Recalibrating Ethical Dilemmas Using the “Fixes That Fail” Archetype

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Abstract. People frequently make ethical choices they later regret. Causal Loop Archetypes offer a basic systems framework for analyzing the unintended consequences of personal and professional ethical decisions. Pressure or enticement or defensiveness can stymie individuals’ rational sense-making. Causal Loop Thinking, and in particular the “Fixes That Fail” Archetype, draw on the familiar decision model of identifying the problem, specifying the alternative courses of action and their consequences, to guide our final choice. As students grapple with their own conflicts and business school faculty look for tools to anticipate professional ethical dilemmas, Causal Loop Thinking can expand our awareness of the context of choices and actions, thus leading to a more fully assessed decision.

Keywords: causal loops, business ethics, teaching ethics.

1. Introduction

The seemingly endless parade of scandals in business and politics and the consequent increased scrutiny surrounding business professionals suggests that management educators can use additional help in preparing students for complex professional and personal ethical issues and challenges (see for example Anonymous 2007, Merino 2006). This paper argues that Causal Loop Thinking (e.g. Senge et al 1994, Senge 1990) can improve students’ (and others) ability to anticipate implications of a decision. Casual Loops make explicit the components and interrelationships of behavior in context. When the heat of the moment overwhelms thoughtful judgment and the analysis process, familiarity with Causal Loop Thinking may help rebalance the importance of long term consequences of unethical choices. We propose that decision makers who are accustomed to conceptualizing challenges in terms of Causal Loops can make more informed and perhaps less emotive choices, especially in an intense and hurried professional and ethical context.

1. We wish to acknowledge the insightful comments of our reviewers, and we are especially grateful to our graduate assistant, Flora Dong, for her help in both the technical and the intellectual development of the tables and illustrations.
While the terminology of Causal Loop Thinking may appear new, familiar terms like “slippery slope” and “look before you leap” are actually intuitive and heuristic applications of Causal Loop Thinking. These clichés come from our recognition that frequently experienced patterns of behavior characterize much in our own histories and in the biological, economic, organizational systems in which we live.

In the following paragraphs, we make the case that a more formal, applied use of Causal Loop Thinking can provide a balancing mechanism for ethical decision making. We first draw on the insights from behavioral economics to review why people do things they later regret. We then introduce Causal Loops and the specific causal loop archetype “Fixes That Fail”, and give with illustration some of the most frequently experienced “Fixes That Fail” situations. We also briefly review the role of Causal Loop Thinking in management research. Next we introduce several examples of ethical dilemmas to illustrate the help that the “Fixes That Fail” archetype can add. Finally, we draw conclusions for business schools in addressing the current ethical landscape and suggest future directions and applications for Causal Loop Thinking.

2. Causal Loop Thinking

The professional context for which business schools prepare students has been rife with negative headlines about problematic business decisions that range on a continuum from irresponsible to illegal and unethical. Yet most business school curricula still rely heavily on an assumption that humans are rational decision makers. That is, if students learn good management theory, they will naturally exhibit good management practice. However, behavioral economics explains that in reality, individuals do not follow this neat regimen. To quote a recent publication (Ariely 2010):

Yes, you have a rational self, but it’s not your only one, nor is it often in charge. A more accurate picture is that there are a bunch of different versions of you, who come to the fore under different conditions. We aren’t cool calculators of self-interest who sometimes go crazy; we’re crazies who are, under special circumstances, sometimes rational.

The good news to be taken out of this image is that we can improve. And Causal Loop Thinking may provide teachers and students with ways to improve by heuristically examining similar effects of structure, policies, and agency on ethical decisions and thus more easily avoid unintended consequences. Causal Loops portray behaviors and events as interrelated in basic patterns or structures. Moreover different people in the same position in a social system will essentially produce the same behaviors. In human systems, these structures are dynamic in that they influence and are influenced by how people make decisions (Richardson 1991).
We propose training students to apply Causal Loop Thinking to ethical issues in both their student lives and their professional careers. We believe practice in Causal Loop Thinking essentially builds the habit of reflection (look before you leap) and reduces the likelihood of being naively or emotionally drawn into later-regretted actions. Causal Loop Thinking can also help when past actions have drawn us into the “slippery slope” and the only path appears to be a freefall to disaster. At this point Causal Loop Thinking provides a leverage point for ways to stop the loop behavior.

3. Causal Loops Illustrated

Causal Loops are stories that reveal elements and their interrelationships. From this we can anticipate or predict the eventual direction of the outcome (e.g., the thermostatic model or the feedback loop). Some of these stories are so pervasive across personal, organizational, economic, and biological boundaries that they classify as archetypes. Bardoel and Haslett (2006) utilize one particular Causal Loop archetype, “Drifting Goals”, to help analyze ethical dilemmas in the classroom setting. Another, and probably the most common archetype of causal loops, found in personal and professional issues and ethical conflicts, is the Fixes That Fail loop (see Figure 1). This story illustrates that a frequent reaction to a problem is to address (fix) its symptoms without identifying or addressing the underlying cause (the core or fundamental problem). Ironically and unfortunately, those very efforts often bring about a result that is just the opposite of what was intended.

Figure 1: Fixes That Fail Archetype

![Diagram of the Fixes That Fail Archetype]

Description: A fix, effective in the short-term, has unforeseen long-term consequences which may require even more use of the same fix. (a.k.a. The Slippery Slope)

A New Yorker cartoon illustrates elegantly (Illustration 1). The person in the chair needs space and pushes the block away to make room. Because he is facing
forward, he cannot see that the blocks are in a domino-style circle. But we do see that when the last domino falls it will crash down on him. He (and his bosses?) will think the block fell on him “out of the blue”. Even worse, he may well have been promoted or have left the company, leaving a successor (and his bosses?) to assume responsibility and often the blame.

Illustration 1


4. Fixes That Fail

A familiar business example helps us present the “Fixes That Fail” archetype in Causal Loop Thinking. We describe the story here and show the loop in parentheses (see Figure 1). When a company’s profits decline, a frequent response is to cut costs (*a problem generates a response*). While in the short run, lower costs make profits rise (*the response fixes the problem—for a while*). The reduced investment in workers can dry up the ability to generate sales (fewer, less trained, and/or overburdened sales force) in the long run (*the action has longer term impacts that begin to surface*), ironically ensuring the lower profits the initial action sought to avoid (*this impact is usually just what the initial action was trying to avoid*). In other words, when a problem presents itself, a solution of a symptomatic fix conveys the appearance of a trouble-free business cycle, but allows the problem to continue and even starts a chain of events that make the original problem worse. Picturing the scenario as a loop leads to an explicit
consideration of all of the consequences of cutting costs and considers implications of a reduced infrastructure in the long run, and not as just a short run symptom fix.

5. Causal Loops Business Applications

This systems perspective has been used both methodologically and heuristically in several management domains. Within the methodological stream of systems work, Chanta and Weston (2006) utilize various modeling approaches to designing systems of different kinds, including machine systems, social systems, and specifically production systems. These modeling systems, including Causal Loop Diagramming, provide a decision support framework for supporting management decisions. Gomez-Gauchia et al. (2006) use the archetypes of Causal Loops to illustrate the application of systems dynamics theory to human-computer conversation strategies. Mehta and Shah (2005) use Causal Loop Diagramming and other systems dynamics models to illustrate the impact of lean production (LP) on organizations, especially on work design characteristics and employee outcomes. At the business strategy level Sterman, Kofman, and Repinning (1997) use a Systems Dynamics simulation to analyze why Analog Devices successfully implemented a Total Quality Model only to see profits and stock price fall by 60%.

Some heuristic applications of Causal Loops have been used in other management literature (see for example Mazen 1997, Schlesinger, and Heskett 1991) as well as in accounting (Pant and Yuthas 1998, Bell et al 1997, Johnson 1995) to illustrate organizational insights. This heuristic approach provides several benefits for practitioners and researchers. First, Causal Loop Thinking provides a “language” for making some of our already existing insights explicit. Senge (1990) suggests that we often “feel” archetypes and experience a sense of “déjà vu” at having seen this pattern before. We also maintain that practitioners can better manage by anticipating these patterns. Bardoel and Haslett (2004) posit that Causal Loop Thinking provides a “useful set of conceptual tools” that can assist students to deepen their understanding of relationships and interdependencies of various decisions and difficulties of implementing solutions. They show a connection to organizational behavior concepts.

In Systems Dynamics classes at MIT a classic story is told of an executive who, upon learning about the structure of the boom and bust cycle of sales loops, despite which employee is in charge, rushed to the telephone to stop the firing of his current manager.
6. Archetypes

Finally, Senge (1990) suggests archetypes help us recognize the universality of knowledge “for these same archetypes recur in biology, psychology, and family therapy: in economics, political science, and ecology; as well as in management.” (p. 94) Causal Loop Thinking also draws our attention to leverage points: those places in the loop where intervention in the “vicious cycle” can alter the loop and ameliorate the undesired consequences.

Addressing the problem can help lead to a fundamental solution, that is, one that deals with the problem’s critical structure rather than masking a symptom. Intuitively, differentiating symptoms from structure and thus breaking the loop is more likely when participants have the wherewithal to examine the situation and identify the problem, the short term fix, and any unintended consequences. We believe that systems thinking will give the person a heuristic to rely on for fixing the detrimental cycle or perhaps avoiding it altogether. Rather than applying another short-term fix to correct the first unintended consequence, the leverage point of where change can occur is needed to identify the fundamental solution that has been delayed. Therefore, systems thinking increases the chance that unintended consequences could be avoided.

7. Causal Loops and Ethical Decision Making

Business schools (and their accrediting bodies) assume that students can benefit from clarifications about what is (un)ethical, what makes a decision (un)ethical, and how we ensure ethical behavior (Scott 2007). We use a quandary ethics perspective (LaFollette 1991) and determine the “appropriate” behavior(s) based on likely outcomes. What is the problem, what alternative actions can we suggest, and which of these courses of action should be chosen from this option. Kohlberg’s (1969) stages of ethical reasoning presumes an individual’s behavior is determined by his or her preference for one or more of those outcomes (consequences): fear of punishment, altruism to keep society functioning, or fulfilling an ideal. Jones’ (1991) theory of moral intensity expands our understanding of outcomes to allow for gradations. The amount of harm or the proximity of consequence to the time of the action will modulate an individual’s judgment about the ethicalness of a behavior.

An example of this archetype as it relates to a student’s personal ethical dilemma is the pressure to get a good job offer. Applying Causal Loop’s “Fixes That Fail”, students are under pressure to graduate with a job offer (the problem). Given the pressured lives students experience some may respond to an overloaded schedule and difficult assignments or challenging exams by plagiarizing (the action). In the short run, the result is working (that is grades are satisfactory and the assignment completed).
Now that we have suggested the format for “Fixes That Fail” we can insert any number of scenarios into the framework as seen by the example in Table 1. To further expand the loop, Table 2 divides a number of familiar business-related ethical situations into this format: problem, fix, long-term consequences. We will divide the discussion into two parts: the development of a Causal Loop and then provide several applications of Causal Loop Thinking to ethical dilemmas.

**Table 1: “Fixes That Fail” Archetype Applied to Ethical Decision-Making**

<table>
<thead>
<tr>
<th>Area</th>
<th>Problem</th>
<th>Fix</th>
<th>Unintended Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit</td>
<td>Low profit</td>
<td>Cross sell services</td>
<td>No independence</td>
</tr>
<tr>
<td>Managerial</td>
<td>Need to improve performance and profits</td>
<td>Performance based compensation</td>
<td>Profit manipulation</td>
</tr>
<tr>
<td>Profits</td>
<td>Decreasing or Flat</td>
<td>Cut costs</td>
<td>Reduced infrastructure not able to generate an increase in sales</td>
</tr>
<tr>
<td>Students</td>
<td>Need good grades</td>
<td>Cheat or plagiarize</td>
<td>Course failure or permanent record</td>
</tr>
</tbody>
</table>

**Table 2: Step By Step Illustration of the Loops for the Four Examples**

**Example 1: Audit Firm Profits**

- **Step 1** Short-Term Fix
  - starts with “Profits”
  - reads clockwise
  - ends with “Profits”

- **Step 2** Long-Term Consequence
  - starts with “Profits”
  - reads clockwise
  - ends with “Profits”
Example 2: Executive Compensation

Step 1
Short-Term Fix
- starts with “Profits”
- reads clockwise
- ends with “Profits”

Step 2
Long-Term Consequence
- starts with “Profits”
- reads clockwise
- ends with “Profits”

Step 3
Combined Loops
- starts with “Profits”
- reads clockwise
- ends with “Profits”
Example 3: Company Profits

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Short-Term Fix</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Diagram" /></td>
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</tbody>
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<thead>
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<th>Step 2A</th>
<th>Long-Term Consequence A</th>
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</thead>
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<table>
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<th>Long-Term Consequence B</th>
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<th>Long-Term Consequence C</th>
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</thead>
<tbody>
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</table>

<table>
<thead>
<tr>
<th>Step 3</th>
<th>Combined Loops</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5.png" alt="Diagram" /></td>
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</tbody>
</table>
Example 4: Student Cheating

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<thead>
<tr>
<th>Step 1</th>
<th>Short-Term Fix</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Diagram" /></td>
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<table>
<thead>
<tr>
<th>Step 2A</th>
<th>Long-Term Consequence A</th>
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<td><img src="image2" alt="Diagram" /></td>
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<table>
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<th>Step 2C</th>
<th>Long-Term Consequence C</th>
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<table>
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</tr>
</thead>
<tbody>
<tr>
<td><img src="image5" alt="Diagram" /></td>
<td></td>
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</tbody>
</table>
8. Creating the Causal Loop Diagram

Step One: Create the problem/fix loop by writing down a PROBLEM and a FIX. Connect these with two arrows: one leading from the problem to the fix, the other from the fix to the problem (the problem leads to an action which does in the short-run “fix” the problem). Using the business example of corporate anorexia described earlier, the PROBLEM is PROFIT. Lower profits lead to the FIX: CUTTING COSTS. And in the short run, lower costs lead to higher profits.

Step Two: Create the consequences loop(s). As a set of results of the FIX, list the CONSEQUENCES in order of causality until the most recent consequence has a direct impact on the original problem. Again returning to the corporate anorexia example, the cost cutting leads to layoffs, and this leads to lower morale of the remaining workers and to fewer staff to perform duties. These both lead to lower customer satisfaction which will result in lower sales and thus lower profits.

9. Applying the “Fixes That Fail” Framework to Ethical Decision Making

The final step (step 3) is to apply the Causal Loop specifically to ethical decision-making. Returning to the phrase, “Look before you leap”, Causal Loops can help us systematically consider all of the potential consequences, and not dismiss the remote consequences of one’s actions. This allows the user to consider the impact of breaking the ethical barrier, even if the chance of discovery is remote. In our basic model of three variables, problem, action, and long term consequences, each can be substituted into the appropriate slot in the model (see Table 2).

We have provided four scenarios. The first two are profession-related—audit and managerial accounting tracks. The last two relate to the individual as a student and as a practitioner. We will walk through the first example, Audit Firm Profits.

Step 1: The Short Term Fix: The Audit Firms are unhappy with current profit levels and push their auditors to increase business by increasing cross-selling (even to the extent of making new partnerships conditional on this success). In the short-run this worked. Auditors did more cross-selling and profits rose.

Step 2: The Long Term Consequence: The emphasis on auditor cross-selling also led to other factors. Flat profits encouraged more cross-selling services which made the auditors vulnerable to big clients’ demands and challenged the auditors’ independence. As the press has detailed in its coverage, this led to a series of scandals. This in turn led to congressional intervention (e.g., The Sarbanes-Oxley Act of 2002), which seriously limited cross-selling of non-audit services, thus perpetuating flat profits or further reducing them.
Recalibrating Ethical Dilemmas Using the “Fixes That Fail” Archetype

Step 3: Combined Loops: This final step overlays Step 2 onto Step 1.

Finally, the three other scenarios in Table 1 are also illustrated in loops (Table 2).

Table 3 describes additional rules that may be of use in building Causal Loop Diagrams.

Table 3: Additional Rules for Building Diagrams

1. Variables have no direction (e.g., not lower sales; rather just sales).

2. Variables can only appear once. Morale or Sales, for example, can only appear once. You can have multiple arrows to and from the variables.

3. Arrows show causality; the chevron or tip of the arrow is the result.

4. The cause and the result is either positively (+) or negatively (-) correlated. Each arrow is identified as (+) or (-).

5. Each loop is also identified. Loops are either growing (+) or balancing (-). Growing loops are getting better (worse). For example sales lead to cash to make more product which leads to more sales. Balancing loops have a pendulum effect – like thermostats where heat comes until an upper threshold is reached which triggers a shut off until the temperature drops to a lower threshold which triggers the heat to come on again.

6. A loop is balancing if the number of negatives on its arrows is odd. If the negative arrows are zero or positive the loop is growing.

7. The “Fixes That Fail” archetype has two loops: the “problem fix” loop is negative, the “consequences” loop is positive.

10. Summary and Future Directions

We believe that Causal Loops and systems thinking can be an effective means of sensitizing students to the generic structures of ethical dilemmas, as well as professional decisions, and to potential leverage points for intervention. The paper explains Causal Loop diagramming, briefly reviews the underlying conceptual framework, and applications to management practice. We then provide several examples of loops applied to ethical decision making. We now suggest the need for future cases and for evidence of efficacy. While we have presented several brief vignettes that appear to us easily expanded, it would be helpful for most faculty to have a number of longer teaching cases complete with
teaching objectives and methodology applying more archetypes across all areas of business management.

These benefits suggest a set of steps for students, individuals, and business professionals. One is to extend the use of Causal Loop diagramming to other management control situations. Using archetypes to anticipate consequences of changes could be very helpful. Sterman et al. (1997) have used the formal modeling and methodology of systems dynamics to empirically investigate Analog Device’s “highly successful” implementation of total quality management (TQM) and subsequent profit and share price drop. When companies contemplate new initiatives like adopting activity-based costing or turnaround activities, archetypes can help envision likely unintended consequences. Several individual behavioral responses to control dictums have already been well documented (e.g. slack, turf building, and lack of trust); essentially these can be called responses by local agents in the dialectic of control. The leverage points of Causal Loop diagramming can help search out places in the structure where positive change can happen.

Although the effectiveness of this pedagogy has not yet been empirically demonstrated in business ethics, some indirect evidence is promising. Systems thinking as a simulation methodology has been successfully used in consulting projects at MIT for several years. Additionally, the intuitive Causal Loop Diagramming made popular by Senge (1990) and Senge et al. (1994) has been taught in academic settings and applied in management consulting assignments. Perhaps applying loops to the specific topic of business ethics will lead to more a systematic validation than from the anecdotal interest usually generated.

Two points remain to be made. One is whether the implied optimism of using leverage points to break bad cycles is warranted. If we find the leverage point, can we “fix” a bad set of loops? It is probably more realistic to accept that although we reshape or replace existing loops, we can only be sure the new loops will be different, not necessarily better. If nothing else, the new loops will have within them the seeds of their own flaws and unintended consequences. But we press on, driven to alleviate the current problems in our lives.

The second, more hopeful point involves the value of cross-disciplinary dialogue. Many different fields address the same fundamental questions. We frequently refer to breaking down business’ functional area silos. The same can be said for the isolation between and among the social and physical sciences. The insights from fields as disparate as physics, biology, economics, social theory, and psychology offer business faculty a wealth of ideas and materials about professionalism and ethics that can be brought into the classroom.
Recalibrating Ethical Dilemmas Using the “Fixes That Fail” Archetype

References:


