

The Science of Persuasion and the Art of the Sale: The Role of Framing in Developing Defenses to Bounded Irrationality

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*"Don't brand the cattle, brand the buyer—
he's the one likely to stray."
— Malcolm Reynolds*

*"If you get people to ask the right questions,
the answers are easy"*

It's late fall when the compliance expert makes her way down the block of a quiet urban St. Paul neighborhood known as West Como. The leaves of the maple trees lining the streets have started turning fire red and the setting sun lights them like burning bushes. She scans the block and selects the side with fewer houses. "Fewer houses mean more land between the houses", she thinks, "which means larger tax revenues collected from the owners ergo more donation margin" she recalls from a pep rally she attended last week. She's profiling her primary targets and a quick check of the clock on her clipboard tells her that she has plenty of time to make her way up the other side of the street. Besides, she thinks to herself, if she's only marginally successful in her goals on *this* side of the street, it will only make it easier to work the crowd on the other.

She starts with the larger 1930's stucco two story on the corner. The lot is large, taking up the equivalent of three houses on the other side of the street. A semi-private cedar fence rings the backyard. A quick check to the driveway reveals a bright yellow Smart Car, license plate "B SMART". Bingo she thinks. These are *my* people.

She sees movement inside the house and casually approaches the front door. Ringing the bell she hears a buzz from deep inside the house, reminiscent of some indiscriminant sound from a black and white television show she can't name. Must be original, she thinks and mentally puts a checkmark next to frugal.

"Hi my name is Molly" she says suddenly bright and cheery to the skeptical eye from the man staring her down from behind the screen door. "We're out today collecting signatures from like-minded people who care about water quality. Would you be willing to sign here along with your neighbors that you care about water quality too?"

He opens the door and takes the clipboard – scanning the list of names he realizes that he doesn't recognize any of them but also realizes that he hasn't made an effort to really get to know his neighbors. He notices the stack of

strategically fanned brochures underneath the signature sheets as he hands it back to her. She's tracking his every gaze, feigns a small hurt look that he's not impressed with the trophies she's collected so far, but it fades as quickly as it appeared. She knows she collected them in another neighborhood, so it is really unlikely that he knows any of them.

She sees the clock on the clipboard again – that constant drumbeat compelling her forward. She quickly snatches one of the brochures and tries to hand it to him. He humors her by scanning through it as she runs through her canned spiel on how important clean water is, and how few people world wide have clean water, and how X thousands or hundreds of thousands of people die every day or year, he's not really sure which, "because they don't have clean water" she finishes.

He looks up from the brochure and raises his hand, signaling that she can stop.

"You can keep the brochure" she says.

He knows what she's after and plays along, "yes, I care about clean water and would be more than happy to help with a donation, the thing is I don't normally have a lot of cash on me, mainly plastic to help me track my purchases. You understand?"

"Well, we do take checks", she offers sincerely. "Most people have been giving between thirty-five to forty dollars", she lies. Most people SHOULD be giving that much she thinks internally to reconcile the dishonesty. Molly really does care about clean water. She also cares about winning the trip to Mexico.

"Let me see what I have", he says stepping back inside the house to check his wallet. She makes another mental checkmark and thinks tonight's compliance run is going to be easier than she thought.

He comes back with a twenty and hands it to her in exchange for some additional brochures and the clipboard again for his signature. He politely refuses and she makes up some excuse about needing people's names for "accounting purposes" and flips up the signature sheet to reveal another page with donors and dollar amounts. He tells her to put down "Doe" and steps back inside. Again the fleeting wounded look appears but she realizes the clock is ticking and shifts back into a sunny disposition. Besides, she knows from the public tax records she printed out on the backside of her clipboard who he probably is. Looking down the street she sees a neighbor out raking leaves and resets the check list and prepares to tell the neighborhood of the generosity of the guy on the corner.

The guy on the corner was me, and I had just been played.

Professional: Someone who makes the very difficult seem very easy

Marketing and sales embody the art and science of persuasion, manipulation and compliance. “Selling” has probably been going on longer than marketing, though it is not hard to imagine the role of “advertising” embedded in our DNA in the form of gestures. Marketing is typically done in a one-way, non-interactive (passive) mode – whereas sales involve active agents. This paper will focus on the latter with a goal of illuminating a possible strategy for building defenses against Bounded Irrationality by understanding Dennett’s *Intentional Stance*.

The best sales people know how to “read” their customers. The value added they provide ranges from gopher (fetch the item) to in-store subject matter expert. In commission based sales, where a sometimes significant portion of the salesperson’s salary (compensation) comes from a percentage of the total purchase price of the items sold (usually as a percentage of the profit).

Frequently, unbeknownst to the customer, there are additional sales incentives in place, usually in the form of a sales target or time-based contests. However, even with full disclosure of a potential bias, it does not lead to rational decision making¹. For example the salesperson discloses that if you buy X that will help them win a contest – in fact it could lead to a subtle collusion exploit where the shopper feels like they are helping the salesperson. This method is actually seen as the modus operandi of door to door charitable giving campaigns (magazine sales, candy bars, kids programs, etc).

Items are rarely of the “craft” variety (wherein you are buying from the maker directly) – which can mean the margins vary greatly by the time the end product reaches the showroom floor. The “up-sell” and the “cross-sell” are techniques employed by sales professionals to increase the over all transaction, and frequently will target higher-margin items, which likely lead to higher commissions or tips. The “gradation technique”, otherwise known as “foot-in-the-door” form is as evident in dining experiences employed by wait staff as it is in consumer products.

Gradation techniques have been well understood by psychologists for decades. The so called “foot-in-the-door” (FITD) form is well known to salespeople² and according to Freedman “it is one of the cornerstones of fund-raising.” Here’s how it works:

...if a person complies with your first, small, request, he will have an increased tendency to comply with your subsequent, larger request.

In recent years a variant, almost contrarian approach has been documented known as “Door-in-the-Face” (DITF) approach³ where (a) a costly, large first

request that the recipient will probably refuse and then (b) making a second, less costly and more realistic request. This second approach exploits a “framing attack” which we will explore in greater detail shortly.

In “Testing the Effectiveness of Alternative Foot-in-the-Door Manipulations⁴”, Hansen and Robinson measured compliance in the activity of filling out a survey in a study of more than 400 individuals. The “foot” as the authors termed it could be a “no”, “low”, or “high” foot approach, and depended largely on prior contact before asking for compliance. What they found revealed that by and large the time between obtaining the foot and gaining compliance largely didn’t matter.

The results of our study and other empirical studies, however, indicate situations in which the foot principle is likely to generate a high degree of compliance. These “situations” are defined by three variables, sponsoring organization, subject or topic of the request, and the timing of the requests.

They determined that so called “prosocial” requests had the highest success, but that commercial interests also benefited from higher compliance when two or more contacts had been made. I would add that the “prosocial” requests also benefit from a strong need for internal consistency (confirmation bias), which is why the door-to-door petition approach is so effective. You sign your name that you support a cause, and then feel the need to confirm that when asked for a donation. Essentially this is what Argyris and others have referred to as the relationship between “espoused values” and “enacted values”, known as “theory-in-use”⁵

The Rise and Demise of Homo Economicus

Homo economicus⁶ or “economic human” is a term used for an approximation or model of humans that act to obtain the highest possible well-being for an individual given available information about opportunities and other constraints, both natural and institutional, on his or her ability to achieve predetermined goals. Simply put, its “rational self-interest.” And while there is debate among economists as to the validity of the model, I find it instructive when looking at the *utility mode* of acquisition in purchase decisions.

In the course of normal decision-making, we talk about *bounded rationality*, as we do not (and will not ever) have complete knowledge, neither do we have unlimited time in which to decide. The cognitive limitations of being human also enter into the decision making process which results in what Simon called “satisficing”:

Satisficing takes a shortcut of setting an adjustable aspiration level and ending the search for alternatives as soon as one is encountered that exceeds the aspiration level (Simon, 1956a, 1990)⁷

Homo economicus has a natural predator: the sales professional.

Professionals know that homo economicus wants to believe they behave in a bounded rational way. They optimize for it. When *exploiting* these limitations, professionals can employ a variety of attacks. And the stakes are not as simple a decision as the failure to select the right wine to pair with your food as Johnson et al were able to demonstrate when looking at the effects of framing in financial statements⁸ where deception amounted to fraud. The methods of distraction though are instructive for our purposes of slicing through the sales professionals tactics. In particular they identified two modes of disruption, and six variants, namely:

1. ...the attempt to disrupt the agents' information seeking process by creating distractions or through subterfuge – these are termed *masking, dazzling and decoying*
2. ...the attempt to lead the agent to misinterpret or inappropriately categorize information presented (a framing attack) – termed *repackaging, mimicking and double-play*

But I would argue that homo economicus is not behaving in a bounded rational way at all, but rather suffers from *Bounded Irrationality*.

Bounded Irrationality: Decision-Making Traps

In his book “Ambient Findability”, Peter Morville contends that we “ask the wrong questions and trust the wrong sources”

*We substitute optimism for data. And we are influenced by peer pressure and groupthink. Decisions shape our lives, and yet they're often made in the dark, beneath the comforting veneer of rationality.*⁹

He cites five well-documented decision-making traps¹⁰ that suggest failure in decision-making lies not only in the process itself, but in the mind of the decision maker. They are:

1. Anchoring & Framing

When considering a decision, our minds are unduly influenced by the first information we find. Initial impressions and data anchor subsequent judgments.

2. Confirmation

Through selective search and perception, we subconsciously seek data that supports our existing point of view, and avoid contradictory evidence.

3. Memorability

We are overly influenced by recent or dramatic events. Repetition from one or multiple sources can also influence belief, memory, and judgment.

4. Status quo

Decision makers exhibit a strong bias toward conservatism, inertia and alternatives that perpetuate the status quo. We look for reasons to do nothing.

5. Sunk cost

Unwilling, consciously or not, to admit past mistakes, we make decisions in a way that justifies past choices.

In anchoring and framing, we are swayed by the way the initial proposition is framed. George Lakoff, cognitive linguist and author of a number of books on the centrality of metaphor in human thinking¹¹ tells the story in the opening of his book Don't think of an Elephant:

When I teach the study of framing at Berkeley, in Cognitive Science 101, the first thing I do is I give my students an exercise. The exercise is: Don't think of an elephant! Whatever you do, do not think of an elephant. I've never found a student who is able to do this. Every word like elephant, evokes a frame, which can be an image or other kinds of knowledge: Elephants are large, have floppy ears and a trunk, are associated with circuses, and so on. The word is defined relative to the frame. When we negate a frame, we evoke the frame.¹²

In Bazerman and Malhotra, the economic consequences of framing bias can be significant. In a study they cite on the results of the Bush era "tax rebate" wherein researchers explored the economic stimulus effects of framing the transaction as both a "bonus" and as "rebate". The results were impressive with 'rebate' participants, who largely identified the value as an overpayment, stated they spent 25% and saved 75% of the money, whereas the 'bonus' participants had largely identified the value as a surplus, reported spending 87% and saving 13%. To be clear, the underlying money was exactly the same from the same source, but was presented in different contexts!

Here the power of euphemism is evident in the selection and use of a *single word*; 'bonus' versus 'rebate' that produced diametrically opposite effects! Imagine the framing manipulation that goes on in the rhetoric used to advanced agendas.

The confirmation bias as already discussed is intimately linked to the internal need for consistency between our espoused values and our enacted values (Argyris). The foot-in-the-door compliance techniques employed by sales

professionals, especially in the form of the “prosocial” causes yield’s high rates in follow-through in obtaining higher returns.

Advertising is the marketing message in action. Classic advertising theory suggests that in order to affect recall, the message needs to be presented five to seven times before a positive recall will occur:

When designing and placing ads, many small business owners search for the magic bullet: an ad that is so compelling that customers will immediately pick up the phone and call to make an appointment.

The reality is, however, that advertising is a process, not a one-time event. Advertising research has shown that a consumer usually needs to see an ad five to seven times before responding. This is what the ad industry calls the rule of seven.¹³

In preferring a status quo approach to decision making, Bazerman suggests that it is largely an “omission bias” in that tendency for people to prefer the “potentially greater harmful” effects of inaction over the less harmful effects of having acted or having made a decision.

Mentally, Hammond et al. suggest that the status quo bias is prevalent whenever radically new technology is introduced, such as the revealing way people referred to the first automobiles as “horseless carriages.” In Hammond’s case, I would suggest that Lakoff is potentially more instructive at helping find a transitional metaphor to bridge the knowledge gap.

The last mind-trap, sunk-cost, is particularly treacherous. It is frequently a gamblers dilemma in the form of “I’ve already lost this much, if I only invest a bit more I might win it back” – I suspect that for victims of any one of the dozens of Ponzi schemes of late fell prey to this trap. The sunk-cost trap has a couple of variants including the loss aversion and the endowment effect¹⁴

That’s the science. Now the art.

“Sell the sizzle not the steak”

Purchase Decisions: Why do we buy the things we do?

There are several core reasons why we make purchase decisions, including out of basic need (utility), for prestige, or potentially from addiction or other coercive rationale. Since utility and prestige are more of the normative case I've chosen to explore them in detail, and am consciously leaving off the latter for others to explore.

The utility mode of purchase more closely fits the bounded rational vision of homo economicus that has been constructed. In the form of mental accounting theory¹⁵, a person subjectively frames a transaction in their mind to determine the utility they receive or expect. This is related to the modified utility function wherein there are two values attached to any transaction acquisition value and transaction value. *Acquisition value* is the money that one is ready to part with for physically acquiring some good. *Transaction value* is the value one attaches to having a good deal. If the price that one is paying is equal to the mental reference price for the good, the transaction value is zero. If the price is lower than the reference price, the transaction utility is positive.

In a sense the majority of utility purchase decisions involve a subtle interplay that is the subject of contract law in the legal profession. Contract law, which has a lot of basis in common law, is rife with all manner of “consideration” -- in fact I would suggest that case law is a reflection on society in context of time, place, and values. It is really interesting to consider the precedence upon which contract law circumscribes and proscribes modern normative purchase decision behavior.

There are six basic elements in a contract:

1. Offer
2. Acceptance
3. Consideration (a bargained for exchange (giving something up, getting something of roughly equal value in return))
4. Capacity to enter into a contract
5. Intent
6. Legality

Consideration largely is the focus of this utility function and in cases where it is violated, lawsuits ensue.

Utility based purchase decisions while not void of emotional attachments are likely subject to the kind of *valuation re-framing* attempts to tip the buyer to believe they are getting a *higher transaction value*. This is frequently seen in

retail consumer goods where a seemingly large additional value is attached to the original purchase target item through the use of *gratuitous accessorization* and product packaging and is why department stores will frequently pad the purchase with additional affiliated items (frequently under the sponsorship of an interested third-party), and then go to great lengths to put the items into bags that function as “gift” analogues. A somewhat theatrical version of this was made popular by the consumer products inventor/pitchman Ron Popeil:

...well known for his appearances in infomercials...and famous lines (such as), "But wait, there's more!" and "Now how much would you pay?" Each phrase followed the addition of another item or feature to the catalog of a product's advantages or attachments. The advertisements frequently answered the "how much?" question with potential prices, followed by the dramatically lower actual price.¹⁶

We now turn our attention to the so called Prestige purchases which I feel are more insightful in terms of what they reveal about human values in a way that basic utility does not and are a ripe field for exploitation by the compliance-seeking professional. Vigneron and Johnson enumerated five core purchase values and their corresponding motivations¹⁷

VALUES	MOTIVATION
Conspicuous	Veblenian
Unique	Snob
Social	Bandwagon
Emotional	Hedonist
Quality	Perfectionist

The sales professional can usually recognize the mode of acquisition and likely the underlying value driving it. It is then simply a matter of leveraging a known pattern to tailor their pitch to exploit the opportunity. The more time they have with the target, the more time they have to ask questions, make statements and elicit indicators.

There are likely as many variants and combinations of appeals as there are people to receive them; from flattery to Fear, Uncertainty, and Doubt (FUD) tactics. A successful sale involves “selling the sizzle not the steak.” In Learning from Samples of One of Fewer, authors March, Lee, and Tamuz suggest that learning and knowledge gaps are frequently filled in as *near-histories* (events that almost happened) and *hypothetical histories* (events that might have happened under unrealized but plausible conditions)¹⁸. I would argue that this is the exact mode by which the sales professional sells the vision. The target is asked to imagine themselves achieving the goal by envisioning what their life would be like if they were able to complete the transaction.

Forewarned is forearmed:

So much of what we know and much of what we think we know is held tacitly, especially on understanding our own values, beliefs, and motivations. These are largely transparent to the sales professional who benefits from having the ability to experience hundreds if not thousands of transactional experiences. The sales professionals' ability to abstract patterns based on first hand knowledge is augmented through what Sugiyama termed as narrative¹⁹ in the war-stories that other professionals tell each other, either as fact or fiction (much like tribal knowledge). The narrative, Sugiyama argues is in effect a facility that leverages the *theory of mind* as a means of transferring knowledge

The theory of mind is the ability to attribute mental states—beliefs, intents, desires, pretending, knowledge, etc.—to oneself and others and to understand that others have beliefs, desires and intentions that are different from one's own.²⁰ The narrative Cosmides and Tooby would describe as “fictional experiences” that function as

“motivational guidance systems...designed to help construct adaptive brain circuitry, and to furnish it with the information, procedures, and representations it needs to behave adaptively when called upon to do so...by unleashing our reactions to potential lives and realities (the fictions enable us) to feel more richly and adaptively about what we have not actually experienced. This allows us not only to understand others' choices and inner lives better, but to feel our way more foresightfully to adaptively better choices ourselves.”²¹

In the context of our sales professional who is constantly hunting with punctuated moments of campfire war stories of other hunter's victories and near hits, homo economicus doesn't stand a chance.

Daniel Dennett developed a general theory of mind known as the intentional stance, which embodies the example given and extends it. In his own words:

“Here is how it works: first you decide to treat the object whose behavior is to be predicted as a rational agent; then you figure out what beliefs that agent ought to have, given its place in the world and its purpose. Then you figure out what desires it ought to have, on the same considerations, and finally you predict that this rational agent will act to further its goals in the light of its beliefs. A little practical reasoning from the chosen set of beliefs and desires will in most instances yield a decision about what the agent ought to do;

that is what you predict the agent will do." (Daniel Dennett, The Intentional Stance, p. 17)

Michael Corballis in The Evolution of Consciousness suggests that while there may be an infinite number of stances, humans are likely limited to a half dozen practical levels (short term memory focus et al)²²

Zero-order (one subjective term) "I *want* the sales person to sell me a new car"

First-order (two subjective terms) "The salesperson *thinks* I *want* him/her to sell me a new car"

Second-order "I *believe* that the sales person *thinks* I *want* him/her to sell me a new car"

Third order "The sales manager *wonders* if I *know* that the sales person *doesn't think* I *want* to buy a new car"

This ability to perform *recursion* he argues is likely one of the defining and distinctly human attributes not shared with any other species (that we know of):

...we might easily concede that (other species have) zero-order intentionality, or noetic consciousness. It may well be reasonable to suppose that a pigeon in some sense "believes" that if it pecks a key it will receive food, but it is problematic as to whether it believes this of another pigeon.^{ibid}

Understanding the role of the intentional stance is instructive in beginning to build up defenses against our own irrationality, but as Johnson et al cautioned

Just as the Deceiver solves the problem of constructing a deception by using knowledge of how the Target thinks and acts, we assume that the Target solves the problem of detecting manipulations by using knowledge of how the Deceiver thinks and acts when constructing the deception^{ibid}

As has been shown however, the sales professional (sub Deceiver above) has vastly more experience that is varied in time and actor, giving them a larger repertoire of potential patterns to exploit. They also benefit greatly from the narrative of their peers and mentors (sales managers). This therefore significantly shifts the balance of power, and would likely shed light on the inability of the majority of auditors in their study to detect the financial frauds in the low base-rate world.

The Deceiver in Johnsons world is likely working on a more regular basis, playing “what if” scenarios through their mind, re-wiring their very brain structures adaptively (Cosmides & Tooby) incorporating historical and potential decisions in a way that legitimizes their actions internally so that they can continue to act as if their decisions are completely rational. So much so that they are able to perpetrate and promote their fictions on their peers undetected.

Mental and Verbal Aikido: Developing Defenses to Bounded Irrationality

I’ve selected the Japanese martial art of Aikido (合気道) as the frame of mind for our defenses against the kinds of attacks that seek to exploit our decidedly irrational approach to asset acquisition. What is particularly appealing about this mental model is that this form of defensive art seeks to blend the motion of the attacker and redirecting the force of the attack rather than opposing it head-on and requires very little physical energy.

Exploring options for each of the five mind traps enumerated above, I’ll blend the advice of Hammond et al with some of my own observations.

1. Anchoring & Framing

Try to view the problem from a different perspective. Try and translate the problem into words a child would understand. It will force you to think of metaphors and alternate cases in order to get your point across.

If you seek outside advice, try to limit the amount of anchoring you might be tempted to do, either the framing of the other party or your own in order to seek confirmation for your own biases.

Parrot back what you think you’ve heard, re-framing your understanding of the problem mixed with your goals to the other party. You might be able to tip the tables and get them to agree to your worldview.

2. Confirmation

Find a neutral third party that you respect to play devils advocate with you. It has to be someone that you can take hearing his or her honest criticism.

Trying convincing yourself (or at least allow yourself the option) of the consequences of an alternative decision. Walk through what the worst-case scenario of being wrong is.

Though not preferred, what if you deferred the decision by instead relying on doing nothing (status quo).

3. Memorability

Try to imagine a time before you became aware of the matter under review. Imagine various *near-histories* (events that almost happened) and *hypothetical histories* (events that might have happened under unrealized but plausible conditions.) These may reveal when and where there was a shift in world state.

4. Status quo

Be mindful of your original objective. Your goal was likely to make a decision to effect a change in current state.

While doing nothing is always an option, it may be sub-optimal (opportunity costs considered)

Consider *hypothetical histories* (events that might yet have happened if you make the decision now).

5. Sunk cost

Realize that you may not have had all the relevant information that you have now. Do not dwell on it. Avoid buyers/sellers remorse.

Don't cultivate an environment of failure-fearing culture that leads employees to perpetuate their mistakes.

From piloting, a good pilot doesn't deny the situation.

Conclusion: Every exit is an entry into someplace else

I've considered the role of the compliance-seeking expert cum sales professional. I've posited that through repetitive experiential training combined with the knowledge transfer embodied within the narrative fictions and fact recounted by their peers, that their prey, namely "homo economicus" with its idealized bounded rational stance is doomed to extinction. Simple recognition of this disparity of advantage alone cannot defend them from their highly individualized attacks. Only through active recognition of our own *irrationality* combined with a defensive stance can we re-level the playing field so that we're not played.

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