UNINTENDED CONSEQUENCES
The Battle of the Brains

It is with some satisfaction that I see growing rejection of the theory of rational expectations, a school of thought that suggests man predominantly behaves rationally and in his own best interests. Further along this same line grew a financial thesis from firms like Barra that rational actions were, more often than not, also predictable in financial market behavior.

It was believed that because man was a rational animal he would, in time, turn to the common perceptions of value because, well, because historically he did. Thus were born massive mathematical matrices of asset correlation factors and with it (or before it – there is dispute) one could construct ideal, "efficient" markets based on history. All a load of academic nonsense based on discredited work by Skinner – remember him from Sociology 101?

Thoughts like "self-fulfilling prophecy" and "lemming behavior" come to mind, one of which hints at what I think is really going on when you reflect on political decisions or historical financial data. Recall the upward force of credit-stimulated consumption and ensuing upward bias on corporate earnings and political thinking. It's not too tough to predict the levered credit impact on earnings or on politicians, but it's a lot tougher when you try to factor in human emotions to the aberrations.

Enter the lizard brain. Sitting on the top of our spinal column to the rear of the brain is the brain stem. It's the most primitive part of any brain, ours included, the earliest brain element of any creature. Its job is to control breathing, heartbeat, eating, sleeping – all the base mechanical parts of life. It directs the body, via the spinal cord, to do what is physically needed for survival – hence, what we have in common with lizards, lounge and otherwise.

Sitting more or less on top of that is the limbic system, a more recent development in humans. It's the source of our emotions, motivations and those elements of survival such as fear, anger or pleasure. (Studies indicate that drugs applied here alter the thinking part of the brain, the cortex, to such a degree that the limbic system can run the show. Some people don't need drugs to induce solely limbic decisions).

The question before the house, then, is this:

> To what extent do primitive survival decisions, be they physical from the brain stem or emotional from the limbic system, influence our decision making?

The other question at the root of this biology is whether humans even know if their decision to act originated in their thinking brain, the cortex, or the lizard brain or the limbic brain – or some blend of all three. After the fact, of course, there are often blatant clues, but seldom before.

I've written about group behavior – the seemingly unconscious act of making decisions in concert with a group while remaining independent of the group. I wrote about the audience with the red and green paddles in *Civilization: Act 2* (April 2011), behaving independently, but ultimately as one.

What was left uncovered was just what drove this isolated, but nonetheless synchronized, behavior. I would like to propose it is our limbic brain quietly at work well below any sense of awareness by us . . . bit of a reach, I admit, but bear with me.

Which has what, you may ask, to do with unintended consequences? Well, if human acts have the possibility of being driven by lizard or limbic impulse, then the following consequences are not only unintended, but also unknown. Perhaps an example might be the long battle between young and old. We hear the young claim they have the same experiences we do – good, bad or ugly and, accordingly, they need not listen, much less heed, advice from the old. I happen to agree – they do, in fact, share many experiences with the old. What they do not share is the consequences, as those often arrive much later. This may well be because the cortex of the young brain is not involved, not yet trained, not fully organically formed or simply ignored. Be that as it may, the young have an excuse for missing the consequences of their actions.

As I understand it then, the lizard brain runs the mechanical – heartbeat, breathing and the like. As I read of the limbic brain, however, all the examples of its role were less clear. Terms like anger, lust and fear all appeared in textbooks when describing limbic activity. Further, as the thinking brain – the cortex – is uninvolved in, for example, breathing, I was left to wonder if the cortex was at all involved in limbic activity. I could see blind rage or uncontrolled fear, which seems to suggest little if any cortex input, but I fail to see no cortex input to limbic activity.

This is when it occurred to me that the typical textbook examples of fear or anger were far too limiting and exploration of other states was needed. Driving along and thinking about this, I stumbled on a single word: need. Could it be that the need to control, the need to offset insecurity, the need to manipulate, the need to be right, in fact a whole litany of social interaction needs was a case of near-perfect limbic behavior, that is, absent meaningful input from the cortex but perceived nonetheless as necessary for survival? Do we have a definition of immaturity? Are the limbic-driven trapped in child-think?

I think so. It goes a long way to explain old white men needing to control women's reproductive rights, goes a long way to explaining short men's bully behavior, a long way to understanding preachers, ("I never trusted a man who made his living with his mouth." - Mark Twain) and a long way to understanding the liberal view that they know best. On second thought, that last fits us all, conservative and liberal. The common element is righteousness driven by some undefined need.

If any part of this analysis has even a germ of common sense, it becomes easier to see how we end up with unintended consequences from economic decisions.

Consider, for example, organic food (thanks, David Owen). Here is a situation where a superficially logical need to protect ourselves from chemicals, fertilizers and the like, is often cast in the image of "going green" and "saving the planet." This in turn leads to a situation where small, inefficient and, accordingly, higher-priced product is brought to market in pick-up trucks a bit at a time. The unintended consequence? More pollution, more gas used, more vehicles on the road and more consumer miles. Further compounding these points, driving to these outlets is usually farther than the local hyper-market with its massive collection and distribution system. To my mind, limbic actions by vendors motivated by, what, righteousness? Need for power? Arrogance? Or maybe just a wise decision to capitalize on other people's righteousness. Whatever, it swamped cortex thinking right out of the discussion.

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How about wind power in the same mold of politically correct green, of pandering? (Matt Ridley) To the nearest whole number, the amount of wind power, globally, is zero. Pushing pensioners into fuel poverty, killing jobs in the real energy industry, felling forests, killing Golden Eagles (70 each year at the Altamont Pass, California), polluting lakes in Mongolia with tailings from refining neodymium, a ton of which is in the average turbine – all that aside – to still fall short of one-half of one percent. If this concept worked we'd have more than one-half of one percent. As Robert Bryce points out, for two decades the federal government has prosecuted hundreds of cases of oil and gas producers for violating some of our oldest wildlife-protection laws. Violations of these laws can see fines up to $250,000 and imprisonment. Yet, to date, not one Golden Eagle carcass has brought any prosecution against wind turbine owners. Politically correct rules: California did broker a $2.5 million "settlement" against NextEra Energy for bird kills at Altamont Pass. The lawyer was our now governor, Jerry "Moonbeam" Brown. What need compels these dual standards and ensuing destruction of yet another green group's cause? Certainly not the cortex.

Then there are the rating agencies (Mark Sansoterra and others). The Securities and Exchange Commission decided back in the 70s to create a system whereby a few designated private, profit-motivated firms like S&P and Moody's would be granted a license to evaluate and grade corporate debt. The logic was that this would be in lieu of firms doing their own grading and would thus avoid any chicanery. These firms would pay a fee to the rating agencies and, for that fee, avoid doing their own due diligence.

Here, it seems to me, the limbic "control" function passed to the SEC. Dealing with the ratings agencies, few in number, was far easier than dealing with thousands of corporations. On the surface a practical move, I'd say. But instead of all corporations wishing to be rated paying a scaled fee to the SEC, they paid the rating agencies. Unintended consequence? In the scramble for revenue, the private rating agencies saw fees grow when ratings were favorable and challenged or transferred to another agency when the corporation felt it was, shall we say, short-changed. The trip to useless ratings thus began. Some were undoubtedly fair and accurate, but the process itself prevented investors from knowing which was which. The rest is history. It seems to me that bureaucracies, such as the SEC, can suffer the same limbic-based, not cortex-based, need for control as individuals <u>despite</u> having the ability to see the consequences. A large bureaucracy has many eyes on a given issue. To me that makes it supremely deliberate.

Of late, we have seen efforts by the member nations of the Euro zone to protect the Euro. The collective, <u>current</u> accounts of these nations are surprisingly decent. On a current money in – money out basis they are doing okay as a group. The long view, that is when their debt matures, is as ours – a serious issue. To achieve expansion now, however – to grow out of a slump – almost always the answer is exports. Local citizens reduce spending in a downturn, but goods sold to other countries boost local employment and local wages, i.e. growth. How do you increase your exports? By design, exactly as we here in the States have for the last few years – depreciate your currency. Make your goods cheap when buyers arrive with yen or pounds and need to convert to dollars to buy your goods.

What, in fact, is happening in Europe? Exactly the opposite as the continent defends the Euro by pouring billions to support its global conversion rate. If it fell to say,1-to-1 with the dollar, their goods would be near 25% cheaper to us and to the world and, at the margin, new demand would help

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them grow. Greece, if she left the Euro (she will, bet on it), would grow as she could then depreciate her own drachma to the point that her goods and services would create new demand.

The unintended consequence of defending the Euro? Further recession, depression for some, further austerity, further strikes, lay offs, violence, more bridge debt and then even more debt failures. Why? Probably because the limbic ego of the less-debilitated nations can't, at that limbic level, deal with the loss of control of their experiment.

How about China? (Walter Williams). Mitt Romney: "I will designate China . . . a currency manipulator . . ." Or Rick Santorum: "I want to go to (economic) war with China." (I hope he meant economic.) So, what's the issue? Are we flooded with cheap goods such that locally-made products suffer? Turning to our Census Bureau, Commerce Department, etc., we find

1. the vast majority of goods and services sold here are made here;
2. in 2010 total imports were about 16% of our GDP; and
3. of that 16%, about 2.5% came from China.

These goods from China mainly include furniture, household goods, clothing and shoes. In this last category of clothing and shoes, about 35% carry the "Made in China" tag – which is probably why we think "everything" comes from there – it's what we see most often. Further, on average, 55 cents of every dollar we spend on Chinese goods goes to store rent here, transportation here, marketing here, etc. – all money spent here.

The fact is, our manufacturing economy alone, 4th largest in the world and tied with Germany, has an output per year per worker of $234,000, three times higher than it was in 1980; twice as high as 1990. Jobs fell in manufacturing because the American worker became far more productive, thanks to massive strides in computer hardware and software – and I don't mean iPhones. But we blame China for cheap labor, cheap goods, currency manipulation to do it, and then claim the resulting lost jobs have destroyed our manufacturing economy. Unintended consequence? Misdirection of our frustrations with unemployment that should be directed at Congress and our tax laws and protectionist policies (cotton – strongest lobby, less than 1% of GDP, less than 2% of workers), tariffs on low-cost goods that our less fortunate neighbors may need and more cash via unions to political views that compound those problems. Workers in the U.S. let their very appropriate survival instinct dominate their thinking and failed to transfer the demand for change to the backs of Congress. Here, limbic impulse is encouraged and given voice so as to be focused away from the real cause.

Let us assume sanctions against Iran continue to build and work (*Financial Times*, D. Sandole letter). This creates upward pressure on oil prices as fear of supply interruptions develop. That will undermine Obama's re-election chances. So Obama privately asks India and China to (wink, wink) assume the role of sanction busters and continue to buy Iran oil to prevent a global price rise. If it works, the Israelis can then argue that sanctions don't work, rattle the war saber and oil rises. If sanctions do work, oil will increase in price. Either way oil goes up. Obama loses in November. Unintended consequences abound regardless of how accurate any of the above "damned if you do, damned if you don't" scenarios play out vis-à-vis Middle East oil . . . and all the result, to some meaningful degree, of our 1) refusal to drill, 2) claims of polluted wells from fracking (try lousy wells), 3) Keystone, 4) add the Gulf of Mexico issues, 5) refusal to build nuclear power plants or new refineries and on and on . . . So, astute reader, which limbic need best fits our energy policies?

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Of late, we hear calls for more bank capital – banks must have more skin in the game, says Congress, in the form of more equity, reflecting, well, I'm not sure. A means to punish? A false logic that Congress can control risk by raising banks' capital base? A way to eliminate financial bubbles and pander to voters without invoking the serious changes needed, i.e. the Volcker rule? In this limbic pursuit of control or simple envy of bankers, it seems to me the unintended consequence will be to raise loan fees, tighten credit standards even further, raise interest rates on loans and increase fees for other bank services to the consumer side of the business such as ATM fees, checking fees, minimum balance fees, etc.).

Why, you ask, does this have to happen? For the simple reason that no one will own a bank stock to provide that very capital if they cannot achieve at least a market-level return on their investment or, to put it in English, the bank has to make money to attract money to lend money.

Put another way: Sharply reduce bank leverage by demanding an increase in equity capital and you sharply reduce bank profits. Less profits – less interest in owning that bank. Other solutions? Easy, very easy, let them have all the leverage they want so long as it's with bank capital, not client deposits. You want risk, find a levered bank, buy their stock, join the other owners. You don't want a risky bank stock; find a low-leverage firm. Separate banking into levering retained earnings and isolating deposits. In other words, leave risk to the stockholders, the owners, and leave the depositors out of it. We had Glass-Stegall, which did this, but banks wanted to be "investment" banks, too.

And then the GM Volt. Five-to-seven times more costly per mile to run than a simple gas-engine car. Goal? Green again – clean air, warm fuzzy feeling, we know best so we legislate. Unintended consequence? Huge taxpayer subsidies to induce you to buy this overpriced inefficient joke, massively ugly battery pollution when finally discarded and increased coal-plant derived electricity. So much for clean air. Try getting rid of coal-fired plants if the Volt was to stumble into success. Oh – it uses your high-cost home electricity to recharge it – it's out of your wallet one way or another, which is why I chuckle when I see the young people in the ads explaining how little gas they use. Need I mention mining those battery chemicals all over the globe? Here again, the Congressional limbic brain needs to, well, you have choice: be re-elected or be right.

How about an easy one (David Owen), organic milk. Who can fault hormone-free milk? We are free of lord knows what risks and we have happy, less stressed cows, cleaner waterways (hormones have to go someplace), happy people. Unintended consequence from the righteous? Yield per cow is way down, so you need more cows, more feed, more methane, more trucks, more gas, more acreage. Think about what you are doing at Whole Foods, for Pete's sake.

We can go on – HOV lanes or mandated gas mileage, each inducing consumers to drive more; inducing people with poor credit to buy homes they can't afford, forcing people via low rates to buy government bonds as little else is available and, thus, finance excessive debt while setting an inflation stage – where does it stop? Common to most, if not all, government-driven assistance is an underlying, non-cortex-driven need to control, regulate and, yes, dominate others. I suspect actors and politicians have a yet undisclosed common gene: personal insecurity mitigated by applying control over the rest of us – be it with humor, drama-induced emotions or taxes. Just a quack theory that nags at me.

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I was able to find one current unintended consequence that once had pretty decent reasoning behind it. It's about gas prices (thanks Martin Karusa – Casey Research). A quick background: Gas consumption has been falling for years, fuel efficiency is up 20% in the last decade and currently a weak economy has demand at its lowest level in a decade. Note – we drive a lot more, but gas usage is less thanks to fuel efficiency – so we just have bigger traffic problems. Think about that too long and your head explodes.

At the same time, U. S. oil production is at a decade high, so we should be paying less per gallon. In fact, estimates indicate $4.25 nationwide soon and we are seeing $5.00 in California now. How can this be? Well, inefficiencies in our domestic oil distribution system are a major part. Price discrepancies across the country reflect the fact that refineries pay far different prices for what they process into gas. (I am deliberately leaving aside an unstable Middle East, speculators, etc.)

Two forces are at work that few think of: First, the state of the industry and its aging refineries (virtually none built in decades) and their sources of oil and second, our World War II Secure Energy Policy. Sources: The East Coast buys at Brent crude prices, +/- $120 per barrel, and 4 refineries have simultaneously just shut down trying to run old plants with that high cost oil. Those refineries produced almost half of all East Coast gas. Higher prices start to make some sense for the East Coast. Out west some Alaskan oil is used, but it too is priced to international (Brent) markets at +/- $120 per barrel. Oil comes to California from Europe and West Africa, so transportation costs are higher for the West Coast, which helps explain why California sees some of the highest cost gas in the nation. At the other end are the Midwest refiners. Their oil comes primarily from North Dakota's Bakken region and Canadian oil sands. These oils trade at West Texas Intermediate (WTI) prices out of Cushing, Oklahoma, which are +/- 20% cheaper than Brent prices (Canadian oil is very cheap – think low-cost transportation). There is a supply glut at Cushing because Midwest refineries can't process those heavy crudes coming from Canadian oil sands. That oil has to go down to the Gulf region where it can be processed. Heavy Canadian oil sand prices are 40% cheaper than Brent. Thus, the Keystone Pipeline.

Why, you ask, don't we pipe it around to where it's needed? For the simple reason that during WWII, the country divided itself into 5 oil districts to ensure energy security. Part of that internal security issue was the deliberate disconnectedness of those regions so that if part was lost, the whole remained viable. Accordingly, oil cannot flow from one side of the country to another. Add in the EPA and it probably never will. In the early 80's there were about 300 refineries in the U. S. By 2000, there were 149. Of course, it makes sense to shut down the inefficient that pollute, but no new ones at all?

Some good news, though. One pipeline that has carried oil north from the Gulf is being reversed and that will move the glut of heavy crude at Cushing south, down to where it can be processed. TransCanada is also seeking approval for its Southern Keystone leg that will also connect Cushing to the Gulf. The Keystone drama in the press is on the North leg where it crosses the border.

So, an instance of good intentions spawning less than desired unexpected consequences. We may all hope that war never comes again, but rather that crisis situations continue to trigger the cortex of those in charge, as this did. We might even hazard that easier times encourage less controls of any kind – legal, moral, ethical – and that, in turn, releases the limbic brain to run the show. Easy times being over, perhaps we'll see more crisis thinking. Just a thought.

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A Footnote

As of this writing, refineries are shifting to summer blends, which are lighter and cost about ten cents per gallon more to produce. This year the quick refinery shutdowns needed to switch processes are creating temporary supply gaps. In the past, these production gaps were filled by "swing refineries" that help bridge that gap. Regrettably, fewer are operating and one large one in the U. S. Virgin Islands closed a few weeks ago after losing $1.3 billion over the last 3 years. Here the issue is the fact that our refineries are old, insufficient in number and too costly to upgrade. A goal of clean air has been stretched to prohibit even licensing new refineries ("not in my back yard"), much less drilling to supply them. Unintended consequence or not, the fact remains that limbic-driven decisions destroy well being. What I am left with is how these decision makers can face themselves in the mirror every morning . . . have we slid so far that it doesn't matter to that large a group of people? We can invest and make money in this evil climate, but at what long-term cost?

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