A Cognitive Linguistic Analysis Of Parenting

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Abstract

Parenting philosophies in popular culture do not always reflect the findings of the latest empirical studies of cognitive development. These studies, some of which date back forty years, clearly demonstrate the positive effect of parent responsiveness, displays of affection, mutual respect, and firm discipline. The conclusions of these studies are relatively straightforward, and some psychologists have indeed attempted to relay these findings in books for parents. With such strong results, why do overly strict or overly lenient parenting attitudes still persist?

To answer this question, I use tools from Cognitive Linguistics to analyze the deep linguistic structures behind the three main parenting models: the Nurturant Parent, the Indulgent Parent, and the Strict Father. Contested concepts underlie our perceptions of morality. Image schemas and conceptual metaphors have a rich mapping of goal-oriented approaches. Additionally, we have cultural bias toward understanding all causation in terms of direct causation. This combination mutually inhibits both systemic causation and the process-oriented approach to parenting advocated by the empirical research. The latest developments in Cognitive Science illuminate in profound ways our innate drive to nurture and empower our children. If we construct the right conceptual models, then these exciting developments can be communicated in such a way that they gain traction in the popular consciousness.

Introduction

Parents are often told that there is no *right* way to parent. But is this actually true? We know the opposite is true; there are definite patterns and approaches to parenting that can be labeled as “wrong.” We have notions of what it means to be a “good” parent and what kind of person would make a “bad” parent. If we can differentiate between good and bad, does it not follow that we can also model the good patterns and determine a “right” way to parent?

This is exactly what many parenting books do: they tout a methodology that is billed as superior to other methodologies. Many of these recommendations contradict each other. Can they all be “right” or does one method emerge that is better than the others? Is there one outstanding method to educate parents on child rearing?

As a species we share a common genetic makeup. Therefore we are biologically predisposed to thrive in certain environments and wither in others. Empirical studies in Cognitive Development do in fact identify specific behaviors of parents and caregivers that elicit predictable, positive behavior in children. These studies have given rise to attachment theory, social learning theory, and motivation theory. Studies in afferent neuroscience (the study of the neurophysiology of emotions) have led to fields of research that exclusively study altruism, happiness, and gratitude. Findings from these fields have shed light on how actions by a parent can positively affect a child's behavior.

In my thesis I claim that there are optimal children-rearing methods that are based on these empirical studies. Taken superficially as a kind of “recipe book” for parents, many of the findings seem to be just “commonsense.” However, upon closer inspection these methods reflect a deep conceptual framework that is often at odds with many of the cultural notions our society

has regarding child development, human behavior, and our own cognitive capacities. In some cases, the deep conceptual frameworks behind the research are contrary to some of our cultural beliefs about morality and American "values." As a result, these findings will never resonate with some parents.

In Cognitive Linguistics the terms for these deeper abstract concepts are image schemas, semantic frames and conceptual metaphors. These concepts are reflected in the language we use. Unless we dissect these parental guidelines into their abstract components, we will never find the common language that makes these recommendations—that are rooted in science—"make sense."

In the pages that follow I analyze the structures behind the research itself, as well as analyze the language that is used to guide parents. In many cases the surface language does not fully evoke the abstract schemas behind the core concepts and therefore is not as persuasive as it could be. In other cases a philosophy of morality is implied by the research but not explicitly examined; here I will analyze the image schemas and the contested concepts behind the morality. I draw a distinction between direct causation and systemic causation, an understanding that is crucial in recognizing how parental models and their supporting arguments truly differ from each other. The purpose of this paper is to find new, more accurate linguistic models through which we can understand the recent exciting empirical findings regarding cognitive development, innate morality, and the guidelines to foster compassionate, responsible, productive children.

Conceptual Models

Micronesian sailors are renowned for their unique navigational skills. Through the generations high-ranking navigators orally hand down to worthy apprentices a complicated navigational system of the stars, ocean swells, the position of islands relative to each other, and even what kind of fish to expect in a given area of open sea. One of the landmark characteristics of Micronesian navigation is that after paddling out to sea, the sailors aim their canoes according to star positions and ocean currents and wait for the island of their destination to come to them. In other words, when on the open sea they conceptualize the boat as being stationary; it is the islands that move.

For thousands of years, Micronesians have used these methods to sail back and forth between islands that are hundreds of miles apart. None of the navigational devices that we consider to be indispensable—a modern magnetic compass, means to measure time and distance, and the conceptualization of the bird's eye view (as is in a standard map depiction)—is considered necessary by these island sailors. The one conceptual system on which they do depend is scientifically false.

The system, however flawed according to the laws of nature, works for the Micronesians. But we could easily imagine a situation in which their methods would gradually be less and less efficient. Over the years natural disasters could drastically change the islands' relative distance or species of fish could change their nesting patterns. Gradually, the sailors would experience more and more difficulties traveling from island to island. We can imagine that the Micronesians would attribute the navigational problems to human error before they would pinpoint their conceptual models of the world as the culprit.

If one Micronesian discovered how to navigate using a compass and sextant, what would it take for him to convince his kinsmen that he had a better way to travel through their environment? There is no way to "show" that the islands do not move. Our Western science teaches us that the world is round, orbits around the sun, etc., but these facts are only understood within the basic conceptual structure of frames and frames work within given conceptual systems. How then does a population accept a new conceptual framework?

The Micronesians are not alone in their misconceptions; false reasoning based on an incorrect conceptual system is surprisingly common. As sentient beings, we spend much of our time navigating through life as the Micronesians do. We imagine the world is fixed in a way that it isn't. We act on those assumptions, ignore the contradictions and tout our successes as proof that our false notions are "right."

Parenting Beliefs

There is a gulf of misunderstanding between the empirical studies that support an optimal method of parenting, a method that fosters compassionate, motivated, respectful, and disciplined children, and what is sometimes believed about parenting. These common misconceptions have evolved from specific ideas about morality and obedience. Sometimes the misconceptions grow out of misguided (and often false) notions of human cognition and development. For example, there is a common belief that child rearing is similar to training, and reward and punishment necessary motivators for that "training." But if we take into consideration the way the brain

actually works, we understand that child rearing is not like training a dog. It is far more important to model the behavior we would like to elicit and encourage the kind of behavior that stimulates the brain's own reward reinforcement system through empathy, altruism and gratitude. But the roots from these false pretenses run so very deep and have their own very rich conceptual system, complete with frames, metaphors and inferences that work quite nicely and seamlessly within these false theories of moral development. These conceptual models have worked themselves into our culture and our language in such a way that even the researchers with contrary evidence and theories use the old models to describe their work.

Moreover, "morality" is thought of as being outside the domain of science. And yet, empirical research on parental bonding and the impact that positive and negative emotions and behavior have on others *is* a scientific observation on morality. And yet, in an attempt to seem objective, the word "morality" is rarely used. This is analogous to the Western sailor who explains how to use a compass and a sextant to Micronesians without first dispelling the myth of the moving islands.

The current scientific literature on human development proposes that we are hard-wired to be compassionate, empathetic, social beings. We construct interdependent societies because we are social beings that thrive in communities, and particularly environments that are cooperative and compassionate. These ideas stress the importance of mutual respect and consideration which evoke a reciprocal relationship between parent and child rather than a hierarchical one. The empirical studies suggest that these values (altruism, happiness, gratitude, compassion, empathy, motivation) are self-propagating and contagious when practiced routinely. Intertwined with the notion that "good begets good" is a kind of Moral Accounting that favors a

non-zero sum game. The metaphorical books are balanced when everyone wins.

Many of the theories that have evolved from research in altruism, happiness, gratitude, compassion, empathy, and motivation advocate a process-oriented approach to problem solving. This presents a stark contrast to the prevailing conceptual model we have in our culture which uses a goal-oriented approach and assumes that there is a direct causal link between problems and solutions. In the process-oriented approach, much of the focus is on the "issue at hand" rather than the "end goal." The implications from this research are not just for parents; they apply to educators, employers, policy makers, and any parties that communicate with each other.

An opposing view of parenting stems from the false notion that we are born without a moral compass and need fear-based discipline to learn what is right. This approach to parenting is inherently hierarchical. This is reflected in the emphasis on obedience. Fear-based discipline is based on the idea that there should be a direct causal link between transgressions and punishment. In this view, punishments and transgressions are complementary transactions in the metaphorical Moral Accounting books: they are balanced to a zero-sum; the parent is always right.

Parenting Models

In 1966 developmental psychologist Diana Baumrind identified four models of parenting which can be cursorily defined in terms of emphasis on affection and emphasis on parental expectation. They are: authoritative (high affection/high expectation), permissive (high affection/low expectation), authoritarian (low affection/high expectation) and neglectful (low affection/low expectation).

Baumrind describes the authoritative model of parenting (high affection/high expectation) as one that seeks to be a balance between the model of tyranny and the model of indulgence (Baumrind, 1996). She writes, "The balanced perspective of authoritative parents is neither exclusively child-centered nor exclusively parent-centered but instead seeks to integrate the needs of the child with other family members, treating the rights and responsibilities of children and those of parents as complementary rather than as identical."

Other defining characteristics of the authoritative model (also called the Nurturant Parent model) are mutual respect between parents and children and between the parents themselves. Parents model the behavior they would like their children to exhibit. In addition to setting firm boundaries they employ consistent methods of discipline. These are often non-punitive and instead seek to foster communication and learning through experience.

The permissive parent (also called the Indulgent Parent) is characterized by high affection and low expectations. Also called the harmonious model, the permissive model places a high value on avoiding conflict. As a result, there are few boundaries, and discipline is loosely or inconsistently enforced. While Freud does not explicitly advocate the permissive model, he did feel that people are born into this world damaged and are further traumatized by their childhood

experiences. He felt that parents should do everything possible (to the extent of being conflict avoidant) to lessen this damage, (Thomas, 2000).

The authoritarian model (low affection, high expectations) is marked by rigid boundaries and general unresponsiveness to the child's feelings. The authoritarian parent model is both patriarchal and hierarchical in nature with strict discipline (usually corporal) and an emphasis on obedience. The authoritarian model (or Strict Father) is often associated with "traditional" family values. Baumrind writes:

> *The authoritarian parent attempts to shape, control, and evaluate the behavior and attitudes of the child in accordance with a set standard of conduct, usually an absolute standard, theologically motivated and formulated by a higher authority. She values obedience as a virtue and favors punitive, forceful measures to curb self-will at points where the child's actions or beliefs conflict with what she thinks is right conduct. She believes in keeping the child in his place, in restricting the autonomy, and in assigning household responsibilities in order to inculcate respect for work. She does not encourage verbal give and take, believing that the child should accept her word for what is right.*

The last model, the neglectful parent, (low affection, low expectation) describes a parent neither affectionate nor a disciplinarian and has little interest in raising the child. It is a model that has been noted by researchers but is certainly not one that parents aspire to follow.

Over the last forty years, numerous longitudinal studies have consistently found that children from authoritative households (high affection/high expectation) are generally more confident, more independent and more likely to get better grades than children from permissive

(low expectation) or authoritarian (low affection) parents. From Glasgow, Dornbusch, Troyer, Steinberg, and Ritter (1997):

> *Authoritatively reared adolescents consistently score higher on measures of psychosocial competence and school achievement, and lower on measure of internal distress and problem behavior, than do adolescents from nonauthoritative families (Baumrind, 1989, 1991; Hein & Lewko, 1994; Lamborn et al., 1991; Paulson, 1994; Steinberg, Lamborn, Dornbusch & Darling, 1992). Although there are ethnic and cultural variations in the impact of parenting styles (Chao, 1994; Darling & Steinberg, 1993; Dornbusch et al., 1987), this empirical pattern appears to transcend gender, family structure, age, and social class divisions.*

More recently, in 2003, the American Academy of Pediatrics formed a Task Force on the Family to study family dynamics. They based their measure of health and success in the family environment on “resiliency” and the “capacity to adapt” (Wertlieb, 2003, pp1573, 1574). Among the task force's conclusions was the observation that “Children do best when authoritative parenting is provided by parents who are responsive to their needs and feelings and combine warmth with thoughtful, firm limit setting consistently over time” (Schor, 2003, p1565).

Various components of the authoritative (high affection/high expectation) model have been scientifically verified through studies of attachment, social learning, motivation, emotion, altruism, happiness, and gratitude. Yet it is still highly controversial to suggest that the optimal mode of parenting is the one that promotes mutual respect and affection and disciplines through consistent but non-punitive means. Why is it so controversial if so much research demonstrates its effectiveness? To begin, let's take a look at the words through which the models are

understood.

False Impressions

At the surface level, an obvious observation is the proximity in spelling and meaning of the words “authoritative” and “authoritarian.” Presumably this naming convention intended to mark a distinction between the permissive (high affection/low expectation) model and the authoritative (high affection/high expectation) model, but in doing so, creates more confusion than clarity. It unintentionally aligns the authoritative (high affection) model with the authoritarian (low affection).

Another surface observation: the parenting models are described as if they are on a continuum with tyranny on one side of the spectrum, indulgence on the other and nurturance in the center. This image of a gradient scale is misleading; it implies that there is no clear demarcation between authoritarian (low affection) model and authoritative (high affection) model. Furthermore, the scale implies that the difference between a high affection/high expectation parent and a high affection/low expectation parent is simply a matter of degree.

At a deeper level, we see that all three labels—authoritative, permissive, and authoritarian—are understood relative to an idea of dominance hierarchy. In Cognitive Linguistics this is referred to as a semantic frame. All words are understood relative to semantic frames which in turn evoke other frames. In this instance, the dominance hierarchy frame tells us nothing of the affection parameter that is so crucial to the parenting models' effectiveness. Hereafter in this paper I shall use the terminology put forth by George Lakoff in his book, *Moral Politics* and refer to the high affection/high expectation model as the Nurturant Parent, the authoritarian model as the Strict Father, and the permissive model as the Indulgent Parent (Lakoff, 2002).

Just as the dominance hierarchical frame does not carry with it the needed inferences to emotional responsiveness, the image of parenting continuum occludes one of the most distinguishing characteristics of the Nurturant Parent model: a constant emphasis on systemic causation. Systemic causation focuses on the connections and interdependencies between all actions and all parties involved. Consequences are understood in terms of these dependencies. By contrast, both the Strict Father and the Indulgent Parent are solely concerned with direct causation. Direct causation links cause to effect without regard for the network of rippling effects repercussions may have. As I will demonstrate later, systemic causation and direct causation evoke very different conceptual models. Problems are dealt with differently; motivation is rewarded differently.

A third false impression is given by the affection/expectation parameters. Drawn in a quadrant schema, the image is this:

Affection		
	INDULGENT **Low Expectation/ High Affection**	**NURTURANT** **High Expectation/ High Affection**
	NEGLECTFUL **Low Expectation/ Low Affection**	**STRICT FATHER** **High Expectation/ Low Affection**

Expectation

Two apparent problems are that either the Nurturant model is (literally) on the same level as the Indulgent one, or, if we change the axes, on the same level as the Strict Father. There is no visual way to separate the Nurturant model, the model that researchers believe is superior, from the models that are less effective. Visually, the top two squares and the bottom two squares are "on par" with each other, even though this is not the case. Additionally, the use of low/high distinctions evokes the image of a linear scale. It figuratively puts the Nurturant Parent on a continuum between the Indulgent and Strict Father. A better way to visualize the models would be to an image in which Indulgent and Strict Father models are depicted as polar opposites and

the Nurturant Parent set apart from them.

Another problem is that the affection parameter is misleading. It implies that Strict Father parents do not hug their children or do not love their children. This is not the case. A more accurate parameter might be emotional wants and needs. An emotional want might be the child's desire for attention. An emotional need might show itself as the child feeling frustrated or jealous. The Nurturant Parent distinguishes between wants and needs of the children by interacting with her. The Nurturant Parent typically responds to the emotional needs and only discretionally to the emotional “wants.” Neither the Indulgent Parent nor the Strict Father makes a distinction between emotional wants and needs. The Indulgent Parent gives both the same amount of regard whereas the Strict Father might not respond to either, associating the validation of feelings with weakness. But these are still surface observations. To truly analyze these models we must address the deeper conceptual frameworks.

Many researchers have added a narrative to their research and published it for public consumption. Some examples are: Dr. Carol Dweck: *The Psychology of Success*; Dr. Marco Iacoboni: *Mirroring People: The New Science of How We Connect With Others*; Dr. Dacher Keltner: *Born to Be Good*; and Drs. Robert Emmons and Michael McCullough: *The Psychology of Gratitude*. However, their work will resonate chiefly with those who already have an intuition about our capacity for empathy or those who understand that systemic causation is an integral part of problem resolution. For those who adhere to the Strict Father model and for whom there is only one “right,” these researchers' ideas will be met with anything from scorn to skepticism. In short, if your worldview is incompatible with incoming information, the new information will be discarded.

Furthermore, many of the ideas regarding zero-sum Moral Accounting, fear-based discipline, material rewards, empathy, and emotions have deep roots in our cultural narratives. To describe an alternate viewpoint requires new cultural narratives that evoke different (and orthogonal) semantic frames and image-schemas. Yet often researchers describe their findings in terms of the existing culturally accepted frames. The risk is that they might unknowingly use semantic frames that do not accurately fit their ideas. For the audience that shares the same worldview as the researchers, the misuse of frames goes unnoticed. But for the skeptics the misuse of frames sounds like a contradiction.

The Cognitive Linguistics Toolbox

The conceptual models that form the cornerstones of our language productivity are based on primary metaphors and embodied thought. However, we also have a cultural cognitive model that all language is literal and thought disembodied. In other words, we have an embodied, cultural conceptual model of cognition which tells us that embodied conceptual models of cognition do not exist. This idea has given rise to philosophical ideals such as objectivism and relativism and the belief that persuasive arguments are composed of facts. To change another person's mind it is necessary to give him new facts. This cultural model is so ingrained that even when we know it is false, we often fall into the trap of presenting new facts rather than understanding the frames and values behind them.

Cognitive Linguistics and the Neural Theory of Language proposes that if the old ideas and new ideas truly contrast, then the activation of the frames that represent one set of ideas will inhibit the frames that represent a second set. This mutual inhibition of ideas happens at the neural level. However, if the contrasting idea is not communicated in contrasting language, this inhibition does not happen. Instead, the old idea is reinforced. Thus, Micronesian sailors can have all the maps and compasses they need, but as long as they believe that their canoe stays still and it is the islands that move, no new models of sailing will be learned.

Therefore, before we present new ideas it is essential that we first analyze the conceptual models behind both the old and new ideas. These conceptual models include cultural narratives, conceptual metaphors, and semantic frames. We can then use the analysis to evaluate precisely what proponents of the new ideas are commonly (and mistakenly) discussed in the language of the old frames. Only then can we construct new conceptual models with language that does not

overlap with the outdated ideas that empirical science has debunked.

Cognitive Linguistics takes the stance that word meaning is more than "just in the words." Meaning relies heavily on context and inference, more formally stated as category structure, semantic frame structure, conceptual metaphor, X-schemas, and image-schemas. For example, the source-path-goal image schema allows us to conceptualize "reaching a goal" as arriving at a destination. Goals are mapped onto destinations, life journeys are mapped onto our knowledge of real world travel, and we can then talk about living in terms of traveling. We have moments in life in which we describe ourselves as "stuck in a rut" or "really going places." We can then talk about jobs, relationships or life decisions in terms of "dead-end streets" or "fast tracks." In this conceptual metaphor, Life is A Journey, a problem is an obstacle on a path: resolving it is discussed in terms of "getting over it" or "putting it behind you." We "sidestep issues" and "get through problems." We "get around" them and eventually "move past" them.

Category structure reflects how we categorize our world. We typically assume that categories maintain a "classical" structure—that is, we have the assumption that membership is dependent on a set of necessary and sufficient conditions. In fact, this is only one kind of categorization. There are gradient categories (such as "tall"), basic level categories, (such as "chair"), superordinate categories ("furniture"), subordinate categories ("rocking chair"), and categories that are based on family resemblances (such as "games").

We structure our day-to-day lives in terms of categories: the kind of foods that would go together to make a meal, the kinds of jackets appropriate for today's weather, the kinds of gifts that make good presents, the kinds of people who make good employees. We intuitively categorize using gradients, reference points, best and worst examples and use these categories in

our reasoning, from the smallest decision to the most complex. When we consciously assume, then, that we *only* categorize in terms of all-or-none membership—that our only means of categorization is through classical means with clear-set boundaries—our analysis of our reasoning becomes skewed. When we try to predict how others will reason, we will only be correct for a small fraction of the picture. We will have opposing ideas on the same issues and never understand what truly separates our viewpoints.

Through a cognitive linguistic analysis we can see that some of the controversy in parenting goes beyond whether nurturant parents empower, strict parents spank, and indulgent parents coddle. First of all, it starts with category membership: the misconception that if there is a set of necessary and sufficient conditions that define the parenting *models* then the same set of necessary and sufficient conditions defines *parents* as one kind of parent or another. This is not the case. Parents can have attributes from all three models. They can be nurturing in one context and strict in another. They might maintain firm boundaries in one arena and loosely enforce discipline in another. They might be indulgent as parents but strict as employers. *Most* parents will not "fit" in one category or another. Moreover, some indulgent parents might self-identify as nurturant parents. Other parents who see themselves as proponents of the Strict Father model might actually be quite nurturing in practice.

Secondly, each of the parenting models supports a mutually exclusive theory of morality. These deep-seeded beliefs of "right versus wrong" are unique to each of the parenting models. In the Nurturant Parent model, morality is defined by parent responsiveness, the firm boundary between wants and needs, mutual respect, and the example the parent sets for his child. For the Indulgent Parent, morality is harmony at all costs; the parent avoids conflict wherever possible.

Strict Father morality values obedience over all. We could even propose that these different theories of morality are the defining characteristics between the models.

Herein lies the paradox: any theory of morality must be absolute within itself; if a moral theory concedes that other moral theories might be just as valid—in other words, that right and wrong are relative—it is indeed a poor theory of morality! And yet the behavior of many parents that fluctuates between seemingly separate parenting theories would appear to acknowledge just this: our reason tells us that morality is fixed while our actions reflect the notion that morality is flexible.

In a world that values the fantasy that human reason should strive to be “rational” our inconsistent attitudes toward our own morality could be interpreted as just another example of human fallibility. Or it could be seen as an argument that we must answer to the morality sent down by a “higher authority”: clearly we are not fit to construct our own notions of what is moral and what is not. Cognitive Linguistics has another answer: morality is a contested concept.

A contested concept is a radial category in which different variations of the category are each seen as “the” definitive description of the category. For example, the prototypical mother is the woman who gives birth to the child, raises the child, and is married to the child's father. But we have other concepts of the term *mother*. It can refer to the birth mother—even if she is the surrogate or gives her daughter up for adoption. A *mother* can be the woman who raises the child, even if she is actually an aunt or grandmother or caregiver in the foster system. Since *mother* is a radial category, there is no single answer. There are plenty of variations that are still seen as “real” mothers: adoptive mothers, birth mothers, single mothers, etc. And yet our strong bias toward the prototype (combined with the notion of morality behind conventional views

toward marriage and rearing the children we birth) prompts the sentiment that Nadya Suleman, the "Octomom," is a poor example of a good mom, even though she meets two of the three "ideal" criteria.

Morality is a perfect example of a contested concept—precisely because a central tenant of strict morality is that it must be absolute. Morality cannot be both moral and relative. So while we might agree that there are different kinds of mothers, it is difficult to make the same case for morality. Like our embodied cultural concepts of cognition that lead us to believe that embodied cognition *does not exist*, our cultural concept of the cluster category of morality is that there can only be one.

Systemic Causation vs. Direct Causation

A surface analysis exposes some of the flaws of the parenting models' naming conventions and exposes the some of the problems with the wording of the models' criteria. However, it doesn't tell us why some indulgent parents think of themselves as nurturant or why the strict father at home might be a nurturant employer at work. To answer these questions we must first look at the conceptual structures that differentiate the models from each other and how they relate to the models' versions of the contested concept of morality.

The big line in the sand that sets the Nurturant Parent model apart from the Indulgent and Strict models is its causal conceptual model. The Nurturant Parent model uses systemic causation while the Indulgent and Strict Father models use direct causation. This causal attitude affects how the parent emotionally interacts with, administers discipline to, rewards, and motivates her child. It is the recurring theme in Moral Accounting and has profound effects on how we understand gratitude and altruism.

Causation is a perception of correlation and effect that can be further broken down into what cognitive linguists call cluster components. The basic prototype for causation is a direct manipulation of objects. It starts with the idea that there is a specific agent and a specific patient; the agent has the goal of creating change in the patient. The change of state is physical, the agent has control of the motor program to create this change and the change is perceptible. After the agent completes his plan successfully, we say that A has *caused* B.

Just as there is a conscious tendency to assume that all category membership is all-or-nothing, there is a conscious tendency to assume that all causation is direct causation. In this conceptual model, the far-reaching effects can be seen as a chain of events in which one event

causes another, as in a "domino effect." If at any point an action is stopped, the chain effect stops. Direct causation is easy to imagine and easy to model.

In a different conceptual model, real world events are seen as interconnected and causation is systemic. In other words, the cause and effect of each factor is both the impetus and the result for the cause and effect of other factors. The cause and effect of each component may not have equal weight, but they are interdependent. In the systemic causal "weave," this interdependency actually strengthens the individual factors. The image is similar to that of the *peloton* phenomenon in a bicycle race. The *peloton* is the pack of cyclists who ride as an integrated unit. Every individual, from the weakest to the fastest, rides faster and expends less energy by participating in the group. The *peloton* often overcomes individuals who break away from the group.

We have the adage that a chain is only as strong as the weakest link—an excellent image of direct causation. The implication is that the strength of a link is completely independent of the rest of the chain. This is not the case in the model of systemic causation. Rather than a chain of links, it is a fabric of interwoven threads; the entire weave is much stronger than any individual thread. The upside is that a convergence of positive, healthy behaviors can strengthen itself even in the face of one or two "detrimental" threads. The downside is that if the fabric is mostly woven out of destructive behaviors, a few healthy habits have little impact.

These models of causation manifest themselves in how parenting models discipline. For the Nurturant Parent disciplinary problems do not arise from nothing; they are a side effect of a deeper issue that may seem unrelated but instead acts as a catalyst to the bad behavior. The Nurturant Parent addresses the catalyst as well as the bad behavior itself. The Strict Father

addresses the bad behavior directly without examining the feelings or causes behind it—not realizing that the emotions beneath the surface have possibly played a part in causing the behavior. The emotional factor is the “weak link” in the chain. According to the conceptual model of direct causation, the Strict Father can “strengthen” the chain by metaphorically removing the link (by ignoring the emotions).

The Indulgent Parent sees the provoking feelings as the direct cause of the bad behavior. Rather than administer discipline, he excuses the behavior as a way to validate the feelings. In doing so, he ignores the possibility that lenient discipline has its own repercussions. Within the metaphors of the direct causation model we can say that rather than strengthen the weak link, the Indulgent Parent weakens the rest of the chain.

Evidence for these conceptual models comes from a linguistic analysis of the metaphors used by parents and researchers. For example, the Strict Father aims to *move past* problems, *get over* them, while the Indulgent Parent might *sidestep* issues or *get around* them. In both models, problems are conceptualized as obstacles in a path; they are addressed much in the same way that we negotiate a pothole or a rock in the road—that is, to sidestep, bypass, get over, and get past the obstacles. The metaphors Problems are Obstacles and Life is A Journey entail that problems only have a direct impact on that particular stretch of the road. Once the obstacles are *put behind* you, they no longer have an effect on the rest of the journey.

In a systemically causal world, problems are metaphorically thought of as Bodies Functioning in Space: one tries to get to the *heart* of a problem and *face* the problem, before it *gives birth* to (or *spawns*) other problems. Problems can also be plants: unless they are *nipped in the bud*, they can *take root*, and *grow* into bigger problems. Problems can also be chemicals:

they can *have catalysts* or *explode*, after which one must *pick up the pieces*.

The issue runs deeper than the mere metaphoric discrepancy of Problems as Obstacles versus Problems as People, Plants, or Chemicals. To those who have a mindset of direct causation, problems (and undesired behaviors) can be controlled, confined, conquered or simply ignored. Because it is the end state—not the process—that matters, as long as the issue appears resolved, there is no reason to question the process. On the other hand, those who embrace a systemic view of causation—where causes and effects are inextricably interdependent—can understand that problems are the result of a convergence of factors. To effectively deal with a problem is to examine the factors (Dr. Christine Carter, executive director of the Greater Good Science Center, personal communication).

As in the case of the Micronesians systemic causation is like the reality that the islands are fixed. Direct causation is the illusion that they move. If one believes the illusion, he will tailor his language and mold his conceptual model to support his beliefs. So while we can infer the beliefs from the language that is used, we cannot change the misconceptions merely by using new words; we must construct new conceptual models. To do this, we must understand what the old beliefs are and where they are rooted.

The Beliefs

Innate Tendencies

The Nurturant Parent proposes the idea that we are born good, with innate capacities for love, nurturance, empathy, and cooperation. We teach by setting an example. This belief is substantiated by empirical research in the fields of altruism, gratitude and specific neurological studies that examine the brain's reward reinforcement system and the neural correlates of imitation (mirror neurons). These studies have consistently found that positive emotions give rise to other positive emotions and that we have dynamic neurological responses to warmth and affection. Expressing feelings facilitates this process.

These innate tendencies are the foundation for Albert Bandura's Social Learning theory, which examines in detail how a parent or caregiver responds to the cues she perceives from the child. Social Learning theory is now considered to be one of the major theories of learning and development (Thomas, 2000). More recent advances in the study of mirror neurons proposes that our capacity for empathy is rooted in the strong neural similarities between the execution of an action, the imagination of an action, and the perception of an action, as they are all forms of the same neural simulation (summary, Marco Iacoboni, 2008). In the Nurturant Parent model this awareness of the power of imitation is demonstrated by the parents' deliberate and consistent effort to model the kind of behavior they aim to elicit. This is the step the Indulgent Parent does not take.

For both the Strict Father and the Indulgent Parent, the innate tendencies or default state is that we are naturally immoral with a prevailing drive to compete and we are motivated by fear.

None of this is supported by empirical science. We do, however, have religious models that propose a concept of "original sin," strong cultural models that value competition, and strong reactions to fear that, like a magician's illusion, exaggerate its effect.

The difference between the strict and indulgent model is the reaction to what is considered "innate." The Strict Father seeks to "make wrong right" through rigid discipline. Obedience is so highly valued precisely because it is believed that we are born without a moral compass. Without guidance we will never learn what is right (as reflected in the title of Reverend Reb Bradley's parenting book, *Born Liberal, Raised Right: How to Rescue America from Moral Decline One Family at a Time*).

To the Indulgent Parent, we must be coddled precisely because we are born damaged. Competition, which is bad, is abolished through the lowering of standards and through imposed notions of equality. A variation of the Indulgent Parent sees all emotions and all feelings as natural and valid. Through the lens of direct causation, if the emotions are valid, then the resulting behavior must also be understandable. To punish the behavior that was the direct result of a "natural" emotion would be to punish "understandable" behavior—and so the Indulgent Parent does not discipline.

Afferent Neuroscience, or the neurophysiology of emotions, takes as its foundation several ideas that are at odds with what is commonly believed about rationality and cognition. For example, the ability to feel emotions is absolutely critical to one's ability to make decisions. This challenges the old (and still pervasive) idea that rational thought is void of emotions or that emotion-based reasoning is impulsive and irrational. If all reasoning is really emotion-based then several facts previously assumed to be false are now true:

- Human decisions that seem “rational” or “sound” are actually determined by emotion. This being the case, previous “rational” decisions were actually biased rather than objective.
- If decisions are somehow *subjective* regardless of the unshakeable confidence that they are *objective*, then our sensation of “objectivity” at the conscious level is actually subjective at the unconscious level.
- If “rational” decisions seem more “valid” than emotional ones but we know that the rational are a subset of the emotional, then decisions that are obviously emotion-based have a validity that was previously discounted.
- The old dichotomy that cold rationale is strong and emotions are weak no longer stands.

Emotions, like thought, are embodied. This has led to the theory of emotion-based reasoning. After all, how could one make a decision if she did not know what to want or did not simulate the feeling of one outcome versus another? And, in fact, patients with brain damage to their emotional neural pathways have severe difficulties in making the simplest of decisions (Damasio, 1994).

Evidence for embodied emotion is a crucial finding in the argument for the Nurturant Parent model. For one, it means that there is no longer a question of whether we can “trust” our feelings or not. If there is an outside “Decider” of morality, we cannot afford to trust our emotions because it is the outside system that judges us as moral or immoral. This is what the Strict Father does: enforces an outside system of morality that is based on rules. Morality is obedience.

A Nurturant Parent would never tell her child (or anyone, for that matter), “There's no reason to be scared (or angry or frustrated or disappointed).” The *fact* that the child feels scared, angry, frustrated or disappointed *is* the reason to be in such a state. As a parenthetical, Dr. Carter of the Greater Good Science Center points out, all feelings are valid, but not all behavior is appropriate. Again it is the systemic approach of the Nurturant Parent that pinpoints the source of the feelings, validates the feeling itself, and, when necessary, disciplines inappropriate behavior.

Moral Accounting

Linguistic evidence for these varying views is based on how the parenting models address Moral Accounting. In our culture, deeds are metaphorically thought of as transactions. We say, "You *owe* me an apology," or "He *paid his debt* to society." Apologies don't *count* unless they are given *freely*. People are held *accountable* for their actions and must *pay* for their mistakes. As we will see later in more detail, the systemic causation approach of the Nurturant Parent favors non-zero sum Moral Accounting; if we don't work together to win, we all lose. On the direct causation side, both the Strict Father and the Indulgent Parent adhere to straightforward zero-sum moral accounting. The Strict Father always wins; the Indulgent Parent always forgives.

Moral Accounting is a conceptual model that represents how we negotiate social obligation. It is based on the metaphor Well Being is Wealth. We aim for *rich* or *prosperous* lives or try to avoid *poor* health. We *profit* from experience, *count* our blessings and call our moral attributes *values*. Moral Accounting is an ancient, cross-cultural, cross-linguistic social negotiation. Different systems of Moral Accounting are evident in cultural concepts of appreciation, altruism, self-sacrifice, grievances and punishments.

One such "transaction" is an act of gratitude. An act of gratitude is a response within a "transfer of possession" frame, or as it is commonly idealized, the Commercial Event frame. A commercial event has a buyer, a seller, goods and currency. At the start of the frame the seller has the goods, the buyer has the money. Both parties have the intent to trade the possession for the money and they have agreed on a price. After the transfer the seller has the money, the buyer has the goods. These are the crucial roles and parameters to the Commercial Event frame and it

is defined by these attributes.

In an act of gratitude, the "buyer" or receiver gives her thanks rather than her money which is accepted—and expected—by the giver ("seller" in the Commercial Event). Only after this exchange is the transaction completed. We literally think of gratitude in terms of a commercial exchange; our language reflects this. We say things such as, "He still *owes* me a thank you" or that we are *indebted* to someone's kindness. Not everything *counts* as a thank-you. And some thank-yous are just *too much*. Moral Accounting is an essential but unconscious tenant of our social conventions. Part of understanding cultural norms is learning "the currency" in social exchange.

In our culture, exchanges such as reciprocation, retribution, and restitution are moral transactions which involve debts and credits that balance each other out. Reciprocation is an exchange of kindness for thanks. Retribution is a moral transaction in which one party commits an immoral act against a second party and the second party "*pays* him back" or "gets *even*" with an action of equal harm. If the first party is a child, the immoral act might be disobedience. The second party, the parent, would then "give him his *due*" through a punishment that "fits."

In the case of restitution, a harmful or immoral act takes something of negative value and the guilty party *repays her debt* with a positive act, after which the books are balanced. A child might break an object and save her allowance to replace the item. Restitution and retribution fall neatly along nurturant parent and strict father lines. While the Nurturant Parent feels an obligation to empower his children to learn from their mistakes and proactively offer restitution, the Strict Father seeks retribution to "make wrong right."

In real world accounting, there is a column of credits and a column of debits and the

number of credits must match the number of debits. What counts as a credit in one column is a debit in the other. In regular, zero-sum Moral Accounting, an act of kindness is a credit from the view of the "do-er" and debit on the part of the receiver. The receiver "pays his debt" with a thank-you, which is a credit on his part and a debit for the do-er.

In non-zero sum Moral Accounting, this is not the case. Because it feels good to give, the giver builds "moral credit" with her action. Because it feels good to give thanks, the receiver builds moral credit with his appreciation. The moral credit adds to the credit he receives for the transaction itself (it feels good to be on the receiving end of both kindness and gratitude). While the transaction may "balance," moral credit is particular to the individual parties. The giver may "value" altruistic acts more than the receiver values gratitude. We might think of this in terms of "net" moral credit; both parties are better off than they were before the transaction: non-zero sum Moral Accounting.

This is substantiated by empirical research that studies the neural activity involved in altruistic and gracious acts. The recurrent finding is that "helping others triggers the same brain activity as the gratification of personal desire" (Keltner, 2004). This makes perfect sense when we remember that understanding is imagining and imagination is simulation. Therefore understanding how your actions benefit others is also the simulation of how you might benefit from the same action. Through this mode of reasoning, negative acts would have the similar reverse effect. We would expect both parties involved to feel worse, not "even." In the metaphor of non-zero sum Moral Accounting, this is in fact the case. An act of injustice is further imbalanced by an act of retribution.

For this reason the Nurturant Parent models, teaches, and encourages restitution.

Restitution follows an initial infraction that negatively affects both the harmed party and the guilty party. The guilty party repays her debt; the moral books are balanced to a zero-sum. But further moral credit can accrue if the guilty party has come forward of her own accord and when the harmed party forgives the act. Both parties have mutually benefited from the experience.

Cooperation and Competition

Cooperation and competition are also forms of Moral Accounting. Cooperation is based on non-zero sum Moral Accounting; competition is zero-sum. The morality for each is based on a different model of the contested concept of fairness. Cooperation can be based on either a model of equal distribution in which responsibility is shared equally or scalar distribution of responsibility in which responsibility is matched to ability. Regardless of the distribution of the work, true cooperation means we all reap the benefits and share the credit. We mutually benefit from our teamwork. It is process-oriented and systemically causal. Again we have the image of the *peloton*; as the cyclists draft off each other, they race faster as a group and expend less energy. Cooperation makes us stronger individuals. According to the rules of non-zero sum Moral Accounting, this mutual benefit increases the moral credit in all parties involved, which encourages more cooperation. Cooperation begins with mutual respect and is highly valued in the Nurturant Parent model.

Strict Fathers can cooperate, too, of course. The difference is that their form of cooperation uses zero-sum Moral Accounting. Cooperation is still based on the procedural distribution model of fairness. Only those who follow the rules get to play on the team.

Someone who doesn't pull his *fair* share shouldn't still get to reap the benefits and share the limelight. The Nurturant Parent approach to the child who is unwilling to participate is similar to her basic approach to discipline. This behavior is the result of some other catalyst, and unless the catalyst is addressed, the behavior will not change.

Competition is the antithesis of cooperation. It is strictly a goal-oriented, directly causal, zero-sum game. There can only be one winner; everyone else is a loser. Fairness is procedural, based on rules. The idea of zero-sum competition is strongly valued and deeply rooted in our culture. From award shows to reality television contests to sports competitions to elections, striving to be “number one” is, for some, the American dream.

Competition ranks participants according to wins and losses and neatly creates classical categories of all-or-none membership. Competition is moral according to several different metaphors of morality. Morality is Obedience: to compete fairly to follow the rules. Morality is Strength: competition is a way to morally divide the strong from the weak. The Moral Order: competition is a “natural” and moral ranking system. Morality is Staying Within Boundaries: competitors can only break out of their assigned category by winning and advancing into a higher category or losing and digressing into a lower category. This combination of metaphors creates the underlying sentiment that competition is moral. It feeds directly into the hierarchal structure imposed by the Strict Father parenting model.

Indulgent parents try to turn competition into a directly causal, non-zero sum game. Hence “we are all winners.” This is fair only according to the model of equality of distribution (one competitor, one gold star). But it is completely unfair (and therefore immoral) in terms of procedural distribution (you must play by the rules), rights-based fairness (you get what you

have a right to), scalar distribution (the more you work the more you get), equal and scalar distributions of responsibility (responsibility is either shared equally or according to ability).

Respect and Self-Worth

Self-*worth*, a contested concept, is the credit column in one's Moral Accounting books. We can define self-worth in terms of Moral Credit (people who do a lot of selfless deeds are good people); Moral Order (More is Up: people higher in the Moral Order are more “worthy”); Moral Essence (self-worth is determined by one's character).

Respect is someone else's assessment of one's self-worth. One might give respect according to Moral Credit, Moral Order, or Moral Essence. If the assessment of X is high, we *pay* respect. If the assessment is low, we say we *lose* respect for X.

In the Strict Father model, worth and respect are defined in terms of Moral Order and Moral Essence. Morality is Obedience and Morality is Strength. One's Moral Essence determines one's rank in the Moral Order. Because Morality is Strength, and parents are stronger than children, parents are ranked higher in the Moral Order than children. Fathers are stronger than mothers, so fathers are at the top of the Moral Order with mothers ranked below them. Children are ranked below their parents by age (the indicator of strength), and in some Strict Father families, sons might even outrank their mothers when they become adults. Morality is Obedience, so disobedient children are at the bottom of the Moral Order. According to this model of worth, it would be immoral for parents to have respect for their immature children. The Moral Order is the sole indicator of worth and respect, so individual assessments of worth in terms of *self*-worth are immoral in themselves. They suggest another measure of worthiness.

As we have seen, the Indulgent Parent is the polar opposite of the Strict Father. The idea of a Moral Order is in itself immoral. Morality is Fairness and fairness is equality of distribution. Respect is evenly distributed. This is why indulgent parents treat their children as equals. If respect is evenly distributed, then so is worth. This is the rationale behind the lowering of standards. If we are all equally worthy and our labels define our worth, then we must all have the same (high-ranking) label. Therefore, we are all winners. We are all special.

The concept of direct causation in the Strict Father and Indulgent Parent models encourages goal-oriented outlook; the focus is on end states (labels and ranks). Systemic causation is process-oriented so the metaphors of morality that are most valued in the Nurturant Parent model are those that are integrated with on-going processes such as Morality is Caring, Morality is Happiness, and Morality is Generosity. It is the process of being moral that determines our self-worth and whether we respect others. This is why respect is earned in the Nurturant Parent model. Children earn the respect of their parents just as parents seek to earn the respect of their children. Parents earn respect by modeling moral behavior. Parents also teach their children to develop their own sense of self-worth independent of others' judgments (Morality is Independence, a variation of Morality is Freedom).

Motivation

Carol S. Dweck is a developmental psychologist at Stanford who used to study how children cope with failure until she came across some children who seemed excited by failure. It turned out that they judged the experience in terms of a challenge regardless of the outcome. Dweck found their reaction novel and now she studies success. She identifies two mindsets, a

growth mindset and a fixed mindset, that are excellent indicators of accomplishment.

The fixed mindset, or "learned helplessness," refers to labels, ranks and judgments that are either self-imposed or assigned by authority figures. These labels refer to *essences* such as "smart," "talented," "genius," or "dumb," "untalented," "slow." The growth mindset or "mastery oriented approach" focuses on the process of learning and acquiring the skills necessary to understand and master tasks. Children are never labeled; the performance is judged, not the child.

Dweck has found that simple strategies, such as telling a student he is "good at math" versus telling him he has "excellent math skills" affects the student's motivation in future tasks. Students with fixed mindset messages that label them as smart or "good at math" are less likely to accept harder problem sets. They are more likely to cheat on future problem sets and more likely to lie about their scores to an unknown "pen pal" than the students who were given "growth mindset messages." Students in the growth mindset group heard messages such as, "You have excellent math skills." These students were more likely to ask for harder problems, less likely to cheat and less likely to exaggerate their scores (Dweck, 2006).

In Dweck's assessment, parents and teachers with the fixed mindset set the child's self-worth with their ranks and judgments. Children labeled as "smart" are less likely to challenge themselves because they do not want to run the risk of being reclassified if they cannot repeat their performance. "Dumb" children have no incentive to try, either. If their intelligence and abilities are fixed, what's the point? For the fixed mindset, no amount of effort or practice will raise their status.

Dweck believes that this judgment dampens drive and inner motivation. It teaches

children that only labels matter, not the material learned. Rather than embrace the learning process, children become afraid to make mistakes, afraid to try. This attitude can affect more than just schoolwork; if only labels matter, then friends, spouses, co-workers, employers, subordinates, and one's own children are similarly ranked and judged. They are given a status in the Moral Order.

Dweck also outlines several important qualities that growth-minded parents and teachers instill in children. These children are taught to see mistakes and disappointments as indicators for improvement: clearer communication, more preparation, more practice, etc. The focus is the process of learning and doing rather than the goal state of “done.” Reminiscent of the nurturant parent's view in which problems are entities with cores, catalysts, multiple causes and a variety of effects, the parent with a growth mindset teaches his children that failures are systemically caused. To overcome the failure is to address the possible causes, not to “get over it” as if failure is just a bump in the road.

In her research, Dweck noted that many successful athletes, musicians, and businessmen do not compete to win; they compete to improve. These individuals consistently put themselves in challenging positions, pitting themselves against better opponents. This is the kiss of failure to the fixed mindsetters, but to the mastery-oriented folk the road to success is not about wins and losses; it's about learning from experience.

Competition in the fixed mindset is strictly a zero-sum game. Either you win or you lose. However, in the growth mindset, wins and losses may be tallied, but so are other factors such as the experience of the challenge or a comparison between present performance and personal best. In this sense, growth mindset competition is a non-zero sum game. Although Dweck does not

explicitly mention nurturant or strict parenting, she does list nurturance, compassion, empathy, and a process-oriented focus as essential qualities for parents, teachers, coaches, spouses, and employers. In the “Don't” list are qualities such as judgment, a goal-oriented focus and an emphasis on obedience over individual empowerment.

Causation, innate tendencies, Moral Accounting, and motivation are four concepts that are perceived differently by the parenting models. In each area, empirical studies have favored a nurturant approach to each of these concepts. Carol Dweck's Motivation Theory supports systemic, process-oriented methodology over a fixed, goal-oriented emphasis. Research on the psychology of gratitude and altruism offers a different view to the “give-and-take” of zero-sum Moral Accounting. Studies of mirror neurons, the neural correlates of empathy, and the neurally embodied understanding of emotion combine to form the Nurturant view of respect and our innate goodness. If the consensus among the scientific community is so strongly supportive of the nurturant view, why are parenting philosophies that advocate strictness or indulgence still around? Why do people ignore good advice?

Mutual Inhibition

Mutual Inhibition is the neural phenomenon in which the activation of one neural structure inhibits another neural structure. For example, neural pathways that release the neurotransmitter dopamine (a “feel good” neurotransmitter) mutually inhibit pathways that release norepinephrine (a neurotransmitter associated with such feelings as fear or anger). This phenomenon intuitively makes sense to us. We can't simultaneously feel joy and anger, but we can imagine such hybrid emotions as joy and sadness (melancholy) or fear and anger.

In the motor system mutual inhibition manifests itself in gait: the motor pattern for a cat's walk is distinctly different from that of a trot or a gallop. Again, this is an intuitive concept. It would be ridiculous to assume that one could trot and gallop at the same time. The fact that the cat uses one mode of locomotion explicitly means it is not using another.

Our visual system is yet another example of mutual inhibition, and many optical illusions exploit this biological phenomenon. One illusion is the famous Necker cube, the three-dimensional outline of a box rendered in two dimensions. As one stares at the box, the perspective of whether the box opens downward or upward changes; it is impossible to see both images at the same time. Another example is the duck-rabbit illusion, an illustrated profile of an ambiguous figure that either looks like a duck facing one direction or a rabbit that is facing the other.

These examples of mutual inhibition are relatively simple to imagine. Either they have binary values (it is either one thing or another) or they are directly causal, as the discrete stages from walk to trot to gallop are. In both cases we can imagine what we do not see. It is far more challenging to imagine cases of mutual inhibition that have systemic implications. This is why it

is so difficult to juxtapose the Nurturant Parent model with the Strict Father model; they are mutually inhibitory models. The basic emphasis of empathy, compassion, and cooperation in the nurturant model and the emphasis of obedience and competition on the side of the authoritarian model are mutually inhibited at the neural level. The values most highly regarded by the nurturant model are part of the dopaminergic pathways whereas the Strict Father values are stimulated by the norepinephrine pathways (Lakoff, 2008).

Each of these traits—empathy, compassion, nurturance and cooperation—has systemic entailments that we understand from our life experiences. For example, an empathetic or compassionate act tells us something about the Moral Accounting that might have transpired between parties. We can simulate how the instigator of the compassionate act felt being moved by a particular person and how the recipient of the compassion might have felt grateful. There might be a time in the future when this "debt of gratitude" is repaid. This is precisely the point of Moral Accounting: there are a number of other simulations and situations that might have resulted from this particular act of kindness.

In the visual illusions we could "flip" back and forth between the two images. Acts of compassion and empathy have so many possibilities and simulated entailments that it seems virtually impossible to flip back and forth between two mutually inhibitory ideas such as systemic implications and directly causal ones.

Perhaps this is why the Nurturant Parent model is often confused with the Indulgent parent. As we have seen, the Indulgent parent is the polar opposite of the Strict Father. Their common axis is direct causation. The traits of the Indulgent model are often just the negated Strict Father trait. Rigid discipline and rules are countered by little discipline and few rules.

Little attention to emotional ("weak") states is met with the highest regard for feelings. The drive to succeed contrasts with lowered standards. Because both models are directly causal, the implications that arise from the attributes and their negations are also opposite pairs. Because attributes and their negations evoke the same frame, we can imagine the opposite pairs with the same mental simulation. This is not the case with the Nurturant Parent and the Strict Father models. We cannot perform one mental simulation to understand both the implications of an attribute and the implications of its mutually inhibited opposite unless they share a common axis.

However, if we make causation the common axis, we can tease apart the pivotal difference between the nurturant model and the indulgent model. Direct causation is the factor that aligns the Strict and Indulgent models with each other. Through the common frame of causation we can understand the Nurturant parent and Strict (or Indulgent) models in terms of the duck/rabbit mutual inhibition. One simulation is consistently process-oriented while the other two (Strict and Indulgent) are predominantly goal-oriented. Visually, you can't "keep your eye on the prize" (goal-oriented) and "savor every moment" or "watch where you're going" (both process-oriented) at the same time.

We live in a goal-oriented culture and have the bias that all causation is direct causation. This is a severe obstacle in understanding the Nurturant Parent model. Systemic causation is a fundamental tenant of nurturant parenting. "Mutual respect," "parents modeling exemplary behavior for their children," "encouraging children to learn from their mistakes" are ongoing actions, process-oriented actions. Even the aspect of their grammar is continuous rather than final. They are actions in which the "living" and the "doing" are the reward. These actions do not have an end state. Moreover, all of these actions have multiple causes and multiple effects.

There are many opportunities that inspire a parent to encourage her child to learn from his mistakes. Like fibers that weave together to make a sturdy fabric, the consistency with which the nurturant parent encourages, respects, motivates and empowers her child systemically strengthens the parent/child relationship.

However, direct causation mutually inhibits systemic causation. Goal-oriented approaches mutually inhibit process-oriented ones. Not all process-oriented approaches are examples of systemic causation, and activation of process-oriented actions does not in itself inhibit direct causation. The more we focus on the perceived direct effect of our actions, and the more we value goals over the process through which we reach them, the less we can appreciate, or even understand, what value the Nurturant Parent model adds.

Conceptual Metaphors

Life is a Journey

One of the most pervasive metaphoric event structures in our language and in our culture is the metaphor Life is a Journey. We call important life events *milestones* or *landmark* events. We say phrases such as, “He's really *going places*,” or “My job is *going nowhere*.” We talk about life and our accomplishments in terms of fast tracks, inside tracks, dead ends, and detours. Some of us have “been down that road before.” Others have “chosen a different path.” The metaphor builds on a deeper primary metaphor that conceptualizes time as a linear scale, with the past behind us and the future in front of us. The timeline maps onto a lifetime. A line maps to a path. Goals become destinations. Life becomes a journey.

In the Life is a Journey metaphor, problems are obstacles on the path. Consider the following sentences:

Just *get over* it.

Leave your problems *behind* you.

We just have to *get past* our differences.

How can we *get around* the problem?

Just wait for it to *go away*.

Wait for the storm *to pass.*

How can we *bypass* the issue?

He *turned his back* on the problem.

It's time to *move on*.

You've got to get *through* this.

In each of the sample sentences problems are obstacles; they are addressed in much the same way that we negotiate a pothole or a rock in the road. Both the Indulgent Parent and the Strict Father models conceptualize problems in this way. Like a pothole or barrier, the problem only directly affects the part of the road immediately surrounding the obstacle. The main difference between the models is that in the Strict Father model, parents advocate *facing* problems, *standing up to* problems before *getting over* them and *leaving them behind*. The conflict-avoidant attitude of the Indulgent parent *glosses over* problems or *sidesteps* issues. But in both models, once they are behind you, they're gone.

One of the entailments of the metaphor is that problems that have been addressed or ignored are metaphorically behind us on the path. They no longer affect the rest of the journey. This is a misleading entailment. Life is systemic. Past problems do affect future decisions. How problems are handled does affect our lives and the lives of others. When we metaphorically conceptualize Problems as Entities, problems "come back to haunt us" or "come back to bite us." We can "learn from" our problems; problems "teach us a lesson." These qualities are hidden by the metaphor Problems are Obstacles in a Path.

The obstacle/path metaphor also misleadingly entails that a given problem affects only one path and is only an obstacle for those who travel along that path. But we are interconnected. Some problems (like the global economic collapse) become everyone's problems. The Life is a Journey metaphor does not allow for multiple travelers to have different goals, different destinations, travel along different paths and yet be affected by the same obstacles. The mappings aren't there.

In Life is a Journey, goals are conceptualized as destinations. We *head* toward them. We make sure we're on the right *path*. Someone who has achieved success has finally *arrived*. Death is the final *stop*. Other *landmark* life events—graduations, weddings, births, promotions, and retirements—are destinations in themselves. Along the great path of life, they are places we pass along the way to death. Like ants that are not connected to one another but nonetheless are visualized as a line, landmarks are conceptualized as a multiplex that is substituted for the path itself. The journey becomes a string of places *where* one traveled to instead of *how* one traveled. As process-oriented as our personal journeys may be, the multiplex of landmarks emphasizes the goals. The more we conceptualize our lives as a dotted series of goals, the less we can see the value of the experience of the journey. Systemic causation is once again mutually inhibited by our conceptual metaphors.

Life is a Garden

Life can also be a garden. In this metaphor, people are plants. We *grow*, *thrive*, *mature*, or *wither*. Life cycles are seasons or months, as in a May-December relationship. As metaphorical plants, we need nourishment to survive, and much of our life depends on our environment. There is interconnectedness in a garden. In a real garden, weather, soil and pests are not confined to one plant; they affect the entire garden. The metaphor of the garden is inherently process-oriented; the only goal is to grow.

This makes a big difference. If life is something other than a journey, then problems are something other than obstacles in a path. When Dr. Christine Carter (personal communication)

and others who promote positive discipline talk about problems, the problems have essences. They talk about the "*core* of the problem" or the "*crux* of the issue." In this conceptual model, problems have hearts, seeds, and roots. To solve a problem is not to simply move past the obstacle in a path; it is to deconstruct the problem, dissect it, and inspect its core, its "heart."

In this conceptual model problems do not materialize from nothingness. They are not detached from the rest of the journey like a roadblock. Instead, problems have *catalysts* that may be a convergence of factors, the combination of which forms the problem. According to Carter, facing problems means considering a number of possible causes and catalysts as well as addressing the resulting behavior. A parent discusses the causes, catalysts, and behaviors with her child with the intention of creating a different—and positive—outcome should these factors converge again. This is a systemic approach to understanding cause and effect.

Sacrifice

Sacrifice is highly valued in our culture. Metaphorically, it can be the moral debit one pays before they are owed. According to the model of Moral Accounting, sacrifice and self-denial build moral credit. Given this logic, if a great deal of moral credit makes us more moral and Morality is Strength, then suffering makes us stronger. We have cultural idioms that reinforce this idea, such as "No pain, no gain" and "What doesn't kill you makes you stronger."

Sacrifice is viewed slightly differently in each of the parenting models. The Indulgent Parent sacrifices for his child, but children are not expected to sacrifice for the parent. In the Strict Father model, on the other hand, it is the opposite. Sacrifice is tied to the Moral Order and

is determined by rank. Lower ranks sacrifice for higher ranks, but not the reverse. Children are expected to sacrifice for their parents, women for men, employees for employers, humans for God, etc. Their sacrifice builds up moral credit and metaphoric strength. In the Nurturant Parent model, self-sacrifice and self-denial are akin to self-deprivation. Because Morality is Caring and Morality is Health, it is the moral obligation of the Nurturant Parent to ensure she is healthy enough to take care of others. In this model sacrifice weakens one's moral strength.

The perceived consequence of strength from sacrifice is really just metaphorical reasoning based on an incorrect mapping. In the adage, "What doesn't kill you makes you stronger," the hardship (schematically similar to punishment) metaphorically strengthens the thematic patient referred to in that axiom. However, in the Nurturant Parent's view, it is a person's existing resources and coping mechanisms that make him stronger. For example, if one contracts a virus, it is his immune system that creates antibodies to kill the virus. Metaphorically, it is the virus that "doesn't kill," yet it is the antibodies that actually strengthen. Moreover, without a strong immune system the antibodies can't do anything. The virus will weaken the patient.

Likewise, a child can have healthy coping mechanisms that contribute to a healthy and empowered life. These coping mechanisms, if they are systemic—like the process-oriented approaches from Carol Dweck's Motivation Theory—will feed off of each other to create stronger coping mechanisms. For example, a learning process that teaches a child to be confident in her abilities and learn from her mistakes will help her to be more confident in her ability to learn from her mistakes. It may be the case that hardship demonstrates the strength of such coping mechanisms such as self-confidence, but it is not the mettle that strengthens.

Excessive stress, like stress on a building, does not strengthen it.

There is an additional twist to the Nurturant Parent view of sacrifice. Sacrifice can also be the refusal to accept an act (kindness, gratitude), thereby not acquiring the moral debit if it is an act of kindness. In the case of gratitude, she does not allow the gracious party to pay his debt. In both cases the "sacrificer" actively prevents the moral books from being balanced. This in itself is "immoral" according to the metaphor Morality is Fairness and the model of fairness in which fairness is equality of opportunity.

The value of sacrifice is merely a metaphorical concept. Deprivation does not and cannot fortify whereas nourishment strengthens and fortifies. In the metaphor Life is a Garden, goals are not destinations; the goal is to grow with others.

In the metaphor, "Life is A Journey," regardless of whether the journey has a solo traveler or more than one (such as in the Partnership is a Journey metaphor), all travelers are going to the same destination. There is only one goal. The path you take, the obstacles you face, even the destination, are particular to your life's journey. The metaphor evokes direct causation. What is hidden by the frame is that every step, every obstacle, every decision is like a ripple in a pond that affects a myriad of other people's lives. It may be in a way that we feel is inconsequential, but nonetheless, there are no lives lived independently of others. In fact, our lives are interdependent and interconnected. This is the basis for understanding systemic causation but it is not reflected in one of the most basic event structure metaphors of our culture. On the contrary, systemic causation is mutually inhibited; it is outside the frame of this most relevant and unconscious conceptual model, Life is a Journey. Our world and our lives are systemic but our cultural metaphors are not.

When Dr. Christine Carter of the Greater Good Science Center (personal communication) discusses nurturant parenting, she speaks and gestures in cycles. Kindness begets kindness. Gratitude begets gratitude. Happiness begets happiness. Altruism begets altruism. It is more than a chain reaction: positive emotions are propagating, metaphorically giving birth to more positive emotions. It is the metaphor Causation is Progeneration with an added image in which the offspring strengthen the cause. The image—which is not one that is part of our current culture models—is of the self at the center, acting and feeling in a way that positively touches others and strengthens the self at the same time. It is as if the ripples in the pond had a feedback loop.

How would our lives, families, and communities be different if we conceptualized life not as independent journeys but as collections spheres that have causal impacts on other proximal spheres or as gardens which, when cultivated "bloom" and "flourish?" Such cultural models would give researchers who study the impact of compassion, empathy, mirror neurons, and altruism rich images with which to describe the impact of their findings. The strengthening of such a cultural model might, over time, inhibit the Life Is a Journey metaphor that is so counter-productive in the understanding of systemic causation.

Why Cultural Models Matter

Consider the sentence, "I was spanked/formula fed/home schooled and I *ended up* just fine." There are four assumptions that the speaker of such a sentence makes. First, he assumes that it is actually possible to objectively assess how one "ends up." Secondly, the semantics of the sentence assumes that there are two possible outcomes for a person's life: fine and not fine. If goals are destinations, this entailment is perfectly logical. You either arrive at your destination or you don't; you either "end up" fine or you don't. A destination is not a gradient category. It has all-or-none membership. Thirdly, and more importantly, the sentence assumes that the impact or effectiveness of a given process (the process of being spanked, formula fed, home schooled, etc.) can be determined by evaluating the end state, and through this evaluation we can judge the worthiness of a process. It is exactly the same conclusion reached by the Micronesian who hypothetically claims, "I think the islands in the ocean move and I got to my destination just fine."

Finally, the sentence has a second message. Given the prism of classical categories, direct causation, and the idea that the value of processes is judged by comparing end goals, there is an implication that if the sentence is true, the reverse of the sentence is not true. In other words, if the sentence, "I was spanked and I ended up just fine," is true, then the sentence "I was not spanked and I didn't end up fine," is also true. The speaker turned out fine *because* he was spanked/formula fed/home schooled; if he had not gone through the process of being spanked, etc., he would not have "ended up" fine.

A basic problem occurs when advocates of process-oriented approaches and systemically caused processes accept the end state condition as the frame of the argument. When this is the

case, the argument is quickly lost. When goal states are emphasized, process-oriented approaches are mutually inhibited. When researchers and Nurturant Parent advocates fall into the trap of comparing end states, they lose the opportunity to highlight the true difference between a goal-oriented view and a process-oriented one. Empirical research supporting such ideas as forming attachment or teaching compassion highlights process as a key factor. It is the process that tells us whether we will reach our goal because it is the process that teaches us what works and what doesn't.

Returning to the Micronesians and the western sailors, perhaps one mode is more accurate or more efficient than the other, but if both boats eventually arrive at the designated island, and this is the end state that is evaluated, what is there to compare? What argument can be made for one system of navigation over another? The difference only comes to light when we compare processes: the Micronesian system depends on a fixed set of variables and rules that can only work in a specific environment. The western mode of navigation involves learning a process that—given the known destination—will work for travelers sailing between any two land masses, not just the Micronesian islands.

In April 2009 the *Atlantic Monthly* provocatively printed an article titled, “The Case Against Breast-feeding.” The author, Hanna Rosin, who has breastfed all three of her children, discusses and disputes the numbers and statistics that are normally used to encourage mothers to nurse. She looks at breast-feeding in terms of a feminist issue, articulating the idea that pressuring mothers to nurse has a side effect of perpetuating gender inequality. Rosin brings up many valid points, such as the length working mothers go to in order to ensure their babies have an adequate supply of milk. Not all careers and workplaces accommodate to the needs of the

nursing mother and the time constraints on the working mother who continues to breast-feed, Rosin claims, puts the mom at a competitive disadvantage with male cohorts.

However, Rosin doesn't make a case against *breast-feeding*; hers is the case against *the case for* breast-feeding. The case for breast-feeding is usually quantified in terms of end states that can be reduced to numerical values. Researchers have numbers for everything from IQ levels to allergens to high-school drop out rates. They usually draw two main conclusions. One conclusion they draw is that breast milk has special immune-strengthening antibodies that can't be replicated in baby formula, and these antibodies make brains smart and bodies strong, much smarter and stronger than the alternative baby formula. The second conclusion is that skin-to-skin contact creates a special bond between mother and child. This bond lays the foundation for the kind of secure attachment that creates confident, successful adults. The researchers translate their findings into numbers which then correlate with desirable end states.

However, these numbers are rarely derived from truly controlled experiments because in most cases the controlled experiments that provide the cleanest data are completely unethical. We cannot randomly take a group of mothers and babies and raise one group in an enriched environment and the other in an impoverished one as if they were lab rats. As a result, researchers get their test and control groups by seeking out mothers who, for one reason or another, had to exclusively formula-feed their babies. This group is compared to a group of mothers that chose to exclusively breast-feed.

Critics are always quick to point out possible confounds: some demographics—usually mother's level of education and socio-economic status—are more likely to contribute to a mother's decision to breast-feed. But these characteristics alone have been used to explain the

discrepancy between IQ levels and confidence levels. Regardless of how carefully researchers try to control for these effects, there is always dispute over the methods and findings.

This is the position Rosin takes in her article. She digs up several other studies that have just as carefully controlled for race, education, socio-economic status, religion, including one from Belarus, and these studies have come to the firm conclusion that there is little difference between formula-fed babies and breast-fed babies. Therefore, the benefits of breast-feeding must be myths, just part of an elaborate scheme that exerts even more pressure on women, making it harder for them to be good mothers and good employees, putting the dream of gender equality even further out of reach.

But Rosin is conflicted. In her last paragraph she writes:

> *My best guess is something I can't quite articulate. Breast-feeding does not belong in the realm of facts and hard numbers; it is much too intimate and elemental. It contains all of my awe about motherhood, and also my ambivalence. Right now, even part-time, it's a strain. But I also know that this is probably my last chance to feel warm baby skin up against mine, and one day I will miss it.*

What Rosin can't quite articulate is that breast-feeding is process-oriented and its effect is systemic. And yet what advocates argue for—and Rosin argues against—is that desirable end states such as "smart," "lean," "allergy-free," and "confident" are directly caused by breast-feeding. If the research is inconclusive and all causation is direct causation, then the claim stands: "I was formula-fed and I ended up just fine."

Clearly Rosin understands that there is something more to motherhood than facts and

statistics. But what's missing from her "best guess" is the notion that motherhood is a systemic weave of nurturant and affectionate processes. Each parental behavior becomes a thread and together they form a fabric of systemic processes; the fabric as a whole is stronger than any individual thread. Citing empirical studies that are inconclusive, Rosin frames breast-feeding as an act that has a negligible effect.

What Rosin fails to acknowledge is that parental behaviors are interconnected. Each positive behavior strengthens the effect of the others; that is why researchers cannot separate breast-feeding as from other positive parenting behaviors and why, if the other parenting behaviors are equal, the kind of milk given in the early years seems to be inconsequential. As in the analogy of the *peloton*, if the *peloton* is strong enough, the addition or absence of even the fastest rider seems to have a negligible effect. This is only because the power of the pack is so interdependent; the group as a whole is faster than any individual rider, but strong riders still matter.

Researchers suffer from the same faulty reasoning Rosin uses. If they didn't, advocates of nurturant parenting behaviors would use process-oriented language and image schemas that evoke systemic causation to describe their findings rather than accepting the goal-oriented frame and comparing end states in terms of numbers and statistics.

If researchers and essayists applied the tools of Cognitive Linguistics to their arguments, we could then understand the discussion of breast-feeding in completely different terms. We could look at how the contested concepts of radial categories such as *mother* or *feminist* account for different opinions on breast-feeding. We would see that there are conceptual models in our culture that assign self-worth to mothers on the basis of whether they breast-feed or formula-

feed. We would be able to analyze mothers' sacrifices and claims of inequality in terms of moral credit and contested models of fairness.

Through Cognitive Linguistics, we can look at the discussion of breast-feeding in terms of conceptual models instead of statistics. How do our cultural ideas about intimacy and dependency affect our attitudes on breast-feeding? For example, the word "wean" in popular parlance is used to describe a vice, a dependency that one is trying to shake. We talk about weaning ourselves from things such as junk food, diet sodas, or a dependency on foreign oil; we never talk about weaning ourselves from fruits, vegetables, or ironically, cow's milk. This mapping of vice to mother's milk is not an accident; it is a conceptual metaphor borne from our prevailing attitudes about dependency.

The idea that dependency is so bad that even infants should be trained to be independent of their caregivers mutually inhibits the merits of interdependencies and the reality of systemic causes. The more we extol the individual, the less we can understand that it is in our nature as humans to thrive on interconnected dependencies with the humans around us, that is, with our families and communities. Albert Bandura's ideas on social learning, Dacher Keltner's work on embodied emotion, Robert Emmons' research on gratitude, Carol Dweck's conclusions on motivation, and Marco Iacoboni's theories of imitation and compassion are just some of the researchers whose work is best understood within a frame of systemic causation.

Conclusion

Isolated facts and frames don't paint pictures or tell stories; they make inferences that are not necessarily consistent across speakers. This is one reason why convincing arguments are not made by "just giving the facts." Convincing arguments are observations of and responses to a given contested situation and are understood against a backdrop of cultural models, semantic frames and conceptual metaphor. In the case of the Micronesians, the contested situation is a world where islands move through the sea. The observations are fairly simple: Pacific Islanders observe that the islands move; the Westerners observe that islands don't.

The case of parenting methods is much more intricate. There are divergent views on breast-feeding, sleeping arrangements, childcare, affection, reward reinforcement, forms of punishment, performance expectations, and child/parent responsibilities, just to name a few. The observations are often numbers that are taken as causal: the number of allergies in bottle-fed babies, the number of SIDS deaths for infants who slept in cribs, IQ scores, social intelligence scores, high school dropout rates to prison term ratios, etc. The numbers by themselves are meaningless—they acquire meaning only when the frames through which the observation is understood are paired with other knowledge. The arguments are understood in terms of models. These models have implications that are either systemic or direct with metaphoric entailments that are either process-oriented or goal-oriented. These implications and entailments in turn either agree or disagree with a specific model of fairness and a specific idea of human nature.

Parenting is our first experience with governance, and while many aspects of life are not analogous to the parent/child hierarchy, we never escape governance. We have teacher/student relationships, employer/employee relationships, relationships between the leader of a church and

her congregation, a mayor and citizens, and so on. On its face it seems that our ideas about parenting have nothing to do with our feelings toward a boss or a governor when, in fact, many of the deeper moral structures are the same. When our conscious reasoning is based on unconscious inferences, we are unable to understand why our ideas resonate with others or how others might possibly disagree.

The Cognitive Science literature is replete with evidence to counter the traditional notion that our world can be neatly chopped into classical categories. And yet, in spite of the empirical research and our personal experience, we still reason in terms of classical categories and direct causation. Some researchers—to their detriment—compare goal states and statistics even though many of their approaches are process-oriented and their research is best compared through a "growth" frame rather than a "destination" frame. Cultural concepts that value individuality mutually inhibit the concepts through which we understand the interconnectedness of human nature.

How we actually reason is very different from how we *think* we reason. Contested concepts of fairness, morality, and parenting shape our Moral Accounting rules. Cultural conceptual metaphors that map life goals to gardens and images that depict systemic causation or direct causation affect what we understand and how we argue our positions. To understand this about our cognitive abilities is to understand how our culture perpetuates an Indulgent or Strict Father model of parenting while the empirical studies—social learning theory, motivation theory, altruism and gratitude research—combine to form a model of parenting (Nurturant) that is often misunderstood. Through the tools of Cognitive Linguistics, we can identify the root of the misunderstanding. It is only then that we can select the image schemas and conceptual

metaphors that reflect the deeper structures behind the ideas we want to convey.

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