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# A Theory of Mental Credit

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**CLAREMONT McKENNA COLLEGE**

**A THEORY OF MENTAL CREDIT**

SUBMITTED TO

DEAN JEFF HUANG

AND

DEAN GREGORY HESS

BY

JASON SOLL

FOR

SENIOR THESIS

FALL 2011

NOVEMBER 21, 2011



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To everyone else, I hope this thesis and its many ideas make you internally satisfied.

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## **ABSTRACT**

### *A Theory of Mental Credit*

Many philosophical subjects attempt to analyze the basis of human welfare. Theories of desert, distribution of property, and happiness tend to dominate philosophical discourse. Mental credit, which is the mental acquisition of credit for one's accomplishments and the satisfaction one derives from this credit, is absent from this discourse despite its underlying role in the way people think about their lives. Mental credit is an eternal cognitive good that deserves thoughtful attention and pious decisions for implementation. The following theory of mental credit seeks to serve as a unifying theory for the mental calculations that guide life's most imperative decisions, satisfaction, and impact one has on the world.

## INTRODUCTION

Credit is a defining element of the human experience. In a world where one's own prosperity is dependent upon trade and interactions with others, credit is critical for cooperation and success. When people hear the word "credit," they often think of financial credit. Credit, in its most basic form, encompasses much more:

*noun*

1. commendation or honor given for some action, quality, etc.:

*Give credit where it is due.*

2. a source of pride or honor: *You are a credit to your school.*

3. the ascription or acknowledgment of something as due or properly attributable to a person, institution, etc.: *She got a screen credit for photography.*<sup>1</sup>

This definition highlights two critical aspects of credit: the actual personal acknowledgement of having done something and one's satisfaction derived from credit. These two ideas tend to be lumped together in to one overarching idea of credit.

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<sup>1</sup> <http://dictionary.reference.com/browse/credit>

However, in order to fully comprehend credit, these two ideas must be analyzed separately.

### **Attribution of Credit**

First, credit alludes to recognizing the objective role one has played in contributing to an outcome. This process deals with identifying and connecting past actions:

- 1. Outcome X**

Is a result of:

- 2. Cause(s) Y contributing to the outcome**

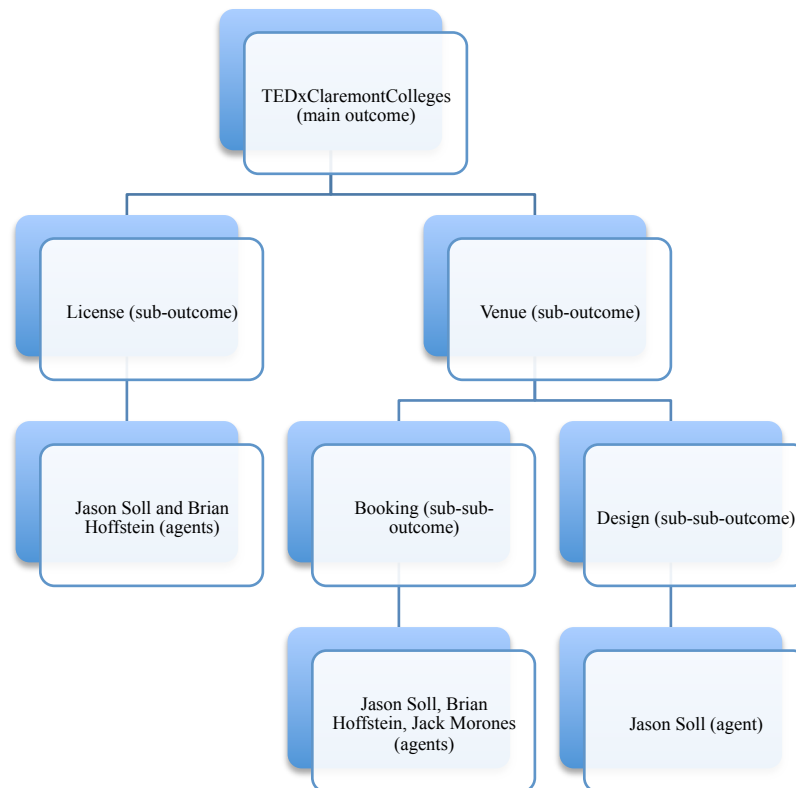
Which can be attributed to:

- 3. Agent(s) Z who drove the cause(s)**

Steps two and three can theoretically be repeated infinitely without losing accuracy. However, every degree of separation from the outcome is likely to lose accuracy in practice. Causation is difficult to identify at the first degree, let alone multiple degrees of separation from the main outcome. Therefore, it is critical to be wary when extending credit several degrees from its outcome. Doing so can result in the Butterfly Effect, where the action of a negligent being causes a domino effect of outcomes leading to an outcome so far beyond the scope of the original agent that attribution to the original agent is diluted to almost zero.



It is helpful to visualize the connection between a main outcome, its sub-outcomes, and the agents deserving credit for having caused these sub-outcomes. For example, I recently organized a conference titled TEDxClaremontColleges. While the event's organization contained numerous aspects and sub-outcomes, we will only analyze a few for simplicity. Here is a sample breakdown of the attribution of credit:



This credit tree, if completed to its fullest extent, would be much wider and deeper. Moving from an outcome to a sub-outcome further defines the original outcome. For example, to claim I organized *the entire* TEDxClaremontColleges conference would be a false statement because other people were involved in contributing to this outcome. TEDxClaremontColleges must be broken down in to the pieces that make the whole. These pieces include the license required to hold the conference and the venue to hold the

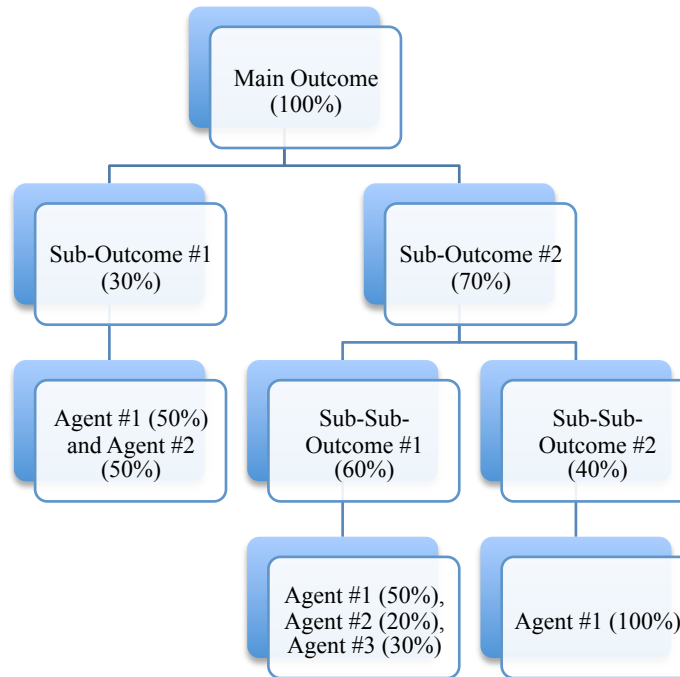
conference in. These pieces are one degree of separation from the main outcome, thus being sub-outcomes. Though not pictured above, additional sub-outcomes include acquiring the audience, recruiting the speakers, recruiting the organizational staff, and more.

As we take one step away from the main outcome to a sub-outcome, attribution accuracy is not lost. These sub-outcomes are objective in nature because they are tangible pieces of the main outcome. Chapter 1 will identify the cases when sub-outcomes cannot be accurately tied to outcomes. When asking what the venue entails, sub-outcomes are revealed without loss of accuracy. This is because these sub-outcomes further define their outcomes. However, when asking what or who caused the venue to be how it was, one must attribute the causes to agents. It is much easier and more accurate to attribute causes to agents when the outcomes are as defined as possible.

Once each outcome has been broken down and accurately attributed to an agent, it is possible to determine the overall contribution an agent has made toward the main outcome. To do so, weights must be established for each sub-outcome. Measuring these weights is a difficult task, and I do not claim to know how to do so with perfect, objective accuracy. One method for allocating weights within a business would be to do so based on the costs and salaries of the outcomes and agents involved, respectively. Another option is via the estimated effort required by the average person to perform the task. Keeping this average person notion constant, relative weights can theoretically be determined. While I recognize that there are probably better, more objective ways to

determine contribution weights, I will not further elaborate on the concept in this space.

Here is a sample weight-allocation:



If agent #1 is responsible for completing 50% of sub-outcome #1, which is 30% of the main outcome, then this task assigns 15% ( $50\% \times 30\%$ ) attribution to agent #1 for the main outcome. Adding up all of the tasks for each agent in the attribution tree above yields the following overall attribution for the main outcome:

$$\text{Agent \#1} = 64\%$$

$$\text{Agent \#2} = 23.4\%$$

$$\text{Agent \#3} = 12.6\%$$

In Chapter 1, we will explore the underlying complexities of credit attribution. This framework, although simplified, provides a basic mental model for understanding

the attribution of credit. Once credit has been attributed, one has the opportunity to derive satisfaction from the credit.

### **Satisfaction, Happiness and Intrinsic Value**

There is a big difference between satisfaction, happiness and intrinsic value, and it is precisely this difference that warrants the use of satisfaction within the mental credit model. Something is said to be intrinsically valuable if it makes one happy to partake in the related outcome. Therefore, happiness and intrinsic value are closely linked. There does not appear to be an intellectual consensus regarding the definition or makeup of happiness. Economics, psychology, neuroscience, philosophy, behavioral economics, neuroeconomics, and other disciplines have wrestled with comprehending happiness for centuries. Regardless, we can still differentiate happiness from satisfaction.

One can be both satisfied and happy about an outcome. The main difference exists in the way the positive emotional state is grounded: satisfaction is based upon results of an outcome, whereas happiness might be the results or a slew of other variables that may or may not be closely linked with the outcome. Say, for example, I decide to spend my afternoon doing archery. I go through my quiver of arrows ten times, firing all arrows from 150ft away. No arrows hit the bull's eye, 10% hit the inner ring, 30% hit the outer ring, and the remaining 60% missed the target entirely. After two hours, I leave the range and return home. My assessment of happiness and satisfaction are based upon different mental models and inputs (chapter 2 will highlight the nuances of the internal satisfaction model).

I may be happy with how I spent my afternoon. I love archery, so any opportunity to get out and fire the arrows away brings me pleasure and intrinsic value. However, satisfaction is held to a higher standard. Even though I might be happy, *I am not necessarily satisfied*. Say I usually hit the bull's eye 5% of the time and only miss the target completely around 30% of the time. Comparatively, I had a bad day at the range. Because I always seek to get better at archery, I am not satisfied with my results. Despite this dissatisfaction, I can still be happy. On the other hand, it is possible to be satisfied with one's efforts and process for seeking the desired outcome of hitting the bull's eye.

Throughout the course of this thesis, it is necessary to remember that satisfaction is a derivative primarily of the relevant outcome. It is a mental calculation, not a feeling like happiness. Chapter 2 will enumerate all of the variables that affect satisfaction, both internally and externally.

### **Discussing Objective Value**

One of the topics I will discuss when analyzing outcomes is objective value. I recognize that cultural context and education do play a critical role in determining the value of an outcome. For example, a monkey might find the iPhone to be a low-value hammer without the knowledge of its true potential and purpose. I will not be able to address all of the concerns surrounding objective value in this discourse. In order for the internal satisfaction model discussed in Chapter 2 to work, outcome value must be determined. The fact that the reader can differentiate between doing a good job with her work and a bad job with her work is sufficient enough to move forward with the model.

## Credit Satisfaction

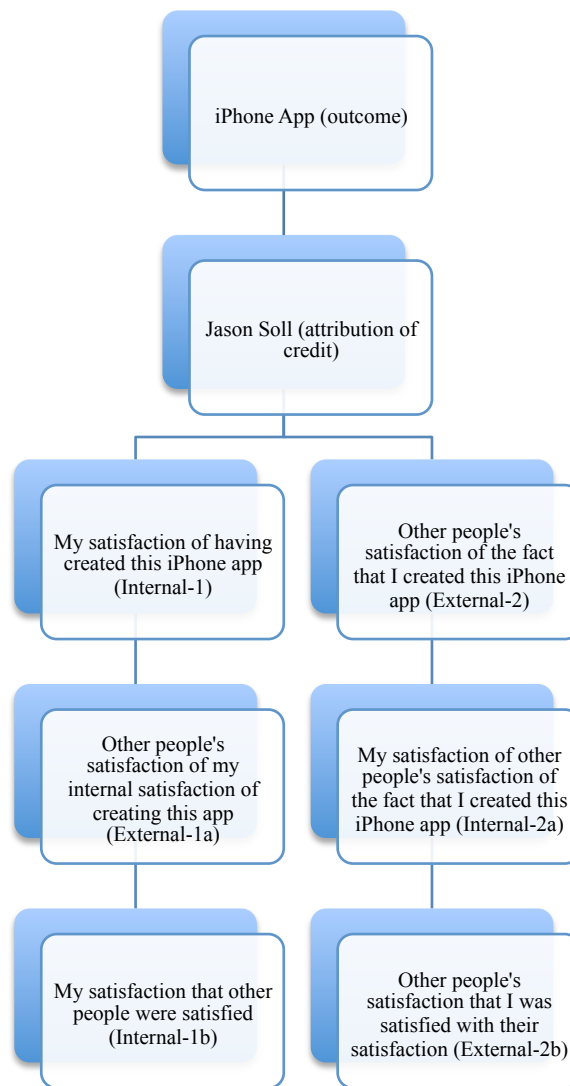
The second facet of credit is its contribution to satisfaction, or credit satisfaction. Credit satisfaction occurs both internally and externally. Internal satisfaction is the satisfaction one derives directly from having credit attributed to one's self. External satisfaction is one's satisfaction of others expressing their satisfaction with your credit attribution.

In order to discuss and analyze internal satisfaction, one must carefully ignore external satisfaction. Internal satisfaction can be thought of the degree one is satisfied with her credit attribution in the complete absence of others' opinions. One's satisfaction tends to blur internal and external satisfaction. Consciously separating the two, as this thesis will argue, empowers one's self.

A sample satisfaction tree looks like the following:



An outcome's credit is first attributed to an agent. The agent then has two channels for satisfaction: the internal satisfaction channel and the external satisfaction channel. The former uses internal satisfaction as its foundation, while the latter uses external satisfaction as its foundation. Let's return to the TEDxClaremontColleges example from earlier in the chapter to see how the two satisfaction channels pan out. Here is a satisfaction tree corresponding to creating an iPhone app for the conference:



The internal satisfaction I derived from developing the iPhone app (1) was wonderful. I received lots of pleasure prior to releasing the app to others (1). Other people downloaded the app, used it, and praised me for my efforts and success (1a). This praise also made me satisfied and gave me additional pleasure (1b). However, I was careful to keep the two types of satisfaction separate from one another. While I knew other people might not enjoy the app, I consciously received internal satisfaction for the accomplishment before seeing what others thought: I had never developed an iPhone app before and was very excited to create my first one.

Suppose everyone disliked the app. Suppose further I was an employee on payroll who made this app for an overarching company. The external satisfaction might have included the following: poor app reviews from users, insults from colleagues, a decrease in pay, a job demotion, etc (2). The satisfaction I would have derived from this external satisfaction would have been virtually zero or even negative (2a). This is separate from the direct internal satisfaction I had from the attribution of credit (1). External satisfaction should not tarnish this direct internal satisfaction at all, so long as one stays true to the original criteria for success. When negative external satisfaction like this exists, it is hard to not let it become the sole focus of your attention. It requires a high level of mental self-discipline to keep the two separate. Here are some examples of the external satisfaction channel whose principles will be elaborated upon in Chapter 3:

- An intern's pride in the PowerPoint presentation she made is dependent upon what his boss thinks.



- A student's pride in academic performance is derived from the grade she receives on his work.
- An online filmmaker is more satisfied with his video that receives 100,000 YouTube views than his video that only received 1,000 YouTube views.
- A student's pride in studying is determined by what the exam asks of her. She becomes frustrated because she studied a lot of material that was not on the test.

Living in world where others judge most of our tasks and accomplishments, we tend to focus more on the internal satisfaction we derive from external satisfaction. In other words, we have a tendency to use the external satisfaction channel. After spending decades in academic, professional and virtual environments, most of us only care about deriving internal satisfaction from external satisfaction. Chapter 3 will discuss these effects in detail.

### **Eternal Satisfaction**

One of the virtuous aspects of mental credit is it can never be spent or lost: one has exclusive, unlimited access to its satisfaction for life. This shows how valuable understanding mental credit truly is: unlike income, which comes and goes on a daily basis, the mental credit underlying the actions that lead to income remains eternal. In the face of harsh critics and negative comments from others, one always has mental credit as an anchor for satisfaction. When times are tough, satisfaction from past accomplishments and aspiration for future satisfaction help us persist. When one becomes old, one does not focus on or remember the compensation one received from one's accomplishments.

Instead, one basks in the eternal joy of one's internal satisfaction of credit. Mental credit is how people define themselves: it is the driver of self-esteem, confidence, and ambition.

### **Challenging Attribution**

Why have this discussion about mental credit at all? Can't we argue that as the direct and indirect product an infinite number of variables and sources (e.g. genes, environment, etc.) we cannot take credit for anything? In the end, mental credit will always exist. It is a natural byproduct of the events in our lives that holds us together. While theory can justify why mental credit should not exist, reality will always ensure its fundamental role in our lives. Therefore, constructing a theory of mental credit is more of a practical philosophical and psychological challenge than trying to determine whether or not it should exist in the first place. The human condition makes it impossible *not* to think this way. The conception of self, made up of one's values and wisdom, is a direct product of mental credit. Therefore, without mental credit, we would have no perception of who we are as individuals. Further elaboration on this subject will not be accommodated by this thesis.

### **Mental Credit Overview**

Mental credit, as this thesis uses the term, refers to the intricate interplay between the objective attribution of credit and the subjective satisfaction of this credit. Appreciating the nuances of credit yields a higher degree of appreciation for the credit we take for things. When credit is compiled in to financial compensation, as it so often is, we

lose sight of the specific contributions and impact we have made on others and ourselves. Even worse, we become blind to what actions actually make us internally satisfied. With complete knowledge of mental credit and how it should be calculated, one has the opportunity to consciously double dip by receiving both financial compensation and mental credit for our actions. On the other hand, embracing mental credit protects our credit from others' external satisfaction or dissatisfaction. This helps to diminish the bias and cognitive dissonance that understanding credit as a compensatory device provides. Such clarity provides a comforting purity for the mind.

The foundation of internal satisfaction is the objective attribution of credit. Prior to determining the credit one deserves for contributing to an outcome, the outcome itself must be further understood in the context of satisfaction. Beyond attribution of credit, the most significant objective aspects of the outcome include but are not limited to the following: size, originality, artistic beauty, functionality, scale, difficulty, impact, and results. Defining some or all of these areas related to the outcome provides a more thorough objective analysis of the outcome itself.

How does one go about measuring these aspects of the outcome? Certain aspects, like results and impact, have objective measurements. For example, the results of a fundraiser might be the total money pledged, total money collected, the average pledge size, and the quantity of pledging donors. The results of a YouTube video might be the number of comments, the number of views, and the number of likes relative to the number of dislikes. The impact of a public service announcement regarding drunk driving might be a decrease in the number of drunk driving incidents in a community. Some of

the aspects, however, are not equipped with simple measurement tools. Unless broken down into sub-categories as we did previously in this chapter, aspects such as difficulty are best measured relative to other outcomes.

Once every relevant aspect of the outcome has been understood and defined, the outcome's credit is attributed to its agents. Again, while we have discussed the basic process for doing so, the following chapters will uncover the nuances of credit attribution in simple, complicated and complex situations. With the credit attributed properly, the agents are then provided with proper levels of internal satisfaction from their credit.

### **Thesis Overview**

This chapter has served to provide the reader with a basic description of mental credit, its importance, and its underlying complexities. In addition, the reader has a basic credit's framework, its connection to outcomes, and how it leads to satisfaction. Chapter 1 will analyze how credit is attributed to agents. By exploring simple, complicated, and complex outcomes, the reader will have a firm grasp on how to approach deriving credit from every category of outcome. Chapter 2 will discuss the ways credit is used to produce internal satisfaction. The underlying model of internal satisfaction teaches us how credit is converted to satisfaction and how other factors affect this process. Chapter 3 discusses the internal and external satisfaction channels, their virtues, the increased temptation to pursue the external channel, and how to consciously choose the internal channel. The conclusion will highlight the main points of the thesis and what the future of

mental credit might look like. All nameless individuals (e.g. the agent, the student, etc.) in hypothetical examples will be in the feminine form.

## **CHAPTER 1: ACQUISITION OF MENTAL CREDIT**

The acquisition of mental credit is a fascinating phenomenon. Unlike wages and physical property that someone else has previously had possession of, mental credit seems to appear out of thin air. Credit is not transferred from pocket to pocket. The amount of credit in the world is only limited by the amount of outcomes there are in the world, which are infinite. Any person, regardless of socioeconomic or geographical limitation, can acquire high levels of this cognitive good.

The goal of this chapter is to explain how mental credit can be acquired. The reader should ultimately be able to appreciate the underlying complexities of acquiring mental credit and be more capable of understanding their own mental credit. In order to acquire mental credit properly, one must take ego out of the equation and be patient. People tend to over-attribute credit to themselves. Knowing that one has either accepted or attributed the correct amount of credit should be more concerting than the idea of acquiring more credit at the potential cost of others not receiving their fair shares of credit. Analyzing outcomes in the most abstract sense and patiently attributing credit ensures that mental credit is handled properly.

## Attribution Tree Review

In order to acquire credit, one has to attribute the credit from the main outcome.

To review:

### 1. Outcome (X)

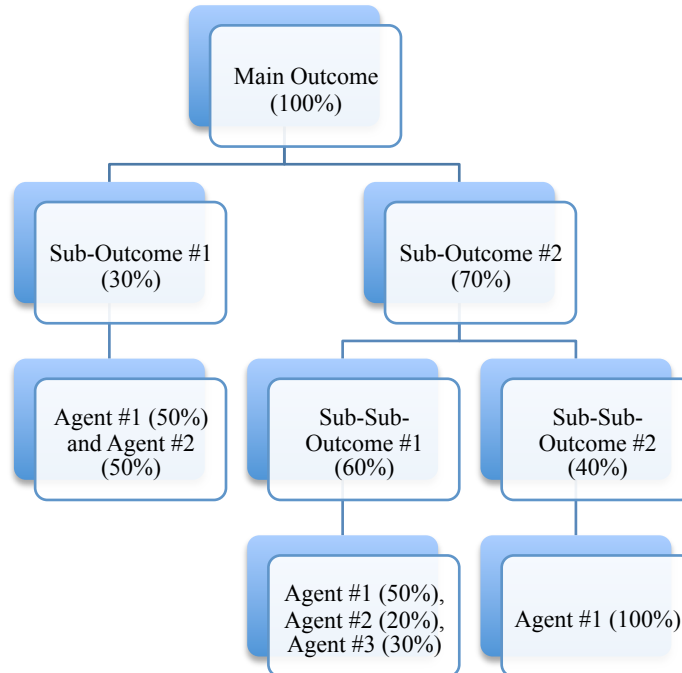
Is a result of:

### 2. Cause(s) (Y) contributing to the outcome

Which can be attributed to:

### 3. Agent(s) (Z) who drove the cause(s)

This attribution of credit can be visualized in an attribution tree with assigned weights for agents' contribution:



This framework will be used to depict how an agent acquires credit. With this framework, we can now explore the complexities of outcomes and attribution weights.

### **Outcome Classification**

The first step in credit attribution is the classification of outcomes. Without an appreciation for the complexity of the outcome, we turn a blind eye to accurately attributing credit. There are three main categories of outcomes requiring different credit attribution methods. Atul Gawande, in his book *The Checklist Manifesto*, identifies three types of outcomes:

1. Simple Outcomes = dependent upon known, limited variables that are in complete control of the agent(s). A full-proof process already exists. Example: lifting a cup and moving it across a table.
2. Complicated Outcomes = dependent upon known and unknown variables, some of which are in control of the agent(s). A full-proof process does not exist yet. The odds of success surge after the first success. Example: organizing a new conference.
3. Complex Outcomes = Dependent upon uncertain variables of variable uncertainty in constant motion, or randomness. The landscape is always changing. A full-proof process does not and probably cannot exist. Odds of success do not grow after the first success. Example: raising a second child successfully.<sup>2</sup>

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<sup>2</sup> See page 49 of *The Checklist Manifesto* by Atul Gawande



These three categories of outcome represent the universe of credit attribution. When deriving credit from an outcome, one must first categorize what type of outcome they are dealing with. Virtually every type of outcome should fall within one of these three categories.

### **Leadership Attribution Responsibilities**

One of the key roles of a group's leader or manager is to help distribute credit properly among the agents and to inform them of their specific contributions and connections to the main outcome. Leaders must balance accurate credit attribution with motivation. Over-attribution is an unjust method of distributing credit that is often used to motivate people to action. Leaders need to find ways to attribute credit accurately while finding other ways to motivate followers (Chapter 2 will explain these methods in detail).

Does a leader or manager have to personally distribute credit to every single person deserving it? Absolutely not: this process, with much larger and complex outcomes, asks too much of a single individual. Take movies, for example. Does the director or producer of a movie have the responsibility to identify the contributory actions and their weights for every sub-outcome connected to the main outcome, the movie itself? Such a distribution of credit pans out almost endlessly as the credit itself starts to diminish with every distribution existing several degrees of separation away from the source. Precision would be lost in such a distribution, especially with large-budget films with well over one thousand names scrolling with the credits. Therefore, making direct personal attribution a requirement would be an unreasonable burden for the head of the

film. One of the efficiencies of teams is the ability to easily delegate this distribution of credit. It is much easier to distribute credit to a team for the completion of a task than it is to distribute credit directly to each individual in the team. The latter becomes the responsibility of the team's leader. The director of a film, for example, cannot measure the credit deserved by the assistant to the head caterer for the sound effects team. However, the person overseeing the catering team can.

Another fundamental distinction is the difference between a team and an organization. A team becomes an organization when its leader is unable to retain knowledge over the agents and their actions contributing to an outcome. It becomes efficient for sub-leaders, or managers, to take responsibility of credit attribution for a smaller group.

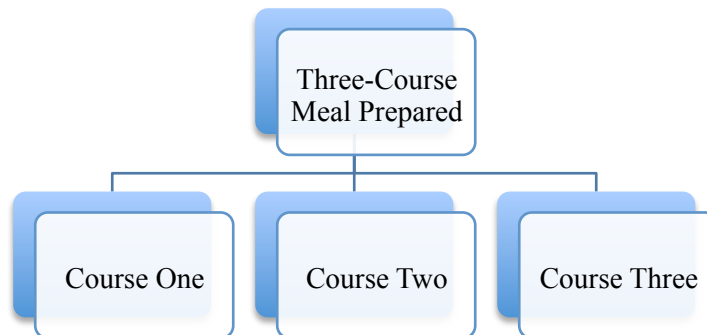
### **Simple Outcome Credit Attribution**

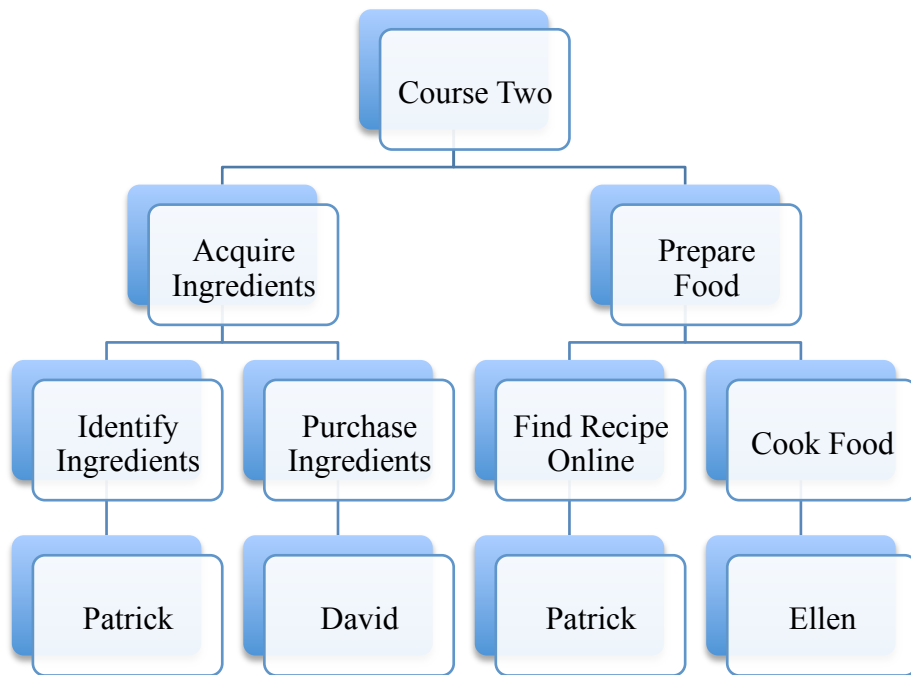
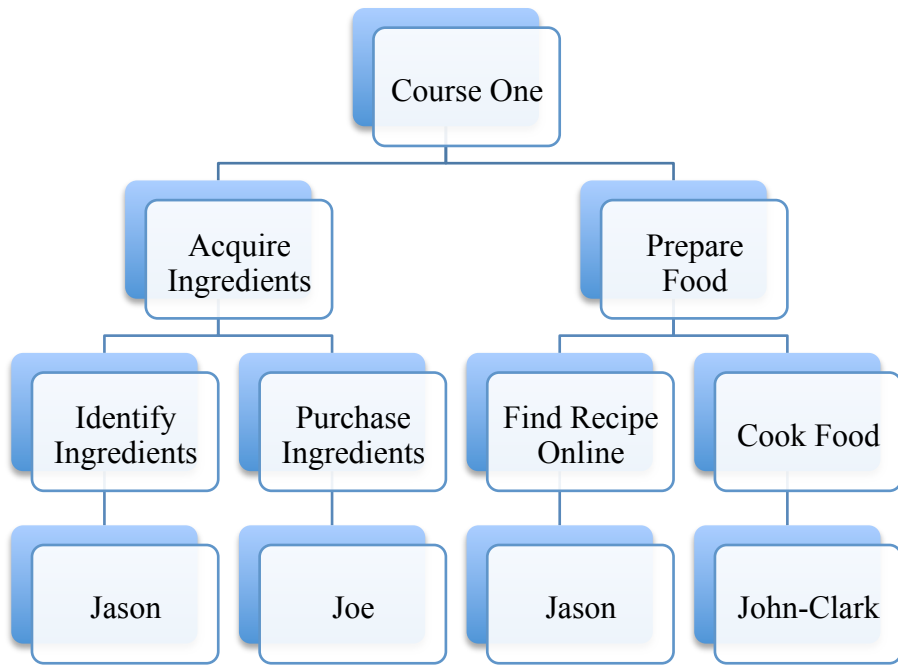
Simple outcomes, like me lifting a cup and moving it across a table, are the easiest cases of credit attribution. In such instances, the agents, objects, and variables contributing to the outcome are fixed and known:

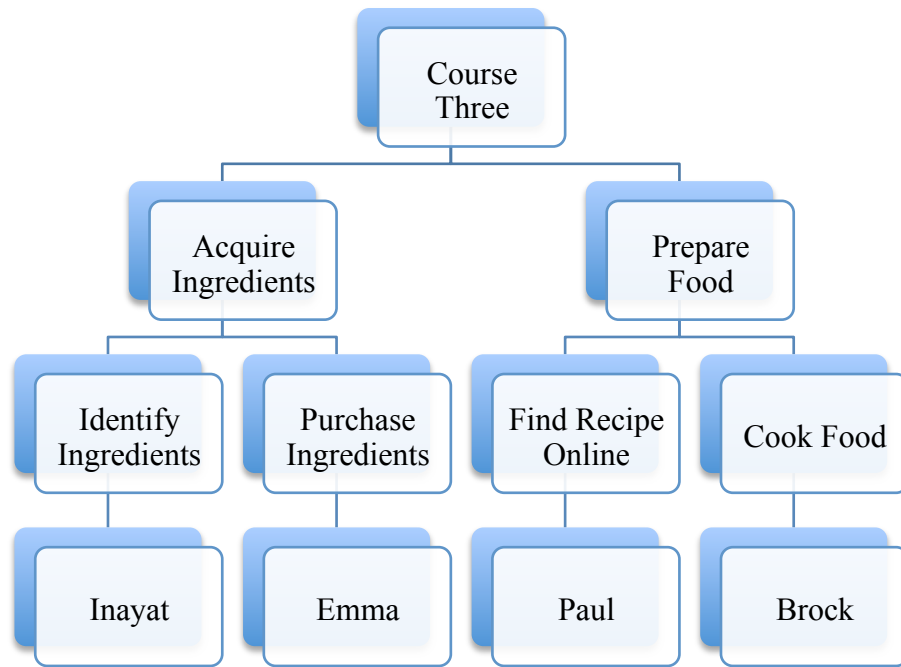


In this case, I have been identified as the only agent contributing to the outcome. Therefore, I deserve 100% of the credit for moving the cup across the table. One must be careful about categorizing outcomes as simple: it is always easier to ignore the hard work of additional agent and/or sub-outcome identification.

Simple outcomes are not restricted to a single agent and a single outcome. Simple problems can involve many sub-outcomes and agents contributing to a main outcome. Take the preparation of a three-course meal, for example. Here is how an attribution tree might look:







The meal (main outcome) consists of three courses (sub-outcomes). Each course has been broken down to its necessary tasks (sub-outcomes). Every task has been assigned to a person (agent). While this attribution tree for the meal is more extensive than moving a cup across a table, all of the related agents and sub-outcomes can be identified with perfect clarity. This is a simple outcome because the process for preparing the meal was accurately identifiable before the meal was prepared. Measurements of credit weights, as described in the introduction, can now be determined as a result of this defined credit landscape.

### **Leadership Attribution Responsibilities: Simple Outcomes**

There are many simple outcomes where multiple agents play a role in contributing to the outcome. If a group leader exists, it is her responsibility to notify her followers, or

agents, about their contribution to the main outcome. This requires both the identification of tasks (sub-outcomes) and their weights. While the followers can determine their credit themselves, it is helpful to have the leader confirm their credit calculations.

### **Complicated Outcome Credit Attribution**

Attributing credit in complicated outcomes is more challenging. Every time a complicated outcome has been achieved, the process becomes better defined and the sub-outcomes better understood. Therefore, in order to accurately attribute credit, one must wait for the outcome's dust to completely settle: hindsight is the only reliable tool for these outcomes.

At the outset of a complicated outcome, one may only be capable of predicting a few of sub-outcomes that will be necessary for overall success. For example, when I set out to organize the TEDxClaremontColleges conference, I only had a basic idea of the sub-outcomes needed for the conference to be successful. There was no start-to-finish blueprint or process to rely on. If we had failed, we would have only been exposed to some of the critical components and sub-outcomes. Attributing credit for the hypothetical main outcome would not have been possible, for the unknown sub-outcomes would have affected the other sub-outcomes and their weights.

Once the outcome has been completed successfully, the credit attribution landscape can be drawn and determined. Unexpected sub-outcomes and agents will find their way in to the landscape. The next time the outcome is achieved, the landscape will be relatively identical as the process becomes more refined and effective. If the landscape

continues to have fewer sub-outcomes, then it means the process is becoming more lean and efficient. If the landscape is completely different every time, there's a good chance the outcome is complex, not complicated.

### **Leadership Attribution Responsibilities: Complicated Outcomes**

Leaders responsible for overseeing complicated outcomes must wait long enough for all of the sub-outcomes to come into sight. Once the outcome landscape and process have been defined, the leader can start attributing credit to the agents. Because the actual process is typically different from the original idea of the process, agents may deserve to be attributed more or less credit than was originally thought. This is a difficult yet vital procedure: the agents must realize their credit attribution will be in motion until the outcome has been fully achieved. Therefore, the leader must be prudent when attributing credit. Once a thorough debriefing process has been completed, a leader is in a better, more informed position to attribute the credit to the agents.

When attributing credit for complicated outcomes, the leader must embrace the fact that the attribution landscape (e.g. the sub-outcomes and agents necessary to achieve the main outcome) will likely change, although not dramatically, every time the main outcome is achieved. Thus, the leader must always be careful when attributing credit for complicated outcomes, even if she believes she is familiar with the main outcome.

### **Complex Outcome Credit Attribution**

In complex outcomes, attribution trees can never be drawn with accuracy. The presence of uncertain variables of variable uncertainty, or randomness, makes it by definition impossible to identify and connect outcomes with all of the necessary sub-outcomes and agents and impossible to assign weights. There are two possibilities for credit attribution with complex outcomes: defining some of the identifiable sub-outcomes as either complicated or simple, or defining worst practices. Both options provide great value for all of the agents involved.

Outcomes dependent upon risk are typically complicated outcomes. Complex situations, however, are fueled by uncertainty. In order to improve the likelihood of success in the face of risk, it is critical to emphasize best practices. When the distribution of outcomes is known, best practices adjust to optimize success within the confines of the known variables. For example, in the casino game of Roulette, best practices dictate that in order to guarantee a steady stream of successes, you should not place your bets on unlikely locations. The entire games of Roulette and its returns for success have been developed in light of the statistical likelihood of success and failure, which is always constant. Worst practices, in the case of Roulette, would focus on the specific causes of failure instead of success. The only time when analyzing the causes of failure has a statistical advantage over analyzing the causes of success is when the distribution of outcomes is unknown. In Roulette, the known distribution of outcomes provides equal weight to best practices (what you did that caused success) and worst practices (what you did that caused failure).



Let's assume the risk of Roulette corresponds perfectly with the returns for success. Say I place a \$100 chip on red. This means if the ball lands on a red number (assuming a probability of 50%) of the numbers on the wheel, I receive double my investment: \$200. This success is clearly a result of the 50-50-chance distribution. If I fail and the ball lands on a black number, I know my failure was caused by the 50% likelihood of not winning. Because we know the exact distribution of outcomes, the likelihood of success will always be 1-(the likelihood of failure), and the likelihood of failure will always be 1-(the likelihood of success).

The outcomes of Blackjack, on the other hand, tend to be more of uncertainty than of risk. If you sit down at a Blackjack table with the shoe half empty, it is impossible to know the distribution of outcomes left within the remaining cards. While some people use card counting to learn more about the distribution of outcomes by tallying up their heads the amount of 10-value cards left in the shoe, the "legal" distribution of outcomes is generally unknown. This aspect of uncertainty has remained constant since the game's conception centuries ago. Hundreds of years and trillions of hands later, do best practices or worst practices dominate contemporary strategy?

There are two ways you can fail in Blackjack: drawing over 21 or having the dealer beat you. As a player, you have no control over what cards the deal has or will eventually draw: you can only control how many extra cards *you* take.

Thus, the most popular strategy used in Blackjack is to *not* take an extra card when you have at least 16. This strategy was developed around the statistical likelihood of *failure*, not success. This example of worst practices is derived from the only thing that

can be certain regarding the outcome of every uncertain hand of Blackjack: you busted (got over 21 and lost) because you drew a card when you shouldn't have.

Best practices in Blackjack is useless. If you are dealt a 17, draw an extra card and receive a 4, you win with a 21. Congratulations! Now you're feeling hot. You may be more likely to continue to take similar irrational risks due to the best-practices derived from the previous outlier result: you succeeded because you drew on a 17. This approach is an intellectual sin. By using best practices as a means for succeeding in a world of uncertainty, one loses their grasp on the only thing they *can* be certain of; what contributed to failure. This is why worst practices are so fundamental and valuable for complex outcomes.

There is nothing statistically encouraging about using best practices in uncertain circumstances. When one feels overly confident after receiving a 4 after being dealt a 17, best practices dictates that the likelihood of receiving a 4 after being dealt a 17 is high enough to justify the risk. Receiving a 17 is statistically independent from proceeding to receive a 4. The likelihood of the next card being a four, or receiving two twos in a row, is unknown. Again, this dictates that the only thing that can be known for certain in an uncertain world is what caused failure.

When you succeed in an uncertain world of complex outcomes, you underestimate the critical variables. The attribution of luck tends to be to one's process, thus making one think consistent repetition is more likely. As we have seen, this is absolutely false. When you fail in an uncertain world, however, you can more accurately identify the critical variables. Therefore, complex outcomes are best understood via worst practices.

## **Leadership Attribution Responsibilities: Complex Outcomes**

Leaders of complex outcomes are put in a very difficult position for credit attribution. By definition, even after debriefing, they cannot identify all of the sub-outcomes and agents who contributed to the main outcome. There are two forms of attribution that the leader can perform: worst practices and complicated/simple outcome attribution.

As the previous section argued, in complex situations, outcomes where something went wrong provide enough clarity for credit attribution. A leader should identify opportunities for improvement and attribute the credit with accordance to standard attribution guidelines. Learning how one failed is incredibly valuable information, and the leader has the responsibility to help guide this information to the correct agents.

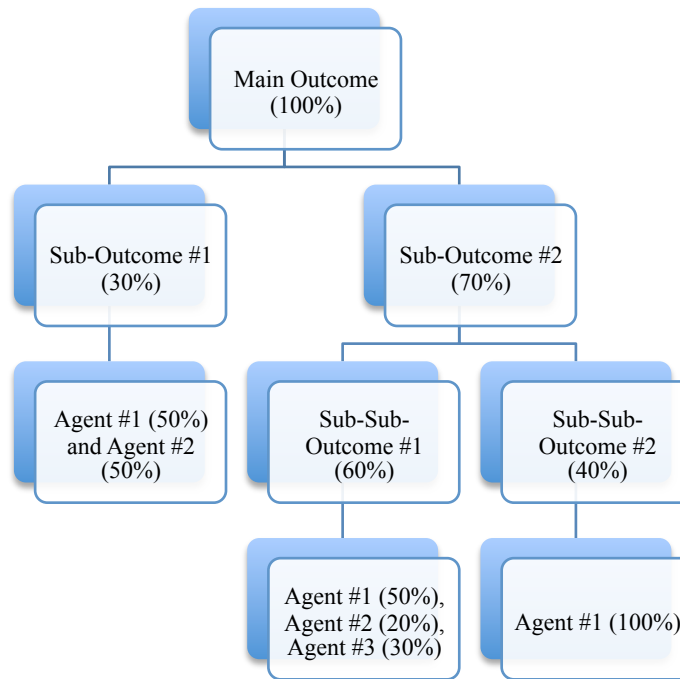
Virtually every complex outcome has some identifiable simple and complicated sub-outcomes. These outcomes can either be positive or negative (worst practices). In the context of the contingent sub-outcome that can be identified clearly, the leader can attribute credit to the agents after assigning the necessary weights.

### **Weight Assignment**

Once the credit landscape has been fully identified, agents must receive weights for their respective contributions to the main outcome. In a theoretical, simple example where I was responsible for half of the outcome and you were responsible for the other half, then each of our weights would be 50%. Of course, assigning weights is rarely this simple. How, for example, can we determine that my contribution was exactly half and

your contribution was exactly half? One must first start by assigning the relative importance of the sub-outcomes. Once this has been established, the agents involved in the sub-outcomes have their weights determined, which consequently climb up the credit attribution tree to determine the overall percentage of the main outcome's credit deserved by each agent.

The introduction to this thesis briefly explored two methods for determining the relative importance of sub-outcomes and agents' involvement within these sub-outcomes. As I discussed previously, measuring weights is a difficult task, and I do not claim to know how to do so with perfect, objective accuracy. The most important thing to do is to stay true to the process for weight calculations with a conscious disregard for your preference of one agent over another. Debriefing with third parties helps to ensure this objectivity. One method for allocating weights within a business would be to do so based on the costs and salaries of the outcomes and agents involved, respectively. In theory, the costs and salaries of an outcome (or sub-outcome) and the agent driving the outcome may be indicative of their importance. Another option is to allocate weights by the estimated effort required by the average person to perform the task. Keeping this average person notion constant, relative weights can theoretically be determined. While there are probably better, more objective ways to determine contribution weights, I will not further elaborate on the concept in this space. Here is what a sample weight-allocation looks like:



If agent #1 is responsible for completing 50% of sub-outcome #1, which is 30% of the main outcome, then this task assigns 15% (50%\*30%) attribution to agent #1 for the main outcome. Adding up all of the tasks for each agent in the attribution tree above yields the following overall attribution for the main outcome:

Agent #1 = 64%

Agent #2 = 23.4%

Agent #3 = 12.6%

This is the final step of credit attribution. Once the agents have knowledge of their credit weights, they are forced to think about the extent of their involvement without underlying biases such as their ego. The value of one's overall credit weight in connection with an outcome will be used to calculate internal satisfaction in the following chapter.

## **Credit Attribution Conclusion**

This chapter has identified and analyzed the three core categories of outcomes of mental credit: simple, complicated, and complex. Each outcome calls for a different credit attribution process and different responsibilities for the outcome's leader. Once the credit landscape has been identified to the best degree possible, weights are then established for each sub-outcome's agent. The introduction outlined the process for doing so. These two processes combine to form the credit used to derive satisfaction for the things we do. The next chapter will discuss how this credit fits into the satisfaction models.

## **CHAPTER 2: CREDIT SATISFACTION**

Now that we know how credit is acquired and distributed properly, we need to contemplate how we use this credit for our own personal satisfaction. We tend to think of credit satisfaction as a simple process not deserving attention. We receive praise for doing a good job and feel good about doing something we have done well. Although conscious thought is rarely given toward credit satisfaction, everyone derives satisfaction from credit differently. A concept so simple and commonplace never appears on our radar. Yet, we live in a world where creativity and innovation seem to be in limited supply, the education infrastructure designed to develop our minds is supposedly broken, and the compensation systems in the corporate world seem to be misaligned. The nuances of credit satisfaction provide perfect clarity for many of the micro and macro structural problems society faces today: it all starts by lifting the lid on satisfaction's mystery box and peaking inside.

This chapter will not be a discussion of distribution of property. There are many arguments surrounding optimal compensation methods for credit. Many have wrestled with this problem before: do we value effort or productivity? Which compensation methodologies yield the greatest performance results? The fact that this discussion has seen the light of day for so long reveals how much of our conception of satisfaction is

based on what others should give us. After all, accumulating wealth is a universal goal for competing with others in commerce. Great arguments have been made for the many proposed models of compensation and I will not seek to praise some and discredit others. I will, however, bring some of these models to light when they coincide with other satisfaction principles.

This entire focus on what we deserve to receive from others is the willful subordination of the self to others. This is a fatal mindset that causes us to blame others for our own dissatisfaction. We lose our grasp on what it really means to be satisfied with our own credit. The internal satisfaction model, which will be depicted in the following section, encourages us to think about ways to improve internal satisfaction through personal growth and learning.

### **The Internal Satisfaction Model**

Internal satisfaction is the satisfaction one derives directly from having the credit attributed to one's self:

$$\text{Short Term Internal Satisfaction} = (\text{internal satisfaction with outcome}) + (\text{mental credit received for the outcome}) \times (\text{internal satisfaction with credit}) + (\text{internal satisfaction with compensation})$$

Short Term Internal Satisfaction,  $I_s$ , is the total internal satisfaction derived in the short term. The sole difference between short term and long term internal satisfaction,  $I_l$ , is compensation, which can disappear as a result of activity disconnecting from its original source of credit and satisfaction.  $I_s$  has three primary components. First, the



Internal Satisfaction with Outcome,  $I_o$ , is defined as the internal satisfaction one derives as a result of the nature of the outcome. Second, the Internal Satisfaction with Credit,  $I_c$ , is defined by the satisfaction one derives from one's credit or actions. Third, the Internal Satisfaction with Compensation,  $I_m$ , is defined by the degree to which one is satisfied with the compensation received as a direct or indirect result of their credit.

$$I_s = I_o + I_c + I_m$$

$I_o$  is an independent variable of mental credit. The degree to which one is satisfied with an outcome is independent of one's contribution to the outcome. For example, I am internally satisfied with my iPhone 4 even though I did not make any contribution to its production (outcome).  $I_o$  is made up of two components. First, Marginal Propensity for Internal Satisfaction from Outcome, or  $i_o$ . Another approach to defining  $i_o$  is how satisfied one is with a given outcome or the degree to which one is grateful. A child, for example, is typically more grateful for any given outcome than an adult. This, of course, is not true for all aspects of appreciation: as one grows older, one is able to better appreciate the underlying complexities of an outcome.  $i_o$  represents the average marginal increase in satisfaction for an improvement in outcome (as described in the next paragraph) and ranges from -1 to 1. When  $i_o$  is negative, it means the agent is perfectly dissatisfied with every improvement in outcome. For example, if every incremental gain in the magnitude of an outcome hurts more people, one would likely be increasingly dissatisfied (compensation can offset dissatisfaction—this will be discussed later in the chapter). When  $i_o$  is 0, it means the agent is perfectly indifferent. When  $i_o$  is 1, the agent

is perfectly satisfied with every rise in outcome. We will later see how  $i_o$  changes over time as one's expectations of an outcome change.

O, the second component of  $I_o$ , refers to the objective nature of the outcome. Factors contributing to O include but are not limited to size, originality, beauty, scale, difficulty, impact, and results. Clayton Christensen, in the *Innovator's Dilemma*, writes that markets view products' objective qualities in the following order: functionality, reliability, convenience and price<sup>3</sup>. I purposely omit goodness from O's factors, for goodness is a subjective characteristic. The fact that psychopaths and terrorists derive internal satisfaction from hurting others is beyond me. But, we must recognize that they can in fact get internal satisfaction from doing so. The interpretation of an outcome's goodness is accommodated within  $i_o$ .

Any outcome, by definition, has a positive O value. O, also, is not necessarily limited in value. Therefore, there are two ways to raise  $I_o$ : increase the objective nature of the outcome, O, or increase gratefulness and the degree to which one is satisfied with any given outcome,  $i_o$ .  $I_o$ , therefore, can be broken down to the following equation:

$$I_o = i_o * O$$

$I_c$ , the internal satisfaction derived from mental credit, is composed of three variables: the quality of an outcome, O, the weighted allocation from that main outcome, w, and the satisfaction derived from every addition in contribution to the main outcome,  $i_c$ . If someone is not granted any credit for an outcome ( $w=0$ ), then it does not matter how

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<sup>3</sup> See more on page 218 of Christensen's *The Innovator's Dilemma*

much satisfaction they would have received from the credit because they both cancel out to zero. We will treat  $w$  as between zero and 1.

If someone is completely indifferent toward her credit ( $i_c=0$ ), then it does not matter how much credit they received in the first place:  $I_c$  cancels out to zero. This relationship shows us the critical importance of deriving satisfaction from one's credit: while virtually every member of an organization will receive some credit for a main outcome, if they do not care about their performance and efforts, they will not derive any internal satisfaction.  $i_c$ , the Marginal Propensity for Internal Satisfaction from Credit, represents the change in satisfaction the agent receives for every unit increase in  $w$ . In other words, the more proud the agent is with her credit, the more internal satisfaction she will receive for every incremental increase in the credit she receives. It is possible for  $i_c$  to be negative: the agent can be so dissatisfied with their efforts that any growth in credit makes them increasingly dissatisfied. Therefore,  $i_c$  can be between -1 and 1.  $I_c$ , therefore, is broken down as such:

$$I_c=0*w*i_c$$

The final element of the internal satisfaction model, which only exists in the short term, is internal satisfaction from compensation, or  $I_m$ .  $I_m$  is composed of two elements: the Marginal Propensity for Internal Satisfaction from Compensation,  $i_m$ , and the compensation itself,  $M$ .  $i_m$  represents the incremental change in internal satisfaction with every single unit increase in compensation. While compensation can encompass publicity and other nonfinancial measures, we will equate  $M$  with a monetary value for simplicity.  $i_m$ , therefore, will be higher for someone who receives great internal satisfaction from

every dollar received than someone who hardly cares about the amount of money they make. Typically, those with less wealth value every additional dollar received than those with higher levels of wealth.  $i_m$ , which resides between zero and 1, inclusive, therefore, decreases as you get wealthier.

$$I_m = i_m * M$$

All taken together, short term internal satisfaction,  $I_s$ , is represented by the following equation:

$$I_s = (i_o * O) + (w * O * i_c) + (i_m * M)$$

$$I_s = O(i_o + w i_c) + i_m M$$

Variables  $O$ ,  $w$ , and  $M$  are exogenous. They have objective values determined both by the actions of the agent and other agents and forces. They exist outside of the system of the mind. Variables  $i_o$ ,  $i_c$ , and  $i_m$  are endogenous: one has the ability to change these values with thoughtful consideration. They exist within the system of the mind.

There exists a certain  $I_s$  threshold that, if crossed, makes the agent so internally satisfied that they see no reason to change their work, which consists of both the agent's outcomes and the credit the agent receives for the outcomes. The motivation to change jobs or activities engaged with does not require dissatisfaction. On the contrary, if the agent believes they deserve *more* internal satisfaction, they will change their activities or even their life. The key to being internally satisfied with one's life is to do whatever it

takes to get and stay above this threshold, so long as one's actions are perceived to be ethical.<sup>4</sup>

More so than any other variable,  $O$  has a particularly large impact on internal satisfaction. However, even if  $O$  is zero, an agent can be internally satisfied with sufficient compensation. This is an accurate representation of a welfare state, where internal satisfaction is not linked to any outcome. Those eligible for welfare in the United States might have an  $i_m$  value so high that  $I_s$  is above their  $I_s$  threshold. In this case, there is no incentive to change one's life and work. This model provides a new means for discussing wage bargaining, too. In theory, if the perceived value of  $O$ ,  $w$ ,  $i_o$ , and  $i_c$  are beneath the  $I_s$  threshold, then  $M$  and  $i_m$  can bring  $I_s$  high enough for one to be internally satisfied.

According to the model, the more one has contributed to an outcome creates a major boost in internal satisfaction. The only issue with this, however, is an enlargement in  $w$  for one person is a decrease in  $w$  for another. Recall the sum of all  $w$  values is 100%. If one improves their  $w$  from 20% to 30%, the rest of the agents'  $w$  will decrease by a total of 10%. Therefore, if an increase in  $w$  for someone does not contribute to a higher value for  $O$ , everyone else becomes worse off. Similarly, all else held equal, one should not delegate an action to someone if it does not promise to improve the outcome enough for you to be more satisfied despite your decrease in involvement.

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<sup>4</sup> I will not attempt to assign objectivity to ethics in this thesis. What is most important for ethics in internal satisfaction is whether one's mental credit aligns with one's perception of what is ethical.

O and w are endogenous. They are determined outside of the mental system. Despite their weight on the overall model, when these variables are static, they can easily become hostage to  $i_o$  and  $i_c$ . The intricate interplay between these endogenous and exogenous variables of  $I_s$  impacted the way I derived satisfaction as an artist.

### **Pick A Card, Any Card**

I became a magician at the age of 13. For several years, I practiced at least two hours per day on average. I became an active member of various online communities of magicians and decided to produce material to sell to other artists. On my websites, I produced instructional videos and DVDs containing my original material. These products were sold to magicians all around the world. It was exciting being able to make modest money from my artistic creations. Then, about five years ago, I decided to start releasing all of my material for free. I don't know exactly what compelled me to do this, but since making this decision, my tutorials have received over 940,000 views online. Unusually, when I decided to stop profiting from my art, I enjoyed my art much more. My internal satisfaction was increasing. How does the  $I_s$  model explain this? Let's take a look at the entire model again and break it down by variable:

$$I_s = O(i_o + wi_c) + i_m M$$

As I became a more skilled magician and artist, the quality of my magic and production value was increasing. Therefore, O was increasing. Because I would produce the work myself, w remained at a constant level close to our equal to 100%. For the first

few years of practicing this art, the increase in O was outpacing the natural decrease in  $i_o$ . In other words, my growing expectations were consistently being surpassed by the outcomes I was able to create. My  $i_c$  was increasing as I learned new, exciting ways to practice my techniques. M and  $i_m$  appeared to be steady. As I became more focused on turning my magic into a revenue driver, I spent less time innovating and more time producing products. The positive change in O, therefore, started to decelerate. After the original excitement of producing products faded,  $i_c$  started to decrease because I was less satisfied with the work I was doing in order to contribute to the magical outcomes. Meanwhile,  $i_o$  continued to drop as my expectations for a great outcome continued to grow.  $i_o$  was decreasing faster than O was increasing. With  $I_s$  under pressure, my focus then turned to  $i_m$  and M. If only I could receive enough M, I would be above my  $I_s$  threshold. For a while, this was able to offset the continued decrease in  $i_o$ . However, increasing M came at the direct expense of  $i_c$ : I was not deriving as much internal satisfaction from my work and mental credit as I was originally. Simply speaking, the work was not as enjoyable even though I was making more money. M's growth was eventually outpaced by the continual decrease in  $i_o$  and  $i_c$ . With  $I_s$  below its threshold, I decided to change what I was doing.

I started by removing  $i_m$  and M from the equation by willfully setting M to zero. Therefore, to boost  $I_s$ , I was left with the following variables:

$$I_s = O(i_o + w i_c)$$

By eliminating my anticipatory focus on trying to please customers, I diverted my creative energy to producing stronger outcomes I was more satisfied with and changing

the nature of my efforts and, therefore, credit. As a result,  $i_c$  stabilized and ultimately started to increase again. The quality of my creations,  $O$ , started improving at a faster rate too. As a result of this continued trend, my  $I_s$  for magic is higher than it has ever been.

I have had a difficult time fighting against my constant increase in  $i_o$ . It is hard to impress and fool an experienced magician: our high exposure to magicians' social and sleight of hand techniques allows us to predict and anticipate climaxes. Frankly, I miss the ease at which I used to be blown away by magician's tricks: I doubt my  $i_o$  will ever increase back to its original level. A gradual decrease in  $i_o$  is the price you have to pay for becoming more educated about and trying to improve at a type of outcome. Thankfully though,  $i_o$  is heavily overshadowed by  $w$  and  $i_c$ . Holding  $w$  and  $O$  constant, as long as one increases the amount of internal satisfaction one derives from their credit,  $i_c$ ,  $I_s$  can be increased in a sustainable fashion.

By removing compensation from my work, I accidentally entered into the long term internal satisfaction model. The only variation one encounters when transitioning from the short term to the long term model is the presence of compensation. As I argued previously, compensation eventually loses its connection to an outcome. The rest of the variables one is left with are eternal:

$$I_t = O(i_o + w i_c)$$



## Internal Satisfaction in the Workplace

The internal satisfaction model provides insights for managers seeking to improve the internal satisfaction of their employees. Let's return to the short-term internal satisfaction model:

$$I_s = O(i_o + w_i c) + i_m M$$

With the exception of  $O$ , this model for long-term internal satisfaction does not include any external aspects of any kind. Additional agents can dramatically impact  $O$  if the outcome is a result of a team's work. The model, therefore, puts a high emphasis on the quality of a team. Say, for example, I am working on an outcome with one other person. We both contribute to 50% of the overall results and yield an outcome of 100. The next time I set out to achieve the same outcome, I collaborate with someone else. This time, I contribute to 40% of the outcome and my new partner contributes to 60%. We ultimately yield an outcome of 200. Assuming I performed the exact same amount of work, my new colleague made a much greater impact on the final outcome than my previous colleague. While my  $w$  value decreased by 20% (10%, from 50% to 40%, is 20% of 50%), my  $O$  value doubled. Considering  $O$ 's larger impact on  $I_i$ , I end up deriving much greater internal satisfaction. This example goes to show that even if one thinks terrible teammates won't affect one's internal satisfaction, their contribution to the outcome does have an impact on one's internal satisfaction. One must also be wary of the freeloader problem, whereby one becomes accustomed to increasing one's internal satisfaction without doing anything to contribute to the better outcome. Leaders can fall into this habit as easily as their followers and employees.

Understanding the two endogenous variables of the long-term satisfaction model is the key to maximizing one's internal satisfaction. As I previously argued,  $i_o$  naturally decreases over time as one's outcome expectations increase. This is a healthy and natural progression that should not be fought for it consistently holds us to a higher standard of performance. Manipulation of the second endogenous variable,  $i_c$ , is the best avenue for improving one's internal satisfaction without tampering with the other objective variables.

One contemporary model for worker motivation belongs to Dan Pink. His model provides insight in to the ways  $i_c$  can be increased. In his book *Drive*, Pink argues that the carrots and sticks of financial motivation only works for a narrow band of activities. Specifically, people's performance only improves with financial incentives when the tasks are mechanical and straightforward in nature. The performance of a task requiring creativity and outside the box thinking, on the other hand, *decreases* with financial incentives. Pink believes there are three key performance motivators for creative tasks: autonomy, mastery, and purpose.<sup>5</sup> These three buckets are housed within the internal satisfaction equation presented in this chapter. Autonomy is a critical aspect of the credit upon which  $i_c$  is built. Purpose is a piece of O. Mastery affects both  $i_c$  and O.

When you have the freedom to define the credit you will ultimately deserve, your  $i_c$  increases. Mastery is also a great way to feel a rolling sense of accomplishment while deriving credit. Therefore,  $i_c$  again increases. Every outcome and its credit both provide

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<sup>5</sup> [http://www.ted.com/talks/lang/eng/dan\\_pink\\_on\\_motivation.html](http://www.ted.com/talks/lang/eng/dan_pink_on_motivation.html)

unique opportunities for  $i_c$  maximization: all methods are based on pride with one's work (credit, not outcome).

As I've argued previously, the most effective method for boosting  $I_s$  is to improve  $O$ . In other words, improve the quality of the outcomes the employees are working on. These can be a company product, a marketing memo, or any outcome of varying magnitude within the workplace. The second-most efficient way to improve someone's  $I_s$  is to raise the proportion of her contribution to  $O$ . Despite these efficient methods from improving  $I_s$ , the easiest way to improve  $I_s$  is to increase  $M$ .

The two most-dominant goals for a manager are to improve  $O$  and decrease  $M$ . In other words, improving the quality of the outcome,  $O$ , while decreasing the labor costs and compensation necessary to create the outcome,  $M$ . All other variables held equal, increasing  $M$  can have detrimental effects on outcome and, therefore,  $I_s$ , in certain situations.

At the heart of Dan Pink's book *Drive* is a study highlighting the limited impact  $M$  can have on outcomes and  $I_s$ . Let's look at how this plays out within the internal satisfaction model. When encouraging workers to perform mechanical tasks better with incentives, increasing  $M$  increases  $O$ . Holding  $w$  equal and assuming  $i_o$  naturally decreases, the mystery variable is  $i_c$ . It seems financial incentives for mechanical outcomes have no direct impact on  $i_c$ . With mechanical tasks, how can  $i_c$  be grown through better management?

Gordon Zacks provides a promising solution. Zacks, who has served as the Chairman of R. G. Barry since 1979, has a passion for leadership that has guided all

aspects of his life. As a business leader, he grew R. G. Barry into the largest supplier of comfort footwear in the world. As a volunteer, he became a personal advisor to President George H. W. Bush, helped influence Middle East policy, and was offered both a cabinet position and an ambassadorship. He turned down both. He spoke about this issue of increasing  $i_c$  with mechanical tasks at TEDxClaremontColleges, a conference I organized in 2011:

The most important things that you can learn about yourself are your limitations; to understand your strengths, but to be honest and willing to admit, “I don’t know, what do you think?” to someone who knows more than you about that particular arena, and listen. Those are the most powerful words that you can use as a leader to build a connection and build mutual trust and respect between those that you’re working with in order to accomplish the vision that you are trying to achieve.

After the second year my father brought me home [to work at R. G. Barry, where he was president], I sat at his feet and I learned. Five years later my father had a massive coronary and he died at the age of 58. And at the age of 32 I was to take over this small company: we had sales at that time of just under \$10 million. We were doing roughly \$350,000 in profit. And I knew that I wasn’t my father. I knew I wasn’t ready. I knew I needed help. I started to think out what can I do and who can help me. I decided that what we really needed to do was not find a leader to replace my father, but to build a culture that incorporated the values that he and I both shared about dealing with people.

We found a man by the name of Dr. Rensis Likert [at] the Institute of Social Research that he had founded in Ann Arbor, Michigan. He had a theory. It wasn’t proven. He needed a beta site. We had a need. We were ready to take a risk on his theory, which made sense to me, and become his beta site. The theory was very simple. He believed that most people most of the time would return trust with trust. He believed that most people most of the time wanted to do the job right. He believed that most people, once trained to do their job, were in a better position to figure out how to do it differently and better than anybody else...if you only ask them and empower them. He created a system around small teams of ten to twelve people each, each team assembling a finished product, each team member having a right to stop production to fix a quality problem or to stop production to suggest a way to improve cost and drive it down.

The system was phenomenally successful. We increased output per man-hour by 40%. Our quality went up, our turnover went down, and we had a globally

competitive advantage against the world in a high labor-intensive business that was extraordinarily competitive globally.<sup>6</sup>

Zacks' story does not fit within the perfectly with Pink's model for motivation.

The manufacturing projects at R. G. Barry were mechanical in nature. The Likert Model helped to transform the nature of the labor and outcomes the employees found themselves engaged with. Let's see how the Likert Model affected the variables within the  $I_s$  equation.

$$I_s = O(i_o + wi_c) + i_m M$$

First, the employees were broken up in to small teams of ten to twelve workers each. This, by definition, raised  $w$  because each worker would be more responsible for her own finished product or outcome,  $O$ . Second, each team member was permitted to stop production to improve the quality of their work, increasing  $O$ . By creating the process under which the products were created themselves, the workers'  $i_c$  increased. The process was improved and thanks to their innovation. Thus, they were more satisfied with every increment in credit attributed to them,  $i_c$ . Additionally, each team member could stop production to suggest a method for cutting costs, again increasing  $i_c$ . In the end,  $O$  increased,  $i_c$  increased,  $w$  increased, and the company and its people were transformed. Pink's model raises the following question: how do we account for the fact that compensation,  $M$ , was not used to improve  $O$  and  $I_s$ ?

The most brilliant aspect of the Likert Model is that it converts mindless, mechanical tasks into cognitive tasks. It encouraged people to contribute with their

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<sup>6</sup> [http://youtu.be/MeSWeo\\_GqRo](http://youtu.be/MeSWeo_GqRo)

minds, not just with their hands. The workers were encouraged to think creatively to improve O. After watching these incredible results, Zacks decided to implement this model across all of his manufacturing hubs and factories. He discovered an even more powerful leadership and satisfaction principle when visiting a newly owned factory in China. It is the following principle that is the most critical, yet over-looked aspect of i:

I went in to China, and I visited this plant for the first time and I did what I did at all of the plants that we owned. First thing I did was go to the restrooms. I can tell everything I need to know about how that manager deals with people by going to the restrooms. These were the worst restrooms I had ever seen in my life! I took the plant manager aside and I said to him, “Mr. Wu, I want you to buy all new fixtures for this restroom. I want you to build all new stalls, paint it, and I want it to be maintained spotlessly clean. I want it so that when I come next, I would willingly use it.”

He said, “Mr. Zacks, that’s impossible.” I said, “Mr. Wu, I’m not telling you how to do it. But I am telling you if I come here the next time and it’s not done, you don’t have a job. Do you understand?”

Now, I told him that I wanted to walk the factory and shake hands with people and introduce myself. He said “they won’t look at you, they’ll be intimidated.” After fifteen people, they all got up. They shook my hand, looked me in the eye, “Ni Hao, Ni Hao, Ni Hao.” Then I said we [will] have a factory meeting. What did we do at the factory meeting? I told them what we want to accomplish and they asked questions of me.

What did I want to accomplish in China? I told them we want to become the #1 needle factory in China. Now we have questions and answers. First question: “Mr. Zacks, you know we come from northern China. We live in dormitories that you provide for eleven months a year and we go back for one month for Chinese New Years. Mr. Zacks, we have no hot water in the showers.”

“How long have you not had hot water?”

“Two years.”

“Mr. Wu, how much would it cost? How long would it take? We’ll have showers for you with hot water in three months.” Everybody applauds.

“Mr. Zacks, you want to be #1 needle factory in China? In the summer, it’s very hot in Shenzhen and we don’t have fans that work. And we haven’t had them for a year.”

Same routine: “You’ll have fans in one week.” Then I leave, thank everybody, [and] come back in a year for my annual visit. Restrooms: spotlessly clean. I walk the floor, everybody’s friendly, smiling, talking. I have the plant meeting, [and they] ask questions. Here are the questions:

“Mr. Zacks, you want to be #1 needle factory in China? You supply cut component parts from Mexico. You pack them this way. If you packed them this way, we can more readily take them from the box and improve our efficiency and reduce costs.”

“Mr. Zacks,” second question, “you want to be #1 needle factory in China? Why do you cut in this manner? If you would cut in this manner, you can get one more piece out of each yard of material and reduce your cost.”

Every [comment] was about reducing cost or improving quality. I walked out of that factory and I realized that humility matters. Being respectful and being understanding of the dignity of other people matters. Giving people an opportunity to contribute with their brain, not just their hands, matters. You can unleash the latent human potential of caring people working together to accomplish the objective of whatever the enterprise is you’re trying to lead.<sup>7</sup>

This factory in China became their most profitable factory of the eight they owned around the world. People cannot derive internal satisfaction from their credit if they are not treated like humans. Knowing others value your dignity is a necessary precedent for  $i_c$  to be positive. Most importantly, valuing the dignity of others is fundamental to converting a mechanical task into a cognitive task. It is vital to remember this is a lesson grounded in human nature. No matter where you are in the world, no matter what the living conditions are of the people’s you are working with, being treated with respect is fundamental for encouraging higher levels of  $I_s$  and, ultimately, greater outcomes.

In a talk at the RSA, Dan Pink rightfully says “the best use of money as a motivator is to pay people enough so that they’re not thinking about money and they’re

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<sup>7</sup> [http://youtu.be/MeSWeo\\_GqRo](http://youtu.be/MeSWeo_GqRo)

thinking about their work.”<sup>8</sup> This observation is spot-on. Returning to the  $I_s$  model, we see  $M$  has no direct effect on  $O$ :

$$I_s = O(i_o + w i_c) + i_m M$$

The story of my departure from making money with my magic explains how this phenomenon works within the model. When employees configure their efforts to best contribute to more compensation, they lose sight of what makes them satisfied with their credit,  $i_c$ , and the quality of the outcome itself,  $O$ . By removing compensation from the equation, employees must turn to increasing  $O$ ,  $w$ , and  $i_c$ , all of which should improve the company’s performance and the employees’ internal satisfaction in the long term.

I have argued earlier in this discussion that one of the beauties of the  $I_s$  model is that an individual’s increased contribution to a better outcome can make everyone else more internally satisfied. So long as  $O$  improves enough to outpace the decrease in  $w$  that others might experience, everyone’s  $I_s$  is better than before. There are many times in our lives when this can lead to dissatisfaction, though.

First and foremost, this unusual phenomenon tends to only occur when we dislike someone. There are two reasons why we can be dissatisfied with someone else’s increased internal satisfaction: if they assume too high of a  $w$  value, or if we simply don’t want them to be more satisfied without having done anything to improve  $O$ . The first example is a matter of intellectual dishonesty on the part of the colleague. Previous chapters of this discussion have argued on behalf of an objective distribution of  $w$ . The

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<sup>8</sup> <http://www.youtube.com/watch?v=u6XAPnuFjJc>



second example, although difficult to overcome, is a matter of intellectual immaturity on the part of the primary agent.

If you fear every added contribution you make toward the outcome will make someone you dislike more satisfied, your  $i_c$  can actually decrease. Even if  $O$  grows more than the colleague's  $w$  value shrinks, we too often convince ourselves the colleague does not *deserve* to have more internal satisfaction. The fact is they actually do according to the model. Outcomes are unique in their nature: regardless of whether you have any involvement in contributing to the outcome,  $O$  can contribute to  $I_s$ . As a member of a team, even the smallest contribution to  $O$  gives  $w$  enough value to derive extra internal satisfaction. One's approval of their colleagues must remain outside of this model.

We must also be aware of the ways we decrease employee satisfaction as managers and colleagues. Jim Collins, the author of *Good to Great* and *Great by Choice*, argues there are three main demotivators for workers: hype, futurism, and false democracy. Collins argues that people are generally good at being motivated to what they want to do, but others' actions diminish their motivation. These three demotivators, like Pink's motivators, are further illuminated by the internal satisfaction model. Collins ignores the impact of money on demotivation, so we will use the long-term internal satisfaction model to break down his argument.

First, managers sometimes ignore the brutal, scary, threatening facts underlying the work of the organization. "When somebody in a leadership position," Collins argues, "isn't confronting those directly, everybody can see it and they'll wonder why aren't we

confronting reality? Why aren't we confronting the facts? That will demotivate the very best people—they want to engage with the brutal facts.”<sup>9</sup>

Ignoring the difficult, underlying assumptions and facts threatens both  $i_c$  and O. When an employee knows they are recklessly accelerating in to darkness with their work, they will be less satisfied with their labor and credit. In all aspects of our lives, willful blindness is a dangerous thing. Margaret Heffernan, in her book *Willful Blindness*, describes this phenomenon by being in the “presence of information that we could know, and should know, but don't know because it makes us feel better not to know.”<sup>10</sup> Heffernan also argues that “the most bonused are the most blind because for them to look carefully is, quite literally, too costly.”<sup>11</sup> Therefore, when a manager's willful blindness to the brutal, underlying facts clashes with employees' higher knowledge of these facts, the employee's confidence must decrease. It is almost as though their credit will go to waste. The symptom of this cause is outcomes, O, start to decrease. When O decreases, employees and managers alike are less satisfied.

Next, Collins argues that by ignoring the analysis of tangible results caused by employees' effort, demotivation also occurs. If a manager always looks down the road to a roughly defined future without stopping to acknowledge the work the employees have contributed to, O never has the opportunity to be properly defined and  $i_c$  decreases as a result of this loose, uncertain connection between one's efforts and the desired outcome.

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<sup>9</sup> [http://bigthink.com/series/70/series\\_item/4981](http://bigthink.com/series/70/series_item/4981)

<sup>10</sup> See page 246 in Heffernan's *Willful Blindness*

<sup>11</sup> See page 159 in Heffernan's *Willful Blindness*

The third and final cause of employee demotivation according to Collins is false democracy. This point is similar to Gordon Zacks' argument about the need for humility in leadership. When workers feel like they have no say in their labor and the direction of their company,  $w$  and  $i_c$  decrease. Even though their contribution to the outcome might be high, they might undervalue  $w$  because they feel like they are being treated as mindless machines rather than human beings. If you feel as though your presence and credit are undervalued,  $i_c$  will drop too.

It is no surprise that one of the most influential visionaries of our time understood the importance of internal satisfaction within the workplace. Steve Jobs, after revolutionizing the computer, movie, music industries, among others, said internal satisfaction is the key to motivation:

The older I get, the more I see how much motivations matter. The Zune was crappy because the people at Microsoft don't really love music or art the way we [at Apple] do. We won because we personally love music. We made the iPod for ourselves, and when you're doing something for yourself, or your best friend or family, you're not going to cheese out. If you don't love something, you're not going to go the extra mile, work the extra weekend, challenge the status quo as much.<sup>12</sup>

In the business world, increasing employees' internal satisfaction is only one side of the coin: we need to find a method for increasing the internal satisfaction of customers too. The methods for doing so, as this next section will argue, are derivatives of the principle we have discussed thus far.

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<sup>12</sup> See page 407 in Isaacson's *Steve Jobs*

## Maximizing Customer Satisfaction

Setting aside the impact pricing has on customer decisions and satisfaction, for the following discussion we will be discussing long-term internal satisfaction:

$$I_I = O(i_0 + w_i c)$$

As I have previously argued, the internal satisfaction model dictates that the best method for increasing internal satisfaction, beyond improving the outcome,  $O$ , is to empower people to be autonomous in their pursuit of a great outcome as the sole or primary contributor. On October 6<sup>th</sup>, 2011, shortly after the passing of Apple's Steve Jobs, TED conference Curator Chris Anderson tweeted that Steve Jobs "built the tools that unlocked the creativity of a whole generation."<sup>13</sup> This compliment captures the power of Jobs' vision of what consumers don't know they want yet.

Every entrepreneur assumes her new product or service improve  $I_I$  for the consumer. Most of the time, they are correct in their assumption. But why do most entrepreneurial projects fail? In August of 2011, TechCrunch published a report by Blackbox claiming that premature scaling is the number one cause of startup failure.<sup>14</sup> This information tells us nothing about the types of projects that, if scaled properly, will succeed. While every new startup might be capable of lifting  $I_I$  for their consumer, the question is whether it can lift  $I_I$  enough or *decrease*  $I_I$  enough upon becoming aware of the product or service.

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<sup>13</sup> <http://twitter.com/#!/TedChris>

<sup>14</sup> <http://techcrunch.com/2011/08/29/what-kills-startups-blackbox-releases-reportapp-to-help-founders-avoid-the-deadpool/>

One of the underlying themes of Walter Isaacson's complete biography of Steve Jobs is Jobs' unusually high expectations for what made a product great. While Jobs would typically harass others' efforts by insulting it, Isaacson writes about a time when Jobs successfully communicated his dissatisfaction with the Macintosh's startup time:

One day Jobs came into the cubicle of Larry Kenyon, an engineer who was working on the Macintosh operating system, and complained that it was taking too long to boot up. Kenyon started to explain, but Jobs cut him off. "If it could save a person's life, would you find a way to shave ten seconds off the boot time?" he asked. Kenyon allowed that he probably could. Jobs went to a whiteboard and showed that if there were five million people using the Mac, and it took ten seconds extra to turn it on every day, that added up to three hundred million or so hours per year that people would save, which was the equivalent of at least one hundred lifetimes saved per year. "Larry was suitably impressed, and a few weeks later he came back and it booted up twenty-either seconds faster," Atkinson recalled. "Steve had a way of motivating by looking at the bigger picture."<sup>15</sup>

Nancy Kramer, the founder and CEO of Resource Interactive, a top-ranked digital marketing agency with Apple as its first client in 1981, told me Jobs' levels of dissatisfaction intimidated virtually everyone within the company. "If Steve was taking the elevator," she told me, "everyone else would take the stairs."

The ultimate byproduct of this dissatisfaction with the status quo was incredible levels of achievement by his peers. This was precisely the motivation for creating the iPhone themselves. According to Isaacson in his biography of Jobs, Jobs would sometimes get bored at meetings, grab someone's phone, "and start pointing out all the ways it was 'brain-dead.' So Jobs and his team became excited about the prospect of building a phone they would want to use. 'That's the best motivator of all,' Jobs later

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<sup>15</sup> See page 123 in Isaacson's *Steve Jobs*

said.”<sup>16</sup> Thus, when it came time to release Apple’s products to consumers, Jobs knew people’s internal satisfaction with their comparable products would sink to beneath the  $I_1$  threshold. He was usually right. There are few products in the world that can drive down  $I_1$  with such a short glance as Apple’s products. Consumers’ expectations would rise to Jobs’ instantly, and they would question themselves why they should settle for anything less than this new norm.

The most elegant result of Jobs’ work is exactly what Chris Anderson referred to as the “tools that unlocked the creativity of a whole generation.” This is not a hyperbolic statement. For example, the Enterprise Desktop Alliance estimated that in 2011, 70% of all businesses will have Macs.<sup>17</sup> Returning to the  $I_1$  model, the best ways to increase internal satisfaction are to empower people to be autonomous ( $i_c$ ) in their pursuit of a great outcome (O) as the sole or primary contributor (w):

$$I_1 = O(i_o + w i_c)$$

Apple’s products promised higher internal satisfaction in every way possible (with the natural exception of decreasing  $i_o$ ). First, when faced with the opportunity to purchase an Apple iPhone over any other phone, two variables determine  $I_1$ : O and  $i_o$  ( $w=0$ , so  $i_c$  cancels out). Apple’s products decrease  $i_o$  instantly. Again, why should a consumer settle for less when they’ve seen near-perfection with Apple’s products? O correspondingly increases for the iPhone while  $i_o$  decreases. The available options cannot

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<sup>16</sup> See page 466 in Isaacson’s *Steve Jobs*

<sup>17</sup> <http://www.cultofmac.com/64692/group-70-percent-of-companies-in-2011-will-have-macs/>

match the O of the iPhone. While price factors in to the decision to buy something, its impact on internal satisfaction typically fades over time.

Beyond the product itself, there is the perceived growth in  $I_1$  for one's future work they will produce with the product. You can see yourself producing much greater outcomes, O, combined with a clean, intuitive, user-friendly process offering many features and options for customization. Therefore,  $i_c$  increases and anticipated  $I_1$  improves. When these results do in fact happen,  $I_1$  actually increases. In a certain sense, purchasing a product like this is a gift that keeps on giving.

This model tells us the most promising products and services are those that let consumers boost their internal satisfaction themselves. The most effective aspects are:

1. Allow consumers to create better outcomes, O.
2. Allow consumers to create the outcomes with less or no help from others, w.
3. Allow consumers to be more proud of their own contribution to the outcome,  $i_c$ , by making it easy to innovate and create new processes for their work.

### **Parenting Implications**

There are many parenting lessons that can be derived from the internal satisfaction model. For argument's sake, we will assume the goal of parenting is to instill self-discipline, ethics, good character, and creativity. One of the first challenges a parent faces is to help the child distinguish between the virtues and vices of outcomes. What kind of things and actions are good? What qualifies as bad? What do we praise in society

and what do we scorn? Let's turn to the internal satisfaction model to further understand these parental challenges and duties:

$$I_i = O(i_o + w_i c)$$

Why do children do things they know will get themselves in trouble? Why do they pull pranks on others? Why do they bully their peers? While all of these actions are not limited to children, they all represent a flawed conception of a desirable outcome. As enlightened adults, we know that shouting a newly-heard obscene word in the middle of a crowded room is a bad thing. However, the excitement and attention a child might get from doing so must be recalibrated by adults.

Parents need to equip their children with the intellectual foundation necessary to analyze outcomes and their pride with their credit. Deceptively simple notions like distinguishing between right and wrong serve as this critical foundation. As one grows older in to adulthood, their tastes regarding outcomes will grow too. Therefore, parents should ask their children what they like in something. What makes an outcome great? Why is this outcome better than that outcome? Engaging children in this kind of discussion can be exciting for them: everybody loves to share what they think when they are allowed to do so.

Equally crucial to understanding the nature and quality of outcomes is the type of mindset children develop as they grow older. This mindset is captured within the  $i_c$  variable. Psychologist Carol Dweck, in her book *Mindset: The New Psychology of Success*, argues that there are two types of mindsets: the fixed mindset and the growth mindset. In the book, she cites a study where a group of subjects were given a set of



problems that started simple and ended impossible. They randomly told half of the students they must have worked really hard to achieve their score, or they were so smart. Thus, one half was praised for their efforts, while the other was praised for their brilliance and intelligence. The former instills the growth mindset, while the latter instills the fixed mindset. As a result, the next time the subjects took the test, those with the growth mindset increased their scores by 30% on average while those with the fixed mindset scored 20% worse on average.<sup>18</sup> This is a paramount takeaway for parents, teachers, and managers alike. By praising others' hard work, they will feel more satisfied with their credit, thus boosting  $i_c$  and their internal satisfaction.

### **The Technology Catalyst**

Technology directly yields a positive impact on internal satisfaction. While most people get enjoyment from using new, advanced gadgets, there is a deeper, more profound impact technology has on internal satisfaction. Technology, by definition, allows someone to create an outcome with less labor or resources than what was previously required to yield that outcome. All pieces of technology that decrease required labor, or improve the quality of outcome with the same amount of labor, directly increase internal satisfaction provided your labor is not removed from the outcome. We can analyze this further within internal satisfaction model:

$$I_i = O(i_o + w i_c)$$

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<sup>18</sup> See Dweck's *Mindset: The New Psychology of Success* for more information about this study

Labor-reducing technology either affects  $w$ ,  $i_c$  or  $O$ . If  $O$  is held constant, then  $w$  grows assuming your labor is not eliminated. If no labor is removed, than  $O$  has to increase. When a task becomes easier to do, it often becomes more enjoyable. Therefore,  $i_c$  can also improve. The dissatisfaction of firing employees will not be discussed in this space relative to the internal satisfaction model's framework.

### **The Paradox of Choice Explained**

One of the most famous contemporary arguments in psychology is the paradox of choice. Barry Schwartz, in his book *The Paradox of Choice*, challenges the widely held assumption that freedom leads to happiness. Schwartz argues that too many options make us less satisfied with our choices, and that the secret to happiness is low expectations.<sup>19</sup> Let's see how this hypothesis plays out within the internal satisfaction model:

$$I_s = O(i_o + wi_c) + i_m M$$

Say, for example, Joe goes shopping for a computer. He goes to Best Buy, where there are well over a dozen models he can purchase.  $w=0$  because Joe has not manufactured any of the computers he can buy. Additionally, because Joe is paying for the computer,  $M$  will be negative:

$$I_s = O i_o - i_m M$$

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<sup>19</sup> [http://www.ted.com/talks/barry\\_schwartz\\_on\\_the\\_paradox\\_of\\_choice.html](http://www.ted.com/talks/barry_schwartz_on_the_paradox_of_choice.html)

According to Schwartz, the more options Joe has for choosing a computer, the less satisfied he will be with a given outcome. Therefore,  $i_o$  is inversely proportional to the amount of choices Joe has. Joe's indifference point, where  $I_s$  is equal to zero, when his satisfaction with the outcome is exactly equal to the dissatisfaction he will have from paying money for the computer,  $M$ :

$$O i_o = i_m M$$

If  $O i_o$  is greater than  $i_m M$ , then Joe will receive some degree of satisfaction from the computer. This value of  $I_s$  may not be above his threshold, though. On the other hand, if  $O i_o$  were less than  $i_m M$ , then Joe would be dissatisfied with purchasing the computer. The paradox of choice instructs us to be wary of heightened expectations as a result of an increase in choices. This type of analysis paralysis is indicative of one way to raise satisfaction with such a product. The second technique for shifting the weight of this equation to the outcome's side is to decrease  $i_m$ . While  $i_m$  is technically an endogenous variable, it usually is only able to sustainably decrease slowly over time. Incurring large amounts of debt is one approach to quickly decreasing  $i_m$ . Of course, this has its vices and risks attached. Schwartz's suggestion is a brilliant one, and the internal satisfaction model illuminates the underlying satisfaction calculation that takes place every time we choose something.

### **External Satisfaction**

Even as a magician who can supposedly read minds, I humbly believe I cannot truly discern the thought process behind other people's satisfaction with my work. The

external satisfaction model has an extra element the internal satisfaction model lacks: social bias. The following is the model for external satisfaction, E:

$$E=O(i_o+wi_c)+S$$

S represents social bias and can be of any value. When S is negative, the external person will be less satisfied with the agent's outcome and credit by default. On the other hand, close friends and family will likely have a positive S value. We tend to think people's S value is zero and their satisfaction is a derivative of thoughtful consideration. Sadly, this is rarely true because it is easier to fall back onto one's social responsibilities these go through the complex mental calculus of satisfaction. All of the other variables refer to the original person's credit.

### **Credit Satisfaction Summary**

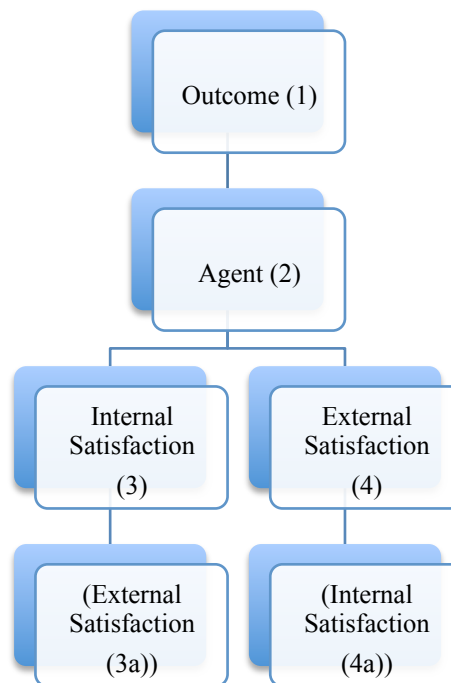
In this chapter, I have created a model for understanding the mental calculation underlying internal and external satisfaction. The internal satisfaction model serves as a unifying theory for the most prominent theories of motivation and customer satisfaction. I encourage the reader to find new, creative ways to harness the potential of this model to increase more people's internal satisfaction.

It must be noted, however, that satisfaction does not exist in isolation: total internal satisfaction is the culmination of others thoughts and opinions in addition to one's own. The following chapter will discuss the ways internal satisfaction and external

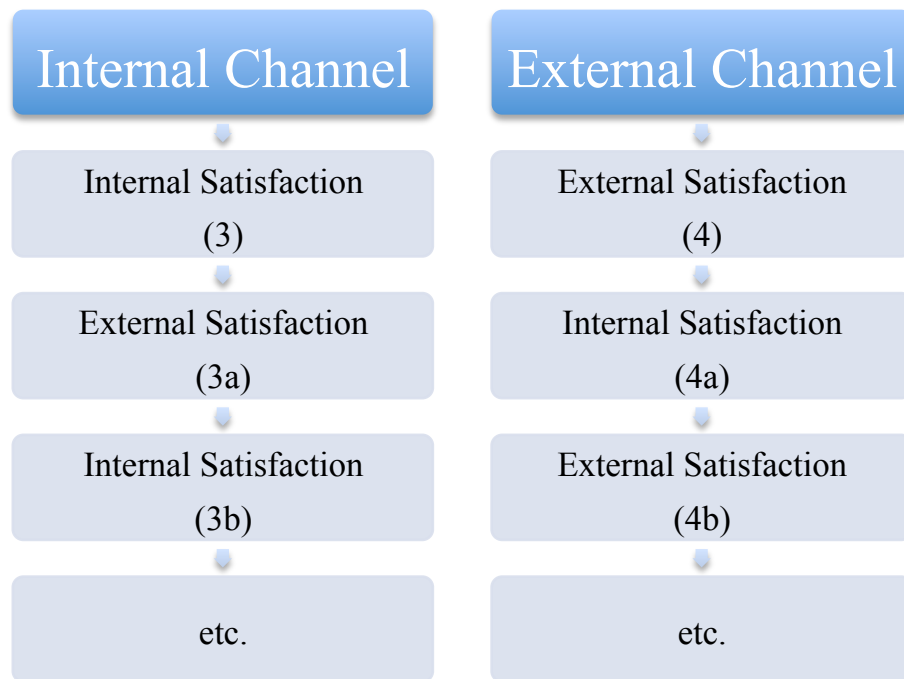
satisfaction influence one another and how to best ensure the highest levels of satisfaction and personal growth.

## CHAPTER 3: THE SATISFACTION CHANNELS

The overall satisfaction an agent receives as a result of her credit is an accumulation of both internal and external satisfaction. There are two channels, or paths, the satisfaction can take: the internal or external satisfaction channel. The following diagram represents an agent's satisfaction as a result of acquiring credit from an outcome:



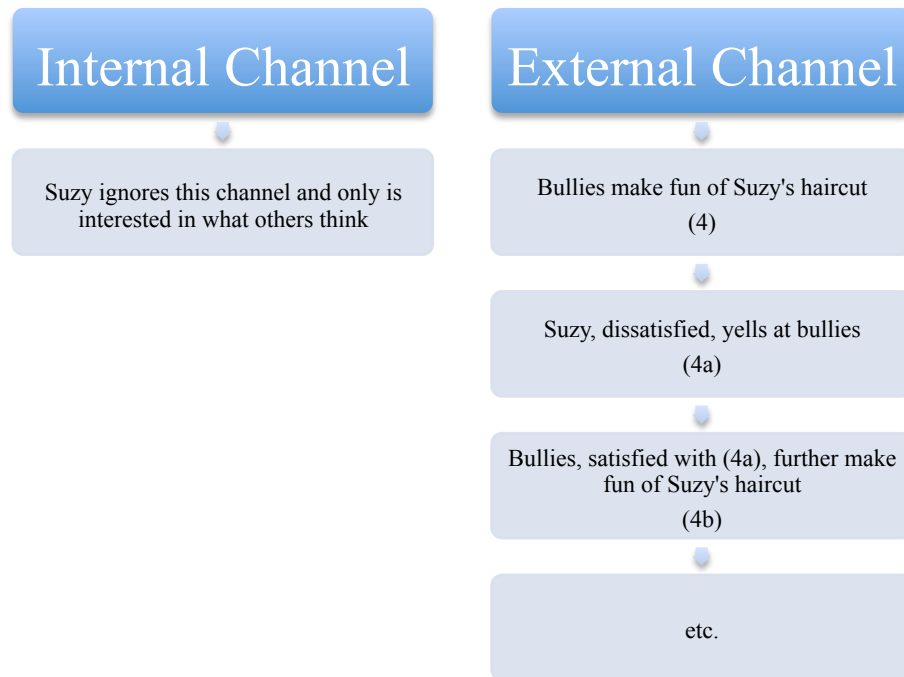
The outcome's credit (1) is attributed to an agent (2). The agent's credit for having played her part in contributing to the outcome presents two satisfaction channel possibilities: internal (3) and external (4). The internal and external satisfaction channels are composed of both internal and external satisfaction. The key differentiator is the foundational satisfaction. In other words, whether the agent pursues internal or external satisfaction first. Once the foundation has been laid, a feedback loop of internal and external satisfaction is created as can be seen in the following diagram:



The satisfaction at the top of the channels, and thus closer to the source of attribution, tends to be the strongest. As you move through the channels and away from the source, the satisfaction and reactions tend to either weaken or lose their focus.

There are some rare cases that create spontaneous growth throughout the channels. One such example is group bullying. Most instances of group bullying I have witnessed involve a group of people deriving satisfaction from the dissatisfaction they communicate to someone else. Say, for example, Suzy walks into high school with a new haircut. She can't wait to see what her peers think. Throughout the day, she asks what other students think. A group of girls, noticing Suzy's new haircut, insults her hair and starts laughing. Hysterical, Suzy yells back at them. The bullies get more satisfaction and laugh harder. Suzy tries yelling louder. The bullies get even more satisfaction and laugh even harder. The bullying finally stops when Suzy runs away in tears, listening to a

crescendo of evil laughter fade behind her. The following satisfaction channel diagram represents this situation:



The satisfaction channels provide us a new framework for comprehending what has just happened to Suzy. Suzy decided to take the risk of the external channel by waiting to see what others think of her haircut before becoming proud of it internally. The bullies' initial satisfaction was outwardly negative and insulting (4). Consequently, Suzy took offense and vocally expressed dissatisfaction (4a). Her expression of dissatisfaction gives satisfaction to the bullies (4b). This creates a satisfaction-dissatisfaction spiral. The satisfaction of the bullies comes at the direct expense of Suzy's satisfaction. This is an apt definition of evil behavior. Unfortunately, Suzy is unable to realize she has set herself up for a trap by taking the bait and vocally expressing her dissatisfaction. If she had



shrugged off this insult at the onset, the bullying could have been minimized or even prevented.

As I argued previously, we have a tendency to overestimate the rationale behind others' satisfaction of our own credit. Suzy probably naively believed her peers would judge her haircut without consideration of who she was. It is much easier to assume your social responsibility to an agent when deriving external satisfaction than actually considering the defining elements of the agent's credit in lieu of your preferences. For example, Suzy's parents probably told her she looked great, regardless of how false that claim might be. Suzy's close friends probably reacted in a similar fashion. The bullies, on the other hand, will do whatever it takes to make Suzy dissatisfied. Therefore, regardless of the quality of Suzy's credit, they will probably make fun of her. In the case of external satisfaction, it is rare for someone to be satisfied or dissatisfied with an agent's credit without consideration of the agent and their relationship to them.

This phenomenon also rings true in gender biases. In 2005, a professor at Columbia University conducted a simple experiment. The professor told the two sections of their class a story about Heidi Roizen, a famous venture capitalist out of Silicon Valley. Heidi's story is inspirational: she worked her way up to be an executive at Apple, an executive member of the National Venture Capital Association, and more. The professor made a subtle tweak in the story for the second section of the class: the professor referred to Heidi as Howard. With the exception of this small change, the stories were perfectly identical. Females in both sections were equally satisfied with

Howard's story as they were with Heidi's. Males, on the other hand, were more satisfied with Howard's story than Heidi's.<sup>20</sup>

It is impossible to fully eliminate the underlying biases of external satisfaction. For something as precious and valuable as satisfaction, it does not make sense to choose the external satisfaction channel. The following sections will argue this position.

### **The Virtuous Internal Satisfaction Channel**

Everybody has the ability to choose the internal satisfaction channel for their mental credit. Committing to the internal satisfaction channel, however, is not easy: it requires a conscious examination of one's satisfaction with and pride of one's credit, or  $i_c$ . The foundation of internal satisfaction is the objective attribution of credit, which is dependent upon  $O$  and  $w$ . Prior to determining the credit one deserves for contributing to an outcome, the outcome itself must be further understood. Beyond attribution of credit, objective aspects of the outcome include, but are not limited to, the following:

- Size = how physically big or small the outcome is.
- Originality = how revolutionary or new the outcome is, either in the context of personal achievement or societal achievement.
- Artistic beauty = the aesthetic quality of the outcome.
- Functionality = how well the outcome functioned or functions.
- Scale = the quantities involved in the outcome.

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<sup>20</sup> <http://workerbeesblog.blogspot.com/2005/06/unconscious-bias-at-work.html>

- Difficulty = the limitations imposed upon the agents contributing to the outcome.
- Impact = the degree to which other people or things were directly changed by the outcome.
- Results = the degree to which the outcome met or exceeded the desired measurable results.
- Permanence = the degree to which an outcome has a lasting impact

Defining some or all of these areas relevant to the outcome provides a more thorough, objective description of the outcome itself, or O. As I discussed in Chapter 2, I purposely omit goodness from O's factors because goodness is a subjective characteristic. The interpretation of an outcome's goodness is accommodated within  $i_o$ . Once the outcome and the agent's mental credit have been fully understood, the agent is in a better, more educated position to optimize satisfaction.

Choosing the internal satisfaction channel is the key to becoming an innovative, creative visionary. The vision behind most modern innovation is sustaining innovation. Making a device 1mm thinner, a screen one inch bigger, a hard driver 10gbs larger, a processor twice as fast...none of these innovations require new creative vision to or offer significant, disruptive changes to O or  $i_c$ . Clayton Christensen, in his book titled *The Innovator's Dilemma*, refers to such changes in O as sustaining innovation. Such habits of sustaining innovation, caused by a need to satisfy a pre-existing, profitable customer base, leads to performance oversupply: the rate of improvements exceeds the market's adoption rate. "Most well-run companies," Christensen argues, "migrate unconsciously [in this direction], setting themselves up to be caught by a change in the basis of

competition and an attack from below by disruptive technology.”<sup>21</sup> Would the internal satisfaction of such small change produce much more internal satisfaction than the original product or outcome? Probably not, unless the outcome differed in some other innovative fashion. Most people can envision this next innovative iteration of a product. Companies often do only this: make their TVs thinner, cheaper, and bigger. Make their phones faster, smaller, and more powerful. This is a similar attitude to a student who mindlessly submits papers to a professor with the knowledge of precisely what degree of effort will be sufficient for an A. Yes, making your product smaller and faster may get you enough customers and sales to meet the projected targets...but this is not the true innovation that is characteristic of the internal satisfaction channel. Additionally, Christensen argues, it can cause successful companies to fail.

Real, disruptive innovation occurs when you redefine your vision for what makes something great to you and your customer. The outcome, O, should be a full leap forward compared to the gradual inching forward we so commonly observe. The product or service should address personal needs and senses in an entirely new way or deeper fashion. Therefore, you need to come up with the rationale for this new vision and determine precisely what you like about it. You need to create the product in your mind’s eye. How does it look? What about its look are you really proud of? How do its features operate? What aspects of the features are you really proud of? What parts of the product do you really like? What is the true essence of O? This is the process of developing a creative vision: knowing what you really like about an idea and, consequently, what you

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<sup>21</sup> See page 231 of Christensen’s *The Innovator’s Dilemma*

like about a new iteration of it. It is precisely this process that directly contributes to higher levels of internal satisfaction by guaranteeing a higher  $O$  and probably a higher  $i_c$ . After all, it is focused on the single most valuable consumer and critic for the internal satisfaction channel: yourself.

This process of grasping your creative tastes occurs both before and after an outcome has been created. Prior to creating the outcome, the agent must envision exactly what she would like about it. Its size, originality, beauty, scale, difficulty, impact, and results are all factors that must be considered. Once the agent has taken this understanding to the most detailed level possible, she is ready to pursue an outcome that is the product of unique creative vision. There is no reason to reluctantly remain attached to the original conception of the vision: reiteration with constructive and productive rationale is healthy. Once the outcome has been achieved, the agent has the opportunity to discover exactly what she likes about the finished outcome and, most importantly, how he would make the next outcome even more satisfactory.

The point of deviation for the agent who chooses the internal satisfaction channel occurs in the moment the final outcome has been achieved. Prior to pursuing others (focus groups, audience members, etc.) for their opinions and satisfaction, the agent must internalize the outcome in the absence of outside opinion. The most effective test, which encompasses all questions regarding what the agent likes about specific aspects of the outcome, is whether or not the agent is genuinely excited about and satisfied with the outcome itself (e.g. are  $O$ ,  $w$ , and  $i_c$  as high as possible?). Does the outcome send a chill down your spine? If not, why? When most people have built a product or service they

feel proud of, their pride and satisfaction is merely anticipatory. They are excited about their anticipation that others will like their outcome. This is the external satisfaction channel, not the internal satisfaction channel. Anticipation of others' satisfaction aside, is the agent *really* excited about the outcome in the absence of outsiders? If nobody else will ever learn of this outcome, how satisfied will the agent be? These are essential questions that allow the agent to hone in on the internal satisfaction channel.

In addition to better equipping agents with a visionary mindset, choosing the internal satisfaction channel up front actually increases the likelihood of the outcome being achieved. Reliance upon other's satisfaction for your own internal satisfaction, which is emblematic of the external satisfaction channel, encourages people to share their goals with others before they have actually achieved them. This happens because relying on the external satisfaction channel means the agent is primarily concerned with what other people will think about their accomplishments and outcomes. Sharing your goals with someone provides a false sense of gratification that makes you less likely to actually achieve the goal. Derek Sivers writes about this interesting phenomenon:

Tests done since 1933 show that people who talk about their intentions are less likely to make them happen. Announcing your plans to others satisfies your self-identity just enough that you're less motivated to do the hard work needed.

In 1933, W. Mahler found that if a person announced the solution to a problem, and was acknowledged by others, it was now in the brain as a "social reality", even if the solution hadn't actually been achieved.

Four different tests of 63 people found that those who kept their intentions private were more likely to achieve them than those who made them public and were acknowledged by others.

Once you've told people of your intentions, it gives you a 'premature sense of completeness.'<sup>22</sup>

The most challenging objection to the internal satisfaction channel in favor of the external satisfaction channel is altruistic actions. Why should we prefer not to put others ahead of ourselves? Why take such a selfish, self-centered approach to our lives? I started to wrestle with this apparent tradeoff a few years ago with my art form of card flourishing. Among the dozens of card flourishing videos I've created, a tutorial titled *Buckeye* has received the most views with over 725,000. I have always been quite proud of this accomplishment especially because the tutorial was free of charge to artists. Typically, when people ask to see the favorite video I've made, I would show them *Buckeye*. But then it dawned upon me: why was I most proud of this video? Well, certainly because it has taught hundreds of thousands of artists to please their audiences, and that makes me very proud. But I've made better videos. I uploaded *Buckeye* only two hours after pulling out my camera. If I had to pick a video I was the most proud of in the absence of view-count (disregarding the external satisfaction from the view-count), I would choose a music video I made for Grammy-Winning Artist Imogen Heap titled *Headlock*. The mystery lingered for years: how do I *really* determine my own satisfaction with my art? What was a more valuable repercussion for my art: pleasing others or pleasing myself?

I then realized I changed my criteria for satisfaction after the videos' results had been determined. As I became honest with myself, I recognized *Headlock* makes me much more proud as an artist. The music, editing, special effects, camera angles, plot,

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<sup>22</sup> <http://sivers.org/zipit>

performance, transitions—everything was better. I know for a fact that if Headlock had the 725,000 views Buckeye had, my global audience would be far happier and satisfied with the quality of the video than Buckeye.

Choosing the external satisfaction channel blinds us from what makes our outcomes great and what truly makes us proud. If we are blind to what makes us proud, how can we know if we're really creating good in the world, not just doing good? My life-long mentor A. Mark Neuman summarized this distinction accurately by saying “[i]t’s important to do good, such as contributing time and funds to an orphanage or hospital...but *creating* good is when you give someone a hand up, as opposed to a hand out.”<sup>23</sup> Choosing the internal satisfaction channel when creating good for others holds us to a *higher* standard, not a lower one.

The internal satisfaction channel is the key to unlocking the creativity and visions we aspire to have that will change our lives and the lives of others. Unfortunately, we live in a world where it is becoming less and less customary to naturally choose the internal satisfaction channel. The next section will discuss the emergence of several trends that point us toward the external satisfaction channel.

## **The External Satisfaction Pandemic**

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<sup>23</sup> <http://www.las.illinois.edu/alumni/magazine/articles/2011/neuman/>



It has never been more difficult for the average person to choose the internal satisfaction channel over the external satisfaction channel. As soon as we become old enough to start valuing accomplishments and to aspire to pursue new ones, our lives mold themselves around a set of mysterious external criteria. The forces of modern education, business, and social networking have caused most of society to systematically lose its grasp on what actually makes them internally satisfied in the absence of others. Analyzing these forces is the first step to considering the wisdom of choosing internal satisfaction channel.

Over the course of any given student's education, they will have contributed to tens of thousands of outcomes that are consistently connected with the external satisfaction channel. Teachers bombard students with countless numbers of tests, papers, projects, and questions. The teacher's duty is to hold students to a high standard of performance in a wide variety of academic disciplines. Grades are the metric thought to be emblematic of living up to this high standard of. We tend to think of great teachers as those who turn C students into A students or those who ignite a passion in others. Other commendable results include the acquisition of great self-discipline, character, and cooperation with their fellow students.

Of all the societal systems that people believe need urgent repair, the education system often gets the most attention. Films like *Waiting for Superman*, along with many authors and scholars, believe good teachers are the key to solving the problem of education. Bad teachers and unions are apparently standing in the way. The entire discussion about the education system misses the point: students are systematically

schooled to minimize what they like in something and, consequently, are encouraged to favor the external satisfaction channel.

Every time a student turns in a paper, project, or test, she knows someone else will judge her performance. Students learn to be more satisfied with an A than a B, more with a B than a C, and so on. The tense, suspenseful moments before a teacher hands back a student's grade is emblematic of this dangerous problem: virtually no student cares about their pride in having completed the work in the absence of the grade. The *sole* driver of their satisfaction is their grade. If they wrote a paper they weren't satisfied with but managed to get an A on, then they are perfectly satisfied. Conversely, a bad grade eliminates the pride a student may have originally had with their efforts. Never is a student asked to articulate whether they are proud of their work and why they feel the way they do. This combination of not knowing how to create outcomes that create internal satisfaction and possibly not knowing how to even determine one's satisfaction is the real problem with the education system. Over the course of one and a half decades of academics, students lose their grasp on these two critical elements of mental credit.

The universal perception of what constitutes satisfactory outcomes in high school is dependent upon the external satisfaction of college admissions counselors. Students often pad their résumés with numerous activities that provide no internal satisfaction. Very rarely do students do anything extra-curricular without regard for how much satisfaction it will give their desired colleges' admissions counselors. The mounting pressure of competitive GPAs, SAT scores, and leadership roles has been making this problem even worse. The worst news is that our current conception of the solution to the

education system, great teachers, does not address this problem. If anything, great teachers make the problem worse by further motivating students to focus more on the external satisfaction channels of education at the expense of knowing what makes them internally satisfied.

To be fair, I am not discounting the credit the education system and its teachers deserve for improving people's lives. High levels of self-discipline, knowledge, and other virtues associated with the academic world are critical for societal progress. Any person claiming the education system creates no value for society ignores the incredible impact it has had on the lives of hundreds of millions of Americans. The fact that we can all aspire to improve this already effective system is a wonderful thing. I am arguing, however, that choosing satisfaction channels *must* be brought to light if we are attempting to empower students, make them more satisfied, and enable them to become creative visionaries capable of solving of our world's complex problems.

The second force making it difficult to access the internal satisfaction channel is modern business. The problems of education bleed directly into the professional world. Résumé building (defined as engaging in activities and professional ventures that look good on paper) has become a universal practice. Interns often sacrifice months or years of their lives doing menial tasks for organizations with big names. They sacrifice all internal satisfaction in the hope that at least one day, they'll have a job and income that will make it all worthwhile. Eventually, employees start going through the motions of waiting for tasks, performing them, and waiting to see what their bosses think. Only good managers ask an employee what the employee specifically likes about the work she has done and

listen. By the time an employee is asked to design a new project or venture, they may find it easier to lean back upon templates, pre-existing processes, or market research. If the focus group likes product A more than product B, then let's ship product A. Thus, workers depend upon their customers for satisfaction related to their products or work. Fear of failing to please customers can be so paralyzing that workers mindlessly give them what they want instead of creatively defining a new future for them. Clayton Christensen has argued that in this sense, customers often hold businesses hostage. In addition to customers, fear of failing to please one's boss can also be so paralyzing that workers avoid risk and only meet expectations instead of exceeding them in unexpected ways. While I currently do not have data to conclusively argue the emergence of this trend, I encourage the reader to consider its logical merits and be wary of its presence.

The most recent and powerful force threatening the internal satisfaction channel is social networking. Every person who is connected to others via social media (over one billion people) has an audience. Their audience can be their Facebook friends, Twitter followers, etc. The ease with which anyone can quickly post content to her audience encourages the external satisfaction channel. If the process for posting content required a longer, more thoughtful process, then users might be more likely to analyze what they like about their content before differing to the opinion of the crowd. While I am not proposing that social networks make it more difficult and time-consuming to post content, I do think this phenomenon makes it seem natural to post content without having to discern whether or not one derives satisfaction from it internally. Internal satisfaction is becoming contingent upon the amount of "likes," "comments," "retweets," or "shares" your content gets. The same holds true for web video: video producers on YouTube may

value their videos that receive the highest view counts and ratings, regardless of what these artists might actually like or dislike about their own creative work. As a filmmaker, I certainly did for years until I brought this issue to light.

There are a wide variety of virtues associated with this trend of pleasing others via social media. First and foremost, providing pleasure to others online is an incredibly good thing. Similarly, posting content you believe will be educational, entertaining, or helpful to your friends is a value-creating activity. This trend becomes a concern, however, when we place everything we do into the social media spotlight. In a sense, social networks and blogs are taking the place of diaries. We post content and seek approval and external satisfaction about everything we do, everywhere we go, and everyone we are with. This is fundamentally different from a traditional diary, which is a compilation of inner thoughts and a medium for self-contemplation. The purpose is completely different from social media. These networks do not encourage people to think about what one likes about what one has done, where one has been, and whom one is with like a traditional diary does. The crowd is given the first opportunity to derive satisfaction, but the individual members of the crowd are always second in line.

New research has demonstrated the degrading effect that removing one's self from their online social networks can have on the mind and, consequently, satisfaction. The effects of depriving someone of their social media have been likened to substance addition.<sup>24</sup> Reliance upon the external satisfaction channel can create a sort of cold turkey

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<sup>24</sup> Echeburua, E.; de Corral, P. Addiction to new technologies and to online social networking in young people: A new challenge. *Adicciones* 2010, 22, 91-95.

effect for the agent when others are not in contact. It is the hallmark of social instability and insecurity.

Online bullying and “flame wars” are structurally identical to the bullying case we discussed earlier in this chapter. Online bullying can take many forms. Sometimes, bullies gang up on someone on their own initiative and without warning. Most cases have a common thread: they involve an original poster of content, or agent. When the agent posts content (Facebook status, YouTube video, tweet, etc.), the design of social networks encourages audience activity and interaction. If the agent posts content that garners negative comments and responses, the agent has several options: first, they can remove the content entirely, taking away the negative comments with it. A second option is to limit your audience’s ability to share their thoughts. On YouTube, for example, the video uploader can disable comments and ratings if she so chooses. Like Suzy in the bullying example earlier in this chapter, we all too frequently fall victim to the bullies and take the bait. We lash back, which excites the bullies and ultimately yields responses of minimalist obscenities and insults.

One of the biggest examples of web bullying (and probably the biggest bullying case in history, for that matter) is that of Rebecca Black. Early in 2011, Rebecca, who was 13 years old, made a music video for YouTube with a production company named ARK Music Factory. The music video, titled *Friday*, was professionally made and was far and beyond the average homemade music video found on YouTube. Unfortunately, *Friday*’s lyrics and Rebecca’s singing combined into an embarrassing, poor audio cocktail. Most bad content online never gains the traction necessary to go viral: there’s no

incentive for the average user to share it with more than one person. For the first month the video was online, it only received 1,000 views. On March 11<sup>th</sup>, the crowd found her to be an easy target for laughter and insults and started to rapidly spread the video among their social networks. Millions of views poured in every day, and over 3,000,000 “dislikes” were ultimately tallied in YouTube. Hundreds of thousands of hateful, disgusting comments flooded the video.<sup>25</sup> Here was the most innocent of 13-year-old girls, doing something she wanted to do, getting crushed by the largest social hammer the world has ever seen. Even terrorists don’t directly receive as many hateful comments as Rebecca did. Long after the crowd abused and bullied her, she pulled down the original video (months later, she re-uploaded the original clip).

While an outlier, Rebecca Black’s story proves a valuable point: relying upon the external satisfaction of the crowd for one’s own satisfaction is a dangerous risk. Mindlessly accepting good grades and raises shields us from having to understand what we like about something in order to derive satisfaction from it. While each of these three forces has both positive and negative effects on how we derive satisfaction from credit, we can mitigate the negatives without overhauling the systems themselves. As this next section will argue, it all comes down to what the agent chooses to think.

### **Choosing the Internal Satisfaction Channel**

Rebecca Black’s story is a tragic one. The external dissatisfaction of the crowd tormented her and her mother in ways difficult to fathom. However, there were certain

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<sup>25</sup> [http://en.wikipedia.org/wiki/Rebecca\\_Black](http://en.wikipedia.org/wiki/Rebecca_Black)

decisions Rebecca could have made to mitigate the external dissatisfaction and choose the internal satisfaction channel.

Although largely unknown, there is another YouTube video story that actually surpassed the initial external dissatisfaction of Rebecca Black's *Friday*. In January of 2011, there was an unannounced event that broadcast its videos on to YouTube. Only hours after posting the videos, over 18,000 comments had been accumulated. Around 90% of these comments were negative or hateful. During these hours, the comments coincided with around 700,000 YouTube views. My research revealed there has never been an unannounced video or set of videos to suddenly receive such high levels of viewership and negative comments upon release. Unlike Rebecca Black's video, which gradually went viral and attracted hateful reactions, these videos surged instantly, even while its event was still underway.

I'll never forget what it was like to see these comments roll in from all around the world. After all, I was directing the event. My hands were freezing as I stood outside in the heart of Times Square, New York City, on January 15<sup>th</sup>, directing two live video streams on my computer; one on YouTube and one on Livestream. As the director of an event that received an unprecedented amount of negative comments and insults in such a short, sudden period of time, I carefully guided everyone involved in the event to the internal satisfaction channel and we all walked away unscathed from the overly-vocal nodes of external dissatisfaction.

It was called *Shaking History*, and the premise was simple and quirky. We gathered some of the greatest Guinness World Record® holders from around the world to



Times Square, New York City. Each team of two started shaking hands at the same moment, hoping to break the Guinness World Record for “Longest Continuous Handshake” on behalf of its charity of choice. The winning team would win 60% of the overall funds raised for charity. By that frosty morning early this year, only Team Nepal and Team New Zealand remained. Yet across 33 hours of absolutely continuous handshaking, these teams had developed a profound respect for each other. So they agreed to let me break their shakes simultaneously and share the record: 1 day, 9 hours, 3 minutes, more than doubling the previous world record.

After 50 hours of continuous event direction on less than 90 minutes of sleep, I sent the teams home to enthusiastic reactions. The competition and its surprising results were featured on national television in New Zealand, and Team Nepal returned to a joyous welcome led by their country’s tourism minister, who draped them with flower garlands for their achievement. We completely changed the lives of these remarkable competitors and provided strong support and publicity for their charities. It was a life-changing experience that we were all tremendously proud of in a wide variety of ways.

The months leading up to the event consisted of organizational challenges we never could have predicted. Because this was an event that had never been done before, my co-organizers and I had the opportunity to define out creative vision time and time again. We were our own bosses, our own teachers, and our own audience. Every decision we made had to please ourselves in order for us to be satisfied. We learned that the key to convincing other people to donate their time, money, and resources to our event was to convey our excitement and passion behind every aspect of the organization. Despite the

wacky nature of the event, and despite the fact the organizers were three juniors in college, our partners and sponsors could see how satisfied and excited we were about creating so much good for these charities. Organizational highlights included booking Father Duffy Square in Times Square for three days for only \$20, raising over \$15,000 to organize the event, recruiting the teams, coverage in the Wall Street Journal, ABC, NBC, CBS, AOL News and more. Even when we couldn't convince others to help us, we believed the issue was one of communication, not necessarily content. By the time the competition was underway, we were all internally satisfied with what we had already done thus far.

About 21 hours into the event, we were ready to broadcast the event live to YouTube. One of the other organizational highlights was that YouTube (the #3 most-visited website on the internet) agreed to promote our event at the top of every page of the website in a banner for a few hours. Furthermore, we would be beta-testing their unreleased live video streaming technology. We had been broadcasting the event through another live video stream provider, Livestream.com, which ultimately brought in over 530,000 viewer minutes. By the time I pushed the button, watched the banner go up on YouTube, and started to watch the viewers pour into watch us in Times Square, none of us were at all dependent upon the external satisfaction of the crowd. Hour by hour, setback by setback, we were all engaged in one of the most exciting projects of our lives.

We started to receive one or two comments every second. I occasionally had the opportunity to glance at them. Most were negative, either opining these competitors had no lives, or nothing better to do with their time. Others stated the competitors seemed to

be engaging in sexually explicit and homosexual activities. Once we noticed these comments generally lacked substance, we ignored them to focus on what mattered most: executing the rest of the event. It was fascinating to contrast the satisfaction of those watching the event in person and online viewers. Of the 100,000+ spectators who experienced the event during that weekend in person, 90% were incredibly supportive and enthusiastically cheering for the competitors. Conversely, on the internet, 90% of the viewers were insulting. Ultimately, I decided to disable and remove comments on the main YouTube video receiving over 600,000 views. Out of sight, out of mind.

Even 24 hours after the event, we were receiving more than one comment every second on the other videos. In addition to the external dissatisfaction of the comments, we were disappointed to only raise a few thousand dollars for the charities. This external dissatisfaction could not dampen the incredible catharsis and internal satisfaction we all experienced when the event finally came to a close. We used the external criticism as insight into how we could have better communicated the event to others online. Having strong internal satisfaction, we knew that if only the online crowd knew what we knew, they would be equally satisfied. This was an incredibly powerful realization that is emblematic of the virtuous internal satisfaction channel: when you fully understand your own internal satisfaction in regards to an outcome, external dissatisfaction, if not constructive, becomes indicative of a need to better communicate *why* you are internally satisfied with the outcome. This mindset provides guidance for how to improve your skills and processes the next time you contribute to a similar outcome.

To maximize the learning from this unique outcome and ensure a higher likelihood of success the next time we would attempt such an ambitious project, my co-organizer John-Clark Levin and I extensively debriefed the event. This also gave us a firm grasp on the outcome. Debriefing should generally be as thorough as possible. For Shaking History, our debriefing consisted of over 40 elements of success and over 20 things we could have done better. This story shows how specific decisions made before, during, and after producing an outcome can favor the internal satisfaction channel over the external satisfaction channel. These decisions contrast with how Rebecca Black handled the external dissatisfaction of her music video.

Despite my sympathy for Rebecca Black, I am dissatisfied and saddened by how she handled the external dissatisfaction spurred by *Friday*. If she had developed internal satisfaction with the music video prior to releasing it to the public, she would have been in a much better position to mitigate the external dissatisfaction and bullying by disabling comments and ratings on her video. When you bypass the internal satisfaction channel in favor of the external satisfaction channel, you enslave yourself to the satisfaction of others. This is similar to gambling: if you start losing, you hope an eventual win will cancel out all previous losses. This mindset causes people to dig themselves deeper and deeper into a dangerous hole. Perhaps Rebecca did not disable the comments and ratings because she hoped that eventually some positive and encouraging comments would arrive. Had she been satisfied enough with the video at the outset, she would have been in a much better position to mitigate the external dissatisfaction that has placed a permanent negative dent into her career and life.

It is impossible to please everyone. Even if you and your actions are the epitome of all things virtuous and pious, there will always be people who are jealous and, therefore, dissatisfied. Winston Churchill summarized this idea rather pointedly by saying “You have enemies? Good. That means you’ve stood up for something, sometime in your life.”<sup>26</sup> Unless the external dissatisfaction is constructive in its nature, you are always better off blocking it out of your life as early as possible as long as you have satisfied the most important, most honest audience of all: yourself.

The key to choosing the internal satisfaction channel is to feel comfortable with one’s perception of what you like or don’t like about an outcome before and after you have contributed to it. Prior to *Shaking History*, we were only able to imagine a fraction of the sub-outcomes we ultimately had to create in order for the event to be successful. Afterwards, we derived significant internal satisfaction from hindsight. To commit to the internal satisfaction channel is to commit to comprehending what you like about an outcome prior to receiving any external satisfaction or dissatisfaction. You can always be proud of what you’ve done and can decide how much you choose to allow the opinions of others to affect your internal sense of accomplishment.

Students in the education system have the ability to choose the internal satisfaction channel with every outcome they contribute to, regardless of magnitude. Prior to commencing an assignment, the student should think extensively about what she likes in an excellent version of this completed assignment. Clarity of vision guides the student’s behavior and motivation. Ultimately, once the assignment has been completed,

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<sup>26</sup> <http://jpetrie.myweb.uga.edu/bulldog.html>

the student must reflect upon the outcome and derive internal satisfaction from the end result. Perhaps the student loves the style of introduction used in the paper she has just completed. Perhaps she loves the digital animation she used in the video she made for her group project. Or maybe she is impressed with how she used the first person while writing an in-class essay. The most imperative aspect of these examples is that the student is genuinely proud before getting feedback from the teacher.

A great teacher, like a great coach, raises the expectations of what makes their students proud of their own work. If a teacher gives a student a bad grade, they should explain how the student could be more effective with and proud of their work next time. The grade is a symptom, not a cause, of the satisfaction the teacher has in the student's efforts. Telling a student she simply did something incorrectly (with the exception of not following rules) without providing guidance for improvement is failing to live up to the highest standards of teaching. Similarly, when a student receives a dissatisfactory grade on an assignment they were genuinely proud of, they must actively pursue an understanding of why their pride in their work was not communicated and translated into the teacher's mind. It's too easy and habitual for a student to see a bad grade and never think about that effort again. By accepting the harsh reality of a bad grade and ignoring the dissatisfactory result, the assignment is out of sight and out of mind. It is also too easy to instantly forget the internal satisfaction the student once had prior to seeing the grade. The ultimate goal should be to align others' external satisfaction with one's previously established internal satisfaction. You need to have a strong conception of the latter in order to influence the former.

This is the approach I took with *Shaking History*. My internal satisfaction had been solidified prior to observing any external satisfaction and dissatisfaction. Instead of letting the external dissatisfaction trump my internal satisfaction, I made a conscious effort to be thoughtfully confused rather than be depressed. I was confused as to why the internal and external satisfaction did not perfectly align. My fellow co-organizers and I performed dozens of hours' worth of debriefing in order to understand this issue better.

This mindset is key to solving the internal satisfaction channel problems of business too. While not every worker will have the opportunity to make the big calls relating to their organization's projects, in order to best hone one's ability to acquire a powerful creative vision, one must always be considering what aspects of their credit generate the most internal satisfaction. Like the student committed to the internal satisfaction channel, every worker must keep this mindset in their consciousness.

The best example of a company committed to the internal satisfaction channel is Apple Inc., which has just been named the world's top brand<sup>27</sup>. Steve Jobs and his cohorts, especially SVP of Industrial Design, Jonathan Ive, have always believed the best method for creating the products and services of the future is to design them for themselves. This relentless commitment to the internal satisfaction channel drives everything they do. Apple's biggest challenge is to communicate their internal satisfaction to their customers. Unlike anyone else in the world, Steve Jobs could communicate his internal satisfaction to the masses. His passion for his products was contagious, enabling him to align the world's external satisfaction with his own internal

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<sup>27</sup> <http://money.msn.com/ways-to-invest/article.aspx?post=0d2c38a0-77ff-4fed-ba7d-1d0b6f9192ef&GT1=33044&lc=1033>

satisfaction. If you know what you like in a product you have created and can communicate that internal satisfaction to others, you dramatically improve your products' chances for being successful.

Despite these forces that are discouraging the internal satisfaction channel, this analysis has illustrated that people are capable of freely choosing how to derive satisfaction from their credit. The virtues of the internal satisfaction channel are plentiful, while the external satisfaction channel can be harmful to the mind, personal development and encouragement. For every outcome one seeks to derive credit from, one must make the conscious effort to choose the internal satisfaction channel.

### **Maintaining Satisfaction Criteria**

There are various arguments critics of the internal satisfaction channel can make. First and foremost, one might misinterpret the internal satisfaction channel as an excuse to go easy on yourself and be satisfied with sub-optimal performance. For example, a student might think she can prove that  $2+2=5$ . Once she sees they have gotten the problem wrong, they might ignore the educational value of the grade and claim they're satisfied enough with their efforts. Thus, another reason some critics might favor the external satisfaction channel is because it offers consistent and sometimes objective criteria for satisfaction. In the past example, the answer key for the math problem offers great value to the student when they cannot get the correct answer. Mathematics and definitions, for example, have objective measures for success and satisfaction. The merits of these two counter-points provide guidance for strengthening the internal satisfaction



channel. A virtuous commitment to the internal satisfaction channel requires consistent criteria for satisfaction.

We have a tendency to drop old criteria and create new ones after an outcome. This is a common coping mechanism. For example, when the student receives her test back saying that  $2+2$  does not equal 5, she might shrug it off and convince herself she didn't want to get the question correct anyways. Years later, she might further rationalize that shortcoming by attributing valuable opportunities to not getting a perfect grade in that math class. Yes, future opportunities may present themselves after a failed outcome, but these should remain separate from the criteria under which we determine our internal satisfaction. Additional examples of criteria manipulation include:

- *I'm glad I didn't get that job. I wouldn't have had a good time working there anyways.*
- *I'm glad she broke up with me. We weren't great for each other anyways.*
- *I'm glad I got fired. I wouldn't have met my new boss otherwise.*

Let's imagine your desired objective is to fill a glass to the brim with water. You manage to fill the glass halfway. There are three vantage points that can be selected from when determining a basis for internal satisfaction:

1. Only look at the top half of the glass
2. The glass is half full or half empty
3. Only look at the bottom half of the glass

Most people only envision two vantage points, looking at the glass as half full or half empty, when there are actually three vantage points. Looking at the glass as half full tends to imply one should look on the bright side. What is omitted from this point of view is the recognition of one's own shortcomings. Thus, what people really mean to say is to only look at the bottom half of the glass. Looking at the glass as half empty tends to imply one is ignoring their own success at the expense of a pure focus on their shortcomings. What is omitted from this point of view is the recognition of one's own successes. To look at the glass half full is equivalent to viewing it as half empty (#2); it is to be satisfied with the contribution you made to get the water level to where it is while also recognizing the fact that you did not achieve the full desired accomplishment.

To only look at the top half of the glass deprives the agent of the satisfaction they deserve for having completed what they did in fact complete. This effectively removes the sub-criteria from the bottom of the glass to the water level. All that is left is a set of criteria that have not been accomplished. This is effectively the agent denying her own credit that she rightfully deserves to derive internal satisfaction from. To only look at the bottom half of the glass, which is probably a more common tendency, is also an intellectually dishonest act. Only looking at the bottom of the glass eliminates the criteria that were not met during the course of action, thus giving the agent the mental impression that she succeeded a sufficient or complete degree.

The key to maximizing growth and knowledge as a result of an outcome is to be both satisfied and dissatisfied. It is as valuable to know what one derives satisfaction from as what one derives dissatisfaction from. Acknowledging the full size of the cup and

its full set of criteria before and after the outcome is a difficult challenge. We have a natural tendency to ignore thinking about what provides us dissatisfaction. We refer to people who always obsess over their shortcomings as downers or party poopers. The social pressure is real: after all, who wants to spend time with someone who seems dissatisfied? One must overcome this pressure in their own mind to stay true to the original criteria.

Over time, we have a tendency to forget our shortcomings related to an outcome. The expression “the older I get, the better I was,” although comical, raises an interesting point. The best, most accurate technique for determining the size of the glass and the location of the water height is to debrief thoroughly after the outcome has been achieved. By doing a debriefing in writing or with someone else, one stands a much better chance of always remembering the exact shape and size of the cup.

Only looking at the bottom half of the glass deprives the agent of the tremendous learning opportunities of being both satisfied and dissatisfied with their performance. By extracting lessons, insights, tastes, and knowledge out of one’s internal satisfaction and dissatisfaction, one ensures the objectivity and consistency in satisfaction that is often central to external satisfaction.

### **The Luxury of Internal Satisfaction**

Another criticism of the internal satisfaction channel is that not all people have the ability to do things they internally enjoy. Many people have to do things they dislike for other people just to get by in life. Upon further contemplating the nature of internal

satisfaction and its channel, the reader will see that internal satisfaction is only a luxury in an extremely rare set of cases.

Let's return to the long-term internal satisfaction model. Suppose someone is a slave and is forced to difficult labor and is never given any pay. Here is the slave's internal satisfaction model:

$$I = O(i_o + w i_c)$$

Let's assume the slave is forced to chop wood for 20 hours a day. Assuming the slave chops one piece of wood, then the outcome,  $O$ , must be positive. The only way the slave cannot receive any internal satisfaction, or be internally dissatisfied, is if  $i_c$  remains negative. If for every piece of wood the slave chops, the owner whips the slave's back, then  $i_c$  will certainly be negative. Even if the labor itself is causing the slave harm, then  $i_c$  will be negative. In this case, it does not matter how great and plentiful the wood chopping is, the slave will continue to be dissatisfied.

This situation, thankfully, is rare in the developed world. However, employees in much greater professional environments than the slave feel like they are slaving away with their work. In March of 2011, for example, NFL superstar running back Adrian Peterson compared the NFL to modern-day slavery. Potential exaggerations aside, as long as a worker is contributing to outcomes with their job that they enjoy more when they perform better, the worker can theoretically increase their internal satisfaction. It is indeed possible that there are more exceptions to this principle. In this short rebuttal, I hope to have eased another concern with the internal satisfaction channel by showing virtually everyone reading this thesis can use it to maximize overall satisfaction.

## **Credit Satisfaction Conclusion**

Over the course of this chapter, I have explained the process of deriving total satisfaction from credit. Once careful attention has been paid to the acquisition and distribution of credit, one has the right to be satisfied with their credit. Credit satisfaction is a privilege that is contingent upon having credit in the first place. In order to go about being satisfied with credit, an agent can choose one of two satisfaction channels: the internal channel and the external channel. I have discussed the complexities underlying each channel and the types of choices one has to make in order to choose one channel over the other. This discussion has argued that the forces of education, business, and social networking are causing people to subconsciously prefer the external satisfaction channel. After discussing numerous examples, the reader has been exposed to the dramatic differences between and repercussions of each channel. Choosing the internal satisfaction channel provides the agent a satisfaction experience that is more healthy, educational, and empowering than the external satisfaction channel. The external satisfaction channel, on the other hand, focuses purely on the satisfaction an agent receives from others being satisfied. The rationale behind external satisfaction is often overestimated. However, the occasional virtues of objectivity and consistency within the external satisfaction channel can be encompassed within the internal satisfaction channel, thus making it the optimal channel of choice. Every person has the ability to choose the internal satisfaction channel. By recognizing the differences between the two channels and how an agent goes about choosing one over the other, individuals become better

suited to think creatively, be proud of their accomplishments, and avoid the bitter triage of bullying, peer pressure, and mindless action threatening society today.

## **CONCLUSION**

Over the course of this thesis, I have identified and analyzed the nuances of mental credit. The discourse began with a general overview of mental credit by defining mental credit as the process of receiving personal acknowledgement for something as a result of one's actions and consequently deriving satisfaction from this acknowledgement. In other words, mental credit entails acquiring credit and deriving satisfaction from it. After providing the reader a brief overview of the language and models used to discuss mental credit, I took a moment to discuss the difference between satisfaction and happiness, the nature of objective value, the relevance of this discourse, and the eternal nature of mental credit. The primary goal has been to illuminate the optimal ways for thinking about one's own actions in light of their nature and in lieu of the circumstances clouding our understanding of what we deserve to think and feel about what we have done.

Chapter 1 described the basic nature of outcomes and the process for attributing credit to the agents who have contributed to the outcome. There are three main categories of outcomes: simple, complicated, and complex. Each type of outcome calls for a different approach to credit attribution for all agents involved.

Chapter 2 dealt with the underlying complexities of internal satisfaction. While happiness is a feeling, satisfaction is a calculation derived from one's having achieved a desired outcome. There are two forms of satisfaction: internal satisfaction (what the agent thinks about their credit) and external satisfaction (what others think about the agent's credit). The calculation for both short term and long term internal satisfaction was derived and explained in detail. The model serves as a unifying theory for dominant motivation, satisfaction, and decision-making models. The chapter concludes with a brief overview of external satisfaction and what makes it different from internal satisfaction.

Chapter 3 depicted the interplay between internal and external satisfaction. Internal satisfaction does not exist in isolation. Overall isolation is the accumulation of both internal satisfaction and external satisfaction. There are two channels one can choose for their satisfaction: the internal satisfaction channel and the external satisfaction channel. The internal satisfaction channel starts with the agent analyzing their credit to a degree that yields tangible internal satisfaction (or dissatisfaction). The external satisfaction of others builds upon the foundation of internal satisfaction as the agent moves through the channel. The external satisfaction channel, on the other hand, uses external satisfaction as the foundation for total satisfaction. Throughout the rest of the chapter, I discussed the virtues and vices of the two channels and concluded the internal satisfaction channel is the channel worth choosing. I finished the chapter by discussing trends in education, business, and our social lives causing us to migrate unconsciously to the external satisfaction channels. The solutions I suggested for these problems are not the only ones, but they should help to mitigate the threats of the external satisfaction channel.



This theory of mental credit allows us to choose the path of cognitive manifestation that best suits one's hopes, dreams, and desired perception of one's self. The limits of our mental credit and the quality of its satisfaction are bounded only by our imagination and our willingness to pursue it. The poet John Milton once said, "The mind is its own place, and in itself can make a heaven of hell, a hell of heaven."<sup>28</sup> These models and calculations of mental credit define the mind's map for choosing its own domain. I hope the reader uses this map to better understand these critical facets of life that too often go unseen. The map is not perfect, but it might help to guide our minds to a more humble, more satisfied, more enlightened lives.

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<sup>28</sup> [http://www.goodreads.com/author/quotes/9876.John\\_Milton](http://www.goodreads.com/author/quotes/9876.John_Milton)

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