ago together with the development of tools. One will note that the first forms of written words appeared only about 10,000 years ago and, for most humans, reading became a necessity only a few hundred years ago. Although the brain demonstrates a capacity to reorganize its pathways – a phenomenon called brain plasticity – this rewiring does not operate at the same level of performance as the dedicated circuits resulting from the long-term effects of evolution. Written words and even spoken words haven't had enough time on the evolutionary scale to make

an impact on the brain. Therefore, in order to read, the brain had to recruit regions genetically programmed for other tasks. Reading requires three distinct steps [213]:

- The *visual* processing of text, which recruits the occipital lobe and specifically the ventral visual pathway in the back of your brain. For example, while reading the word *CAT*, you would decode the visual shapes of the three letters C-A-T. After training, this process of recognizing letters becomes highly automatic and the brain can decode a letter in less than 150 milliseconds.
- The *auditory* processing of sound to extract phonemes (smallest unit of sound which when assembled constitutes syllables). For example, the phonemes from the letters C-A-T form the sound “CAT.” This task is associated with the superior temporal sulcus on the left side of the brain.
- The *semantic decoding* of words to retrieve from the mental lexicon the concept associated with them. The sound “CAT” now needs to be associated with a furry animal. This system accesses several areas of the brain but is believed to be mainly in the temporal lobe, also on the left side of the brain.

In summary, reading and other language-related activities such as listening/talking/writing recruit complex brain circuits generally not associated with the primal brain. Therefore, persuading with words is less effective than with nonverbal cues. This is what communication researcher Albert Mehrabian [186] demonstrated by performing a series of experiments, from which he concluded:

- In a face-to-face situation, there are three elements of communication:
 1. Words
 2. Tone of voice

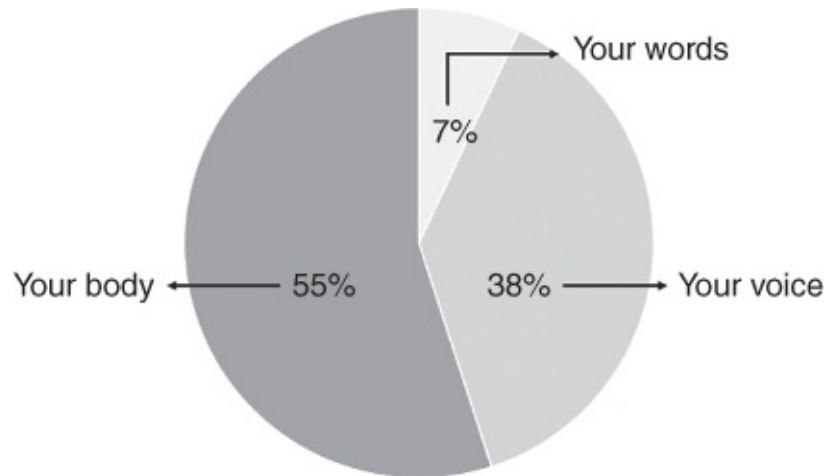


Figure 8.30 Mehrabian research.

3. Facial expressions (body language)

He quantified the importance of those factors and proposed the now-famous and *often misinterpreted* rule of 7-38-55. According to Mehrabian, the effect of the communication is for

7% from your words

38% from your tone of voice

55% from your body language

- When the three elements of communication are not congruent, people tend to believe the tonality and body language more than the words.

In addition, researchers at Emory University in Atlanta, Georgia, confirmed that your tone of voice – pitch, loudness, tempo, rhythm – often conveys more information than the words you pronounce [214].

Since the primal brain is mostly visual, it is no surprise that what your audience sees has more impact than what it hears. In fact, studies suggest that when you are on the phone and there is no visual communication between the two communicants, words now account for 14% of the impact, while 86% comes from the tone of voice [215].

Let's now review the importance of key elements that influence the quality of your expression: your words, your voice, and your body language.

Using the Right Words

“The difference between the almost-right word and the right word is really a large matter—it's the difference between the lightning bug and the lightning.”

– Mark Twain, American author

In the claim section in [Chapter 6](#), we already saw that using claims with carefully chosen words will greatly improve how much your customers will remember and how much they will be convinced by your pitch. Let's further investigate the impact of words.

There are about 170,000 common words in English in the Oxford dictionary (about 100,000 in French and 370,000 in Chinese), and it takes only about 7,000 words to be considered fluent in any language. Now the question is: Do certain words or expressions produce a greater persuasive effect?

The answer is a resounding yes.

The Dos of Using Words

- Use simple, short, and concrete words. Since the primal brain does not perform language processing, which resides in the cortex, use words a four to five-year-old child would understand. Avoid complex words that require evolved cognitive functions to comprehend [\[216\]](#). Shorter words (monosyllabic) are typically easier to grasp and remember than longer words [\[217\]](#). Aim for simplicity and familiarity to minimize the demand on the brains of your audience [\[218\]](#).
- Use short sentences. Initiated by the work of George Miller [\[97\]](#), researchers have hypothesized that our working memory can typically hold seven digits, six letters, or three to five words.
- Limit your usage of negations. Psychologists Nieuwland and Kuperberg showed that most statements that use a negation generate greater brain activity and are processed more slowly [\[219\]](#). Notice that, if you are instructed to “*not think* of a pink elephant,” you cannot “*not think*” about the animal! Notice the cognitive load necessary to process double negatives like “you cannot not think!”
- Speak in positive terms, but don't overdo it. The use of positive words will, by association, set a positive mood to your communication. However, the overuse of overly positive words such as fantastic, excellent, fabulous, or phenomenal can be interpreted as a deceptive tactic [\[220\]](#) and will decrease persuasiveness.

- Speak in the specialized language of your audience: to an audience of doctors, use medical terms, to an audience of engineers, use technical expressions.

In *Words Can Change Your Brain*, authors Newberg and Waldman [[221](#)] suggest 12 speaking strategies that will stimulate deep empathy and trust in the listeners' brain:

- Relax.
- Stay present.
- Cultivate inner silence.
- Increase positivity.
- Reflect on your deepest values.
- Access a pleasant memory.
- Observe nonverbal cues.
- Express appreciation.
- Speak warmly.
- Speak slowly.
- Speak briefly.
- Listen deeply.

Furthermore, and applying the rule of similarity, if you know or can infer the emotional state of your audience, using words that are most likely to appeal to that emotional state will surely generate greater interest. For example, if your audience feels

- Curious, you can use: *confidential, secret, confession, hidden, unbelievable, insider, hidden*, and so forth.
- Confused, you can use: *hesitant, perplexed, manipulative, dishonest, disoriented, overwhelmed, anxious*, and so forth.
- Rushed by time, you can use: *instantly, pressed, proven, safe, tremendous, deadline, urgent*, and so forth.
- The only exception to the rule of mirroring of emotion would be anger. If you mirror anger it may trigger a fight-or-flight reaction from your listeners, which is not an effective way of building rapport.

The Don'ts of Using Words

- Don't use words your audience may not understand. Avoid obscure acronyms or jargon that could confuse your audience.
- Don't insert fillers like: “Eh,” “I think,” “I believe,” “hopefully,” “you know.” They dilute your message, distract your audience, and decrease your charisma.
- If you are using PowerPoint, Keynote, or any other presentation software, do not read or repeat what is written on your slides. People read two to three times faster than you can talk (the average speaking rate is 120 words per minute when average reading rate is around 250 words per minute), so if you have text on your slides and typically read or repeat what you have on those slides, your audience will be reading the last sentence when you are still pronouncing the words of the first sentence. It desynchronizes what your audience reads and what they hear, raising the cognitive load in their brains.

Using The Right Voice

“Surely whoever speaks to me in the right voice him or her I shall follow.”

– Walt Whitman, American poet

We have all experienced this: a close friend or relative calls you and as soon as they pronounce the word “Hello” you instantly can tell if something is wrong. The tone of the voice conveys so much meaning that you immediately suspect something unusual.

The human voice is a complex combination of sound waves generated by the vocal cords, which vibrate at different frequencies. Voice is further modulated by the laryngeal muscles (the muscles in and around the voice box) and the shape and size of the tongue, palate, cheeks, lips, throat, and nasal passages. Researcher Christy Ludlow demonstrated the complexity of the brain processes involved in the generation of sounds. Ludlow revealed the critical role played by subcortical structures in the production and control of human sounds – such as the nucleus accumbens – a group of cells located in the primal brain [222]. Claire Tang from UCSF also revealed the existence of neurons, located in the superior temporal gyrus, that respond specifically to pitch changes [223]. Linguists call these pitch changes prosody. These pitch changes can alter the meaning of a sentence. For example, “John loves fruits,” said with a descending pitch indicates that John rather than another person loves fruits. With a flat pitch,

“John loves fruit” would indicate that John loves fruits rather than other types of food. Moreover, a rising tone toward the end of the sentence would indicate a question, “John loves fruits?”

Although it was long assumed that the brain used a complex mechanism to add a layer of meaning based on prosody, Tang confirmed that specific neurons respond to pitch changes. Most people are not aware of the existence of neurons dedicated to prosody nor are they aware of their impact on the meaning of their communication. In fact, Annett Schirmer from Singapore University showed that the emotional context created by using various vocal tones actually changes the way words are encoded in memory [\[224\]](#).

A lot of these clues are communicated unconsciously, which is why it often takes a professional actor to sound “true.” The truthfulness of your communication will come when all the main constituents of your expression: words, the tone of voice, facial movements, eye contact all communicate a positive message that confirms you are a trustable source.

The human voice is characterized by several parameters you can optimize to increase your persuasive power, including:

- Pitch: high or low frequency
- Intensity: loudness
- Speed: slow or fast
- Rhythm: tempo
- Pauses: short or long

Voice Pitch

Researchers demonstrated that men with lower pitch are perceived as both more attractive and more likely to be respected and followed [\[225\]](#). For women, higher pitched voices tend to be considered more attractive whereas those with lower voices are perceived more dominant. This may have some evolutionary root as women hormonal changes cause the pitch of their voices to rise during the ovulation period when they are most fertile [\[226\]](#). For men, lower voices are linked to higher levels of testosterone, which indicate health, good genetics, and the ability to defend from threats, all desirable traits important for survival and all primal traits!

In an experiment involving 121 students who were trying to influence each

other, Joey Cheng, a social psychologist from University of Illinois, demonstrated that lowering your pitch increases your influence whether you are a man or a woman [227].

As a result, we recommend that you lower your voice, to the extent that it is possible and does not make you feel awkward when you do.

Voice Intensity

Researchers showed that people of power tend to speak louder and use more variation in the intensity of their voices [228].

We recommend that you speak slightly louder than your audience and vary the volume of your voice.

Speaking Rate

Researchers from the University of Southern California established a correlation between speed of speech and influence [229]. They revealed that faster speech speed functions as a general cue that augments credibility and enhances persuasion. This should be mediated by the research of Gibson, Eberhard, and Bryant [230] which pointed out that, in certain conditions, a slower speech rate can increase listener's comprehension.

We recommend that you speak about 20% faster than normal, but not too fast to avoid sounding pushy.

Pauses

“The right word may be effective but no word was ever as effective as a rightly timed pause.”

– Mark Twain, American author

Experts have conducted a significant amount of research just on the effect of pauses in speech. Tyler Kendall, for example, wrote a complete book on the topic: speech rate, pause, and corpus sociophonetics [231].

Pauses are typically used in different contexts:

- After long utterances
- To breathe
- To think

- To offer a chance to let the other person talk

Researchers from Leeds University have confirmed that the insertion of pauses between each phrase increased the listeners' comprehension [232]. Other researchers [233] showed that the use of pauses correlates more with truthful than with deceptive speeches.

Therefore, good persuaders use pauses of various and appropriate length at different points of their discourse.

Variability

The research of Peterson and Cannito [234] confirmed the importance of pitch, speaking rate, and volume. It also showed that *varying* these characteristics further increases the communication effectiveness resulting in increased sales. To persuade, you need to vary the volume of your voice, your speaking rate, the length of pauses, and even your pitch.

Interferences

Researchers at the Air Force Research Lab found that if two people talk at the same time the degradation of understanding is in great part caused by the loss of listener ability to use prosodic and voice characteristic to link together the words expressed in the target phrase [235]. Therefore, any background conversation or outside noise such as traffic noise in the background will impact the listener's ability to learn and comprehend [236, 237]. So make sure your message is properly heard with little or no side conversations and especially no external noise.

Voice Mirroring

Mirroring your listener's voice will always bring benefits, including creating a perception that you are more credible, relatable, and attuned [238].

When there is a discrepancy between the words you communicate and your vocal emotion, it will confuse the listener [239]. Imagine what you would think if one of your relatives was telling you “I love you” in a loud and harsh voice. Therefore, to communicate sadness, make sure your voice becomes monotonous, and to communicate joy, make your voice less flat.

Finally, note that in some cultures like Japan or the Philippines people pay even more attention to the tone versus the words than we do in the United States [240]. Yet people who are not absolutely fluent in the language will not be able

to detect these tonal differences.

Using the Right Body Language

“I speak two languages: Body and English.”

– Mae West, American actress

According to Dr. David Givens, director of the Center for Nonverbal Studies, “When we speak (or listen) our attention is focused on words rather than body language. But our judgments include both. While we are busy with the conscious content of our communications, the unconscious can be working for or against us.”

Consider a common victory sign: raising our arms above our heads. Margaret King, director of the Center for Culture Studies and Analysis in Philadelphia said: *“The arm raised high evokes triumph and it's very ancient. I would bet that comes from a good hunt, from having successfully hunted and killed prey. We still use body language because that's the way our brains worked years ago when we first became humans.”* In fact, gesturing is controlled by the primal brain which explains why gesturing is a common form of communication in the animal kingdom.

Your Facial Expressions

“American sign language requires a lot of facial expressions.”

– Nyle Dimarco, American actor

Paul Ekman, briefly introduced earlier in the book, is a world expert in human emotions and facial expressions, has identified more than 8,000 human facial expressions [241]. Ekman also devised a system to measure the emotions people experience based on changes of various control points on a human face. For example, the changes coded in [Figure 8.31](#) indicate the emotion of happiness.



Figure 8.31 Facial coding.

Some of our emotions, called micro-emotions, are displayed for only 1/25 of a second. These expressions are important because no one can hide them, and they reveal the emotional state of your listener, including his or her potential deception tactics. Ekman showed that smiles change the electromagnetic activity of the brain [242]. In fact, the effect of facial expressions are so strong that your brain will respond similarly to a robot's mechanical movements of the eyebrows, eyelids and jaws, as you would to a real person [243].

Demonstrating how the primal brain is wired for face recognition, researchers Tsao and Le Chang have identified specific clusters of neurons that fire only upon specific facial characteristics. They found that 205 neurons located in two separate areas of the brain are used for facial recognition. In a revealing test, they reconstructed the images of the faces the monkeys were seeing by decoding the firing patterns among these neurons: these images were nearly identical to the original faces the primates were looking at [244].

This explains why primates and humans are so good at distinguishing between millions of faces, and do so without requiring a similar amount of dedicated neurons to perform the task.

The Dos of Facial Expression

- Mirror all expressions to help you create a positive rapport with your audience...except anger.
- Smile! Use a natural smile: what the experts call a Duchenne smile. According to Ekman, the main difference between a real and a fake smile is in the widening of the orbicularis oculi muscle around the eyes.
- Relax your facial muscles (all 43 of them). First, it takes fewer muscle contractions to smile than to frown, so you'll feel less tired. Second, because of the mirror neurons in your audience's brain, if you smile long enough it will start to make them smile. Strack, Martin, and Stepper (1988), from Mannheim University in Germany, demonstrated that a person's facial activity influences their affective response. In their experiments, they had people watch cartoons and evaluate how funny they were. By asking participants to hold pens in their mouths forcing some of their muscles to simulate a smile, they showed that the participants that were forced to smile rated the cartoon as funnier.

The Don'ts of Facial Expression

- Do not fake a smile, because the primal brain of your listener will detect – often unconsciously – that it is not a real smile and that therefore you are not trustworthy. It will provide an adverse reaction worse than if you were not smiling at all.

To be a good persuader, engage the muscles around your eyes while limiting the contraction of the zygomatic, which, when overcontracted, signals a fake smile, and adopt a Duchenne smile. This may require practice!

Your Handshake

Neurobiologists at Israel's Weizman Institute discovered that human handshakes serve as a means of transferring social chemical signals between the protagonists. People who shake hands tend to bring the shaken hands to the vicinity of their nose and smell them. This may serve as an evolutionary need to learn about the person whose hand was shaken, replacing a more socially awkward sniffing routine [[245](#)].

In 2010, for the launch of a new sales campaign in the United Kingdom, Chevrolet asked Geoffrey Beattie, a psychology professor to decode the best

handshake: perfect handshake (PH) to “offer peace of mind and reassurance to its customers.” Here is the formula Beattie offered:

$$PH = \sqrt{(e^2 + ve^2)(d^2) + (cg + dr)^2 + \pi\{(4 <s> 2)(4 <p> 2)\}^2 + (vi + t + te)^2 + \{(4 <c> 2)(4 <du> 2)\}^2}$$

Where:

(e)	is eye contact (1 = none; 5 = direct)
(ve)	is verbal greeting (1 = totally inappropriate; 5 = totally appropriate)
(d)	is Duchenne smile – smiling in eyes and mouth, plus symmetry on both sides of face, and slower offset (1 = totally non-Duchenne smile [false smile]; 5 = totally Duchenne)
(cg)	completeness of grip (1 = very incomplete; 5 = full)
(dr)	is dryness of hand (1 = damp; 5 = dry)
(s)	is strength (1 = weak; 5 = strong)
(p)	is position of hand (1 = back toward own body; 5 = other person's bodily zone)
(vi)	is vigor (1 = too low/too high; 5 = mid)
(t)	is temperature of hands (1 = too cold/too hot; 5 = mid)
(te)	is texture of hands (5 = mid; 1 = too rough/too smooth)
(c)	is control (1 = low; 5 = high)
(du)	is duration (1 = brief; 5 = long)

Although the rules of handshakes vary from country to country, including places such as Japan where bowing is the norm, the evolutionary meaning of the handshake is to prove that neither shaker is carrying a weapon. Because it constitutes the first contact with the prospect, the savvy persuader would be inspired to learn the proper way of shaking hands.

The Dos of Handshakes

- Maintain direct eye contact during the interaction.
- Start with a warm verbal greeting.

- Display a Duchenne smile on your face.
- Engage your hand all the way to the thumb of your shaker to provide for a complete grip.
- Make sure your hand is dry and your hand texture should be average: neither too rough nor too smooth. Your hand temperature should be warm.
- Extend your hand toward the body of your shaker.
- Gauge the strength of your shaker and prepare to match the strength of their grip.
- Give a few up and down movements neither too vigorous nor too weak.
- Make it last for as long as appropriate for the situation: if you're meeting a head of state and the press is present prepare for a lengthy handshake!
- Keep your weight distributed equally between both legs.
- Hold your shoulders parallel to the shoulders of your shaker.

The Don'ts of Handshakes

- Crunch the hand or try to turn the hand over: it's a sign of dominance.
- Give a dual handed handshake: it shows you are too eager to build rapport.
- Offer a sweaty palm: it's a sign of nervousness. Dry your hand first!
- Offer a frozen hand: warm your hand first if you do not want to be perceived as a “cold” person. Remember the primal brain takes things literally: cold hand = cold person!

Your Eye Communication

“As soon as you make eye contact with somebody they become valued and worthy.”

– Mary Lambert, American musician

Much has been written on eye contact and it carries so much meaning that some specialists even call it eye communication. Functional imaging studies have revealed that eye contact can modulate social brain network activity [246]. Eye contact is used by all children to attract the attention of adult caretakers and increase their chance of survival by being fed and cared for [247]. In the Western world, too little eye contact is interpreted as distant, cold, and a lack of

emotional intelligence. Maintaining eye contact triggers an approach reaction in the brain, a direct invitation for interaction [248]. On the other hand, avoiding eye contact with a person triggers a response of withdraw [249]. This avoidance can be interpreted by your listener as a sign that you are hiding or lying [250], or it can be a sign of social anxiety [251], neither of which are conducive to establishing further social connection.

Yet, too much eye contact, when it turns into staring, can become an act of dominance, a feeling of superiority, or aggressivity. This is a play for the primal brain as fear is mostly communicated through the muscles around the eyes [252]. This explains that if you meet a gorilla or a bear: the advice is to avoid direct eye contact.

Researchers at the University of Newcastle conducted a revealing experiment to highlight the social effect of having eyes look at us. In one of the offices at the university, they set up a coffee and tea station. The price of each item was prominently displayed and an “honor box” was left unattended on the table. The key element of their experiment was the addition of a different image posted just above the coffee and tea station and changed weekly. The images ranged from neutral (such as flowers) to various males and females' eyes that were staring directly at the person using the coffee stand. The layout of the coffee room was such that anybody who would not donate would not be detected. On average people paid 2.76 times as much in the weeks with eyes pictures than with flower pictures [253].

Other research showed that eye contact increases trustworthiness and encourages prosocial behavior [254].

Much of the eye communication is below the threshold of awareness. Don't underestimate how much is communicated by your eyes to the primal brain. Consider this: people are shown two identical photos of a woman, the only difference is that on one of the pictures, her pupils have been dilated by software. In that case, 70% of the viewers will rate the women with dilated pupils as more attractive while very few were able to point at the dilated pupil as the source of difference. The study of pupil size known as pupillometrics and pioneered by Eckhard Hess, a biopsychologist at the University of Chicago is now used as an indicator of emotion. Most eye tracking devices also report the size of the pupils and their contraction even on a very short timescale. This allows for the measurement of micro-emotions, which typically escape traditional observations. It should be noted that pupil dilation is not consciously controllable, so there is a scientific truth in the popular saying: “the eye is a

window to the soul.”

Also, researchers showed that women are more attracted to men with dilated pupils, showing a connection between pupil size and sexual interest [255].

A study conducted by Goldman and Fordyce [256] at the University of Missouri showed the effect of eye contact, touch, and voice expression on the willingness of tested subjects to help a stranger. Greater helping behavior was linked to voice expressiveness, eye contact, and touch but with a unique exception: when both eye contact and touch were combined, the helping behavior decreased. This suggests that combining these two conditions (eye contact and touch) signals too strong of a willingness to influence and as we know; persuasion works better when the persuadee is not aware he is being persuaded!

Here's a side note about the human ability to recognize faces.

Popular belief has long held that the most important feature allowing us to recognize people is their eyes. Yet, research from the Department of Brain and Cognitive Sciences at MIT Sadr, Jarudi [257] demonstrated that it is not so much the eyes but the *eyebrows* that play a critical role in recognizing human faces. Notice on the images shown in [Figure 8.32](#) how it is hard to identify President Nixon or Winona Ryder on the first pictures where their eyebrows have been erased compared to the second image where their eyes have been removed.

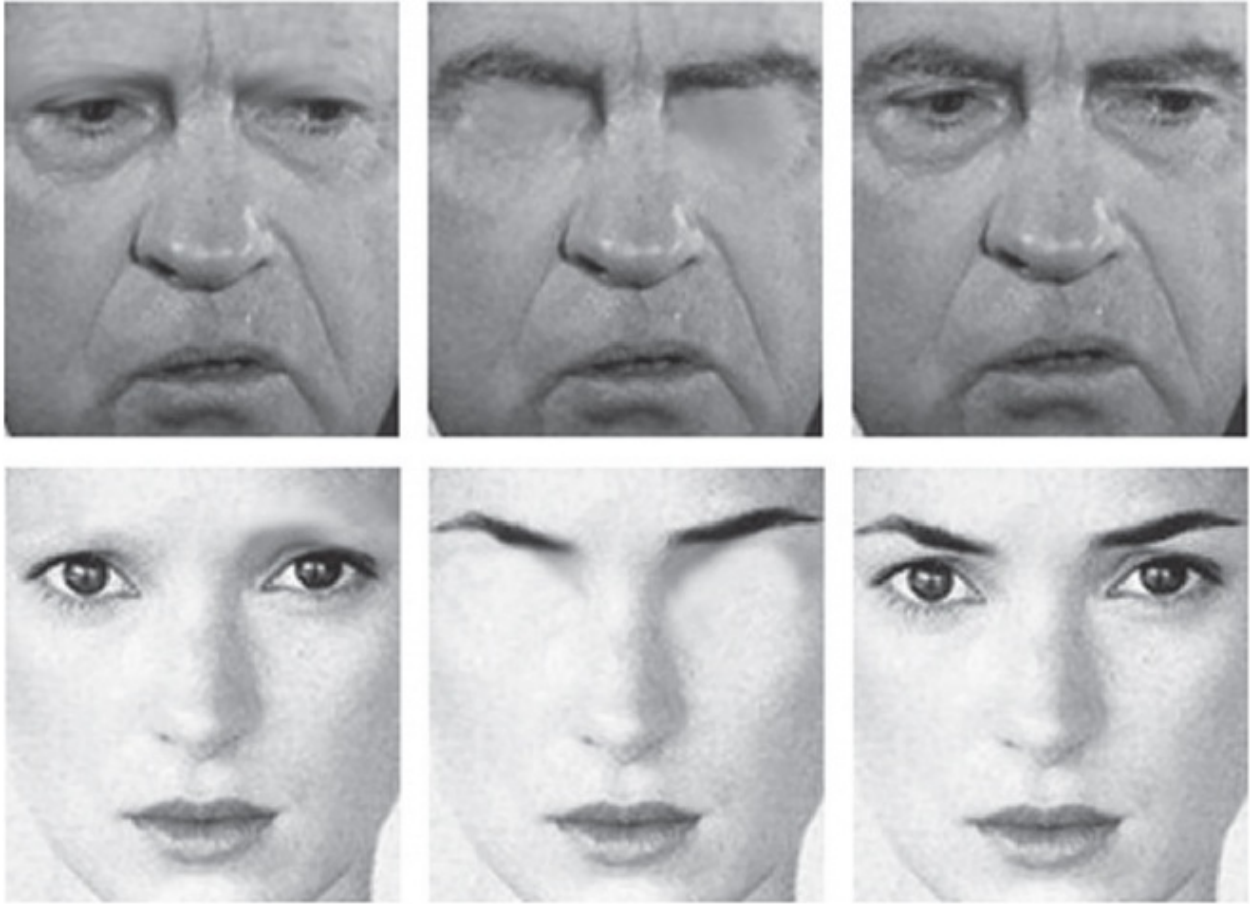


Figure 8.32 Nixon and Ryder facial expressions

The Dos of Eye Communication

- Maintain direct eye contact with your communicator for *at least* four seconds.
- Break the eye contact only at the end of a sentence or at the end of the expression of a concept.
- If you are seeking a romantic connection, lower the light: it will dilate your pupils, which will make you appear more attractive.
- Fine-tune these recommendations with the local social norms: In some Asian countries such as Japan or Korea, too strong of an eye contact is considered a sign of aggression and rudeness. This is, in fact, one of the only exceptions to the universal nature of the primal brain where the social norms overrule the primal norms.

The Don'ts of Eye Communication

- If your audience detects your eye contact is not genuine you will invert the benefits. Don't stare; that is, your eye contact needs to be genuinely kind and natural.

Your Expression with the Right Body Posture and Movements.

“Stand tall. The difference between towering and cowering is totally a matter of inner posture. It's got nothing to do with height, it costs nothing, and it's more fun.”

– Malcolm Forbes, American publisher

Many books on body language suggest that “Our nonverbals govern how people think about us.” It turns out that the neural networks that control language are the same ones we use for gesturing [258].

Studies have linked body postures with the presenter's confidence, therefore strengthening the impression she will leave on her audience [259]. Cuddy, at Harvard, even suggested that “Our nonverbal communication govern how people think about themselves.” Although Cuddy's research has been the subject of intense controversies, her TED talk remains one of the most watched videos on TED [260]. Cuddy suggests that by adopting a power posture – like when your arms are raised in a winning celebration – for a few minutes, it can change the outcome of many of our interactions. And again, when two people like each other, they will naturally mirror each other's postures, facial expressions, and body movement [261].

The Dos of Body Posture

- If you are standing, adopt what is referred to as the power stance, which signals power from a primal brain perspective.

Stand tall with a straight back, keeping your head up.

Distribute your weight equally between both legs with your feet pointing in the direction of your audience and spread at shoulders width.

Make sure your audience sees the palms of your hands, signaling the absence of weapon.

- If you are sitting, sit straight, don't slouch.

The Dos of Body Movement

- Use as much space as reasonably possible: powerful people own large territories.
- Make your body gesture purposeful and synchronized with your words. For example, if you say: “she entered a very large room” by having your hands go away from each other, you will further highlight the fact that the room was “very large.” Make sure the movement happens when you pronounce the words “very large.”
- Just like you will want to vary the tone and intensity of your voice, use variation in all aspect of your body language. By creating contrast, it helps your audience stay engaged and focused on you.

You and Your Outfit

Your audience will form an opinion about your style, intelligence, likability, and trustworthiness within a few seconds and with very little awareness, based on the way you look and the way you dress.

In “the beauty bias” Deborah Rhode, Stanford law professor, found that attractive students are considered smarter. Nice looking teachers get better reviews, appealing workers make more money, and good looking politicians get more votes [[262](#)].

Researchers in Italy sent 11,000 resumes to 1,500 job postings. They reported that with equivalent qualifications attractive women had a 54% chance of being called back versus 7% for unattractive women. The attractive men had a 47% chance of being called back versus 26% for unattractive men [[263](#)]. In the United States, economist Daniel Hamermesh showed that a good-looking man will make \$230,000 more over his career than his less attractive counterparts [[264](#)]. There is even a name for the economic study of beauty: it's called *pulchronics*!

This may seem quite unfair but when you consider that good looks (i.e., better genetics) are associated with better health, which in turns leads to better survival chances, it explains why our unconscious primal brain credit those people with an advantage.

To be an effective persuader, stand tall and possibly wear shoes with heels (to appear taller), maintain great physical fitness and grooming, avoid messy hair, wear professional-looking make-up for women, and professional-looking clothing for both genders.

Your Creativity

“Making the simple complicated is commonplace; making the complicated awesomely simple: that's creativity.”

– Charles Mingus, American musician

The effect of creativity on the potency of a message has long been established. Some researchers like Robert Smith and Xia Yang from Indiana University have specialized in better defining how creativity contributes to effectiveness of a message.

At its core, the benefit of creativity is about simplification and originality, both of which will appeal to the primal brain. Other persuaders are already trying hard to capture the attention of your audience, and without a bit of creativity, your messages will not provide enough contrast: you will be ignored before you even start.

Chris Watkins, professor of psychology at Abertay University in Scotland demonstrated that people who display creativity are perceived as more attractive, therefore enhancing their charisma.

[Figure 8.33](#) is an example of an ad that could be defined as creative.

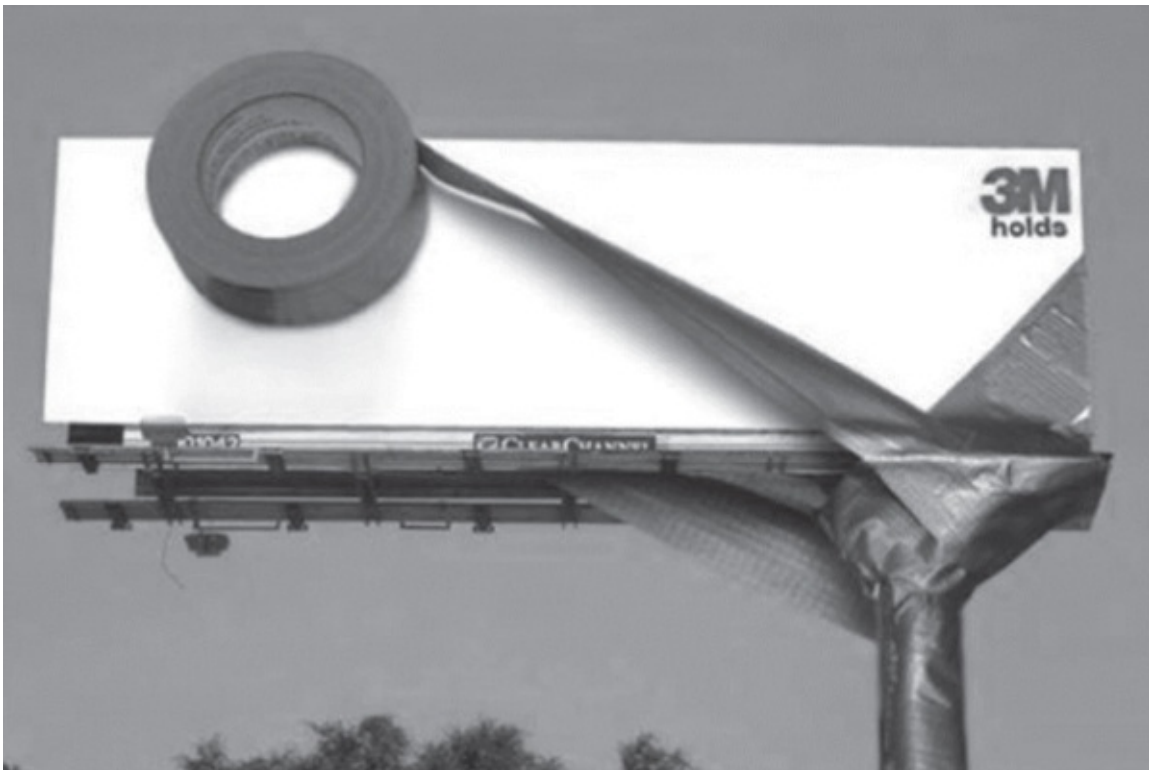


Figure 8.33 3M billboard.

The main objection to the use of creativity is that it takes time, energy, and effort to come up with creative ideas: people often spend hours in brainstorming sessions to come up with a simple, yet effective way to communicate their message. The good news is that there is a shortcut to creativity; it's called variety.

Variety as a Short Cut to Creativity

Variety creates a sequence of contrasted events that will help keep the primal brain engaged.

So short of pushing your creativity to invent your own style like Picasso, Ray Charles, or Steve Jobs, here are some ideas to use variety:

- Whenever possible, replace text with a picture or a video: remember the primal brain is visual.
- Use a different medium: for example, in the middle of a PowerPoint presentation, use a paper flip chart or whiteboard to present an idea or discuss a complex concept.
- Change fonts, font size, or color. Readability of text affects retention and intention and some studies have established which fonts on which color background are easier to process either in print, in a PowerPoint, or on web pages. Georgia, Helvetica, Verdana, Gill Sans, and Arial are safe choices in most cases [[265](#)–[267](#)].

Your Passion

“Nothing great in the world has ever been accomplished without passion.”

– Georg Hegel, German philosopher

Question: Besides notoriety, what do the following people have in common?

- Steven Hawking –Theoretical physicist and cosmologist
- Tom Brady – Quarterback of New England Patriot
- Dalai Lama – Buddhist teacher and representative of the Tibetan people
- Meryl Streep – Actress

Answer: They all have an intense passion for what they do.

Building on the theories of emotional contagion, researchers from Munich demonstrated that the perception of an entrepreneur's passion for inventing and developing has a positive effect on the employees [268].

Although intangible by nature, passion is still accurately detected by the primal brain of your audience through your words, your voice, and your body language. Something as hard to notice as a very minor increase in your speaking rate and elevation of pitch at the end of your sentences, or a slight reddening of your skin, or a widening of your pupils at the appropriate moment, all of these changes can be signs of your passion. That might not reach your audience conscious brain, but it will still signal to their primal brain that you are a “passionate” person.

The Dos of Passion

- Learn to gauge your own passion and avoid making important communication when your passion is low such as after an exhausting business trip or an upsetting event.
- Surround yourself with passionate people. Since passion is contagious, choose passionate partners; it will build on itself.
- If you do what you love and love what you do, your audience will naturally feel your passion. Learn to love what you have, not what you want.
- There is no such thing as too much passion, so learn to communicate your passion with a bit of panache and with your own style: it will help your charisma score a few more points. Get your inspiration from some of the greatest communicators like Martin Luther King, Gandhi, Churchill, or Steve Jobs!

The Don'ts of Passion

- Don't fake it. It takes a professional actor to cry on demand and change all his facial muscles, the tone of his voice, and posture to communicate true sadness. So even if you can cry on demand, it takes only a teeny discrepancy from all the other clues to make your audience feel that your passion might not be all that authentic. This would raise a red flag and would make you lose the trust from your audience.

Your Fearlessness

“You always have two choices: your commitment and your fear.”

– *Sammy Davis Jr., American entertainer*

Just like your passion is subconsciously communicated through your words, voice, and body language, so is your fear. Lilianne Parodi research showed that the mere smell of people who had been exposed to a fearful situation triggered an increase of activity in the amygdala – part of the primal brain [269]. Not to mention all the other conscious and unconscious signals your body will inevitably display, your audience will even be able to smell that you are afraid! Any sign of fear in your behavior will be instantly detected by your audience's primal brain and translated into a sign of imminent danger.

According to a now-famous list of the top 14 fears ranked, public speaking is the number one fear of Americans (stated by 41% of respondents) ahead of height, insects, monetary loss, and even death which ranked number 7 with 19% [270].

Stage fright, an extreme form of fear related to presenting or performing in public, activates the sympathetic nervous system by releasing adrenaline into the bloodstream. It triggers a cascade of symptoms: racing heart, dry mouth, increased blood pressure, blushing, sweating, shortness of breath, light headedness, and nausea, a bodily response known as the fight-or-flight syndrome. On the face alone, fear will

- Raise the upper lids
- Tense the lower lids
- Open the eyes wider
- Widen the nostrils
- Widen the lips

All these signs would be quickly detected by the brain of predators and translated into an opportunity to harvest a prey...instead of an opportunity to be influenced by a charismatic presenter! You do not want to display any trace of fear even if limited to your own insecurities related to losing the deal or the trust of your prospect.

Dos and Don'ts About Fear

- If you experience stage fright or noticeable nervousness, you need to de-escalate the loop that creates the fright. Your primal brain goes: my heart is racing so there must be a threat around and I must prepare my body for fight or flight, therefore I need to increase my heart rate even more. As soon as

you start to feel your heart accelerating, you should practice deep breathing to increase oxygen intake while keeping a constant heart rate. You should also convince yourself that it's only a presentation...even if it's the opportunity of your life and you are on stage in front of two million viewers: it's only a presentation. You're not facing a life threatening tiger: so make sure to breathe deeply; it will limit the biological symptoms of fear.

- A second option to get your stage fright under control requires practice. Several days or weeks before a big event, create a short meditation using a simple technique: visualize yourself entering the stage, getting an introduction, delivering your presentation, and getting a standing ovation at the end. By picturing in your mind as many details as you may know about the person who will introduce you, the aspect, shape, and color of the room, the face of people in the audience, all the elements of your presentation, and so on, you program your primal brain to recognize a familiar, nonthreatening environment. Repeat this routine several times before the event. On the day of the presentation, a small natural nervousness will not escalate into a full-blown stage fright because your primal brain will think: "I recognize this place: I've been here many times, and I have nothing to worry about because I know it will end with a standing ovation." If you experience stage fright or serious nervousness, try it!
- Practice, practice, practice. First, it will help you memorize your content allowing you to better focus on your tone of voice and body language. Second, the mastery you will acquire in your material will help build confidence and decrease the nervousness that will trigger the symptoms of stage fright. You will appear more natural, more relaxed, a trait of charismatic people.
- Act with high intention but low attachment. Do your best and don't worry so much about the immediate outcome: it's just business, not a life-threatening situation!
- Many professional public speakers – including Christophe and I – report that a bit of fear helps them perform better: it sharpens their minds. Yet they transform that nervousness into higher excitement, which their audience interprets as a sign of passion!

As the manifestation of an imminent threat, fear served us well through evolutionary times; however, displaying it in today's business world is counterproductive. Charismatic presenters practice hard to eliminate any sign of it.

Your Integrity

“Whoever is careless with the truth in small matters cannot be trusted with important matters.”

– Albert Einstein, Physicist

Do you realize how we tend to judge a sales clerk right after he asks: “Can I help you”? The question is simple but the attitude behind the question is everything: is the clerk really honest and is he willing to genuinely offer some help? Or he is just asking the question because it's part of his job? In the 400 milliseconds, it took your primal brain to hear these four words you have already decided – unconsciously – if you liked the person enough to take the next steps. Now if the clerk is a good communicator, he would have made sure to hold your eye contact and use a friendly tone of voice to ask his initial question, but even beyond all the variables of his charisma described above your brain is asking: Can this person be trusted, is he acting with integrity?

Researchers showed how effective our brains are to detect lies. They also showed that the unconscious detection of deception – a task for the primal brain – is more effective than its conscious counterpart [[194](#), [271](#)].

The Dos of Integrity

- Stick to the truth and nothing but the truth. Don't flex the limits. For many salespeople it's easy to say: “Yes, my product can do this and that” but you can lose all trust immediately if the prospect establishes later that it is not true.
- If you want to emphasize one quality – of you or your product – make that statement just after you confess to a flaw or shortcoming. According to Cialdini [[167](#)], people are more willing to trust the truthfulness of your quality if it was preceded by a shortcoming.
- The benefit of telling the truth: it will decrease your cognitive load. Deception researchers in the UK showed that people who were asked to lie convincingly showed signs of cognitive overload like forgetting some details and blinking less than normal [[272](#)]. These signs will most likely be picked up by the primal brain of your audience.

To conclude on charisma, the research is revealing. What you say is less important than how you say it. You may consider attending an acting class to

sharpen your skills using your voice and body language: it will be the most effective way to improve your persuasive effectiveness! You probably realize that to do this without having to think about it will require lots of practice. Your objective should be to not have to focus your attention on a proper posture, eye contact, or facial expression; instead you want 100% of your brain power focused on the sharpness of your arguments and on reading your audience reaction so you can adapt in real time! The most charismatic people will improvise and give a perfect answer to even the most difficult, unplanned question. If you are not there, practice, practice, practice!

APPLY CONTRAST

“Everything is relative.”

– Albert Einstein, physicist

Earlier in this book we described contrastable as one of the six primal stimuli. Contrast is such an important concept that, similar to emotion, it constitutes both a stimulus to the primal brain and a persuasion catalyst. The impact of any persuasion element can be enhanced if you add contrast. For example, notice how some of the grabbers could be improved with contrast: you could use one prop to illustrate a benefit or feature offered by your main competitor and contrast this by using another prop illustrating your superiority. Similarly, you could increase the impact of a minidrama by having a first act about the painful life of your prospect today without your solution, and contrast that by role-playing what their lives would be if only they had your solution.

Contrast can be applied to highlight the benefits of your solution:

- Before and after
- Compared to your competitors
- Now instead of later

Or to avoid or alleviate the pain or cost of

- Complicated versus simple
- Fast versus slow
- Expensive versus affordable

[Figure 8.34](#) is an example for a yogurt ad, where the value prop is clearly communicated with contrast.

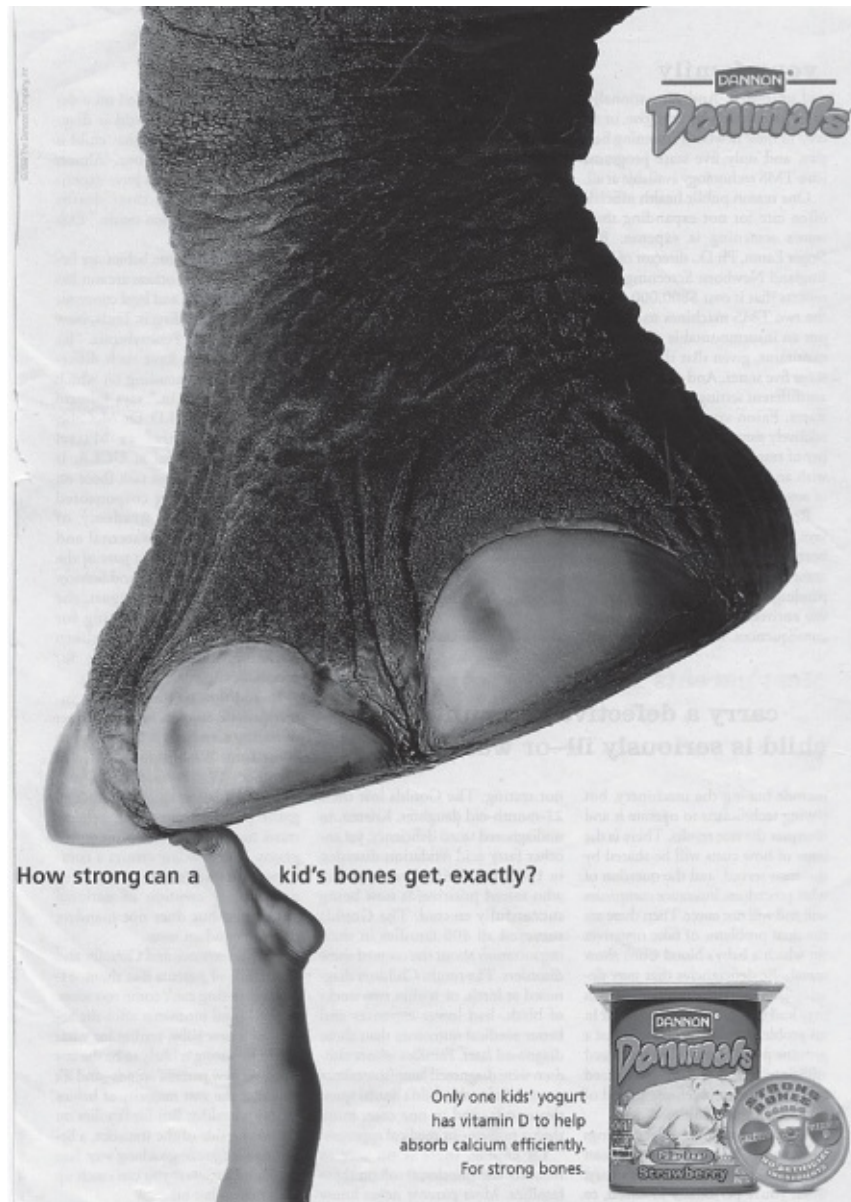


Figure 8.34 Dannon Danimals.

The visual contrast helps you understand the value of a yogurt rich in vitamin D to better absorb calcium and build strong bones.

Because of the visual dominance of the primal brain, contrast is most effective when communicated through photography or illustrations. Note how big pictures with contrast are often used to promote products that can regrow hair or help you lose weight. For example, [Figure 8.35](#), you see on the left side an overweight man and on the right side you now have the same man 100 pounds lighter!



Figure 8.35 Gain contrast.

VARY TEACHING MODALITIES

“Tell me and I forget. Teach me and I remember. Involve me and I learn.”

– Benjamin Franklin, inventor, scientist, author, politician, polymath

What else could you do to boost the impact of your persuasion elements? What about using different teaching modalities?

The topic of teaching modalities has been the subject of prolific literature and intense debate among the education community for decades. The stakes are high because

- Governments invest billions of dollars on education.
- Teachers are frustrated at the ever-widening gap between what they know and what their students really learn.
- Many people believe that the web is changing the way younger generations learn.

Furthermore, marketers are continuously looking at more effective ways to capture the attention of their targeted audience and making sure that their messages are understood and remembered!

The Science of Teaching Modalities

There are three teaching modalities that can make your message more brain-friendly:

1. Visual: If you want to teach somebody the concept of a cat you can show them a picture of a cat.
2. Auditory: You can teach people about cats by talking about a four-legged, furry, domesticated, carnivorous mammal who loves mice and weighs about 10 pounds.
3. Kinesthetic-Tactile: To teach people kinesthetically about cats, you can hand them a cat, so they could touch it and play with it.

Notice that using a kinesthetic modality with a blind person, you would achieve a good level of teaching effectiveness, whereas showing a picture of a cat would have zero effect. Similarly, using the auditory experience of talking about a cat to a deaf person would have no effect.

The notion of using preferential teaching modalities to communicate more effectively has long been discussed by experts in neurolinguistic programming (NLP). NLP claims that there is a connection between the neurological processes (neuro), language (linguistic), and behavioral patterns learned through experience (programming). Although the scientific basis of NLP has been overwhelmingly discredited [[273](#)], many are still pursuing the framework of NLP today.

Despite the controversy, we do recommend using a mix of all three teaching modalities to communicate your message. Note that most sales messages (emails, brochures, and presentations especially) only use the auditory channel, regardless of the nature of the concept or product advertised. This can explain why so many of them are never processed by the primal brain.

Take an average sales presentation using PowerPoint slides. Although you may find a few pictures in it, 95% of the concepts are typically communicated using words.

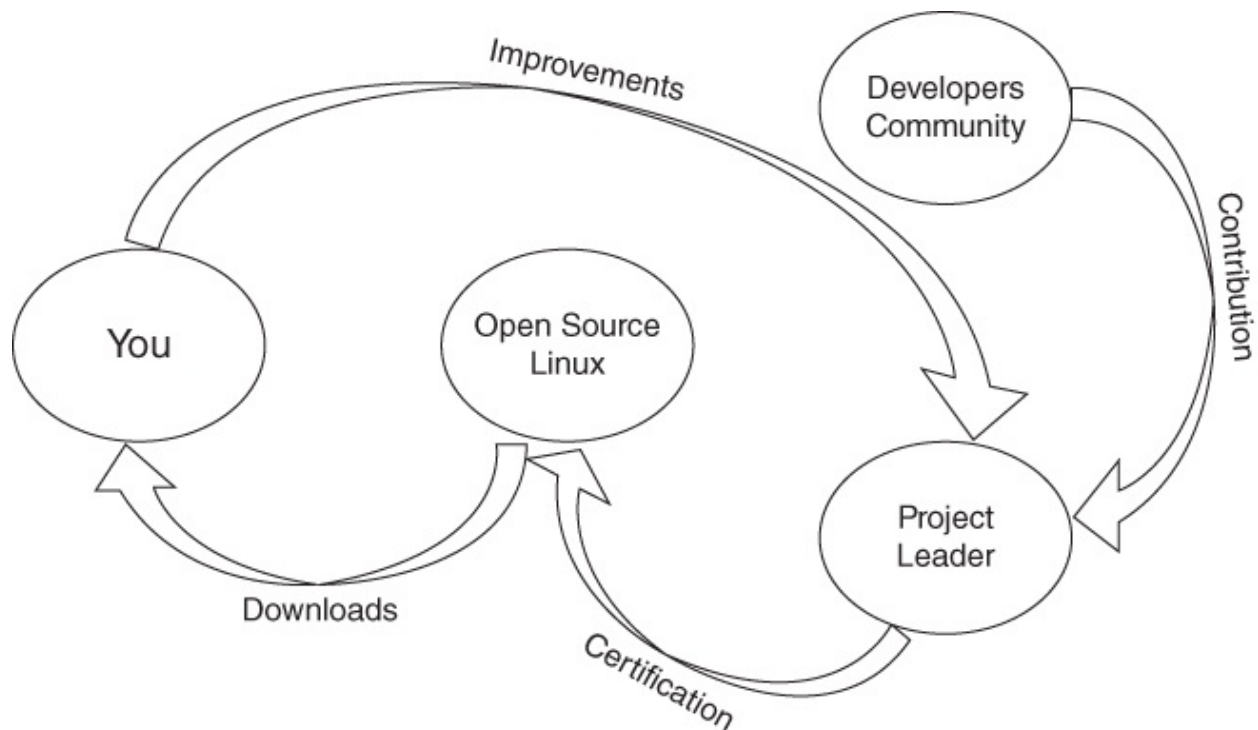
Now, let's go back to the three ways to describe a cat and imagine how learning will be limited if you only hear words describing what a cat is. Contrast this with the combined experience of seeing a cat (visual), touching and playing with a cat (kinesthetic), and hearing about a cat (auditory). In fact, researchers have established that the visual presentation of objects (with or without the

simultaneous auditory presentation of names) resulted in better learning, better recall, and better retrieval of information than the auditory presentation alone [274]. Knowing the bias of the primal brain for the visual channel, this is not surprising!

Here some other important considerations.

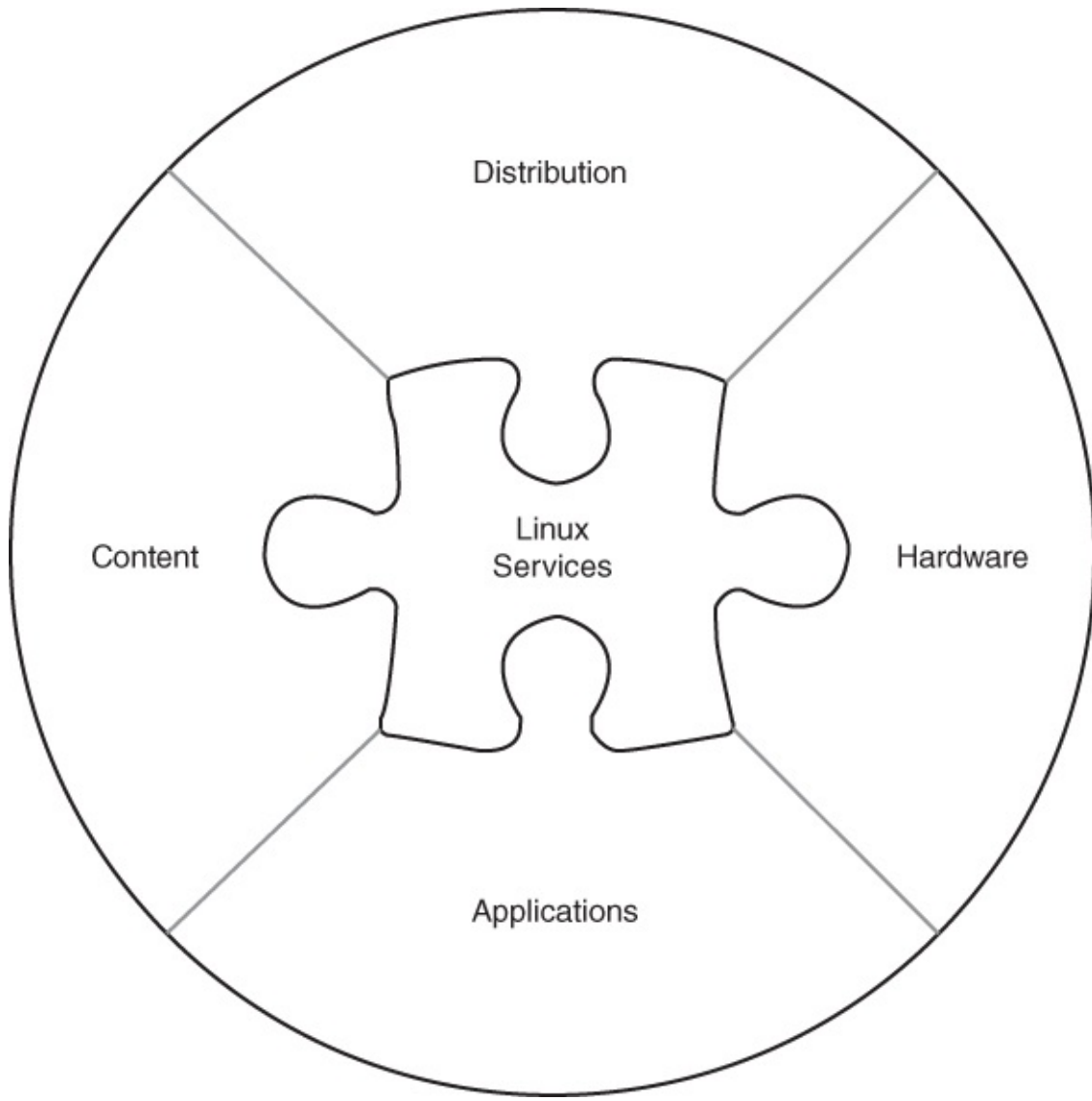
Most Visuals Are Not Visual

Take the example shown in [Figure 8.36](#) from the world of Linux, an open source operating system which people can freely use and contribute to its development.



[Figure 8.36](#) Linux visual.

Because we use our eyes to input the information in our brains (including the text) and because the circles and arrows belong to the realm of visual shapes, most people believe this type of graph uses mostly the visual modality. In reality, the decoding of text involves first and foremost the auditory cortex and the frontal lobe. Furthermore, the circles and arrows provide a well-organized chart but do not convey a strong visual metaphor that could help a viewer quickly understand the concept without spending much cognitive energy. To be understood, such a chart requires a significant cognitive effort that engages many parts of the brain beyond the visual cortex. Contrast this with [Figure 8.37](#), also from the world of Linux.



[Figure 8.37](#) Linux puzzle.

Note that, although the image contains some text, the amount of text is significantly less than in the previous example (only five words, instead of 12) and more importantly, the central position of the words “Linux Services” and their shape – in the form of a puzzle – visually suggest that these services are central to the value of Linux and it helps tie the four concepts of distribution, hardware, applications, and content together. Notice that this chart (even if you are foreign to the world of Linux) requires less cognitive effort than the first example.

The Benefits of NeuroMap

If you start to apply the concepts presented in NeuroMap, your message will

undoubtedly be easier for your audience to understand and to remember. Note that Understand + Remember = Learn. Concepts like:

- Using a prop as a grabber will engage your audience visually and kinesthetically.
- Big pictures are, by definition, visual.
- Claims offer an auditory appeal, and their NeuroIcons provide a visual stimulus. The claims' simplicity and brevity do not generate a cognitive overload, which would confuse the primal brain.

Multisensory Selling

The use of multiple senses in marketing – multisensory marketing – has become mainstream [275]. For example, Nike found that introducing scent in their store increased purchase intent by 80% [276]. Diageo who owns multiple brands of alcohol: Tanqueray, Smirnoff, Johnny Walker, J&B, among others, showed that changes to their multisensory environment increased whiskey enjoyment by up to 20% [277].

If you are selling products with a gustative or fragrance quality (food, wine, perfumes, etc.) think about ways to communicate using specifically the sense of taste or smell. That is what many cosmetic companies do by including perfume scratchers in magazines. If your value proposition engages multiple senses, find ways to improve their “holistic” experiences.

Senses Can Distort Perception

Most people believe that our senses provide an accurate representation of the world around us. Yet, our perception of the world is driven by the interpretation made by our brain from the input of the five senses, plus the associated cognitive processes. An easy way to illustrate the difference between reality and our perception is with optical illusions. [Figure 8.38](#) shows one of the oldest.

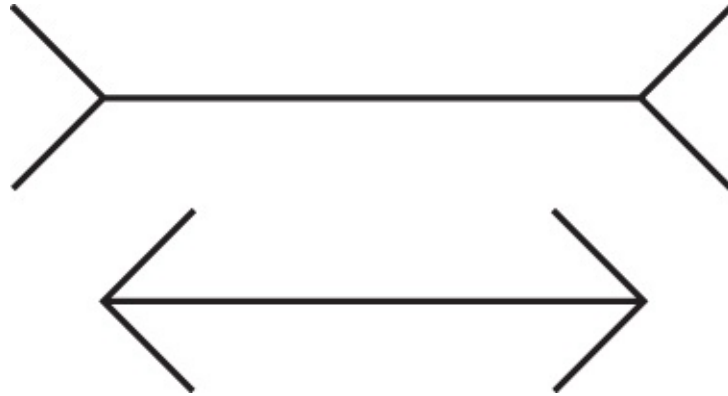


Figure 8.38 Perception.

Regardless of how hard you look at these two horizontal lines of the same length, your brain will keep interpreting the upper one as longer. Or, in the example shown in [Figure 8.39](#), which of the black circles is larger? In fact, they have the same diameter!

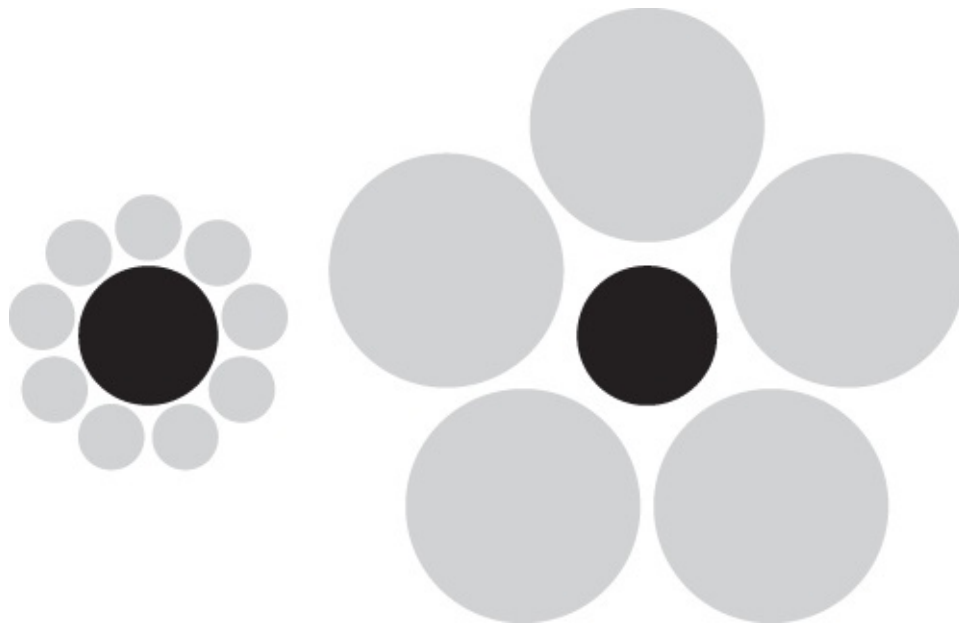


Figure 8.39 Circles.

One of the most mind-blowing illusions is known as the checker illusion published by Edward Adelson from the MIT (<https://tinyurl.com/444xpss>) [278]. Meanwhile, a set of 10 remarkable illusions and their explanations can be seen at <https://tinyurl.com/yayqtdow> [279].

Because the brain has not evolved to interpret reality as it is, our perception, which is largely controlled by the primal brain, is often flawed. One of the most surprising consequences of this is that the other senses impact our perception of

one sense. For instance, what you taste is influenced by what you see, what you see is impacted by what you hear, and so on.

Consider the experiment conducted at the Bordeaux University by Frederic Brochet [280]. Brochet invited 54 wine experts and asked them to give their opinions about two glasses of wine, one white and one red. The experts described each wine with attributes usually associated with either red wines or white ones. But unbeknownst to the experts, they were drinking the same white wine; the red had been simply tinted using a natural, odorless, and tasteless white dye. One of the experts even described the wine as “crushed with red fruit.” Brochet ran another experiment in which he poured wine from two different bottles: the first label was a fancy grand cru and the second one was an ordinary table wine. Not surprisingly the grand cru was described as “rounded,” “balanced,” “complex,” and the ordinary wine was noted as “short,” “flat,” and “faulty.” In reality, the experts were drinking the same wine poured from a bottle with a different label! Similarly to the experiment with the self-refilling bowls, our visual channel often overrides other senses! As we saw earlier, visual is one of the six stimuli to the primal brain because it exerts so much dominance on our perception process.

Consider this:

- The higher the sound of potato chips, the crunchier consumers find them, regardless of their actual crunchiness. Similarly, consumers associate higher bubbling sound with more carbonation [281]. This indicates that the sense of hearing along with the touch sensation in the mouth plays a role in food perception.
- Background music impacts perception. A study with 30 volunteers indicated that they perceived oysters to be tastier when listening to the sound of the ocean compared to other sounds.
- Background music impacts purchase. Over a two-week period in a UK store, they alternated playing French music one day with playing German music the next day. It resulted in more French wines being sold when French music was played and vice versa. Meanwhile, the customers wouldn't report being aware of the music being played [282].

The *Harvard Business Review* reported that people invested 43% more money after briefly holding a warm pad, suggesting feeling heat translated into an increased feeling of a being in a safer, and more trusting environment [283].

John Bargh wrote, “The connection between physical and social warmth is

hardwired in the human brain. In fact, brain imaging experiments have shown that the same small region of the brain, the insula becomes active to both types of warmth: when touching something like a heating pad and when texting family and friends [[205](#)].

In the *HBR* report mentioned earlier, they also noted that during a negotiation over the price of a new car, people who sat on a hard wooden chair offered an average of 28% less than people sitting on softer, padded chairs: hard chairs made people harder negotiators. In those studies, people were not even aware that these tactile sensations had any influence on them.

Once again, think about how you can change your customer's experience to provide positive stimulation of their primal brain.

The Dos of Varying Teaching Modalities

- First and foremost, the effective persuader will match the teaching modality with the concept to be communicated. Don't try to teach tennis or golf, two highly kinesthetic skills, by only talking about golf or showing a video. Your audience needs the kinesthetic experience of playing!
- You cannot overcommunicate visually. Research showed that the presentation of images is advantageous for all learners irrespective of their learning-style preference [[274](#)]. Remember, the primal brain is under the dominance of the visual sense, so the more visual your message, the better. In the ad for a yoga center in [Figure 8.40](#), notice how the concept of flexibility is conveyed visually. Further, notice the ad also communicates kinesthetically – you can touch and flex the straw! Even if you can only see the image (as opposed to holding the straw), by creating the perception that this hand is yours your mirror neurons will contribute to stimulating you kinesthetically.
- Short of using an actual visual, use a word that evokes a visual cue. For example, instead of saying: “Do you hear what I say?” say: “Do you see what I mean?” Note the use of the verb “see.” Researchers showed that the processing of sentences that evoke visual or abstract information engages not only the left temporal lobe but also the left intraparietal sulcus, a region involved in visiospatial working memory [[284](#)].
- Similarly, we could infer that using a kinesthetic cue will activate brain regions responsible for driving kinesthetic functions. Instead of saying: “The new screen technology allows the consumer to...,” say, “With the new

screen technology the consumer will experience/reach/feel/meet/match/touch...” Note the selection of verbs that imply a kinesthetic connection. Or even better, make sure the consumers have a chance to touch the new device to appeal to their kinesthetic channel.

- When in doubt of the best modality to teach a concept, tell a story! Make sure that your story uses, visual, auditory, and kinesthetic cues. Another benefit of using different teaching modalities is to create variety, a form of contrast that appeals to the primal brain.



Figure 8.40 Yoga straw.

The Don'ts of Varying Teaching Modalities

- Don't only use words to persuade!
- Don't ignore what you might consider an unrelated sensory experience. Having your prospects sit on hard chairs, listen to French music or touch a warm cup of coffee will have an impact on their buying experience!

In conclusion, notice how using the primal brain as a reference can explain a lot of these complex often unconscious phenomenon.

TRIGGER EMOTIONS

“The essential difference between reason and emotion is that reason leads to conclusions while emotion leads to action.”

– *Donald Calne, neurologist*

We saw earlier how the primal brain is driven by emotions, one of the six stimuli. Appropriately, emotions can boost the impact of any persuasion element!

Using More Emotions

Remember how Bill Gates increased the impact of his message about the eradication of malaria? He didn't simply talk about the number of death caused by the disease: he released a jar full of mosquitos in the auditorium! This had the inevitable effect of creating a strong emotional cocktail in the brains of his audience, a response that supported Gates's plea to fight the virus.

Researchers have demonstrated that pushing people to use their rational mind to make a decision and therefore discounting the primal brain's influence leads to less satisfying decisions. When people evaluate cognitively multiple product attributes, it can degrade their judgment [285]. In a test, two groups of students were asked to evaluate five types of jam that had been graded on 16 sensory characteristics by tasting experts. The first group of students was simply asked to rank the jam without much thinking. The second group was instructed to use a more rational approach. They were asked to follow a logical process to evaluate the color, texture, sweetness, smell, stickiness, and so forth. In the end, the evaluation of students who were invited to use a more rational approach was further away from the experts' ratings than the evaluation of students who had used only their primal reaction to the jam!

Examples of Emotions in Action

- With over 4,500 injured pedestrians every year, Paris has the highest rate of crossing accidents in Europe. What did the mayor's office do to jolt the jaywalkers with a strong emotion? They launched a campaign called “Impact without impact” on a busy street where people would frequently cross even when the pedestrian light is red. They mounted an elaborate system that would play a startling sound of a tire screeching as if a car was about to hit them. Hearing this, each person would typically freeze, scream, or make facial expressions conveying their terrorized state. At that exact moment, a camera would take their picture. And to elevate the emotional cocktail, that picture would be displayed in front of them on the billboard located on the other side of the street! The video can be seen at: <https://youtu.be/vYWmeh6Q-Vk> [286].

- The cleaning crew of the toilets at the Schiphol Airport in Amsterdam couldn't keep up with the leakage in the men urinals and they wondered how to help the users be more accurate in their aiming. The decision was made to include the print of a fly inside the bowl. The emotion of the initial surprise of noticing a fly, followed by the ancestral joy of hunting down the insect resulted in a stunning 80% decrease of spillage [287] (Figure 8.41).
- In Hong Kong, advertisers found an emotional way to highlight the danger of using mobile phones while driving. A movie theater played a commercial showing a car driving in the countryside. Then all the people using one of the major phone carriers received a text message: they all quickly reached into their pocket to retrieve their phones. They hadn't yet been reminded to turn off their phones, when suddenly the car on the screen crashed into a tree. The punch line was displayed on the screen: "A reminder to keep your eyes on the road." The video can be seen at <https://tinyurl.com/od5m7v4> [288].



Figure 8.41 Shiphol Airport urinal.

In conclusion, remember that decisions are driven by emotions. Once you have decided on the content of your message that is

1. Focused on the main pain of your customers
2. Centered on three claims
3. Demonstrated by convincing evidence of their gain

then, you think about ways to communicate this content that elicit a strong emotional response.

AIM FOR LESS

“A wealth of information creates a poverty of attention.”

*– Herbert Simon, cognitive psychologist and computer scientist, 1975
Turing Prize and 1978 Economy Nobel Prize recipient*

When too much information is communicated, the working memory of the listener quickly overloads and the message recipients get confused, not convinced. Consider the research conducted by the University of Missouri which reported that a single sentence of 10 words was difficult to precisely recall by a majority of listeners [[148](#)].

Also, researchers established that irrelevant speech disrupts neural coherence patterns, making it more difficult for the listener to understand the real point of what is truly being communicated [[289](#)].

In fact, a quarter of all cognitive biases are categorized under “too much information.” As an effective persuader, you should only tell what is needed to persuade and avoid adding any information that will add too much complexity or dilute the message.

The three questions that will help you decide if you need to keep a piece of information or if you need to discard it:

1. Is this piece of information linked to a **pain** of your audience?
2. Is this piece of information unique to you; are you telling about your **claims**?
If you are not selling something unique, you are selling as much for your competitors as you are selling for yourself.
3. Can you prove what you are saying, and can you attach a financial, strategic,

or personal value to your statement? Can you demonstrate some **gain**?

If you responded “no” to any of these questions, you should eliminate the information you were considering.

You should refrain from the desire to communicate all the functions and features of your solution. Instead, and as suggested in NeuroMap, you should focus your message on only one to three claims, which will provide a unique and perfect elimination of the pain, while presenting more value than cost, that is, the gain. In a clever study titled “On the Pursuit and Misuse of Useless Information” Stanford and Princeton researchers Bastardi and Shafir [290] demonstrated that too much information reduces the quality of our decisions.

Behavioral economists also examine the issue of “choice overload” which most often reduces decision quality [291]. Although these researchers have a hard time separating the concept of “choice overload” with “information overload” a new field of studies concerning the architecture of choice has quickly emerged.

Choice Architecture: A Counterexample for Making It Short

Researchers study how the numbers of options, the manners in which the attributes are described, and the presence of a default option can all influence people choices. For example, researchers noticed that the percentage of organ donors differed greatly from country to country, even between countries with similar cultures and values like Germany and Austria. They quickly discovered that the discriminant variable was the default value. By simply switching from an opt-out default (such as the United States or Germany) where the percentage of donors is less than 15%, countries like Austria with an opt-in default see 90% of their people donating!

In *Predictably Irrational*, Dan Ariely [70] showed, that in some cases, offering more options can change people's choices. Here is the simple, yet effective experiment, Ariely designed after being struck by noticing the following three options for a yearly subscription of the magazine *The Economist*:

1. Buy Internet only: \$59
2. Buy print only: \$125
3. Buy print and Internet: \$125

The second option seems irrelevant as, for the same price, the prospective subscriber could get the internet version at no additional cost.

Not surprisingly, when Ariely asked his students to choose between those three

...surprisingly, when Ariely asked the students to choose between those three options, none of them picked option 2: 16% chose option 1, and 84% chose option 3. Should option 2 be eliminated?

No! Because when Ariely asked another group of students to choose from those two options:

1. Buy Internet only: \$59
2. Buy print and Internet: \$125

Then 68% of them chose option 1 and only 32% chose option 2. Ariely termed option 2 in the first experiment a “decoy,” which lures more people to pick both the print and Internet subscription.

The Primal Brain's Narrative Structure

To create an effective narrative structure, simply organize your presentation using four message elements: grabber, claims, gain proofs, and close. The length of each period depends on the format and delivery conditions of your message. For instance, for a face-to-face presentation, we recommend that each period should last no more than two or three minutes. If you are producing a 30-second commercial, each message element should last around 5 seconds. Generally speaking, we tend to be more patient when a message is delivered face-to-face compared to when we process it on a computer or watch it on TV, presumably because human interaction is a stronger stimulus for the primal brain than a digital message delivered by a device.

In fact, research comparing the effectiveness of negotiations conducted face-to-face compared to computer-mediated communication clearly confirms the superiority of face-to-face. For instance, face-to-face requires less brain energy, which, of course, makes face-to-face preferred by the primal brain [292].

To maximize the effectiveness of your messages, we recommend the narrative structure shown in [Table 8.1](#).

[Table 8.1](#) Primal brain narrative structure with timing.

Delivery Format/Total Length	Grabber	Claims (up to three)	Gain proofs (up to three)	Close
	Reinforce the urgency of solving a	State unique claim(s) to solve the	Use evidence that is credible and easily	Repeat pain and

		personal pain	pain	believable	claims
Face-to-face presentation	10–12 minutes	2–3 minutes	1–2 minutes for each claim	1 minute for each gain proof	30 seconds
Phone call	5–6 minutes	1 minute	1 minute for each claim	15 second for each gain proof	15 seconds
Corporate video	2 minutes	30 seconds	30–60	15 seconds	15 seconds
Commercial	30 seconds	15–20 seconds	5 seconds	5 seconds	5 seconds
Web page/print ad	5–7 seconds	2–3 seconds	2 seconds	1 second	1 second

The grabber is the fire you need to light under your prospects' chairs to get their attention. Then, you should introduce the top three reasons that they should choose you: your claims. After that, prove your value with credible evidences: your gain proofs. The close should allow you to repeat with force, passion, and urgency that your prospects' pains can be solved by your unique claims. This brain-optimized message architecture will make your message easy to understand and easy to remember. Notice that we recommend that all of these messages be brief. So make it short!

What to Remember About Making It Short

- If you need to offer your prospects assorted options, such as in *The Economist* subscription case, you may enjoy learning more about “choice architecture.” This field has received much attention and may prove to be valuable for your company [[287](#), [293](#)].
- If you are not dealing with the issue of choice architecture, we recommend that you do not expose your prospects with “information overload.” You should thin your messages and use the concepts of pain-claim-gain as a filter to retain only information with persuasive impact.

WHAT TO REMEMBER

To be most effective, your message should be constructed with six persuasion elements:

1. A grabber: a short, but effective way to communicate your value proposition that goes beyond simply using words. It will make it easier for your audience to start focusing their mental energy on your solution because it will trigger an immediate emotional response.
2. Your claims: the top three reasons why they should buy from you or adopt your idea. By nature, these are not only unique benefits of your subject, but they also define the structure of your message: the three chapters under which your selling arguments are organized.
3. Your big picture: a simple graphical representation of how your product, service, or idea will impact the world of your prospect or audience. Visual stimuli are so critical to the primal brain that you need to present a bird's eye view of the result of what you promote.
4. Your proofs of gain: the primal brain is not very evolved and quite skeptical, so you should provide simple, yet strong and effective proofs of your value. Quantify the financial, strategic, and personal value of each of your claims and contrast it with your cost. Make it fit on one page regardless of the complexity of your solution.
5. The reframe of their objections: using logic cannot uproot the negative emotion associated with the fear of regret communicated by your audience. Use a reframe to create a positive emotion.
6. A closing: repeat your claims one more time and ask: "What do you think?" Wait for their feedback and ask: "Where do we go from here?" and wait for their response. Triggering their law of consistency is the most effective way to make your prospect or audience move along the sales or mental continuum to accept your solution or idea.

And to further increase the impact of any of those persuasion elements, use one or more of the seven persuasion catalysts:

1. Tell stories: It will transport your audience in a different world where you control the emotion communicated by the punch line.
2. Use your charisma: Use the words, tone of voice, and body language most conducive to persuasion.
3. Word with *you*: Put your audience in the center of the action by using the most influential word in the English language!
4. Apply contrast: Increase the impact of your persuasion elements by using

more contrast: before/after, your competitors/you, their pain/their gain.

5. Vary teaching modalities: Choose the modality most effective to communicate the concept you are presenting. Most people only use the auditory channel. Make *your* message more visual and more kinesthetic.
6. Trigger emotions: People make emotional decisions and rationalize them later. Use more emotions to trigger faster decisions.
7. Make it short: More information leads to confusion not persuasion. Less is more, so focus on pain, claims, and gain and remove the rest!

CONCLUSION

Congratulations! You have completed your learning journey on the persuasion code. Persuasion is a complex process and our objective was to give you a simple, yet scientific, step-by-step process to help you become much better at convincing others. In the end, we believe that persuasion is a function of how well you understand and communicate to the primal brain. NeuroMap provides a clear path toward getting measurable value from all your messages: emails, website, brochures, PowerPoints, and even commercials.

Let's review the most important teaching moments of your journey:

In the first chapter, you learned the value and power of a brain-based persuasion model. With NeuroMap, you now can avoid the waste of sending ineffective messages to your customers, prospects, friends, family members, and more. You can avoid the pitfalls of A/B testing, and the embarrassment of disastrous campaigns or boring sales presentations. Finally, you learned that traditional marketing research methods fail to capture the subconscious mechanisms that drive persuasion. Fortunately, neuromarketing tools provide new ways to collect brain data that can objectively explain critical neurological processes subjects cannot self-report. The strategic value of using neuromarketing comes from the possibility of answering critical research questions. As a result, the ROI of neuromarketing dollars is measurable in multiple ways. It will drastically reduce money spent in creating and deploying messages that don't work. More importantly, it will allow you and your organization to grow faster.

In the second chapter, you discovered that you do not need to be a neuroscientist to understand the critical importance of measuring more than what people can tell you about your messages. Neuromarketing is about helping you figure out once and for all what a brain-friendly message is. You learned that the brain is a complex organ that has evolved over millions of years. The cognitive functions are relatively young in terms of evolution, whereas the neurological circuitry of our most basic survival-centric responses is ancient. In the past three decades, numerous studies have clarified how attention and emotions affect us and influence our decisions. Neuromarketing can help companies measure neurophysiological responses people experience in front of any marketing stimuli. These responses arise from autonomic and mostly instinctual brain

processes, but also cognitive and emotional processes mediated by the central nervous system. A wide variety of tools are now available to produce brain data critical to our understanding of consumer responses to marketing messages. Individually, each method can provide important insights. However, without measuring both the cortical and subcortical activity, the interpretation of brain data is incomplete and ineffective.

In the third chapter, you learned that persuasion has been studied for decades, but old models have long ignored the role played by subconscious brain structures. You also were introduced to the critical path that persuasion takes from the primal brain to the rational brain, a phenomena we call the bottom-up effect. NeuroMap shows that persuasive messages do not work unless they first influence the bottom section of the brain, the primal brain, which reacts to specific stimuli. Once a message has “engaged” the primal brain, persuasion radiates to the upper section of the brain where we tend to process the information more sequentially. Finally, you discovered that 188 known cognitive biases can be explained by NeuroMap.

In the fourth chapter, you discovered that you can use six stimuli to persuade the primal brain. Personal helps you quickly make a frustration or pain relevant to your audience. Constrastable accelerates decisions by comparing two situations that make the best choice obvious. Tangible achieves cognitive fluency and limits the amount of energy or distraction involved in the processing of your message. Memorable creates automatic retention so that the key elements of your message get encoded in the short-term memory of your audience. Visual appeals to the default sensory channel by which the primal brain decides. Emotional creates a cocktail of hormones and neurotransmitters without which your message will not trigger a decision.

Together, the six stimuli propel your message to success, achieving the optimum path of persuasion. Meanwhile, NeuroScoring your message on the six stimuli can help you correct and improve the course of your message on the path of persuasion. Check the [Appendix](#) to see how you can quickly NeuroScore your own messages before you deploy them! Finally, NeuroQuadrants also provide a simple tool to optimize the effect of any your messages.

In the fifth chapter, you learned that diagnosing pains helps you unveil the most critical decision drivers that influence your customers' behavior. Our nature is to orient our attention to messages that awaken our fears, which is why a product or solution that can clearly articulate which pains it can eliminate first will receive more consideration and create higher urgency. Once you have

successfully diagnosed the top pains by conducting pain dialogues, you can quantify the importance of the pains, as well as consider creating segments or clusters of your top customers who share common pains. Additionally, we recommend that you conduct some neuromarketing research to confirm what your pain dialogues have unveiled.

In the sixth chapter, you discovered that the primal brain will favor information that uses short and simple words that are easy to pronounce and information that is clearly organized under a maximum of three chapters or arguments: your claims. Also, messages that are easy to read, with fonts that are processed with maximum fluency are preferred. Using colors that offer a pleasing contrast with their background will be most brain friendly. Wordsmith your claims to make them more memorable. A repetition of the same word (a meta-claim) is a good technique such as protect XX, protect YY, protect ZZ. An alliteration (the repetition of the same letter or sound at the beginning of adjacent words) is also an effective technique, such as diagnose, differentiate, demonstrate, and deliver. A rhyme provides further auditory appeal – protect your time, protect your dime, protect your peace of mind...or pain, claim, gain are good examples.

In the seventh chapter, you learned that the value you talk about is not as important as the value your prospects believe in. As a result, you need to maximize, not only the amount of value they will receive but also use the best possible proofs of gain. Moreover, your value demonstration needs to be quickly understood by their primal brain. This means that you need to make that demonstration simple enough that even a non-expert would understand it. Use customer testimonials to support your value demonstration, a demo, data or a vision. Lastly, focus your demonstration on what is unique about your solution, that is, what can be categorized under each of your claims.

In the eighth and final chapter, you learned that the most effective messages should include six persuasion elements:

1. A grabber: a short but effective way to communicate your value proposition that goes beyond simply using words and typically re-awakes the pain your customers want to eliminate.
2. Claims: the top three reasons your customers should buy from you.
3. A big picture: a simple graphical representation of how your product, service, or idea will impact the world of your prospect or audience.
4. Undisputable proofs of your gain: the primal brain is not very evolved and quite skeptical, so you should provide simple yet strong and effective proofs

of your value.

5. Reframe objections to create positive emotions when your customers express resistance.
6. Close: the repetition of your claims one more time and ask: "What do you think?" Wait for their feedback and ask: "Where do we go from here?" and wait for their response.

You can further increase the impact of any of those persuasion elements by using seven persuasion catalysts:

1. Tell stories that will transport your audience in a different world where you control the emotion communicated by the punch line.
2. Use your charisma.
3. Word with *you*.
4. Apply contrast to increase the impact of any of your persuasion elements.
5. Vary teaching modalities: chose the modality most effective to communicate the concept you are presenting.
6. Trigger emotions to trigger faster decisions.
7. Make it short: more information leads to confusion not more persuasion!

Now the challenging work begins. You have many options when you begin the implementation of NeuroMap.

We recommend that you identify the weakest step in your current sales or advertising narrative. These questions will help:

1. Are you addressing the most relevant and urgent pains?
2. Is your message truly differentiated? Basically, are you selling something unique and using claims?
3. Are you communicating compelling and indisputable proofs of your gain?
4. Is your message easy to understand and impossible to forget? Does it reach the primal brain?

Although focusing on the weakest link of the chain first may appear logical, we recommend that you follow the sequence of the 4 persuasion steps. This means that you should first diagnose the pain and then move on from there. In our experience, skipping steps will compromise the power of NeuroMap, even if you have already done some research on the pains or identified your claims. or

have already done some research on the pains or problems your claims, or completed some work on the demonstration of your value proposition (gain). Rethinking all these concepts around the primal brain will greatly simplify even the most complex messaging strategy.

Second, decide if you can afford researching pains or assessing the neurological effect of your current advertising stimuli based on the cost/benefits of your value proposition. The higher the value, the more you can justify investing in research. Most companies typically invest as much as 10% of the gross margin of researching a product or solution.

Third, confirm who are the stakeholders of this process? Should you do this on your own, or should you involve your executive team? Using NeuroMap to build clarity, consensus, and commitment with your executive team on the concepts of pain, claims, gain, and primal brain will set the foundation of a solid marketing and messaging strategy for years to come.

Fourth, identify who else in your organization would benefit from learning NeuroMap, especially learning to apply effective ways to present your value proposition? The strategic nature of NeuroMap commands that the top-level executives be involved in the process, before it is shared with the rest of the team, including sales and marketing and even R&D executives.

Finally, assess objectively your internal resources and capacity to execute successful neurocreative assets. Although the model is easy to learn, it does require a lot of “unlearning,” which some people can't or will not do.

After all the preceding questions have been addressed, you can easily determine to what extent you need external help or support.

Enjoy the journey. You can now persuade anyone, anywhere, anytime!

APPENDIX: NEUROMAP SIMPLIFIED NEUROSCORING TOOL

If you do not have the time or budget to conduct a full neuromarketing evaluation, we recommend that you at least score your messages by using 24 questions. Each question has already been tested to assess and improve hundreds of ads. The purpose of this simplified tool is to identify the messages that have little chance of triggering the bottom-up effect. For practical purposes, let's pretend that you are assessing the quality of the home page of your website. Here are the questions you can use to assess how well you are using the six stimuli to communicate your value proposition in ways that make your message optimized for the primal brain.

NEUROSCORING STIMULI

Personal (P)

- | |
|--|
| 1. Is your message clearly reawakening the customer's frustrations or threats solved by the product or service you offer? |
| 2. Is the copy focusing on the customer ("you") instead of focusing on the company or product? |
| 3. Are the consequences of not overcoming the pain/frustrations clearly identified (loss of money, higher risk, psychological stress, etc.)? |
| 4. Is the message stressing the urgency of solving the pains? |

Contrastable (C)

- | |
|--|
| 1. Is the message using claims? |
| 2. Is it clear that each claim is going to eliminate or treat a specific pain? |
| 3. Are the claims helping you create sharp contrast, such as "before and after"? |
| 4. Are the benefits/claims truly unique or original? |

Tangible (T)

- | |
|--|
| 1. Is the value of each claim/core benefit demonstrated or proven with credible customer stories, demos, data or vision? |
|--|

2. Are there analogies or metaphors designed to reduce cognitive effort to believe in the benefit of each claim?
3. To which extent is it possible to understand the value of the solution or product in less than five seconds?
4. Overall, is the message designed to be grasped with limited cognitive load (more visuals and less text)?

Memorable (M)

1. Are the claims easy to remember?
2. Is the message using no more than three claims?
3. Are claims repeated more than once?
4. Is there an effort made to simplify and accelerate the decision to choose the product or solution proposed?

Visual (V)

1. Is the page visually salient (using elements with sharp and clear visual definition, limited number of colors and well defined contours)?
2. Is there at least one strong visual presenting the value of the solution from the perspective of a customer?
3. Is the home page more than 70% visual?
4. Overall, can the overall value of the solution be understood without reading any text or thinking a lot?

Emotional (E)

1. Is the message seeking first to attract attention from the primal brain rather than explaining (bottom-up effect)?
2. Is there a clear call to action to move toward closing a transaction?
3. Is there a big emotional lift from the reenactment of the threat/frustration (pain) to the liberation of such pain?
4. Does the final part of the message create anticipation?

Get your NeuroScore by using the following table:


P	Is your message clearly reawakening the customer's frustrations or threats solved by the product or service you offer?	Yes = 10 / No =	Report Your Score	Circle Your Grade
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		0	Below	40 =
P	Is the copy focusing on the customer (“you”) or instead focusing on the company or product?	Yes = 10 / No = 0	-----	A 30 = B 20 = C 10 = D 0 = F
P	Are the consequences of not overcoming the pain/frustrations clearly identified (loss of money, higher risk, psychological stress, etc.)?	Yes = 10 / No = 0		
P	Is the message stressing the urgency of solving the pains?	Yes = 10 / No = 0		
C	Is the message using claims?	Yes = 10 / No = 0	Report Your Score Below	Circle Your Grade 40 =
C	Is it clear that each claim is going to eliminate or treat a specific pain?	Yes = 10 / No = 0	-----	A 30 = B 20 = C 10 = D 0 = F
C	Are the claims helping you create sharp contrast as “before and after”?	Yes = 10 / No = 0		
C	Are the benefits/claims truly unique or original?	Yes = 10 / No = 0		
T	Is the value of each claim/core benefit demonstrated or proven with credible customer stories, demos, data or vision?	Yes = 10 / No = 0	Report Your Score Below	Circle Your Grade 40 =
T	Are there analogies or metaphors designed to reduce cognitive effort to believe in the benefit of each claim?	Yes = 10 / No = 0	-----	A 30 = B 20 =

T	Is it possible to understand the value of the solution or product in less than five seconds?	Yes = 10 / No = 0		C 10 = D 0 = F
T	Overall, is the message designed to be grasped with limited cognitive load (more visuals and less text)?	Yes = 10 / No = 0		
M	Are the claims easy to remember?	Yes = 10 / No = 0	Report Your Score Below	Circle Your Grade 40 = A 30 = B 20 = C 10 = D 0 = F
M	Is the message using no more than three claims?	Yes = 10 / No = 0	-----	
M	Are claims repeated more than once?	Yes = 10 / No = 0		
M	Is there an effort made to simplify and accelerate the decision to choose the product or solution proposed?	Yes = 10 / No = 0		
V	Is the page visually salient (using elements with sharp visual definition, limited number of colors and clear contours)?	Yes = 10 / No = 0	Report Your Score Below	Circle Your Grade 40 = A 30 = B 20 = C 10 = D 0 = F
V	Is there at least one strong visual presenting the value of the solution from the perspective of a customer?	Yes = 10 / No = 0	-----	
V	Is the home page more than 70% visual?	Yes = 10 / No = 0		

V	Overall, can the overall value of the solution be understood without reading any text or thinking too much?	Yes = 10 / No = 0		
E	Is the message seeking first to attract attention from the primal brain rather than explain (bottom-up effect)?	Yes = 10 / No = 0	Report Your Score Below	Circle Your Grade 40 =
E	Is there a clear call to action to move toward closing a transaction?	Yes = 10 / No = 0	-----	A 30 =
E	Is there a big emotional lift from the reenactment of the threat/frustration (pain) to the liberation of such pain?	Yes = 10 / No = 0		B 20 =
E	Does the end of the message create anticipation?	Yes = 10 / No = 0		C 10 =
				D 0 = F

Finally, compute your NeuroMap score by using this next table:

		
	Stimulus Points	Persuasive Impact
A	200–240	Your message is very persuasive.
B	160–199	Your message is moderately persuasive.
C	120–159	Your message is neutral.
F	<120	Your message does not persuade.

Once you have scored each stimulus, you can use the following table to summarize your grades.

USING NEUROQUADRANTS

Finally, you can use the NeuroQuadrants map to figure out how you can improve the overall bottom-up effect of your message. To determine in which NeuroQuadrant your message is likely to fall in, use the following table.

	If Your Average Grade For	Then Your Message Is in NeuroQuadrant	Grade Average is	Grade	Grade	Grade
P and C C	P and C is less than B	3 (Neutral)	A/B	C or less	A/B	A/B
T M	T and M is less than B	4, 1, or 2	A/B	Any	C or less	A/B
V E	V and E is less than B	4, 1, or 2	A/B	Any	Any	C or less
NeuroQuadrant			1	3	4	2

REFERENCES

1. ESOMAR (2014). *Global Market Research*. ESOMAR. Available from: <https://www.esomar.org/uploads/industry/reports/global-market-research-2014/ESOMAR-GMR2014-Preview.pdf>.
2. Sloane, G. (2016). Why P&G decided Facebook ad targeting often isn't worth the money. *AdAge* (10 August). Available from: <http://adage.com/article/digital/p-g-decided-facebook-ad-targeting-worth-money/305390/>.
3. Vranica, S. and Marshall, J. (2016). Facebook overestimated key video metric for two years. *Wall Street Journal*, 22 September. Available from: <https://www.wsj.com/articles/facebook-overestimated-key-video-metric-for-two-years-1474586951>.
4. Ariely, D. and Berns, G.S. (2010) Neuromarketing: The hope and hype of neuroimaging in business. *Nature Reviews Neuroscience* 11 (4): 284–292.
5. Fugate, D.L. (2007). Neuromarketing: A layman's look at neuroscience and its potential application to marketing practice. *Journal of Consumer Marketing* 24 (7): 385–394.
6. Hubert, M. (2010). Does neuroeconomics give new impetus to economic and consumer research. *Journal of Economic Psychology* 31 (5): 812–817.
7. Lee, N., Broderick, L., and Chamberlain, L. (2016). What is “neuromarketing”? A discussion and agenda for future research. *International Journal of Psychophysiology* 63 (2): 199–204.
8. Zurawicki, L. (2010). *Neuromarketing: Exploring the Brain of the Consumer*, 273. New York: Springer.
9. ARF. (2011). *Neurostandard collaboration initiative*. Available from: www.thearf.org/assets/neurostandards-collaboration.
10. Falk, E.B., Berkman, E.T., and Lieberman, M.D. (2012). From neural responses to population behavior: Neural focus group predicts population-level media effects. *Psychological Science* 23 (5): 439–445.

- [11.](#) Lee, N., Senior, C., Butler, M. *et al.* (2009). The feasibility of neuroimaging methods in market research. *Nature Precedings*.
- [12.](#) Kenning, P., Plassmann, H., and Ahlert, D. (2007). Applications of functional magnetic resonance imaging for market research. *Qualitative Market Research: An International Journal*, 10 (2) 135–152.
- [13.](#) Wilhelm, P., Schoebi, D., and Perrez, M. (2004). Frequency estimates of emotions in everyday life from a diary method's perspective: A comment on Scherer et al.'s survey-study “Emotions in everyday life.” *Social Science Information* 43 (4): 647–665.
- [14.](#) Morin, C. (2014). The neurophysiological effect of emotional ads on the brains of late adolescents and young adults *Media Psychology*. 104. Santa Barbara: Fielding Graduate University.
- [15.](#) Ehrlich, B. (2015). Guys: Here's why it's dumb not to give your girl a gift on Valentine's Day. *MTV News*, 9 February. Available from: <http://www.mtv.com/news/2074362/valentines-day-presents-chocolates-study/>.
- [16.](#) Dehaene, S. (2014). *Consciousness and the Brain: Deciphering How the Brain Codes Our Thoughts*, 352. New York: Penguin Books.
- [17.](#) Mendes, W.B. (2009). Assessing autonomic nervous system activity. In: *Methods in Social Neuroscience* (ed. E. Harmon-Jones and J.S. Beer), 118–147. New York: Guilford Press.
- [18.](#) Bechara, A., Damasio, H., Tranel, D. *et al.* (1997). Deciding advantageously before knowing the advantageous strategy. *Science*, 275 (5304): 1293–1295.
- [19.](#) Ravaja, N. (2004). Contributions of psychophysiology to media research: Review and recommendations. *Media Psychology* 6 (2): 193–235.
- [20.](#) Hebb, D.O. (1949). *The Organization of Behavior*, 423. New York: Wiley.
- [21.](#) Gazzaniga, M.S., Ivry, R.B., and Mangun, G.R. (2009). *Cognitive Neuroscience: The Biology of the Mind*, 3rd ed., 752. New York: W.W. Norton.
- [22.](#) DeYoung, C.G. and Gray, J.R. (2009). Personality neuroscience:

Explaining individual differences in affect, behavior, and cognition. In: *Cambridge Handbook of Personality* (ed. P.J.C.G. Matthews), 323–346. New York: Cambridge University Press.

- [23.](#) Lesica, N. and Stanley, B. (2004). Encoding of natural scene movies by tonic and burst spikes in the lateral geniculate nucleus. *Journal of Neuroscience* 24 (47): 10731–10740.
- [24.](#) Kolb, B. and Whishaw, I.Q. (2009). *Fundamentals of Human Neuropsychology*, 6e, 920. New York: Worth Publishers.
- [25.](#) Berridge, K.C. (2004). Motivation concepts in behavioral neuroscience. *Physiology & Behavior*, 81 (2): 179–209.
- [26.](#) Darwin, C. (1872). *The Expression of the Emotions in Man and Animals*. London, England: John Murray.
- [27.](#) Ekman, P. and Friesen, W.V. (1971). Constants across cultures in the face and emotion. *Journal of Personality and Social Psychology* 17 (2): 124–129.
- [28.](#) PBS (2002). *The Secret Life of the Brain*. PBS documentary series.
- [29.](#) McGaugh, J. (2000). Memory: A century of consolidation. *Science* 287 (5451): 248–251.
- [30.](#) Ornstein, R. (1991). *The Evolution of Consciousness: Of Darwin, Freud, and Cranial Fire: The Origins of the Way We Think*, 326. New York: Simon & Schuster.
- [31.](#) Panksepp, J. (2004). Affective consciousness: Core emotional feelings in animals and humans. *Consciousness and Cognition* 14 (1): 30–80.
- [32.](#) Carlson, N.R. (2007). *Physiology of Behavior*, 9e, 768. Boston, MA: Pearson Education.
- [33.](#) Wallbott, H. G. and Scherer, K. R. (1986). How universal and specific is emotional experience? Evidence from 27 countries on five continents. *Social Science Information* 25 (4): 763–795.
- [34.](#) DeYoung, C.G., Hirsh, J.B., Shane, M.S. *et al.* (2010). Testing predictions from personality neuroscience: Brain structure and the Big Five. *Psychological Science* 21(6): 820–828.

35. Glimcher, P.W. (2009). *Neuroeconomics: Decision-Making and the Brain*, 556. London, UK: Elsevier.
36. Langleben, D.D., Loughhead, J.W., Ruparel, K. *et al.* (2009). Reduced prefrontal and temporal processing and recall of high “sensation value” ads. *Neuroimage* 46 (1): 219–225.
- [37.](#) Tamietto, M., Cauda, F., Corazzini, L.L. *et al.* (2010). Collicular vision guides nonconscious behavior. *Journal of Cognitive Neuroscience* 22 (5): 888–902.
- [38.](#) Plutchik, R. (1991). *The Emotions*, 236., Lanham, MD: University Press of America.
- [39.](#) Panksepp, J. (1998). *The Foundations of Human and Animal Emotions*, 481. New York: Oxford University Press.
- [40.](#) Hess, U. (2009). Facial EMG. In: *Methods in Social Neuroscience* (ed. E. Harmon-Jones and J.S. Beer), 70–91. New York: Guilford Press.
- [41.](#) Knutson, B., Rick, S., Wimmer, G.E. *et al.* (2007). Neural predictors of purchases. *Neuron* 53 (1): 147–156.
- [42.](#) Hare, T.A., O'Doherty, J., Camerer, C.F. *et al.* (2008). Dissociating the role of the orbitofrontal cortex and the striatum in the computation of goal values and prediction error. *Journal of Neuroscience* 28 (22): 5623–5630.
- [43.](#) Rossiter, J.R. and Silberstein, R.B. (2001). Brain-imaging detection of visual scene encoding in long-term memory for TV commercials. *Journal of Advertising Research* 41 (2): 13–21.
- [44.](#) Tusche, A., Bode, S., and Haynes, J.D. (2010). Neural responses to unattended products predict later consumer choices. *Journal of Neuroscience* 30 (23): 8024–8031.
- [45.](#) Draganski, B., Gaser, C., Kempermann, G. *et al.* (2006). Temporal and spatial dynamics of brain structure changes during extensive learning. *Journal of Neuroscience* 26 (23): 6314–6317.
- [46.](#) Maguire, E.A., Woollett, K., and Spiers, H.J. (2006). London taxi drivers and bus drivers: A structural MRI and neuropsychological analysis. *Hippocampus* 16 (12): 1091–1101.

- [47.](#) Mercer, A., Deane, C., and McGeeney K. (2016). *Why 2016 election polls missed their mark*. Washington, DC: Pew Research Center.
- [48.](#) Schneider, J. and Hall, J. (2011). Why most product launches fail. *Harvard Business Review* (April).
- [49.](#) Morin, C. (2015). Why emotional PSA affect the brains of adolescents differently than the brains of young adults. In: *Digital Citizenship in the 21st Century Monograph* (ed. J. Ohler). Santa Barbara: Fielding Graduate University.
- [50.](#) Randolph, W. and Viswanath, K. (2004). Lessons learned from public health mass media campaigns: Marketing health in a crowded media world. *Annual Review of Public Health* 25: 419–437.
- [51.](#) Petty, R.E., Cacioppo, J.T., and Heesacker, M. (1981). Effects of rhetorical questions on persuasion: A cognitive response analysis. *Journal of Personality and Social Psychology* 40 (3): 432–440.
- [52.](#) Brehm, S. and Brehm, J. (1981). *Psychological Reactance: A Theory of Freedom and Control*, 447. New York: Academic Press.
- [53.](#) Grandpre, J., Alvaro, E.M., Burgoon, M. *et al.* (2003). Adolescent reactance and anti-smoking campaigns: A theoretical approach. *Health Communication* 15 (3): 349–366.
- [54.](#) Farrelly, M.C., Heaton, C.G., Davis, K.C. *et al.* (2002). Getting to the truth: Evaluating national tobacco countermarketing campaigns. *American Journal of Public Health* 92 (6): 901–907.
- [55.](#) Rothman, A.J., Martino, S.C., Bedell, B.T. *et al.* (1999). The systematic influence of gain-and loss-framed messages on interest in and use of different types of health behavior. *Personality and Social Psychology Bulletin* 25 (11): 1355–1369.
- [56.](#) Detweiler, J.B., Bedell, B.T., Salovey, P. *et al.* (1999). Message framing and sunscreen use: Gain-framed messages motivate beach-goers. *Health Psychology* 18 (2): 189–196.
- [57.](#) Schneider, T.R., Salovey, P., Pallonen, U. *et al.* (2001). Visual and auditory message framing effects on tobacco smoking. *Journal of Applied Social Psychology* 31 (4): 667–682.

- [58.](#) Schneider, T.R., Salovey, P., Apanovitch, A.M. *et al.* (2001). The effects of message framing and ethnic targeting on mammography use among low-income women. *Health Psychology* 20 (4): 256–266.
- [59.](#) Lang, A. (2000). The limited capacity model of mediated message processing. *Journal of Communication* 50 (1): 46–70.
- [60.](#) Lang, A., Zhou, S., Schwartz, N. *et al.* (2000). The effects of edits on arousal, attention, and memory for television messages: When an edit is an edit can an edit be too much? *Journal of Broadcasting & Electronic Media* 44(1): 94–109.
- [61.](#) Stanovich, K.E. and West, R.F. (2000). Individual differences in reasoning: *Implications for the rationality debate?* *Behavioral and Brain Sciences* 23 (5): 645–665; discussion 665–726.
- [62.](#) Kahneman, D. (2011). *Thinking, Fast and Slow*, 511. New York, NY: Farrar, Straus and Giroux.
- [63.](#) Benson, B. (2016). Cognitive bias cheat sheet, simplified. *Medium*. Available from: <https://medium.com/thinking-is-hard/4-conundrums-of-intelligence-2ab78d90740f>.
- [64.](#) Crocker, J. and Park, L.E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin* 130 (3): 392–414.
- [65.](#) Greenberg, J., Pyszczynski, T., Solomon, S. *et al.* (1993). Effects of self-esteem on vulnerability-denying defensive distortions: Further evidence of an anxiety-buffering function of self-esteem. *Journal of Experimental Social Psychology* 29 (3): 229–251.
- [66.](#) Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin* 108 (3): 480–498.
- [67.](#) Haselton, M.G. and Nettle, D. (2006). The paranoid optimist: An integrative evolutionary model of cognitive biases. *Personality and Social Psychology Review* 10 (1): 47–66.
- [68.](#) Weinstein, N.D. (1980). Unrealistic optimism about future life events. *Journal of Personality and Social Psychology* 39 (5): 806–820.
- [69.](#) Gladwell, M. (2005). *Blink: The Power of Thinking Without Thinking*, 296.

New York, NY: Little, Brown and Company.

- [70.](#) Ariely, D. (2008). *Predictably Irrational: The Hidden Forces that Shape Our Decisions*, 310. New York, NY: HarperCollins.
- [71.](#) Mundell, E.J., (2014). Scientists erase, then restore memories in rats. *HealthDay* (2 June).
- [72.](#) Cory, G.A., (2002). MacLean's evolutionary neuroscience, the CSN model and Hamilton's rule: Some developmental clinical, and social policy implications. *Brain and Mind* 3 (1): 151–181.
- [73.](#) McLean, P.D. (1989). *The Triune Brain in Evolution: Role in Paleocerebral Functions*, 718. New York, NY: Plenum Press.
- [74.](#) Narvaez, D. (2007). Tirune ethics: The neurobiological roots of our multiple moralities. *New Ideas in Psychology* 26: 95–119.
- [75.](#) Cory, G.A. (2002). McLeans's evolutionary neuroscience, the CSN model and Hamilton's rule: Some developmental, clinical and social policy implications. *Brain and Mind* 3 (1): 151–181.
- [76.](#) Freud, S. (1915). The Unconscious. In: *General Psychological Theory* (ed. P. Rieff), 116–150. New York: Collier Books.
- [77.](#) Freud, S. (1930). *Das Unbehagen in der Kulture [Civilization and Its Discontents]*. Wien, Austria: Internationaler Psychoanalytischer Verlag.
- [78.](#) Freud, S. (1922). *Beyond the Pleasure Principle*. London, Vienna: Intl. Psycho-Analytical.
- [79.](#) Ayan, S. (2008). Speaking of memory. *Scientific American Mind* (October/November): 16–17.
- [80.](#) Solms, M. (2006). Freud returns. *Scientific American Mind* 17 (2): 82–88.
- [81.](#) Dawkins, R. (1976). *The Selfish Gene*, 368. New York, NY: Oxford University Press.
- [82.](#) Kahneman, D. and Riis, J. (2005). Living and thinking about it: Two perspectives on life. In: *The Science of Well-Being* (ed. F.A.H.N. Baylis and B. Keverne), 285–301. Oxford University Press.
- [83.](#) Schwartz, B. (2004). *The Paradox of Choice: Why More is Less*, 308. New

York: HarperCollins.

- [84.](#) Iyengar, S.S. and Lepper, M.R. (2000). When choice is demotivating: Can one desire too much of a good thing? *Journal of Personality and Social Psychology* 79 (6): 995–1006.
- [85.](#) Katz, J. (1984). *The Silent World of Doctor and Patient*, 318. Baltimore, MD: John Hopkins University Press.
- [86.](#) Beard, F.K. (2013). A history of comparative advertising in the United States. *Journalism and Communication Monographs* 15 (3): 114–216.
- [87.](#) Singh, M., Balasubramanian, S.K. and Chakraborty, G. (2000). A comparative analysis of three communication formats: Advertising, infomercial, and direct experience. *Journal of Advertising* 29 (4): 59–75.
- [88.](#) Lindgaard, G., Fernandes, G., Dudek, C. *et al.* (2006). Attention web designers: You have 50 milliseconds to make a good first impression! *Behaviour & Information Technology* 25 (2): 115–126.
- [89.](#) Geissler, G., Zinkhan, G., and Watson, R.T. (2001). Web home page complexity and communication effectiveness. *Journal of the Association for Information Systems* 2 (1).
- [90.](#) Tuch, A.N., Bargas-Avila, J.A., Opwis, K. *et al.* (2009). Visual complexity of websites: Effects on users' experience, physiology, performance, and memory. *International Journal of Human-Computer Studies*, 67 (9): 703–715.
- [91.](#) Laham, S.M., Koval, P., and Alter, A.L. (2012). The name-pronunciation effect: Why people like Mr. Smith more than Mr. Colquhoun. *Journal of Experimental Social Psychology* 48 (3): 752–756.
- [92.](#) Miele, D.B., Finn, B., and Molden, D.C. (2011). Does easily learned mean easily remembered?: It depends on your beliefs about intelligence. *Psychological Science* 22 (3): 320–324.
- [93.](#) Grabner, R.H., Neubauer, A.C., and Stern, E. (2006). Superior performance and neural efficiency: The impact of intelligence and expertise. *Brain Research Bulletin*, 69 (4): 422–439.
- [94.](#) Kiesel, A., Kunde, W., Pohl, C. *et al.* (2009). Playing chess unconsciously.

Journal of Experimental Psychology: Learning, Memory, and Cognition, 35 (1): 292–298.

- [95.](#) Shteingart, H., Neiman, T., and Loewenstein, Y. (2013). The role of first impression in operant learning. *Journal of Experimental Psychology* 142 (2): 476–488.
- [96.](#) Atkinson, R.C. and Shiffrin, R.M. (1968). Human memory: A proposal system and its control processes. In: *The Psychology of Learning and Motivation: II* (ed. K.W. Spence and J.T. Spence), 89–195. London: Academic Press.
- [97.](#) Miller, G. (1956). The magical number seven, plus-or-minus two: Some limits on our capacity for processing information. *Psychological Review*, 101 (2): 343–352.
- [98.](#) Colavita, F.B. (1974). *Human sensory dominance. Perception and Psychophysics* 16 (2): 409–412.
- [99.](#) Li, Y., Liu, M., Zhang, W. *et al.* (2017). Neurophysiological correlates of visual dominance: A lateralized readiness potential investigation. *Frontiers in Psychology* 28: 303.
- [100.](#) Silverstein, D.N. and Ingvar, M. (2015). A multi-pathway hypothesis for human visual fear signaling. *Frontiers in System Neuroscience* 9: 101.
- [101.](#) Potter, M., Wyble, B., Haggmann, C.E. *et al.* (2014). Detecting meaning in RSVP at 13 ms per picture. *Attention, Perception, & Psychophysics* 76 (2): 270–279.
- [102.](#) Ledoux, J.E. and E.A. Phelps. (2004). Emotional networks in the brain. In *Handbook of Emotions*, 2e (ed. M. Lewis and J.M. Haviland-Jones), 157–172. New York: Guilford Press.
- [103.](#) Todorov, A., & Ballew, C. (2007). Predicting political elections from rapid and unreflective face judgments. *Proceedings of the National Academy of Sciences, USA* 104 (46): 17948–17953.
- [104.](#) Lorenzo, G.L., Biesanz, J.C., and Human, L.J. (2010). What is beautiful is good and more accurately understood: Physical attractiveness and accuracy in first impressions of personality. *Psychological Science* 21 (12): 1777–1782.

- [105.](#) Abrams, R.A. and Christ, S.E. (2003). Motion onset captures attention. *Psychological Science* 14 (5): 427–432.
- [106.](#) Langton, S.R. *et al.* (2008). Attention capture by faces. *Cognition* 107 (1): 330–342.
- [107.](#) Caharel, S., Ramon, M., and Rossion, B. (2014). Face familiarity decisions take 200 msec in the human brain: Electrophysiological evidence from a go/no-go speeded task. *Journal of Cognitive Neuroscience* 26 (1): 81–95.
- [108.](#) Wolfe, J.M. and Bennett, S.C. (1997). Preattentive object files: Shapeless bundles of basic features. *Vision Research* 37 (1): 25–43.
- [109.](#) Broyles, S.J. (2006). Subliminal advertising and the perpetual popularity of playing to people's paranoia. *Journal of Consumer Affairs* 40 (2): 392–406.
- [110.](#) Collin, S.P., Knight, M.A., Davies, W.L. *et al.* (2003). Ancient colour vision: Multiple opsin genes in the ancestral vertebrates. *Current Biology*, 13 (22): 864–865.
- [111.](#) Tamietto, M., Cauda, F., Corazzini, L.L., *et al.* (2010). Collicular vision guides nonconscious behavior. *Journal of Cognitive Neuroscience* 22 (5): 888–902.
- [112.](#) Guntekin, B. and Basar, E. (2014). A review of brain oscillations in perception of faces and emotional pictures. *Neuropsychologia* 58: 33–51.
- [113.](#) Changizi, M.A., Zhang, Q., and Shimojo, S. (2006). Bare skin, blood and the evolution of primate colour vision. *Biology Letters*, 2 (2): 217–221.
- [114.](#) Buechner, V.L., Maier, M.A., Lichtenfeld, S. *et al.* (2014). Red – Take a closer look. *PLoS One* 9 (9): e108111.
- [115.](#) Madden, T., Hewett, K., and Roth, M. (2000). Managing images in different cultures: A cross-national study of color meanings and preferences. *Journal of International Marketing* 8 (4): 90–107.
- [116.](#) Hevner, K. (1935). Experimental studies of the affective value of colors and lines. *Journal of Applied Psychology* 19 (4): 385–398.
- [117.](#) Grossman, R.P. and Wisenblit, J.Z. (1999). What we know about consumer's color choices. *Journal of Marketing Practices: Applied Marketing Science* 5 (3): 78–88.

- [118.](#) Kuhbandner, C. and Pekrun, R. (2013). Joint effects of emotion and color on memory. *Emotion* 13 (3): 375–379.
- [119.](#) Elliot, A.J. and Maier, M.A. (2007). Color and psychological functioning. *Current Directions in Psychological Science* 16 (5): 250–254.
- [120.](#) Lichtenfeld, S., Maier, M.A., Elliot, A.J. *et al.* (2009). The semantic red effect: Processing the word red undermines intellectual performance. *Journal of Experimental Social Psychology* 45 (6): 1273–1276.
- [121.](#) Loeber, S., Vollstädt-Klein, S., Wilden, S. *et al.* (2011). The effect of pictorial warnings on cigarette packages on attentional bias of smokers. *Pharmacology, Biochemistry, and Behavior* 98 (2): 292–298.
- [122.](#) Descartes, R. (1637). *Discours de la Méthode*.
- [123.](#) Bossaerts, P. and Murawski, C. (2015). From behavioural economics to neuroeconomics to decision neuroscience: the ascent of biology in research on human decision making. *Current Opinion in Behavioral Sciences* 5 (Supplement C): 37–42.
- [124.](#) Bechara, A. (2003). The role of emotion in decision-making: Evidence from neurological patients with orbitofrontal damage. *Brain and Cognition* 55 (1): 30–40.
- [125.](#) Damasio, A.R. (1994). *Descartes' Error*, 336. New York: Harper Collins.
- [126.](#) Thaler, R. (2015). *Misbehaving: The Making of Behavioral Economics*, 452. New York: W. W. Norton.
- [127.](#) Damasio, A.R. (1996). The somatic marker hypothesis and the possible functions of the prefrontal cortex. *Philosophical Transactions: Biological Sciences* 351 (1346): 1413–1420.
- [128.](#) Eagleman, D. (2015). *The Brain: The Story of You*, 224. New York: Pantheon Books.
- [129.](#) Plutchik, R. and H. Kellerman. (1980). *Emotion: Theory, Research and Experience*. Vol. 1, 424. London, UK: Academic Press.
- [130.](#) Coricelli, G., Dolan, R.J., and Sirigu, A. (2007). Brain, emotion and decision making: The paradigmatic example of regret. *Trends in Cognitive Sciences* 11 (6): 258–265.

- [131.](#) Vogel, S. and Schwabe, L. (2016). Learning and memory under stress: Implications for the classroom. *npj Science of Learning* 1: 16011.
- [132.](#) Alter, A.L. (2017). *Irresistible: The Rise of Addictive Technology and the Business of Keeping Us Hooked*, 370. New York: Penguin Press.
- [133.](#) McGaugh, J.L. (2013). Making lasting memories: Remembering the significant. *Proceedings of the National Academy of Sciences, USA* 110 (Supplement 2): 10402–10407.
- [134.](#) Kensinger, E.A. (2009) Remembering the details: Effects of emotion. *Emotion Review* 1 (2): 99–113.
- [135.](#) di Pellegrino, G., Fadiga, L., Fogassi, L. *et al.* (1992). Understanding motor events: A neurophysiological study. *Experimental Brain Research* 91 (1): 176–180.
- [136.](#) Dehaene, S., Changeux, J.P., Naccache, L. *et al.* (2006). Conscious, preconscious, and subliminal processing: A testable taxonomy. *Trends in Cognitive Sciences* 10 (5): 204–211.
- [137.](#) Ledoux, J.E. (2016). *Anxious: Using the Brain to Understand and Treat Fear and Anxiety*, 428. New York: Penguin Books.
- [138.](#) Burke, C. (2015). 100 customer service statistics you need to know. *InsightSquared* (22 April).
- [139.](#) Maslow, A.H. (1943). A theory of human motivation. *Psychological Review* 50 (4): 370–396.
- [140.](#) Maslow, A.H. (1968). *Toward a Psychology of Being*, 2e, 212. New York: Van Nostrand Reinhold.
- [141.](#) Witt, U. (2001). Learning to consume – A theory of wants and the growth of demand. *Journal of Evolutionary Economics* 11 (1): 23–36.
- [142.](#) Berns, G.S. and Moore, S.E. (2012). A neural predictor of cultural popularity. *Journal of Consumer Psychology* 22 (1): 154–160.
- [143.](#) Du, P. and MacDonald, E.F. (2015). Products' shared visual features do not cancel in consumer decisions. *Journal of Mechanical Design* 137 (7): 071409-071409–411.

- [144.](#) Cowan, N. (2010). The magical mystery four: How is working memory capacity limited, and why? *Current Directions in Psychological Science* 19 (1): 51–57.
- [145.](#) Bromage, B.K. and Mayer, R. (1986). Quantitative and qualitative effects of repetition on learning from technical text. *Journal of Educational Psychology* 78 (4): 271–278.
- [146.](#) Dimofte, C.V., Johansson, J.K., and Ronkainen, I.A. (2008). Cognitive and affective reactions of U.S. consumers to global brands. *Journal of International Marketing* 16 (4): 113–135.
- [147.](#) Cowan, N. (2005). *Working Memory Capacity. Essays in Cognitive Psychology*, 246. New York: Psychology Press.
- [148.](#) Gilchrist, A.L., Cowan, N., and Naveh-Benjamin, M. (2008). Working memory capacity for spoken sentences decreases with adult aging: Recall of fewer, but not smaller chunks in older adults. *Memory* (Hove, England) 16 (7): 773–787.
- [149.](#) Smith, E.E. and Jonides, J. (1998). Neuroimaging analyses of human working memory. *Proceedings of the National Academy of Sciences, USA* 95 (20): 12061–12068.
- [150.](#) Calder, B.J., Insko, C.A., and Yandell, B. (1974). The relation of cognitive and memorial processes to persuasion in a simulated jury trial. *Journal of Applied Social Psychology* 4 (1): 62–93.
- [151.](#) Poppenk, J., Walia, G., McIntosh, A.R. *et al.* (2008). Why is the meaning of a sentence better remembered than its form? An fMRI study on the role of novelty-encoding processes. *Hippocampus* 18 (9): 909–918.
- [152.](#) Alter, A.L. and Oppenheimer, D.M. (2006). Predicting short-term stock fluctuations by using processing fluency. *Proceedings of the National Academy of Sciences, USA* 103 (24): 9369–9372.
- [153.](#) Filkuková, P. and Klempe, S.H. (2011). Rhyme as reason in commercial and social advertising. *Scandinavian Journal of Psychology* 54 (5): 423–431.
- [154.](#) Novemsky, N., Dhar, R., Schwarz, N. *et al.* (2007). Preference fluency in choice. *Journal of Marketing Research* 44 (3): 347–356.

- [155.](#) Reber, R. and Schwarz, N. (1999). Effects of perceptual fluency on judgments of truth. *Consciousness and Cognition* 8 (3): 338–342.
- [156.](#) Shah, A.K. and Oppenheimer, D.M. (2007). Easy does it: The role of fluency in cue weighting. *Judgment and Decision Making* 2 (6): 371–379.
- [157.](#) Reber, R., Schwarz, N., and Winkielman, P. (2004). Processing fluency and aesthetic pleasure: Is beauty in the perceiver's processing experience? *Personality and Social Psychology Review*, 8(4): 364–382.
- [158.](#) Bernard, M. *et al.* (2002). A comparison of popular online fonts: Which size and type is best? *Usability News* (10 January).
- [159.](#) Cialdini, R.B. (2016). *Pre-suasion: A Revolutionary Way to Influence and Persuade*, 413. New York: Simon & Schuster.
- [160.](#) Deighton, J., Romer, D., and McQueen, J. (1989). Using drama to persuade. *Journal of Consumer Research* 16 (3): 335–343.
- [161.](#) Monroe, K.B. and Lee, A.Y. (1999). Remembering versus knowing: Issues in buyers' processing of price information. *Journal of the Academy of Marketing Science* 27 (2): 207.
- [162.](#) Algom, D., Dekel, A., and Pansky, A. (1996). The perception of number from the separability of the stimulus: The Stroop effect revisited. *Memory & Cognition* 24 (5): 557–572.
- [163.](#) Karmarkar, U.R., Shiv, B., and Knutson, B. (2014). Cost conscious? The neural and behavioral impact of price primacy on decision making. *Journal of Marketing Research* 52 (4): 467–481.
- [164.](#) Levy, M. (2010). Loss aversion and the price of risk. *Quantitative Finance* 10 (9): 1009–1022.
- [165.](#) Abdellaoui, M., Bleichrodt, H., and l'Haridon, O. (2008). A tractable method to measure utility and loss aversion under prospect theory. *Journal of Risk and Uncertainty* 36 (245): 245–266.
- [166.](#) Kadous, K., Koonce, L., and Towry, K.L. (2005). Quantification and persuasion in managerial judgement. *Contemporary Accounting Research* 22 (3): 643–686.
- [167.](#) Cialdini, R.B. (1993). *Influence: The Psychology of Persuasion*, rev. ed.,

320. New York: Morrow.

- [168.](#) Fuller, R.G.C. and Sheehy-Skeffington, A. (1974). Effects of group laughter on responses to humorous material, a replication and extension. *Psychological Reports* 35 (1): 531–534.
- [169.](#) Festinger, L. (1954). A theory of social comparison processes. *Human Relations* 7 (2): 117–140.
- [170.](#) Smith, C.T., De Houwer, J., and Nosek, B.A. (2013). Consider the source: Persuasion of implicit evaluations is moderated by source credibility. *Personality and Social Psychology Bulletin* 39 (2): 193–205.
- [171.](#) Yalch, R.F. and Elmore-Yalch, R. (1984). The effect of numbers on the route to persuasion. *Journal of Consumer Research* 11 (1): 522–527.
- [172.](#) Dijksterhuis, A., Aarts, H., and Smith, P. (2006). The power of the subliminal: On subliminal persuasion and other potential applications. In: *The New Unconscious* (ed. R.R. Hassin, J.S. Uleman, and J.A. Bargh). Oxford, UK: Oxford University Press.
- [173.](#) Simons, D.J. and Chabris, C.F. (1999). Gorillas in our midst: Sustained inattention blindness for dynamic events. *Perception* 28 (9): 1059–1074.
- [174.](#) Ricard, M. (2017). *Beyond the Self: Conversations Between Buddhism and Neuroscience*, 294. Cambridge, MA: MIT Press.
- [175.](#) Singer, W. (1999). Neuronal synchrony: A versatile code for the definition of relations? *Neuron* 24 (1): 111–125.
- [176.](#) Oishi, Y., Xu, Q., Wang, L. *et al.* (2017). Slow-wave sleep is controlled by a subset of nucleus accumbens core neurons in mice. *Nature Communications* 8 (1): 734.
- [177.](#) Anderson, R.C., Pichert, J.W. and Shirey, L.L. (1983). Effects of the reader's schema at different points in time. *Journal of Educational Psychology* 75 (2): 271–279.
- [178.](#) Pichert, J.W. and Anderson, R.C. (1977). Taking different perspectives on a story. *Journal of Educational Psychology* 69 (4): 309–315.
- [179.](#) Gates, B. (2009). *Mosquitos, Malaria and Education*. TED Talk (4 February).

- [180.](#) Rogers, T. and Milkman, K.L. (2016). Reminders through association. *Psychological Science* 27 (7): 973–986.
- [181.](#) Stadler, M. and Ward, G.C. (2010). The effects of props on story retells in the classroom. *Reading Horizons* 50 (3): 169–192.
- [182.](#) Handy, T.C., Grafton, S.T., Shroff, N.M. *et al.* (2003). Graspable objects grab attention when the potential for action is recognized. *Nature Neuroscience* 6 (4): 421–427.
- [183.](#) Damasio, A.R. (2010). *Self Comes to Mind: Constructing the Conscious Brain*, 367. New York: Pantheon Books.
- [184.](#) Gottschall, J. (2012). *The Storytelling Animal: How Stories Make Us Human*, 248. Boston, MA: Houghton Mifflin Harcourt.
- [185.](#) van Laer, T., de Ruyter, K., Visconti, L.M. *et al.* (2014). The extended transportation-imagery model: A meta-analysis of the antecedents and consequences of consumers' narrative transportation. *Journal of Consumer Research* 40 (5): 797–817.
- [186.](#) Mehrabian, A. (1972). *Nonverbal Communication*, 226. Chicago: Aldine-Atherton.
- [187.](#) Huth, A.G., de Heer, W.A., Griffiths, T.L. *et al.* (2016). Natural speech reveals the semantic maps that tile human cerebral cortex. *Nature* 532 (7600): 453–458.
- [188.](#) Johnson, D.A. (2016). *Newton in the Pulpit*, 184. New Sinai Press.
- [189.](#) Auble, P.M., Franks, J.J., and Soraci, S.A. (1979). Effort toward comprehension: Elaboration or “aha”? *Memory & Cognition* 7 (6): 426–434.
- [190.](#) Kember, D. (1996). The intention to both memorise and understand: Another approach to learning? *Higher Education* 31 (3): 341–354.
- [191.](#) Carlson, K.A. and Shu, S.B. (2007). The rule of three: How the third event signals the emergence of a streak. *Organizational Behavior and Human Decision Processes* 104 (1): 113–121.
- [192.](#) Wansink, B., Painter, J.E., and North, J. (2005). Bottomless bowls: Why visual cues of portion size may influence intake. *Obesity* 13 (1): 93–100.

- [193.](#) Zeelenberg, M. (1999). Anticipated regret, expected feedback and behavioral decision making. *Journal of Behavioral Decision Making* 12 (2): 93–106.
- [194.](#) Ten Brinke, L., Stimson, D., and Carney, D.R. (2014). Some evidence for unconscious lie detection. *Psychological Science* 25 (5): 1098–1105.
- [195.](#) Mehrabian, A. and Wiener, M. (1967). Decoding of inconsistent communications. *Journal of Personality and Social Psychology* 6 (1): 109–114.
- [196.](#) Moriarty, T. (1975). Crime, commitment, and the responsive bystander: Two field experiments. *Journal of Personality and Social Psychology* 31 (2): 370–376.
- [197.](#) Cialdini, R.B. (1984). *Influence: How and Why People Agree to Things*, 302. New York: Morrow.
- [198.](#) Howard, D.J. (1990). The influence of verbal responses to common greetings on compliance behavior: The foot-in-the-mouth effect. *Journal of Applied Social Psychology*, 20 (14): 1185–1196.
- [199.](#) Freedman, J.L. and Fraser, S.C. (1966). Compliance without pressure: The foot-in-the-door technique. *Journal of Personality and Social Psychology*, 4 (2): 195–202.
- [200.](#) Deutsch, M. and Gerard, H.B. (1955). A study of normative and informational social influences upon individual judgement. *Journal of Abnormal Psychology* 51 (3): 629–636.
- [201.](#) Dunbar, R.I., Marriott, A., and Duncan, N.D. (1997). Human conversational behavior. *Human Nature* 8 (3): 231–246.
- [202.](#) Tamir, D.I. and Mitchell, J.P. (2012). Disclosing information about the self is intrinsically rewarding. *Proceedings of the National Academy of Sciences, USA* 109 (21): 8038–8043.
- [203.](#) Burnkrant, R. and Unnava, H. (1995). Effects of self-referencing on persuasion. *Journal of Consumer Research* 22 (1): 17–26.
- [204.](#) Escalas, J.E. (2007). Self-referencing and persuasion: Narrative transportation versus analytical elaboration. *Journal of Consumer Research*

33 (4): 421–429.

- [205.](#) Bargh, J.A. (2017). *Before You Know It: The Unconscious Reasons We Do What We Do*, 352. New York: Touchstone.
- [206.](#) Buskist, W. and Saville, B.K. (2001). Creating positive emotional contexts for enhancing teaching and learning. *APS Observer* 14 (3): 12–13.
- [207.](#) Tajfel, H., Billig, M.G., Bundy, R.P. *et al.* (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology* 1 (2): 149–178.
- [208.](#) Tickle-Degnen, L. and Rosenthal, R. (1990). The nature of rapport and its nonverbal correlates. *Psychological Inquiry* 1(4): 285–293.
- 209. Wayne, A.H. and Brian, H.K. (1997). Establishing rapport: The secret business tool to success. *Managing Service Quality: An International Journal* 7 (4): 194–197.
- [210.](#) Wood, J.A. (2006). NLP revisited: Nonverbal communications and signals of trustworthiness. *Journal of Personal Selling & Sales Management* 26 (2): 197–204.
- [211.](#) Iacoboni, M. (2008). *Mirroring People: The New Science of How We Connect with Others*, 308. New York: Farrar, Straus and Giroux.
- [212.](#) Preston, S.D., Bechara, A., Damasio, H. *et al.* (2007). The neural substrates of cognitive empathy. *Social Neuroscience*, 2 (3–4): 254–275.
- [213.](#) Coch, D., Dawson, G., and Fisher, K.W. (2010). *Human Behavior Learning, and the Developing Brain*. London: Guilford Press.
- [214.](#) Nygaard, L.C. and Queen, J.S. (2008). Communicating emotion: Linking affective prosody and word meaning. *Journal of Experimental Psychology, Human Perception and Performance*, 34 (4): 1017–1030.
- [215.](#) Betts, K., (2009). Lost in translation: Importance of effective communication in online education. *Online Journal of Distance Learning Administration* 12 (2).
- [216.](#) Rodriguez-Ferreiro, J., Gennari, S.P., Davies, R. *et al.* (2011). *Neural correlates of abstract verb processing*. *Journal of Cognitive Neuroscience* 23 (1): 106–118.

- [217.](#) Jefferies, E., Frankish, C., and Noble, K. (2011). Strong and long: Effects of word length on phonological binding in verbal short-term memory. *The Quarterly Journal of Experimental Psychology* 64 (2): 241–260.
- [218.](#) Sabsevitz, D.S., Medler, D.A., Seidenberg, M. *et al.* (2005). Modulation of the semantic system by word imageability. *Neuroimage* 27 (1): 188–200.
- [219.](#) Nieuwland, M.S. and Kuperberg, G.R. (2008). When the truth is not too hard to handle: An event-related potential study on the pragmatics of negation. *Psychological Science* 19 (12): 1213–1218.
- [220.](#) Larcker, D.F. and Zakolyukina, A.A. (2012). Detecting deceptive discussions in conference calls. *Journal of Accounting Research* 50 (2): 495–540.
- [221.](#) Newberg, A.B. and Waldman, M.R. (2012). *Words Can Change Your Brain: 12 Conversation Strategies to Build Trust, Resolve Conflict, and Increase Intimacy*, 274. New York: Hudson Street Press.
- [222.](#) Ludlow, C. (2005). Central nervous system control of the laryngeal muscles in humans. *Respiratory, Physiology, & Neurobiology* 147 (2–3): 205–222.
- [223.](#) Tang, C., Hamilton, L.S., and Chang, E.F. (2017). Intonational speech prosody encoding in the human auditory cortex. *Science* 357 (6353): 797–801.
- [224.](#) Schirmer, A. (2010). Mark my words: Tone of voice changes affective word representations in memory. *PLoS One* 5 (2): e9080.
- [225.](#) Leaderbrand, K., Morey, A., and Tuma, L. (2008). The effects of voice pitch on perceptions of attractiveness: Do you sound hot or not? *Winona State University Psychology Student Journal* (January).
- [226.](#) Bryant, G.A. and Haselton, M.G. (2009). Vocal cues of ovulation in human females. *Biology Letters* 5 (1): 12–15.
- [227.](#) Cheng, J.T., Tracy, J.L., Ho, S. *et al.* (2016). Listen, follow me: Dynamic vocal signals of dominance predict emergent social rank in humans. *Journal of Experimental Psychology. General* 145 (5):536–547.
- [228.](#) Ko, S.J., Sadler, M.S., and Galinsky, A.D. (2015). The sound of power: Conveying and detecting hierarchical rank through voice. *Psychological*

Science 26 (1): 3–14.

- [229.](#) Miller, N., Maruyama, G., Beaber, R.J. *et al.* (1976). Speed of speech and persuasion. *Journal of Personality and Social Psychology* 34 (4): 615–624.
- [230.](#) Gibson, B.S., Eberhard, K.M., and Bryant, T.A. (2005). Linguistically mediated visual search: The critical role of speech rate. *Psychonomic Bulletin & Review* 12 (2): 276–281.
- [231.](#) Kendall, T. (2013). *Speech Rate, Pause, and Sociolinguistic Variation: Studies in Corpus Sociophonetics*, 247. New York: Palgrave Macmillan.
- [232.](#) MacGregor, L., Corley, M., and Donaldson, D.I., (2010). Listening to the sound of silence: Disfluent silent pauses in speech have consequences for listeners. *Neuropsychologia* 48 (14): 3982–3992.
- [233.](#) Enos, F., Shriberg, E., Graciarena, M. *et al.* (2007). *Detecting Deception Using Critical Segments*. New York: Columbia University Academic Commons.
- [234.](#) Peterson, R.A., Cannito, M.P., and Brown, S.P. (1995). An exploratory investigation of voice characteristics and selling effectiveness. *Journal of Personal Selling & Sales Management* 15 (1): 1–15.
- [235.](#) Iyer, N., Brungart, D., and Simpson, B. (2010). Effects of target-masker contextual similarity on the multimasker penalty in a three-talker diotic listening task. *Journal of the Acoustical Society of America* 128 (5): 2998–3110.
- [236.](#) Ljung, R., Sörqvist, P., and Hygge, S. (2009). Effects of traffic noise and irrelevant speech on children's reading and mathematical performance. *Noise Health* 11 (45): 194–198.
- [237.](#) Marsh, J.E. and Jones, D.M. (2010). Cross-modal distraction by background speech: What role for meaning? *Noise Health*, 12 (49): 210–216.
- [238.](#) Aune, R.K. and Kikuchi, T. (1993). Effects of language intensity similarity on perceptions of credibility relational attributions, and persuasion. *Journal of Language and Social Psychology* 12 (3): 224–238.
- [239.](#) Dupuis, K. and Pichora-Fuller, M.K. (2010). Use of affective prosody by

- young and older adults. *Psychology and Aging* 25 (1): 16–29.
- [240.](#) Ishii, K., Reyes, J., and Kitayama, S. (2003). Spontaneous attention to word content versus emotional tone: Differences among three cultures. *Psychological Science* 14 (1): 39–46.
- [241.](#) Ekman, P. (2007). *Emotions Revealed: Recognizing Faces and Feelings to Improve Communication and Emotional Life*, 2e, 290. New York: Owl Books.
- [242.](#) Ekman, P., Davidson, R.J., and Friesen, W.V. (1990). The Duchenne smile: Emotional expression and brain physiology II. *Journal of Personality and Social Psychology* 58 (2): 342–353.
- [243.](#) Chaminade, T., Zecca, M., Blakemore, S.-J. *et al.* (2010). Brain response to a humanoid robot in areas implicated in the perception of human emotional gestures. *PLoS One* 5 (7): e11577.
- [244.](#) Chang, L. and Tsao, D.Y. (2017). The code for facial identity in the primate brain. *Cell*, 169 (6): 1013–1028.e14.
- [245.](#) Frumin, I., Perl, O., Endevelt-Shpaura, Y. *et al.* (2015). A social chemosignaling function for human handshaking. *Elife*, 4.
- [246.](#) Senju, A. and Johnson, M.H. (2009). The eye contact effect: Mechanisms and development. *Trends in Cognitive Sciences* 13 (3): 127–134.
- [247.](#) Itier, R.J. and Batty, M. (2009). Neural bases of eye and gaze processing: The core of social cognition. *Neuroscience and Biobehavioral Reviews* 33 (6): 843–863.
- [248.](#) George, N. and Conty, L. (2008). Facing the gaze of others. *Neurophysiologie Clinique* 38 (3): 197–207.
- [249.](#) Hietanen, J.K., Leppänen, J.M., Peltola, M.J. *et al.* (2008). Seeing direct and averted gaze activates the approach-avoidance motivational brain systems. *Neuropsychologia* 46 (9): 2423–2430.
- [250.](#) Einav, S. and Hood, B.M. (2008). Tell-tale eyes: Children's attribution of gaze aversion as a lying cue. *Developmental Psychology* 44 (6): 1655–1667.
- [251.](#) Schneier, F.R., Rodebaugh, T.L., Blanco, C. *et al.* (2011). Fear and

avoidance of eye contact in social anxiety disorder. *Comprehensive Psychiatry* 52 (1): 81–87.

- [252.](#) Gamer, M. and Buchel, C. (2009). Amygdala activation predicts gaze toward fearful eyes. *Journal of Neuroscience* 29 (28): 9123–9126.
- [253.](#) Bateson, M., Nettle, D., and Roberts, G. (2006). Cues of being watched enhance cooperation in a real-world setting. *Biology Letters* 2 (3): 412–414.
- [254.](#) Fehr, E. and Schneider, F. (2010). Eyes are on us, but nobody cares: Are eye cues relevant for strong reciprocity? *Proceedings: Biological Sciences* 277 (1686): 1315–1323.
- [255.](#) Tombs, S. and Silverman, I. (2004). Pupillometry. *Evolution and Human Behavior* 25 (4): 221–228.
- [256.](#) Goldman, M. and Fordyce, J. (1983). Prosocial behavior as affected by eye contact, touch, and voice expression. *Journal of Social Psychology* 121 (1): 125–129.
- [257.](#) Sadr, J., Jarudi, I., and Sinha, P. (2003). The role of eyebrows in face recognition. *Perception* 32 (3): 285–293.
- [258.](#) Enrici, I., Adenzato, M., Cappa, S. *et al.* (2010). Intention processing in communication: A common brain network for language and gestures. *Journal of Cognitive Neuroscience* 23 (9): 2415–2431.
- [259.](#) Huang, L., Galinsky, A.D., Gruenfeld, D.H. *et al.* (2011). Powerful postures versus powerful roles: Which is the proximate correlate of thought and behavior? *Psychological Science* 22 (1): 95–102.
- [260.](#) Cuddy, A. (2012). *Your body language may shape who you are*. TEDGlobal.
- [261.](#) van Baaren, R., Janssen, L., Chartrand, T.L. *et al.* (2009). Where is the love? The social aspects of mimicry. *Philosophical Transactions of the Royal Society of London B: Biological Sciences* 364 (1528): 2381–2389.
- [262.](#) Rhode, D.L. (2010). *The Beauty Bias: The Injustice of Appearance in Life and Law*, 252. New York: Oxford University Press.
- [263.](#) Busetta, G. and Fiorillo, F. (2013). Will Ugly Betty ever find a job in Italy?,

391. *Quaderno Di Ricerca*.

- [264.](#) Hamermesh, D.S. (2011). *Beauty Pays: Why Attractive People Are More Successful*, 216. Princeton, NJ; Oxford, UK: Princeton University Press.
- [265.](#) Hill, A. and Scharff, L.V. (1997). Readability of screen displays with various foreground/background color combinations, font styles, and font types. *Proceedings of the Eleventh National Conference on Undergraduate Research*, II: 742–746.
- 266. Mackiewicz, J. (2007). Audience perception of fonts in projected PowerPoint slides. *Technical Communication* 54 (3): 295–307.
- [267.](#) Ali, A.Z.M., Wahid, R., Samsudin, K. *et al.* (2013). Reading on the computer screen: Does font type have effects on web text readability? *International Education Studies* 6 (3): 26–35.
- [268.](#) Breugst, N. and Patzelt, H. (2010). Entrepreneurs display of passion and employee's commitment to new ventures. *Academy of Management Annual Meeting Proceedings* 8 (1).
- [269.](#) Mujica-Parodi, L.R., Strey, H.H., Frederick, B. *et al.* (2009). Chemosensory cues to conspecific emotional stress activate amygdala in humans. *PLoS One* 4 (7): e6415.
- [270.](#) Wallechinsky, D., Wallace, I., and Wallace, A. (1977). *The People's Almanac Presents the Book of Lists*, 521. New York: Morrow.
- [271.](#) Woo, J.W., Tam, J.K.C., Chan, D.S.G. *et al.* (2015). Uncovering what lies beneath a *Salmonella enterica* empyema. *BMJ Case Reports*, 2015.
- [272.](#) Vrij, A. (2008). *Detecting Lies and Deceit: Pitfalls and Opportunities*, 2nd ed., 503. West Sussex, UK: Wiley.
- [273.](#) Witkowski, T (2010). Thirty-five years of research on neuro-linguistic programming. NLP Research Data Base. State of the art or pseudoscientific decoration? *Polish Psychological Bulletin* 41 (2): 58–66.
- [274.](#) Constantinidou, F. and Baker S. (2002). Stimulus modality and verbal learning performance in normal aging. *Brain Language* 82 (3): 296–311.
- [275.](#) Brenda, S. (2009). Driving sales through shoppers' sense of sound, sight, smell and touch. *International Journal of Retail & Distribution*

Management 37 (3): 286–298.

- [276.](#) Olahut, M.R. and Ioan, P. (2013). The effects of ambient scent on consumer behavior: A review of the literature. *Annals of the University of Oradea, Economic Science Series* 22 (1): 1797–1806.
- [277.](#) Velasco, C., Jones, R., King, S. *et al.* (2013). Assessing the influence of the multisensory environment on the whisky drinking experience. *Flavour* 2 (23).
- [278.](#) brusspup. (2011). *Incredible Shade Illusion!* YouTube (11 August), <https://www.youtube.com/watch?v=z9Sen1HTu5o>.
- [279.](#) TheRichest. (2015). *10 Mind Blowing Optical Illusions*. YouTube (5 March), <https://www.youtube.com/watch?v=-IWk5NkxQF8>.
- [280.](#) Morrot, G., Brochet, F., and Dubourdieu, D. (2001). The color of odors. *Brain and Language*, 79 (2): 309–320.
- [281.](#) Spence, C. (2012). Auditory contributions to flavour perception and feeding behaviour. *Physiology & Behavior* 107 (4): 505–515.
- [282.](#) North, A.C., Hargreaves, D.J., and McKendrick, J. (1999). The influence of in-store music on wine selections. *Journal of Applied Psychology* 84 (2): 271–276.
- [283.](#) Williams, L. and Ackerman J. (2011). Please touch the merchandise. *Harvard Business Review* (December 15).
- [284.](#) Just, M.A., Newman, S.D., Keller, T.A. *et al.* (2004). Imagery in sentence comprehension: An fMRI study. *Neuroimage* 21 (1): 112–124.
- [285.](#) Wilson, T.D. and Schooler, J.W. (1991). Thinking too much: Introspection can reduce the quality of preferences and decisions. *Journal of Personality and Social Psychology* 60 (2): 181–192.
- [286.](#) WisdomLand (2017). Billboard scares the crap out of people crossing red light at intersection and takes their picture. YouTube (3 June), <https://www.youtube.com/watch?v=vYWmeh6Q-Vk>.
- [287.](#) Thaler, R. and Sunstein, C. (2009). *NUDGE: Improving Decisions About Health, Wealth, and Happiness*, 312. New York: Penguin Books.

- [288. NeoFilmShop.com](#). (2014). MCL cinema Hong Kong Mobile phone car crash advertising effective. YouTube, 29 June, <https://www.youtube.com/watch?v=5Gtio4V1L3o>.
- [289.](#) Kopp, F., Schroger, E., and Lipka, S. (2006). Synchronized brain activity during rehearsal and short-term memory disruption by irrelevant speech is affected by recall mode. *International Journal of Psychophysiology* 61 (2): 188–203.
- [290.](#) Bastardi, A. and Shafir, E. (1998). On the pursuit and misuse of useless information. *Journal of Personality and Social Psychology* 75 (1): 19–32.
- [291.](#) Johnson, E.J., Shu, S.B., Dellaert, B.G.C. *et al.* (2012). Beyond nudges: Tools of a choice architecture. *Marketing Letters* 23 (2): 487–504.
- [292.](#) Rouhshad, A., Wigglesworth, G., and Storch, N. (2015). The nature of negotiations in face-to-face versus computer-mediated communication in pair interactions. *Language Teaching Research* 20 (4): 514–534.
- [293.](#) Thaler, R., Sunstein, C., and Balz, J.P. (2013). Choice architecture. In: *The Behavioral Foundations of Public Policy* (ed. E. Shafir), 428–439. Princeton, NJ: Princeton University Press.

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