The Human Dynamics of the Insurance Cycle and Implications for Insurers: An Introduction to the Theory of Plural Rationalities

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Abstract

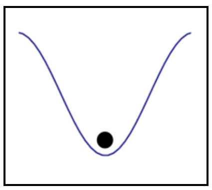
There has been a diversity of explanations for the insurance cycle. Almost all of these assume that market participants share a common risk perspective and a common goal of profit maximization. But if we relax this assumption and allow for the plural rationalities suggested by Cultural Theory, as well as the idea from Cultural Theory that there is a reflexive relationship between the marketplace and market participants, a significantly different explanation arises.

Observers of the insurance cycle often wonder why the sector continues to inflict upon itself a series of near-fatal wounds. Proposed causes include factors as diverse as the weather, stock market volatility and faulty memories. Neo-Classical economics and Game Theory both place strong emphasis upon the idea of equilibrium, and yet the insurance cycle never seems to reach equilibrium.

A new reason for the inherent instability of the insurance business can be found in the literature of anthropology. The theory of plural rationalities, also known as Cultural Theory of Risk or simply Cultural Theory, posits that the world is populated by people with four fundamentally different attitudes toward risk.

1. Introduction to Cultural Theory

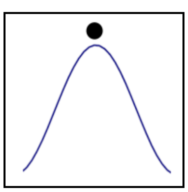
The four risk attitudes were first described by Mary Douglas in 1982 and expanded in a 1990 book *Cultural Theory* by Thompson, Ellis and Wildavsky. This framework has been used extensively in the context of public policy decision-making to help to navigate conflicting agendas over environmental and aesthetic objections to public and large private initiatives. To date, it has not been used in finance or insurance.



Individualists believe the world is self-correcting (or, in mathematical terms, mean-reverting). They are not especially concerned about risk. Individualists believe in unfettered capitalism and self-regulating markets; they see raw materials as infinite, limited only by man's ingenuity. They believe in unbounded growth of the system: individual effort and imagination will create more for everyone, expanding the pie before it is divided.

Individualists tend to have strong and informal personal networks, and a weak feeling of responsibility for the consequences of their actions. They are not troubled by disagreement within their group, since the best ideas will prove themselves in the end.

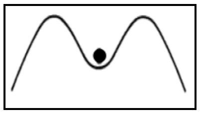
Individualists' view of risk can be represented by the picture at left. If you push the ball to one side or another by taking a risk, the ball will shortly come back to where it started.



Egalitarians believe the world is in a delicate balance, and any major change could result in disaster. They are frugal, because they consider resources to be finite; they focus on fairness in dividing the pie, and do not necessarily see a need for output of the system to grow.

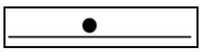
Egalitarians tend to have strong and informal relationships, and strong feelings of accountability for the consequences of their actions. Unions and professional organizations are often Egalitarian. Groups dominated by this view of risk tend to be inward-looking; they can be doctrinaire and uncompromising. They spend a high proportion of their time criticizing other Egalitarians with slightly different opinions. When Egalitarians find disagreement within their group, the tendency is to split the group.

The Egalitarian view of risk can be represented by the ball atop a narrow peak. Any risk that moves the ball even slightly could lead to disaster.



<u>Authoritarians</u> believe that risk taking is acceptable only if controlled by experts. They see a need for rules and laws to keep risk taking under control. Authoritarians tend to have weak and formal relationships, and a high degree of concern for consequences. They believe in controlled growth—controlled by them, of course, at a level that experts have determined to be best.

Their view is represented by the picture at left. The ball can be pushed only so far without going over the edge to disaster.

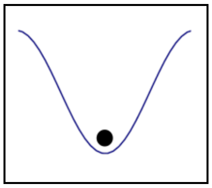
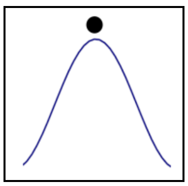
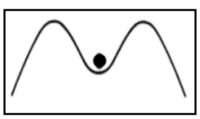
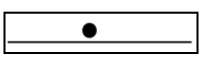


<u>Fatalists</u> believe that the world is unpredictable and uncontrollable. They do not see a need for the strict rules of Authoritarians, lack the fervor of Egalitarians, and have no desire to strike out on their own as an Individualist. They seldom control things: if risk cannot be controlled, why try? Fatalists tend to consider hedging and insurance as bets that you either win or lose, not strategies for managing risk.

In their view, who knows where the ball will end up if you push it by taking a risk?

According to Cultural Theory, individuals tend to favor one of these four views of risk. However, an individual's philosophy of risk is not absolutely fixed—and sharp changes in the environment can cause a reassessment, leading some individuals to shift to another group. For example, during the boom times of the 1990s, the American populace adopted an increasingly Individualist view of markets and investments. Following the financial meltdown of 2008–2009, many individuals began to rethink Individualist leanings and shift more toward Authoritarian or even Egalitarian points of view.

The four risk attitudes of Cultural Theory can be thought of as four different business strategies. Adherents of these strategies are commonly (though of course not always) attracted to specific roles within an insurance firm.

Strategy	Description	Typical Roles
 Profit Maximizer	Focused on the bottom line, not the risk. They are momentum investors, working to repeat their last success and loading up on last period's winners.	Marketing, "Entrepreneurial" Underwriting
 Conservator	Highly concerned with risk. They avoid at all costs taking too much risk, usually missing out on upside opportunities while working to avoid the overheated markets. As investors, they would be the survivalists and gold bugs.	Claims, Legal
 Risk-Reward Manager	Quants, rule makers. They believe that they have the expertise to pick their spots and go after the best business in any market. In investing, they would be the market timers.	Actuarial, "Technical" Underwriting
 Pragmatist	Not tied to any one attitude about risk. They tend to react very late to market signals, sometimes so late that they are totally off cycle. In investment terms they are "buy high, sell low" investors. But on the other hand, the Pragmatists are the least tied to the need to continue a losing strategy from the past.	Operations, IT

2. The Insurance Cycle

For the purpose of this discussion, we describe the phases of the insurance cycle as follows:

Stage 1: Here Comes the Flood—capital floods into the insurance sector, increasing capacity.
Stage 2: Relax—premiums fall and underwriting standards loosen as insurers seek to deploy capacity.
Stage 3: Slip Sliding Away—profits erode and turn into losses.
Stage 4: Gloom Despair and Agony—severe underwriting losses are realized.
Stage 5: Tighten Up—insurers tighten underwriting standards and raise premiums.
Stage 6: Happy Days—dramatic increase in profits.

Our observation is that an insurer's recent performance tends to cause a shifting of power, influence and even membership among factions within the company. Proponents of strategies that have recently been successful will gain greater influence, while advocates of strategies that have lately proven unsuccessful will lose influence. Over the course of the insurance cycle, power tends to shift from Profit Maximizers to Conservators to Risk-Reward Managers to Pragmatists. At each stage, proponents of all four strategies still exist within the insurer; each will have a different reaction, a different suggestion for company tactics, and a different level of influence on the actual decisions. This dynamic, played out across many firms, also fuels the cycle for the market as a whole; at each point in time, firms following a particular strategy will tend to dominate and drive market behavior.

Stage 1. Here Comes the Flood

As capital floods into the insurance industry, *Profit Maximizers*—the eternal proponents of growth—are ascendant. They always have plenty of ideas for how to put that capital to good use.

Conservators are still focused on the losses of the last down cycle, remembering the mistakes that led to the worst business written then. Since they see no need for growth, they are usually marginalized in the decision-making process during this stage. Meanwhile, *Pragmatists* worry about the firm's ability to handle the increasing volume of business properly. *Risk-Reward Managers* keep churning out studies and reports, but these are not as popular as they once were. The carefully constructed rules that they promulgated in the bad old days of the prior cycle are starting to be ignored as much as they are followed.

Stage 2. Relax

Profit Maximizers still rule the roost during this phase. They are happy to point out that profit margins are still healthy, even if somewhat down from the heights that they reached in Stage 6 of the last cycle. Growth is still the Profit Maximizers' preferred strategy—though the insurer may need to stretch further and further from away from the best business to achieve that growth.

Pragmatists are now coming around to the growth idea. They have mastered the procedures necessary to accommodate growth, and have received significant rewards for their newfound ability to support the strategy. At this point in the cycle, the market is dominated by firms in which the coalition of Profit Maximizing sales staff and back-office Pragmatists works to successfully grow the company.

Conservators and *Risk-Reward Managers* are marginalized during this phase. Their messages of caution and analysis of the weaknesses of the business being written are not welcome.

Stage 3. Slip Sliding Away

As the cycle shifts into losing territory, the *Pragmatist* voice takes the lead, and many Profit Maximizers adopt Pragmatist talking points. "Take things one day at a time—it's too soon to tell whether things are really all that bad." The very worst business is shed; reserves may be incrementally strengthened. *Risk-Reward Managers* aid the Pragmatists by suggesting carefully selected tightening of underwriting standards.

The *Conservators* and *Profit Maximizers* fall out of favor. Conservators are screaming about the impending doom of the bottom of the cycle while die-hard Profit Maximizers claim that things will turn around if the firm stays with an aggressive growth program—neither of these messages suits the cautious and uncertain mood of this portion of the cycle.

Stage 4. Gloom Despair and Agony

But results continue to slip. More and more of the business written during the boom turns out to be unprofitable, and the initial reserves are recognized to be woefully inadequate. In this pessimistic environment, *Conservators* are given control—and they start to cut business right and left. They massively strengthen reserves and buy reinsurance at peak cost. Although

Pragmatists and *Risk-Reward Managers* may believe that a more moderate approach might work better, they support the Conservators' efforts.

Profit Maximizers are still in the doghouse. They argue that there are pockets of good business to be had, if those Conservators would just let them write it.

Stage 5. Tighten Up

Following the reunderwriting, standards are tight and rates are much higher. The *Risk-Reward Managers,* with their models and reports, are now ascendant. They cite experts' theories of how to improve business through more scientific management. The company starts to grow, slowly, within carefully constructed guidelines.

Profit Maximizers are now working with the Risk-Reward Managers to find ways to exploit opportunities. *Pragmatists* also favor growth, since they have seen expense ratios balloon alarmingly.

Conservators are still shouting about the unhealthy business being written, but they are not invited to as many meetings now that things are starting to turn around.

Stage 6. Happy Days

With strict underwriting and increased premiums, profits soar. *Risk-Reward Managers* remain in charge, but face pressure from the *Profit Maximizers*—who complain that they are getting killed by the competition. Rates are too high, and too many good risks are being rejected.

Pragmatists are happy with things the way that they are, and generally support the Risk-Reward Managers. Not only are profits good, but also the carefully selected volume of business and low number of exceptions simplify processing.

The *Conservators* find their group shrinking. Fewer and fewer people show up at their lunch table to complain about how the firm is going wrong. Their call for counter-cyclical reserve strengthening might find some traction with the dominant Risk-Reward Managers, but their influence is much diminished overall.

During each stage, the group in control picks up followers and the other groups shed followers. The natural human tendency to "go with a winner" reinforces the current power structure—at least until conditions change. Meanwhile, the same thing is happening in other firms—not wholly in lockstep, but the timing is close enough that the ups and downs of the market as a whole are reinforced and magnified.

For anyone who has experienced the whole insurance cycle, this may seem like a retelling of the obvious. But the new insight here is that these four risk strategies were identified over 25 years ago by anthropologists who were seeking to explain completely different situations. In the intervening years, these four groupings have been found over and over in many different contexts.

Can the insurance industry learn something useful from this framework?

3. Conclusions

The first temptation might be to say that sticking to one strategy throughout the cycle would be best. However, there are two problems with that. First, a single strategy would be difficult to maintain. One of the key reasons for strategy change is loss of confidence in the old strategy. Second, any single strategy faces a point in the cycle when it offers a complete mismatch with the realities of the market.

Might a better timing of transitions among the four strategies produce the best results? With perfect foreknowledge, certainly it would! However, timing the insurance market is no easier than timing the stock market. While the Cultural Theory framework offers many insights, judging how and when everyone else in the market will move—and predicting the inflection points—remains exceedingly difficult.

Those who have been using Cultural Theory to help with public policy disputes have found that the best solutions follow neither of those two routes. Instead, they have found strategies that incorporate all four viewpoints create the most reliable solutions. They call these "Clumsy Solutions" because they do not appear optimal to any of the four viewpoints, but they are acceptable to all. These solutions embody the maxim that a true compromise leaves all parties equally unhappy.

A public policy example of a clumsy solution for a one-time decision would be the location of a new stadium within a crowded city. The business interest of the sports teams, the quality of life concerns of the neighbors and the city planning concerns of the government lead them all to identify different "optimal" sites. But once they all agreed to really take the others' concerns seriously, a citizen who was not a member of any of those groups was able to identify a site that was at least acceptable to all, though optimal to none. Ongoing Clumsy decision-making would require that all of the parties continue that agreement to taking each other seriously over time, even as the situation, the positions and the adherents shift over time.

Therefore, a Cultural Theory analysis suggests that the best strategy for managing the insurance cycle would be one formed by a Clumsy compromise agreement among the Profit Maximizers, Pragmatists, Conservators and Risk-Reward Managers. And, since the situation is extremely fluid, tactics at any point in time would also be Clumsy adjustment to the strategy.

References

Feldblum, S. 1990. "Underwriting Cycles and Business Strategies." CAS Forum.

Skurnick, D. 1993. "The Underwriting Cycle." CAS Underwriting Cycle Seminar.

Thompson, M., Ellis, R.J., and Wildavsky, A. 1990. *Cultural Theory*. Boulder, Colo.: Westview Press.

Thompson, M. 2008. *Organising and Disorganising*. Axminster, U.K.: Triarchy Press Ltd.

Thompson, M. 2009. "Beyond Boom and Bust." RSA Journal, Winter 34-9.