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“Beauty, Enlightenment, and Comfort at Top Speed”: Cognitive spaces and blending in the fictional universes of Kurt Vonnegut and Gabriel García Márquez

A thesis submitted in partial fulfillment of the requirement for the degree of
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By
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Fiction continually refers to its own power in society to describe the finitude of human life and transience of collective memory, reminding us that the written word has a durability that we as humans think about and strive to achieve. Certain works suggest even that fictions are more real to us, create worlds that engage, entrap, and define us, more so than the so-called real-world of perception. “Life is not what one lived, but what one remembers and how one remembers it in order to recount it,” claims Gabriel García Márquez in his autobiography, questioning the boundaries between life as the totality of experience of the individual, and the remembrances of such a life. Never in question is that life’s import lies not in living, nor in remembering, but in the ability to recount it. Indeed, the collective experiences of an individual do not achieve durability and meaningfulness without having been written down. Of course even a great work of fiction is nothing but words until a reader interacts with those words: a process of fluid exchange between text and context brings the fiction into being.

The purpose of my project is twofold. First and foremost, I am interested in comparing the fiction of two apparently very different authors: Kurt Vonnegut and Gabriel García Márquez. I argue that the novels *Cat’s Cradle* and *Galápagos* by Vonnegut and *One Hundred Years of Solitude* by García Márquez exhibit similar definitions of the cultural and environmental havoc raised by people. Vonnegut and García Márquez wrestle with the chaos of the modern world with narrative fiction, in particular narrative techniques and genres that rely on the explicitly unreal: science fiction and magic realism. The results they identify from these conflicts are portrayed similarly between them: crises of identity, looming threats of apocalypse, re-figuring of traditional time to understand the finality of death, and the permutation of the real and unreal in our everyday lives. Foremost, however, is that these three novels all praise the seemingly infinite faculty for artistic and creative imagination in humanity.

Secondly, I will approach the novels using Cognitive Poetic theories, in particular mental space theory and the related theory of conceptual blending, to propose a new way of looking at the processes of meaning construction in the novels. Concerned with the foundations of creative thought, mental space theory provides a new method of delving into the complex exchanges made between reader and text. Applying this methodology, my analyses of *Cat's Cradle*, *Galápagos*, and *One Hundred Years of Solitude* will reveal that the linguistic structures in each text similarly guide the reader to construct meaningful tactics to deal with a conflicted world. Through the conceptual contrast of realistic and fantastic elements of a text, the crossing of temporal boundaries, and the intricate modes of contextual referentiality, I argue that the mental space blends linguistically produced in these three novels are in fact the sources for interpretation, indicating how different contextually-minded readings come together and where they will diverge.

We read and make sense of a literary text using the same cognitive mechanisms we use to understand everyday language interactions, and Cognitive Poetics seeks to describe how an individual produces meaningful readings from literature. Understanding the nature of reading also helps explain how individual readings enter into the greater cultural discourse: how reading fiction changes mindsets and paradigms and has profound effects on how we think about the world we live in. "Cognitive Poetics" refers to a set of theoretical tools that investigate "not the artifice of the literary text alone, or the reader alone, but the more natural process of reading when one is engaged with the other" (Stockwell, *Cognitive Poetics* 2), utilizing trends in cognitive linguistics, psychology, philosophy, and computer science to supplement traditional criticism in order to quantify the processes of meaning construction in novel ways. Cognitive Poetics does not simply provide another model by which the literary critic can structure his or

her argument. The methodology provides a means for talking about general patterns in a given textual example and relating them to other texts (Stockwell “Texture and Identification”). “Literature” implies more than the paginated boundaries of the written text; it is a heteronomous process existing when engaged by the reader’s consciousness. Mental space theory and the related theory of conceptual blending are two cognitive applications in this discipline useful for describing how meaning is a dynamically-constructed process that is by definition imaginative and creative (Dancygier, “What can blending” 6), and I will use mental space theory to investigate the narrative techniques of the three novels by Vonnegut and García Márquez mentioned above.

Mental spacesⁱ are hypothesized as temporary scratchboards that explains how the brain organizes language: flexible frameworks of textual language used for “the cognitive tracking of entities, relations and processes” (Stockwell, *Cognitive Poetics* 97) in conjunction with the reader’s background knowledge and subjective context. At the sentence level, mental spaces are constructed by space builders,ⁱⁱ allowing the reader to project and imagine a scene distant from his or her current situation (from a couch in your house to a world built by the text). Deictic markers noting viewpoint, location, and time are more common cues that signal space-building, while “imagination-oriented deixis” projects spaces absent or fantastical (Herman 524, see **Diagram one in Appendix**). Giving directions to an unfamiliar gas station, for example, involves the creation of spaces that are used to mentally navigate from point A to B. In an extended narrative, mental spaces can be organized into more complex blending networks that are gradually modified as the text progresses; “Mental spaces are interconnected in working memory [to form these blending networks], can be modified dynamically as thought and discourse unfold, and can be used generally to model dynamic mappings in thought and

language” (Fauconnier and Turner 102). For example, one function of a conceptual blendⁱⁱⁱ is to allow disparate entities to be held as equal and semantically transferable, as in the case of metaphor, and analogy is a relationship between two blended spaces that have acquired frame structure in common (Fauconnier and Turner 99).

Conceptual blending itself allows us to work hypothetically within parameters of untruth in order to process chunks of narrative. Through blending we are able to adapt to incongruous alterations in modality, unfamiliar epistemology, and the limited perspectives of characters, which can offer “a more disciplined and accurate, but also much broader, understanding of human imagination and creative thought” (Dancygier, “Blending and narrative viewpoint” 100). I postulate here that investigating the textually established mental spaces and interpreting the potential blends made by the reader will explain the often paradoxical goals of Vonnegut’s and García Márquez’s fiction.

Mental space theory bridges the seemingly wide gap between semantics – the interpretation of syntactically generated structures – and pragmatics – the contextual-dependency of language studied primarily in communication and performance. “Constructions at [the cognitive level] are not representations of the world, or representations of models of the world, or representations of metaphysical universes,” but are built prior to full thought and allow us to navigate and make inferences about the real world (Fauconnier 34-35). This is an important fact when considering fictional constructions. A reader will have rich conceptual models of his world to draw on when approaching a literary text: stored long-term memories, political views, social values, a sense of moral right and wrong, and a family history in addition to the unique reading environment (a favorite couch in the afternoon, a coffee shop on a weeknight, a crowded airline flight, etc). The mental representations of these perceived and remembered conditions will

interact with the fictional spaces built by the ongoing narrative, and regardless of the truth-value of these fictional spaces the reader will be able to generate meaning. In other words, a cognitive analysis such as this can explain how a reader makes use of explicitly fictive and fantastic genres, where time and place may differ drastically from the real world. We can look at the creative mechanisms that make works of fiction into rich worlds onto themselves that provide escape and immense affective power for people.

From here, I will approach each text in turn and apply the type of analysis that mental space theory dictates. With *Cat's Cradle*, *Galápagos*, and *One Hundred Years of Solitude*, I will first explain the major critical arguments (and often contradictions) that have been made of the text and then follow each overview with a blending analysis to show what this method can provide for interpreting literature.

Cat's Cradle: Critical Background

Kurt Vonnegut's fiction often works at cross-purposes. Despite fashioning episodes of destruction by alien invasions, epidemics, wars, and bouts of insanity, during which people seem capable only of acts of cruelty to one another, Vonnegut lauds the creative potential in humankind. Even in his most satirical and biting criticism, he still acknowledges the necessity to "hold in balance the sense of the futility of effort and the sense of necessity to struggle: the conviction of the inevitability of failure and still the determination to succeed" (Simons 107). Kurt Vonnegut's two novels *Cat's Cradle* and *Galápagos* in particular wrestle with this duality between the conflicted and chaotic state of the world and a belief in the ultimate capacity for good in human beings. Critical interpretations thus far have struggled between Vonnegut's anxious recitations of the futility of humanity and the apparent attempts to offer solutions to these problems.

Some critics, like Todd F. Davis, locate the complexities of Vonnegut's fiction, despite the readability of his novels, in the joining of "postmodern metafictional techniques with what upon first glance appears to be a modernist humanism" (150).^{iv} He notes that the postmodern distrust in "singular, centralized meaning" as inherently flawed contrasts with the humanist's struggle to preserve the wonderful fragility of human life on this planet. Focusing solely on the former, as Davis believes some critics do, results in the misconstruing of the bleak endings to some of Vonnegut's novels as a "devotion to a despondent nihilism that impedes his work for building a better world" (151). Instead, Davis calls for the recognition of the ethical content of these novels, Vonnegut's "unique response to a de-centered reality" (151). He compares Vonnegut's project to the French absurdists' attempts to ennoble human beings; Vonnegut focuses on our response to existence rather than philosophical speculation about the nature of existence. *Cat's Cradle* in particular seeks to undermine the U.S.'s unshakable belief that technology, corporate capitalism, and war will bring about some semblance of a utopia. Woeful ignorance and a false sense of security in these metanarratives lead to the apocalypse at the end. Davis concludes that ultimately Vonnegut's hopes lie in the power of writing and the constant revision of these narratives in small communities, fashioning new lies that nonetheless make more sense than the "truths" we believe in (156, 160-161).

Jerome Klinkowitz, the author's most prominent scholar, also maintains that critical interpretation must cope with, rather than dispel, the essential paradoxes of Vonnegut's fiction. *Cat's Cradle* appears to demand "the whole truth" by condemning society, yet it never takes itself so seriously, opting for black humor and comedic moments of disaster.^v By ridiculing this expectation of truthfulness, the text forces a cultural evaluation of prevailing myths through the interchange between text and reader. Bokkonism, he argues, "offers a system that allows the

truth to exist, yet in a way that people are never forced to pay attention to it” (Klinkowitz, *The Vonnegut Effect* 66). Comedy plays the crucial role of exposing the unpleasant facts of reality for what they are: part of the truth yet never Truth itself (*The Vonnegut Effect* 66-67); in turning to black humor, Vonnegut can playfully destroy the world and still acknowledge the beauty of the thing destroyed outside of the novel. In this vein Klinkowitz cites a commencement address by the author: “[Vonnegut] advised the graduates [of Bennington College] to ‘go swimming and sailing and walking, and just fool around... ‘[Changing the world] is an impossible responsibility to bear.’ He is a pacifist; he distrusts the unbridled intellect; he argues for simple, humane values” (Klinkowitz “Why They Read” 72-73). This essential paradox of comedic critique - the abortive narration of the text, the self-defeating actions of the Hoenikker family, and the deflating lack of suspense that hails the accidental introduction of ice-nine into the ocean - reveals ultimately, as John May claims, the “heartbreaking necessity of lying about reality, and the heartbreaking impossibility of lying about it” (32).

Focusing on the problematic role of science in the contemporary United States and a perverted notion of Progress in *Cat’s Cradle*, Daniel Zins claims that for Dr. Hoenikker and scientists like him, “research for weapons of mass destruction is pure *play*; and it is this perverted sense of play that precipitates the apocalypse” (172). Ice-nine looms in the background throughout the novel, and the freezing of the world directly results from the purported “innocence” of the quixotic Dr. Felix Hoenikker and his pursuit of “pure” research. Zins argues that Dr. Hoenikker’s inability to function as an interconnected and conscientious human being indicates a surrendering of agency that equates to an absence of morality; “We may prefer to blame our nuclear predicament on an unbridled technology, but Vonnegut suggests that it is our failure to be fully human that especially endangers us” (Zins 1986: 171). Being fully human

entails, in this view, reclaiming a personal responsibility for communal well-being, relieving humanity of its egocentric need to control the conditions of its existence, and recognizing the danger of the myths that allow for the Dr. Hoenikkers to come into being.

Similarly, according to Loree Rackstraw, Vonnegut urges an examination of human agency, “hoping to make sure that we remember how fragile and easily manipulated our awareness is and how naïve and cruel our free choices can be” in a universe governed by chance and “indifferent natural processes” (53, 55). She claims that this restructuring largely occurs around concepts and insights derived from modern physics; in Vonnegut’s fiction “we cannot ‘know’ anything without being...but we largely invent our being, our sense of identity” (51), mirroring the uncertainty of quantum mechanics. Zins specifically believes Dr. Hoenikker ought to be held accountable as an individual to the extent that his research involved “abdicating his responsibility as a scientist – as a human being – by refusing to reflect on the moral implications of his activities” (173). Rackstraw finds in the novel an advocacy of broader communal responsibility by recognizing our limitations in an incomprehensibly chaotic universe, and consequently concludes that Vonnegut’s works encourage us to continue expanding our scientific awareness (61). However I believe that Vonnegut’s ambivalence towards technological pursuits in *Cat’s Cradle* inevitably results in a pessimistic reading: humanity has little hope of avoiding self-destruction. But, the imperfect heroes of the novel cope with the bizarre and inevitability of their destruction with a sense of levity that cannot be overlooked.

According to Donald Morse, while *Cat’s Cradle* accepts that there are few barriers to what humans can accomplish with technology, “clearly there remains an absolute barrier to what humans can do *physically* in addition to the seemingly insuperable barrier to what they may become *morally*” (“You cannot win” 92, my emphasis). Vonnegut presses readers to recognize

that there is no equivalency between progress in the sciences and the more abstract notion of progress for humanity. May works with this idea of the absurdity of progress and asserts that *Cat's Cradle* offers a unique portrait of a man, the narrator Jonah, who even before his adventure begins has very minimal control over the course of events and the breakneck speed of human progress. Chance has dealt him a hand before he reached the table. *Cat's Cradle* explores the perverted but humorous discovery of purpose by the narrator – perverted in that it is only discovered as purposeful far too late – and his change into a new sort of man laid out by the tenets of Bokononism, “not the man of pretenses who brings the world to destruction, but the man who realizes his extreme limitations” (May 32). It is utopian greed and the reckless trust in science as a means to these ends “that have made the world a ‘cat’s cradle’ [an intricate but fallacious structure]; and if man does not limit his perspective, ‘down will come cray-dull, catsy and all’” (May 32, quoting *Cat's Cradle* 18).

Arguing for what he believes to be Vonnegut’s ultimately humanist moral hopes in *Cat's Cradle*, Leonard Mustazza views in a different light the ambiguities and dangerous play of humanity in the novel. Instead of testifying for the overall spiraling out of control, Mustazza views all of the actions in the novel as a useful and productive force; the characters are “busy making, creating, formulating, conceptualizing, organizing, and reorganizing,” and as is true for many characters in Vonnegut’s fiction, they are pursuing genesis over and over: they “are constantly engaged in coaxing some kind of form and order out of the chaos around them” (76). Bokonon urges, in the final lines of the novel, Jonah to coax form out of the random yet predictable disaster that Dr. Hoenikker’s creative energy has caused by writing down his version of a history of mankind. Such an account must be full of *foma*, of harmless untruths, in order to be potentially accurate. Mustazza finds an optimistic reading beyond even the novel’s advising

people to place “common decency” above “material avarice;” even in suicide, as Jonah arguably writes his account and then freezes himself, Vonnegut makes a case for the potency of self-determination (88). Bokonon’s suggestion at the end of the novel prompts a reconsideration of the entire text. *Cat’s Cradle* is reinterpreted as the history of humanity Jonah writes, reviewing what he has learned in the present and re-creating the steps that led him to San Lorenzo, the miniscule and seemingly disparate moments that brought ice-nine from one man’s head to Papa Monzano’s bed and eventually the ocean. Mustazza locates in this second reading by Jonah a genesis; it is an act of regeneration through the writing and recording events as Jonah believes they are ordered: a personally-affirmed history. This fact is ironic only in the sense that regeneration occurs at the site of the apocalypse and that he casts himself in such a helpless role. There are no moral judgments possible at first glance, and it is only through the recasting and reenacting of these human dramas that absurdity “provokes first laughter and then ‘fear and pity’ – not only for the protagonist, but for ourselves as well” (Mustazza 21).

I believe that the source for the contradictions of these critical views is in the paradoxical role apocalypse plays in *Cat’s Cradle*. One can read the virtual extinction of the human race as the final and inevitable conclusion of an entirely pessimistic understanding of contemporary society, while the comedic absurdity of Jonah’s travels, the invention of Bokononism, and the final commandment to write a history evince optimism for the power of creative enterprises. The analysis to follow will clarify these paradoxes at their source - the conceptual blends that debunk the reader’s values while constructing a contradictory, self-defeating model to fill in the “holes”. The apocalypse necessarily concludes the narrative as the logical extension of the events that take place within, yet it also indicates a beginning for Vonnegut, where the focus is on the power

of fictional texts, in a de-centered and chaotic reality, to provide continuity across time and space.

Cognitive Poetic Analysis of *Cat's Cradle*

Pervading *Cat's Cradle* are the signs of the moral and physical decay of Western society, and specifically of contemporary U.S. culture: signs that portend imminent destruction for the apathetic citizenry of Ilium and the impoverished denizens of San Lorenzo. At its core, the novel seeks to debunk the systems of belief that are ultimately fatal to human integrity and causing this decline, and to offer what alternatives it can. Textually, the language positions the narrator and the individual reader in an intimate relationship of conceptual exchange; the decaying world portrayed by the text and navigated by the narrator is in many ways a pastiche of the reader's world: familiar but demystified. Because of this parallel relationship, when the fallacies of cultural narratives are exposed for the narrator reader undergo a process whereby they question their own values. As the metanarratives that define U.S. culture gradually become meaningless, Bokononism's contradictory assertions can offer commentary where "Truth" fails, and its admittance of its own falsity questions the usefulness of metanarratives in general as directives for a morally commendable society. Governing the structure of the novel is a dual process of exposing the causes of the humanity's decline and substituting those fallacious systems of belief with, ironically, an equally flawed alternative. Narrative-induced revisions begin at the conceptual level of the reading experience, and the blending between Vonnegut's various critiques and the tenets of Bokononism thus allows the reader to generate new meanings beyond what is offered by the language: if not a viable solution, then at least a recognition of alternatives that will advocate common courtesy between people and prevent our self-directed destruction.

This duality is present from the outset of the narrative, where in the opening chapter the narrator invokes a two-sided image of himself, one past and the other present. There's John, "two wives ago, 250,000 cigarettes ago, 3,000 quarts of booze ago" (1), who "was a Christian then" and sets out to write (but never does) a Christian account about the day the atomic bomb was dropped on Hiroshima called *The Day the World Ended*. And then there's Jonah, "a Bokononist now" (2), who actually does write an account about the events leading up to the end of the world. Jonah has been compelled "to be certain places at certain times, without fail...conveyances and motives, both conventional and bizarre, have been provided" (1), according to the requirements of his *karass* or team that follows the absent God's designs, though they can never comprehend the task. The reading process in broad terms will entail this procession from one model to the other as the narrator recounts how his past self became the enlightened present self.

In terms of form, these general structures would seem commonplace, present in many novels, were it not for Bokononism's contradictions. Its founding text warns foremost that "all of the true things I am about to tell you are shameless lies" (5). And Jonah further warns that "anyone unable to understand how a useful religion can be founded on lies will not understand this book [*Cat's Cradle* itself]" (6). Early on the reader is therefore confronted with the problem of the narrator's admission that the novel is founded on lies, and his dismissive "so be it" (6). As the novel progresses, the narrator's Bokononist revelations will be important somehow to the organization of the chaotic events leading up to the end of the world, but Jonah in fact promises in these early pages: "I do not intend that this book be a tract on behalf of Bokononism" (5). As a result the reader must consider the nature of grand explanations, *the way things are*, as useful lies foremost, or else fail to understand anything.

In the first brief chapters of the opening the text begins confronting the belief systems that exist between the narrator and reader. The narrator's Western Christian perspective on the world – the emphasis on “the *human* rather than the *technical* side of the bomb” (7), Dr. Felix Hoenikker's work “for the Research Laboratory of the General Forge and Foundry Company” (9), and the links between the fictional and the real Manhattan Project - indicate recognizable and salient content for the reader. This framing information, according to Mental Space Theory, allows us to construct mental spaces to conceptually represent the fictional world of *Cat's Cradle*. As readers we link these textual references to our own long-term schematic knowledge, or frames, to understand how the specific information provided by the text ought to be dealt with (Fauconnier and Turner 40). The various mental spaces constructed around these textual references are determined by the *principle of minimum departure* (Stockwell, *Cognitive Poetics* 96). Because the references are familiar to our understanding of the world – historical references, places of employment, religions – we assume that unless stated otherwise all things within these mental spaces are equivalent to the actual world. Thus as we begin to understand the textual world, these mental spaces constitute a “base space,” a space that represents framing and content offered by the text's conceptual parameters that parallels or is familiar to the reader's unique context.

As I will demonstrate, conceptual blending occurs when unfamiliar ideas or events diverge from the structures of this base space and must be integrated to understand Jonah's tale. While he is ignorant of the series of random occurrences until after the fact, in retrospect he can reevaluate these divergences: “In case anyone was interested, I knew what had gone wrong – where and how” (271). The familiar base space (the prevailing values of U.S. culture) that the

reader begins with cannot remain wholly intact since these cannot cope with the ultimate end that the novel reaches. In fact, these values have contributed in large part to the apocalypse.

The text assaults the indomitable idea of Progress reflected in the opinions of Dr. Asa Breed, Dr. Hoenikker's former boss – Progress being complete trust in the infinite ability of technology to improve life and the sense that we as a species are always moving toward this best-possible life. Such ideas are highly *accessible* to the Western reader.^{vi} In Breed's opinion, "most people don't even understand what pure research is... men are paid to increase knowledge, to work toward no end but that" (40-41). He takes it as a certain fact, without question, that increasing scientific knowledge is inherently good: "New knowledge is the most valuable commodity on earth. The more truth we have to work with, the richer we become" (41). The conceptual model Breed indicates is a familiar metanarrative played out by Western culture: the quest for the "Holy Grail," the westward expansion in the United States, the invention of appliances to make our daily lives easier, the list goes on. Breed's assertions reveal the value – both cultural and monetary - that we place on finding some "secret," some "great answer."

The assault on Progress begins with Jonah's encounters with the downtrodden denizens of Ilium, who are indifferent to Breed's zeal, and with his revelations about Dr. Hoenikker's lifestyle. In the halls of the research laboratory, Miss Pefko literally short-circuits when confronted with Dr. Breed's indomitable trust. "She laughed idiotically. Dr. Breed's friendliness had blown every fuse in her nervous system. She was no longer responsible. 'You *all* think too much'" (33). And passing by, "a winded, defeated-looking fat woman in filthy coveralls," who "struck [Jonah] as an appropriate representative for almost all mankind... hated people who thought too much" (33). When Jonah converses with a bartender and a disinterested prostitute, old classmates of the Hoenikker children, Breed's overzealous trust that "if everybody would

study science more, there wouldn't be all the trouble there was" (24) triggers a conceptual blend that undermines the metanarrative of Progress:

"Didn't I read in the paper the other day where they'd finally found out what it was?"...
 "I saw that," said Sandra. "About two days ago"....
 "What *is* the secret of life" I asked.
 "I forget," said Sandra.
 "Protein," the bartender declared. "They found out something about protein."
 "Yeah," said Sandra, "that's it." (25)

The ultimate goal of Progress, Breed's belief that "science was going to discover the secret of life" (24), has been achieved, but it offers no enlightenment. Two mental spaces provide conceptual inputs in this example: the base space which dictates the form of the cultural model for Progress, and another space of textually-provided content in which scientists have discovered that the secret of life is protein (**see diagram two**). Input space A in the diagram depicts both Breed and the reader's schematic knowledge of Progress, containing two slots for the role of science in uncovering new knowledge and an assertion that better science leads to "Truth". In the second input space formulated by Jonah's conversation, mental space B, there is an equivalent slot for the scientific discovery of "something about protein," which resolves the "secret of life." A blended space results from the reader's compression of these two spaces; Input space A determines the form of the blend, while input space B supplies the content. And since the structures do not compress completely (i.e. there is no visible change in the status quo for the bar-goers), the blend forces the questioning and ultimate discarding of Progress as a viable belief, since it has not delivered the promised ends: a utopia. As suggested by Sandra's remark, the secret of life is forgettable.

These cognitive processes occur beneath the level of our conscious awareness, but the meanings that result from these processes are clear and reveal how fictions can restructure our beliefs. The blended structure notes the lack of visible change despite discovering the key to life

on earth. Because the blend cannot run, the schemas that determine its form must be revised. Despite the discovery of the secret of life, Jonah remains sitting at a bar with a disinterested prostitute and no revelations.

With the example set by Dr. Hoenikker, the text also debunks the culturally affirmed worth of unfettered technological pursuits. Already led to doubt Breed's optimism, the reader meets the fact that "*all* [of Hoenikker's] ways were playful" (43) with suspicion, taking into account his work on the Atom Bomb. The scientist's youngest son Newt notes of his father: "He was one of the best-protected human beings who ever lived. People couldn't get at him because he just wasn't interested in people" (14-15). Remaining ignorant of the global effects of his inventiveness, specifically with the potential harm in nuclear technology, Dr. Hoenikker's position implicates all scientists for their inherent disinterest in the rest of the world. The disruption of the reader's values occurs once again by way of a conceptual blend, directed in the passage where Breed's secretary Miss Faust offers her views to Jonah:

"I don't think he was knowable. I mean, when most people talk about knowing somebody a lot or a little, they're talking about secrets they've been told or haven't been told. They're talking about intimate things, family things, love things," that nice old lady said to me. "Dr. Hoenikker had all those things in his life, the way every living person has to, but they weren't the main things with him."

"What *were* the main things?" I asked her.

"Dr. Breed keeps telling me the main thing with Dr. Hoenikker was truth."

"You don't seem to agree."

"I don't know whether I agree or not. I just have trouble understanding how truth, all by itself, could be enough for a person." (54)

Because the reader has already begun to doubt the viability of truth-bearing metanarratives, particularly the notion of Progress, this blend plays on the implications of Miss Fausts' use of the term "truth." Conceptually, the text posits two spaces once again: a mental space representing the qualities that conform to a normal, "knowable" person, and another mental space representing Hoenikker's playful but dangerous creativity. With the emerging

blend, Hoenikker's utter lack of interest of all beyond his own creative mind contrasts starkly with the qualities that comprise a normal "somebody." The blend creates a portrait of Hoenikker where only "truth" occupies the slot representing what makes a person "knowable." Therefore, his very "unknowability" stems from the fact that he neglects all important human interactions beyond his quest for knowledge, a quest that prior to this the reader has begun to question. Comparable to Jonah's growing apathy, the blends that help us to understand Dr. Hoenikker increasingly lead us to doubt metanarratives that seem to tout the "truth" as their supreme goal.

A theory of conceptual blending, as I have begun to demonstrate, pinpoints particularly salient moments of meaning-creation, moments in *Cat's Cradle* that spur the reader to reconsider the contextual parameters that they have brought to the reading experience. One-line jokes in the text also institute moments of blending that, if they are successful in their comical intent, can be indicative of frame shifts that encourage the reader to reconstruct their schematic knowledge of harmful cultural values.^{vii} Breed offers a hypothetical evaluation of Hoenikker's final invention *ice-nine*, the use of which "would be the end of the world!" (50). The narrator informs us that "there was such a thing as *ice-nine*...and *ice-nine* was on earth" (50), and then proceeds to describe how Dr. Hoenikker invented such a thing without anyone realizing it:

True, elaborate apparatus was necessary in the act of creation, but it already existed in the Research Laboratory. Dr. Hoenikker had only to go calling on Laboratory neighbors – borrowing this and that, making a winsome neighborhood nuisance of himself – until, so to speak, he had baked his last batch of brownies. (50-51)

Toying with forces that threaten humanity's imminent destruction, the narrator's use of the term "last batch of brownies" to summarize Hoenikker's final invention, which will in fact lead to the destruction of the world in the end of the novel, is very funny. And it triggers a conceptual blend, whereby the reader has to compress conceptually it's scientific productivity (creating the Atom Bomb) with productivity in baking, combining with hilarious results the lab coat-wearing

scientist seeking “truth” with the apron-wearing cook seeking delicious baked goods. What assists in this blend’s function is the text’s frequent comparison of Hoenikker’s industriousness to “play;” the joke takes this notion literally, playfully equating his “play” to baking brownies. Yet the reader has not forgotten the implications of *ice-nine*, nor of Hoenikker’s previous role with the Manhattan Project. Jonah’s quip, literalizing this “play,” means somewhat else. The reader understands by way of the blend that “play” has the consequence of downplaying the danger of uninhibited scientific pursuits. As the commemorative plaque notes: “The importance of this one man [Hoenikker] in the history of mankind is incalculable” (56). While this note seems straightforward, the reader’s growing distrust of Hoenikker’s pursuits offers the possibility of another blend, recasting “importance” and “incalculable” ironically. His “important” role is only incalculable to the extent that, by the end of the novel, the utter destruction of the world has no limits.

According to the text, Hoenikker never achieves a sense of moral obligation regarding his inventiveness. Upon seeing the results of the atom bomb’s first test detonation, a fellow scientist remarks that “Science has now known sin” to which Hoenikker replies: “What is sin?” (17). Yet the legacy of the doctor (*ice-nine* and his children who trade that material for societal position) ends up casting suspicion on the enterprise of unbridled scientific play for the reader; unable to see beyond their own desires in life, the Hoenikker family members in large part refuse to consider how the consequences might reflect on humanity more broadly, a fact that can be summed up by the comment by Frank and Jonah’s reply, post-apocalypse:

“I’ve grown up a good deal.”

“At a certain amount of expense to the world.” I could say things like that to Frank with an absolute assurance that he would not hear them... “The mere cutting down of the number of people on earth would go a long way toward alleviating your own particular social problems.” (281)

Similar to the incident that puts the notion of Progress into question as a viable belief, the actions of the Hoenikker family contribute similar revisions. The conceptual blend set up by Frank's comment and Jonah's reply is specifically outlined by the second remark: "the mere cutting down of the number of people." Frank declares too late that he has "grown up a good deal" and overcome his lifelong status as an outcast, and Jonah follows up by enumerating the implications behind this statement – that it took the drastic reduction of human populations to alleviate these problems.

Cat's Cradle catalogues how Jonah comes to doubt the viability of truth-bearing cultural values, and because of the intimate process of exchange between the reader and Jonah, the novel also undermines these values brought by the reader's context. Continued revision to reader's base space, the point of origin from which the reader negotiates their context with the text, suggests to them the immorality of the assumption that individuals do not perform any visible effect on society as a whole. *Ice-nine* and the belief that free-reigning technology is worth any price looms in the background of the entire novel. The language posits conceptual blends whereby these factors come to represent a negligence of sustaining of life on Earth. Yet whatever causes the apocalypse of this novel, the choices individuals make in retrospect in large part determine the fate of the world.

I have demonstrated thus far how *Cat's Cradle* begins to contradict and question several important value systems in the reader's constructs of the world. Supplementing this revision of the base space, the novel builds an entirely new cognitive construct founded on the Bokononist worldview that fits the data - the events and quirky epistemology of the story - better. *Cat's Cradle* also offers revision of the reader's engrained cognitive models by offering novel blends based around Bokononism.

Bokonon, the “religion’s” prophet, explicitly rejects groupings, categories and constructs that U.S. belief systems rely on. He terms these false groupings *granfalloon*s, which are arbitrary delineations of society, “of a seeming team that was [actually] meaningless” (91). *Granfalloon*s, according to the Vonnegut universe, are arbitrarily defined and potentially harmful as they tend to exist at the expense of those who cannot participate in the grouping. Examples include “the Communist Party, the Daughters of the American Revolution, the General Electric Company, the International Order of Odd fellows-and any nation, anytime, anywhere...If you wish to study a *granfalloon*/Just remove the skin of a toy balloon” (92). By declaring a terminology and an organization in the religion’s tenets, Bokkononism can organize the haphazard process undergone by the text to expose the harm in these old belief systems. It recognizes constructs that work by exclusion for what they are: arbitrary delineations that only lead to conflict and strife.

In fact a better term for the textual “model” is an anti-model; the doctrines of Bokkononism are purposefully ridiculous and contradictory. Bokkononism refuses to place itself, within the conceptual structures of the text, as just another cosmology, since its creator explicitly denies its truth; “And what opinion did Bokkonon hold of his own cosmogony? ‘*Foma! Lies!*’ he wrote. ‘A pack of *foma!*’” (191). On reading the “holy” book of Bokkononism, Jonah thinks: “this was trash. ‘Of course it’s trash!’ says Bokkonon” (265). Instead, Bokkononism offers for Jonah and subsequently the reader commentary on the role of epistemic models, questioning their purpose. The politics of San Lorenzo are an archetype for the text’s overarching paradox: how to bring stability despite the inevitable self-destruction of mankind. Bokkonon and McCabe realized that “no governmental or economic reform was going to make the people much less miserable... Truth was the enemy of the people, because the truth was so terrible, so Bokkonon made it his business to provide the people with better and better lies” (172). Unlike the structure of reality

with which the text begins, Bokononism allows for people to be “all employed full time as actors in a play they understood, that any human being anywhere could understand and applaud” (175). Yet this comprehension does not carry with it the weight of truth; “truth” on San Lorenzo would not make any difference to the depraved poverty of its inhabitants.

Near the climatic moment of apocalypse, Newt’s discussion of his painting of a cat’s cradle reveals how far Vonnegut has gone in critiquing human society.

Newt remained curled in the chair. He held out his painty hands as though a cat’s cradle were strung between them. “No wonder kids grow up crazy. A cat’s cradle is nothing but a bunch of X’s between somebody’s hands, and little kids look and look and look at all those X’s...”
 “And?”
 “*No damn cat, and no damn cradle.*” (165-166)

Newt’s suggests that the cat’s cradle, “one of the oldest games there is” (165), has the essential fallacy of not referring at all to what it claims to signify. For all of its lines of string, there is no clear indication that a cat’s cradle has any meaning beyond the power of suggestion. Within mental space construction of this passage, the game-narrative of cat’s cradle – i.e. “this is a cat, this is a cradle” – is organized into one space. A second space consists of the properties that make up the game (the string, hands, the speech that explains it). The blended space that emerges includes the physical attributes of string, hands, and voice, but these signs cannot now link with the metaphoric game-narrative; there is “no damn cat, and no damn cradle.” Throughout the text the reader has continuously processed new blends that build on one another and contribute to the ultimate meanings that can be achieved from the novel. We therefore can interpret this passage as representing in whole the process undergone throughout the text, the proving by Jonah’s example of the meaninglessness of the narratives that U.S. society lives by.

Bokononism therefore offers something to fill in the blanks. As Mona, the Bokononist daughter of San Lorenzo’s dictator declares: “Bokonon tells us it is very wrong not to love everyone exactly the same” (209), and Frank Hoenikker claims that the only thing Bokonon

holds sacred is “not even God, as near as I can tell... [but] Man...that’s all. Just man” (211). Vonnegut focuses an inherent sacredness of humankind and its capacity for love as enduring traits, and such commentary readjusts the reader’s blended structure of the text, offering more than despondent nihilism.

With the apocalypse punctuating the ultimate breakdown of the base space, the paradoxical Bokononist space is the only remaining “religion” left. Formulating a reading by making sense of the conceptual blending that takes place is at best incomplete; some previously held beliefs might be doubted or revised by the reader, but an anti-model cannot simply fill in the gaps (see **Diagram three**). *Cat’s Cradle* has very bluntly put to the question several predominant metanarratives of the United States; equally the case is that such a critical novel does not seek to place itself as a new manifesto for how society should work. By blending alternatives that promote “a play... that any human being anywhere could understand and applaud” (175), but a performance nonetheless, Bokononism refuses to declare itself as any sort of totalizing model. In the end of the novel, *ice-nine* ends the world, and there is little hope that the destruction can be reversed.

Interestingly, the text uses this apocalypse as the starting point for creating a better model for the world. While purely a destructive artifice, initiated by the fictional *ice-nine*, the apocalypse that concludes *Cat’s Cradle* has meaningful potential for the reader. *Ice-nine* is not created in a vacuum, and *Cat’s Cradle* relies for its social critique on the contexts from which these destructive forces are born. The apocalypse in the novel actually becomes a powerful incentive for the reader to design an alternative ending for the world outside the novel, in part by urging for a new dignity for humanity (Klinkowitz, *Literary Disruptions* 53). However, such a positive interpretation of the text’s willful demise is more likely on subsequent readings, when

the full import of Jonah's "history of human stupidity" (287) enacts a frame shift; we reinterpret the entire narrative as the realization of writing that history.

Looking to the predominant genre of the novel, science fiction, will reveal what creative potential can arrive out of the apocalypse, as well as what *Cat's Cradle* suggests for the act of writing fiction and the people who write them. I used the word "pastiche" earlier to describe how Vonnegut constructs the text world; the experience of reading this text relies on the acceptance of often darkly humorous encounters. In fact the humor of the text is one mechanism by which the science fiction of the text, primarily *ice-nine's* technology but also more subtly the fictive history of San Lorenzo and the religion Bokononism, gains fluid and fairly rapid acceptance by the reader. An extended blend emerges, richly detailed, heavily interacting on multiple levels with the individual reader's world brought into the experience.^{viii} Reading naturally entails subtle and continuous blending to formulate meaning, but science fiction entails a much more radical disparity between text and context and can particularly define moments of blending. Like Bokonon within the text, Vonnegut does not hide the fictionality of this constructed world; in fact the narrator's statement very early on, sending away those who could not understand how a useful religion can be founded on lies, dismisses criticisms of the genre. Vonnegut proves the value of an explicitly false novel. Philip Castle speaks to the narrator, a journalist, about the role of writers in society:

"I'm thinking of calling a general strike of all writers until mankind finally comes to its senses. Would you support it?"

"Do writers have a right to strike? That would be like the police or firemen walking out....No, I don't think my conscience would let me support a strike like that. **When a man becomes a writer, I think he takes on a sacred obligation to produce beauty and enlightenment and comfort at top speed.**"

... "If, all of a sudden, there were no new books... [People would] die more like mad dogs, I think – snarling and snapping at each other and biting their own tails." (231-232, my emphasis)

Whether or not it is legitimate to claim that this comment comes directly from Vonnegut, the clear message from the text is that writing has these capabilities, and humanity would be lost without its influence. Even science fiction, then, has simultaneously the ability to provide “beauty” as well as “enlightenment.” The unreality of the text parallels Bokononism’s lack of grounding in any sense of Truth, yet built into the textual blend is a promise for comfort and beauty and of acceptance to the bleakness of reality.

Whether or not Vonnegut intended a well-defined ethics to be included in the blends that *Cat’s Cradle* enacts, what ultimately matters is how the individual reader uses the reading experience afterwards - what is cognitively adapted to assert lasting commentary in cultural discourse. Bokonon’s final passage to his holy book (ironically also the last paragraph of the novel, inextricably linking the two), urges the “younger man” (287) to write “a history of human stupidity; and I would climb to the top of Mount McCabe and lie down on my back with my history for a pillow...and I would make a statue of myself [with *ice-nine*], lying on my back, grinning horribly, and thumbing my nose at You Know Who” (287). While open to interpretation, I think a quote from the author’s second novel, *Mother Night*, best expresses the import of this passage: “We are what we pretend to be, so we must be careful about what we pretend to be” (v). Individuals function in the world through language and the worlds they create. Jonah does in fact write a history of humanity: his history. It is his, and by extension the reader’s, prerogative to write their own histories and create the world they live in, to approach the collective cognitive models offered by society with a sense of doubt and distrust. Vonnegut relieves some of the weight of Truth by demonstrating the benefits of lies and the flexibility to change one’s constructed world. The search for Truth is overrated - “such investigations are bound to be incomplete” (4) – and inhibits humanity’s continuation.

I have only introduced some of the more direct results of the language processes in *Cat's Cradle*, rather than focus on a particular tactic or scene. Cognitive poetics expounds on these language-based processes, because it is the language that grants or limits a given interpretation. Much of the scholarly interpretation has focused on Vonnegut's social commentary in the novel, criticism of the scientific establishment and people's trust in it, the moral messages prevalent throughout, the unique narrative techniques, and the deconstruction of Truth-seeking metanarratives. These interpretations are developed by essentially focusing on specific blending that occurs in the text. Some can concentrate on the negative side of the novel: the chance apocalypse, the parallels between a cat's cradle and the world's meaninglessness. Others can elucidate even hopeful readings. Mental Space Theory reveals the layered worlds that emerge; interpretation is the next step, probing and describing a unique set of blends produced by an individual. In my next analysis, I will approach the novel *Galápagos* in a similar fashion, emphasizing the complex process of space construction that is needed in order to make sense of the temporal jumps of the narrative.

***Galápagos*: Critical Background**

Galápagos relates the story of a tourist venture to the Galápagos Islands, "the Nature Cruise of the Century," gone wrong. Worldwide unrest ends the maiden voyage of the *Bahia de Darwin*, and the few people who have arrived in Ecuador for the trip are caught in a series of unfortunate events precipitated by an international financial collapse. By chance they escape the increasingly chaotic mainland, get lost, and end up stranded on the northernmost island, avoiding both the beginnings of a world war and an undetectable viral infection that renders human beings sterile. The best adapted to fishing on the island survive and reproduce, allowing humanity to continue on and evolve. *Galápagos* relates the story of "the new Noah's ark" (235), but the

eventual evolution of people into creatures populating Santa Rosalia at the end of the timeline does not offer a clear resolution for the reader; we end at the beginning, with the narrator's life story and his decision to flee combat in Vietnam for Sweden. Like the freedom to carve out a new life Leon Trout gains after discovering that his father, a failure in life and in writing fiction, has affected another in the world, Vonnegut leaves the conclusion of *Galápagos* much more open to evaluation than the annihilation that occurs in *Cat's Cradle*. Trout discovers a new path of promise to remake his life, and Vonnegut suggests that more can be hoped for to remake the world than merely the evolution of humankind.

The dialogue with Darwin's theory of Natural Selection and the physiological changes that occur in *Galápagos*'s humans over time - notably the reduction of the size and complexity of our brains - provokes in this novel similar questions to those posed in *Cat's Cradle*: what aspects of human society degrade the dignity of the individual, and what ought to be preserved? Within framing narrative based on Darwinian evolution, the narrator posits that "the infernal computers inside [our] skulls" (296) were the ultimate villains. People one million years in the future live in equilibrium within their environment but perhaps at the expense of something important. The "Nature Cruise of the Century" becomes Vonnegut's experiment with a practical application of Darwin and its subsequent moral implications as a metanarrative for Western society. Evaluation is left to the reader: whether the end results are more attractive than the cumulative suffering that occurs throughout, whether something integral vanishes from the creatures by the end of the novel that does not justify calling them "people," and whether Leon Trout can, considering his personal history, be fully trusted to relate a completely disinterested scientific view.

Charles Berryman's article about *Galápagos* concentrates on the Darwinian categories that allow for comparisons across the vast time span. The character Andrew MacIntosh, a

deplorably unfeeling stock broker, has, according to the narrator, a “mania for claiming as his own property as many of the planet’s life-support systems as possible” (80). This mania is not limited to the greedy capitalist according to the narrative: “more and more people back then, and not just Andrew MacIntosh, had found ensuring the survival of the human race a total bore” (81). Berryman remarks that, unlike many of Vonnegut’s earlier novels, the “psychological victims” are now “natural experiments,” little vessels of genetic information that translate into “purposeless greed” or “depression.” These harmful traits “are subordinated to Nature” (Berryman 192). From the perspective of the future narrator, the apocalypse comes almost as an afterthought; “he may report the end of life as we know it with just a few bold strokes of explanation: the financial collapse of Third World countries, the spread of a virus that prevents human reproduction, and the start of a world war” (Berryman 191). Berryman’s critical analysis highlights the novel’s relatively positive outlook for “humanity,” especially compared to the dubious annihilation that concluded *Cat’s Cradle*. Darwinian theory provides, in Berryman’s view, a viable and updated mythos from which the reader can take comfort. In the long run the mistakes and follies of 1986 are overshadowed by the triumph of Science to restore balance to Nature (Berryman 192).

Another critic, Daniel Cordle, makes a productive comparison of several of Vonnegut’s works to the evolutionary theories of Stephen Jay Gould. *Galápagos* seems to speak exactly in parallel with two of Gould’s most important points: 1) that the progression of life as seen through the fossil record is not one of a tendency towards steady diversification and complexity of life forms, but one of mass extinction, where we cannot accurately determine from merely the here-and-now the nature of “best fitted to survive;” 2) the inadequacy of the model of Earth’s history as a tape recorder, believing “if we rewind the tape to the beginning and let history run

again...we will not see evolution repeat itself” (Cordle 171). Vonnegut and Gould both emphasize periods of predictable change punctuated by moments of upheaval when contingent factors determine what course human life will take (Cordle 171-172). The big joke of the novel is that for all of our plans, theories, and technological prowess, the fate of humanity is determined by a series of random accidents that happen beneath public notice. In the narrative the kanka-bono girls, six remaining members of an extinct South American tribe, are taken advantage of by the depraved Domingo Quezada, who prostitutes them in the city, where they nearly starve to death until a passenger on the latter-day Ark, James Wait, happens to use them for his scam operation and brings them along. Western mythologies do not envision to the possibility that the genetics for future human beings might be entirely determined by un-Western women, yet the contingent factors (the cruelty of one man in Ecuador) permit certain people to be in the right place at the right time.

Both Gould and Vonnegut seek to displace humanity’s self-importance and sense of control. Vonnegut takes this displacement one step further with his time-traveling narrative. Leon Trout plays an important role as the director of this documentary. The other characters are blissfully unaware of their relative importance on a grand evolutionary scale – such a perspective is impossible in a single lifetime. While Gould can only offer existential conundrums – brilliant ideas difficult to apply to daily living – Vonnegut’s compassion for humanity is seen in the production of the novel itself. Berryman notes that Leon Trout is the author’s perfect vehicle for combining the limited timeframe of individual experience with the omniscience needed for contemplating the evolutionary timeline (198). He simultaneously confronts the reader with the obscure and vast contingencies of an evolutionary mythos, while offering an explicitly fictional narrative to bridge the intellectual gap between theory and life. Both Cordle and Berryman look

beyond Vonnegut's trademark ranting and locate within *Galápagos* a blueprint for producing meaning by way of a scientific mythos.

The novel relies on the narrator's ability to bridge the vast amount of time necessary in order to see the long term effect of the events preceding and during the first ten years on the island. The critic Oliver Ferguson concentrates on Vonnegut's use of this tool, describing a more direct parallel between Leon Trout and characters prone to fantastical hallucinations, like Billy Pilgrim in *Slaughterhouse-five* (234-235). Ferguson claims that Leon fabricates his ghostly identity to deal with his bleak hand in life, to try and reassess the world to account for his misanthropy: the narrative is an attempt to find a way to prove that "in spite of everything...people are really good at heart" (Epigram to *Galápagos*). Natural Selection is the great equalizer that allows him to cope. For Ferguson, the narrator acts as a vehicle "tacitly allowing Vonnegut to 'get away with' a supernatural solution to his problem," without having to resort to the apocalypse found in *Cat's Cradle* (231). The novel, in Ferguson's view, reflects Trout's mental instability and so the consequences of the hostile, Vietnam-era, world. He claims that the "manipulation of time" allows the narrator to be "able to accept the conditions of [human being's] existence" through fabrication (234): a survival tactic of make-believe.

Progress, as discussed earlier, is a construct in Western discourse that situates people's success outside and at the expense of the rest of the nature. Serendipity, as Donald Morse terms it, is Vonnegut's primary tool to show just how the idea of progress fails: "In *Galápagos*, Vonnegut suggests that such an illusionary progress is a good example of humanity's penchant for driving at high speed on a superhighway that will end abruptly at the cliff edge of ecological or nuclear suicide...humanity has confused the means (high speed driving) with the end (survival of the species)" ("You cannot win" 93). Morse counters the criticism that Vonnegut's fiction

limits itself to repetitive and misanthropic social critique through devices of apocalyptic confabulations with facts that make the fiction pertinent: “Consider the large area in Siberia where the human and animal population is under threat of extinction from the huge amount of leaking nuclear waste deposits” (“You cannot win” 94). Vonnegut’s unique form of reverence involves taking note of and playing out these threats that make life fragile, threats that are preventable (as are ice-nine and other technological quick-fixes as in *Cat’s Cradle*) as well as frightening unknowns like the sterilizing virus of *Galápagos*.

Morse identifies two opposing forms that reverence takes in Vonnegut’s narratives, integrity and despair: “Despair, of course, lies in regret, while integrity consists of a kind of acceptance of both life and death.” The potent sense of loss ultimately reflects in the author a “concern with life itself in the face of death itself” (*Imagining* 176). For Morse, *Cat’s Cradle*, an early novel of Vonnegut’s, may be read as Vonnegut’s warnings about our rampant disregard for the consequences of our dangerous path, which we tread lightly. The fact that some disaster must occur to begin a universal change of heart represents a form of despair. Leon Trout’s desire to write down the key factors that determined the next million years of human life on the planet exhibits a more mature integrity. Trout’s ability to jump from *then* to *now* is an example of the potency of memory despite the apocalypse. According to this perspective, Natural Selection does not function as Vonnegut’s gleeful experiment to rid the planet of its human ailment. It is a form of acceptance of the uncontrollable (the virus, the size of the human brain) and wise instruction that accompanies the mature appraisal of death (highlighting the deplorable ways individuals treat one another, recognizing the potential weight of each minute interaction). According to Morse: “Despite its disaster scenario, *Galápagos* retains an air of optimism and joy, rather than defeat and sorrow....Observing widely what humans do, reflecting long on what consolation

might exist for their shortsightedness and stupidity, Vonnegut opts for the tragic joy of life and wonder as he imagines...being human” (*Imagining* 145).

Kurt Vonnegut’s body of work does not, at first glance, exhibit the same attention to postmodern theoretical problems as do the work of his contemporaries, considering his penchant for deadpan, black humor and one-line refrains. Jerome Klinkowitz takes a biographical view of his literary training (or lack thereof) to understand this divergence. He claims that “circumstances dictated that he not become [a maker of great literature] by studying the subject.” Instead, he studied the sciences and anthropology, took a job in corporate America, and through his interest in of journalism, gained a vivid understanding of real-life experiences and an anti-institutional vein to his worldviews (“Vonnegut the essayist” 1-2). His background explains his unique mixture of the narrative techniques offered by science fiction and a fairly straightforward humanist moral code. Such a background “sets him apart from others, especially the increasing number trained by and then working in M.F.A programs. For these latter people challenges faced by fiction would be theoretical. In Kurt Vonnegut’s case they were immediately practical, based not on the study of literature but on participation in daily life” (*Vonnegut Effect* 179). *Galápagos* is anchored, ironically, in the author’s attentiveness to real life, despite his reliance on science fiction to offer potential commentary on the real world; usage of the fantastic indicates the author’s engrained belief in the power of art and writing as vehicles for sparking the creative imagination of readers.

Cognitive Poetic Analysis of *Galápagos*

Conceptual blending is integral to the construction of a meaningful, whole narrative in Kurt Vonnegut’s later novel *Galápagos*. Unlike *Cat’s Cradle*, which in many respects concentrates on debunking the reader’s engrained cognitive models by illustrating their

destructiveness and offering novel blends based around Bokononism, the narrator of *Galápagos* compares the distant future to the present, providing smaller instances of conceptual contrast through the temporal switching. What emerges from a reading is a whole narrative made up of three settings: a timeline of fortunate events in the year 1986 that prevented humanity's extinction, the time of narration in the year 1,001,986 reflecting back, and a shorter tale prior to 1986 recounting the narrator's life. However, the reading of the text constructs these timeframes piecemeal, with the many tangents only gradually illuminating the full effect of our evolution. The integration and organization of these smaller blends allows for the three different time periods to form a cohesive whole; at the same time it is the frequent contrasts between the world in 1986 and one million years later that posit viable commentary on a human identity. By itself, the botched voyage of the *Bahia de Darwin* appears to be a series of random events that lead to isolation on a barren island. In lieu of the evolution of the islanders, the changes wrought over time have a greater significance. Science fiction in this novel, seen in the application and "running" of a schematic model based on Darwinian Natural Selection, allows the author to suggest alternative models for structuring the Western psyche while maintaining hope for humanity today to rectify our harmful conduct.

The novel opens: "one million years ago, back in 1986 A.D." (3), back when "human beings had much bigger brains...so they could be beguiled by mysteries" (3). Like *Cat's Cradle*, the language in *Galápagos* from the outset lays down a blueprint for organizing the narrative through the contrast between two mental spaces, except in this novel the key is in temporal reference. One temporal frame is explicitly referred to, familiar to the reader as it indicates their relative present day, while the other is implicitly referred to as the narrative's present, where, logically, human brains are no longer as large. The reader discovers what sort of mysteries the

human brain in 1986 concerned itself with, such as how animal species came to populate the Galápagos Islands, mysteries that people no longer entertain. This model is repeated by the textual language throughout the novel. Things taken for granted in the reader's time are implicitly untrue or altered in the narrator's time, and in order to gradually construct what the state of the world is one million years in the future the text focuses on what sorts of conduct could be expected in the year 1986.

Characters enter the story in conjunction with the individual parts they perform that bring the necessary genetic information to the island. Siegfried von Kleist owns the hotel where the tourists were to stay before the financial crisis made international travel unsafe and later in the plot will transport the remaining people to the boat itself, ensuring that they make it out of harm's way. Early in the narrative, however, the reader knows only that "he was generally an idler, having inherited considerable money, but had been shamed by his uncles into, so to speak, 'pulling his own weight'" (50) in the family business. Prior to his chance role, he "was insignificant from an evolutionary point of view" (50), being unmarried and childless. Adolf von Kleist, Siegfried's brother, "would in fact become the ancestor of every human being...a latter-day Adam, so to speak" (51), while Mary Hepburn, "since she had ceased ovulating, would not, could not become his Eve...so she had to be more a god instead" (51). James Wait, although dead before reaching the island, "by Darwinian standards, as both a murderer and a sire...had done quite well (250). Comatose, Hisako Hiroguchi "was little more than a fetus and a womb" (246), but important because of her child Akikko, whose fur-like skin would provide an important trait for future generations. The focus, argues the narrator, should not be Hisako's depression but her future role in the continuation of the species.

Replete with these Darwinian evaluations, the narrative draws on a schematic model based on evolution, particularly ideas on reproductive fitness. Reproductive success and the continuation of the species are paramount to social prowess or economic wealth. A Darwinian schema denies human beings control over the environment. From the future, Wait's skeleton carries no evidence of our former mastery: "He was some kind of male ape, evidently - who walked upright, and had an extraordinarily big brain whose, purpose, one can guess, was to control his hands, which were cunningly articulated...he may have domesticated fire...he may have had a vocabulary of a dozen words or more" (294). Utilizing this schematic model - portraying the characters with Darwinian terminology, toying with alternative perspectives on the lack of human longevity - ironically contrasts what readers today normally consider pertinent to morality. Adolf von Kleist's moral depravity is apparent, but the reader must reevaluate such traits from within this frame narrative. Conceptual blending occurs where the reader must utilize this evolutionary framing in order to understand the moral implications of this viewpoint.

The text often veers off on tangents about the various other animals that reside on the islands and their evolutionary success, using their physiological modification as a parallel for constructing a picture of humanity a million years in the future. The flightless cormorant, we learn, had wings that "were tiny and folded flat against its body, in order that it might swim as fast and deep as a fish could" (34), so naturally "somewhere along the line of evolution, the ancestors of such a bird must have begun to doubt the value of their wings, just as, in 1986, human beings were beginning to question seriously the desirability of big brains" (34). We learn later that the penguins on the islands also "abandoned the glamour of aviation-electing to catch more fish instead" (39). Such anthropomorphism prepares the reader for the realization of the much more animal-like attributes of human beings. The text reveals: "people don't have to wait

any more for fish to nibble on baited hooks or blunder into nets or whatever... [they] just go after one like a shark” (35). The narrator does not immediately reveal the physical attributes of humans in the future, but only lets on gradually how un-human we have become. By positioning changes alongside the status quo in 1986, such as “that mystifying enthusiasm a million years ago for turning over as many human activities as possible to machinery” (39), the changes after a million years are less jarring. Just as the narrative tends to highlight a character’s evolutionary fitness as pertinent to some improvement of the human race, physical traits like a smaller brain size and a sleek fur pelt are cast as advances rather than regressive, especially compared to the ethical depravity that is the inevitable result of overly large brains.

Conceptually, the language activates local blends at these instances of temporal shift, so that gradually the reader is aware that human beings one million years in the future have changed considerably from the present day. Cognitively the language of the text continues in the same pattern established in the opening chapter; physiological differences in one million A.D. highlight the absurdity of people’s treatment of one another in the past, the reader’s present. Here is an example of how the text on a local level brings together the disparate timeframes to offer commentary on Western cultural values:

A million years ago, there were passionate arguments about whether it was right or wrong for people to use mechanical means to keep sperm from fertilizing ova or to dislodge fertilized ova from uteri – in order to keep the number of people from exceeding the food supply.

That problem is all taken care of nowadays, without anybody’s having to do anything unnatural. Killer whales and sharks keep the human population nice and manageable, and nobody starves. (129)

The first paragraph relates to the contemporary world and the ethical dilemmas surrounding contraception and abortion. In lieu of humanity’s evolution the debates seem ridiculous, since natural population control factors exist that did not before, namely predation. The first paragraph posits a universal problem space, the limited resources on the planet in this case, that allows for a connection between the two time periods: there is shared “cause” slot and a shared “effect” slot:

overpopulation in the former and starvation in the latter (see **Diagram four**). Both time periods have limited resources which create the population constraints to begin with. The first paragraph also indicates the specific tactic for survival undertaken by people in 1986: medical advances to terminate or prevent unwanted pregnancy. As the reader has been informed throughout, the text locates the problems of the past in the overly large brain size; while it is the large brain size that has devised mechanical means to prevent the “effect,” mass starvation, it is also the brain to begin with, as indicated earlier, that has encouraged human societies to exceed the limitations naturally provided by nature. In future space, brains are smaller, and the human population is naturally limited in the same way as the rest of the animal kingdom, through control factors like predation and limited space.

Conceptual blending occurs with the practical application of this problem to the conditions in each time period. By positioning these two passages together, and “running” the blend, the reader can evaluate the root cause of this contrast – in this instance, that humanity today has to resort to manipulating nature in order to continue unabated growth, and that we tend to view ourselves, furthermore, as separate from the natural order in a way that humanity a million years from now cannot avoid. This contrast is jarring in several ways; imagining humanity as lower down the food chain is difficult to comprehend because our dominance on Earth is categorically engrained in our culture; yet the simplicity with which the future beings survive peacefully one million years from now highlights our need to resort to “unnatural” means, and locate the problem in our unchecked expansion without regards for the limited resources on the planet.

Such a blend reveals how Vonnegut leaves room for interpretation by the reader, a locus of meaning creation yet not committed to a single interpretation. As a way of addressing the

debate over abortion, the Darwinian schema frames this discursive problem to indicate the positive potential for this novel's innovative morality. By processing the blend we can get to the problems beneath the actual debate, not explicitly mentioned by the passage. It is also possible that the reader might understand this blend as an oversimplification: understanding the use of contraception as a mode of responsible family planning and not solely due to worries over the food supply. This might instigate distrust in epistemologies or prescriptive moralities as useful for self-analysis but ultimately self-defeating - distrust also apparent in *Cat's Cradle* in the way Bokomonism exposes the limitations of such schemes. Or the reader might, as the critic Oliver Ferguson does, begin to distrust the narrator and his ability to deal with social problems practically, noting that the contrasts are ironic but hardly how mature, stable-minded people deal with the world.^{ix} As more examples of textual blending indicate below, the use of a Darwinian "morality" to break down social problems seems to us to be oversimplification. The bid for action now is realized by believing, to an extent, in the method of contrast offered by the narrative, as it permits the reader to analyze the problems and determine what it is about humanity that ought to be preserved.

The production of machines utilized purely for destruction on a massive scale in 1986, "a great boon to big-brained military scientists" (156), presents a stark contrast to the relatively innocent work of the creatures of the future, who merely concern themselves with catching fish and reproducing:

Nobody today is nearly smart enough to make the sorts of weapons even the poorest nations had a million years ago. Yes, and they were being used all the time...

And the Law of Natural Selection was powerless to respond to such new technologies. No female of any species, unless, maybe, she was a rhinoceros, could expect to give birth to a baby who was fireproof, bombproof, or bulletproof.

The best that the Law of Natural Selection could come up with in my time was somebody who wasn't afraid of anything, even though there was so much to fear. I knew a few people like that in Vietnam - to the extent that such people were knowable. (156-157)

Once again, the temporal leap from the future to the past highlights the absurdity of the way we put our big brains to work in the present. In this case, the language places Natural Selection in a place of agency, charged with responding to environmental conditions in order to seek dynamic equilibrium between creatures and their environment: a burdened problem solver. In this case, the newly developed missile “capable of creating one fifth as much devastation as the atomic bomb” (156) is actually held as constant across the mental space mappings. The generic space is constituted by Natural Selection as an acting and active process that bequeaths survival mechanisms that allow creatures to survive in their environments. The first paragraph cited initiates a space where the lack of brain size does not permit the invention of even meager weapons of destruction, and Natural Selection can “keep up with” what is required to maintain peaceful coexistence with the environment. The second paragraph represents the present day, where the mental space still contains Natural Selection seeking adaptations that will provide balance, but with the ridiculous expectation of “a baby who was fireproof, bombproof, or bulletproof.” Ironically, within this space the creature given as an example of the best potential candidate for producing such an impervious offspring is one that has been driven to near extinction by sport hunting and human encroachment into their natural habitat. While this is not mentioned by the language except for the narrator’s dubious qualification “unless, maybe,” this information would be accessible contextually and supplement the resulting mental space. Natural Selection, in other words, could never keep up with these demands.

The final paragraph from this selection answers an implicit question about how this agentive figuring of a natural Law actually responds to these weapons in our present day, and constructs the problem in a third space: offering the emerging trait, since a creature impervious to the massive destructiveness of modern science is impossible, of a person “who wasn’t afraid

of anything.” Here, the narrator’s timeframe comes into the foreground as he has evidence of this “trait” from his participation in the Vietnam War. Once again within a space the reader draws on culturally accessible notions regarding that war as a particularly shameful enterprise in modern American history, specifically regarding the atrocities that occurred. The attribute of fearlessness satisfies the demands for a trait to cope with the guidelines humanity has placed on Natural Selection, guidelines dictated by our misplaced trust in rampant technological advancement. Yet the Vietnam War’s reputation as shameful results from this very imperviousness to fear, and such an attribute is unacceptable for a humanity morality.

The input space offered from the future perspective, the “best-case-scenario” space offered by the present perspective, and the purely imagined space where Natural Selection is given unlimited agency to assemble the necessary attributes dictated by human conduct all cognitively feed into a much larger network of blends and are compressed along these commonalities. This *megablend*, as Fauconnier and Turner term the compression of a more disparate network of smaller blends like these three scenarios for Natural Selection, involves “the same skeletal mapping schemes” (2002: 147) that we see in a basic mental space blend. Double-scope networking, a particular framework for blending, allows for the compression and equation of inputs that often have entirely different and clashing organizing frames. The counterpart input spaces have little structure in common with the implications of the blend itself. To make sense of the Natural Selection blends, the reader imagines the Law as having human form in its ability to construct better adapted species, to respond to change over time – a construct not introduced by either of the inputs.^x

This creation of entirely novel framework outside of the textual language indicates that meaning-creation is possibly from this megablend: a network of comparisons that determine the

reader's conclusions. While the conclusions themselves seem rather obvious - weaponry represents yet another example of our subjugation of nature - discovering how exactly this conclusion arises from the literary language is far from simple. A network of blends emerges from cognitive comparison of analogous topologies that constitute the individual spaces presented in these three paragraphs: the responses or lack of response possible for Natural Selection. Blending occurs across the vital relation of analogy and allows the reader to arrive at conclusion about the example of human destructive potential in the escalation of armament. Only the first space can be successfully 'run' and fulfill the demands of the text, since the outcome allows for stability. It is therefore the most salient to the reader as it is most desirable.

Meaning emerges as the goal or byproduct of compressions and cognitive linkages between mental spaces in this example. Notably the more broad conceptual linkages occur entirely through our imaginative capabilities, since the greater connections are not directly addressed by the text. Each space discussed above activates minor blends - noting Natural's Selections ability to respond to environmental pressures in each temporal frame - and in turn the language of the entire passage acts "as a system of prompts for [broad-based] integration" (Fauconnier and Turner 143), forming increasingly larger blended networks. That the reader is able to arrive at conclusions (rather a simple process in actuality, despite the painstakingly more complex task of elucidating the cognitive structures involved) is indicative of the language's meaning-potential. The narrative has builds on versions of this same pattern, using the conceptual parameters revealed by temporal leaps and the application of Darwinian framing schemata, and thus meaning-production is reinforced by each subsequent reiteration.

Leon Trout's particular position emphasizes the full weight of the absurdity of human life, ironically though speaking of the reader's present rather than his own. His language often

utilizes sarcasm, lampoonery, and parody to emphasize what is blatantly obvious to himself and increasingly so for the reader. Had he merely introduced the evolutionary changes that occur one million years in the future, it would be his timeframe that would seem ridiculous, not vice versa. When Mandarax, the supercomputer capable of translating thousands of languages and accessing a database of literary quotations, could not identify the kanka-bono language except for “a little Arabic...the lingua franca of the African slave trade so long ago” (192), Trout once again transcends timeframes, even drawing on the reader’s distant temporal past. Of course the answer to “how could you ever hold somebody in bondage with nothing but your flippers and your mouth” (192) is obvious: you could not. A sort of neighborly, conversational remark sets up the rhetorical question and frames the blend, referring to human slavery as “a big-brain idea I haven’t heard much about lately” (192).

The integration network itself is identical to the model discussed repeatedly: two input spaces, one containing the slots where “people” have ideas and technologies that can be utilized for often coercive purposes, and the other space containing slots for what the reader has learned about the world of the future. The blend posits the ridiculous idea of the “people” in 1,001,986, with their flippers and drastically reduced brain power, attempting to coerce other “people” into slavery. The more salient input space for the reader (they would be more comparable to the “people” who can coerce others into human slavery) would still exist outside of the individual frame of reference and realm of memory, with most Western nations abolishing the slave trade in the nineteenth century. While the narrator’s brief remark may not have the contemporary potency that addressing abortion has, the rhetorical framing “how could you ever” initiates a similar temporal leap in the blend, forcing an acknowledgement of the overall trend of human cruelty over a much longer timeframe than simply the eternal present. *Galápagos* argues that humanity

at some point long ago removed itself from the confines of natural laws and has thus prevented, by 1986, any semblance of balance and equanimity between cultures and with the surrounding environment. Yet by 1,001,986 this imbalance has been rectified. Human communities in 1986, the narrative declares, have the deplorable weight of an entire history of sanctioned cruelty. The relatively small and comical “slavery” blend subsequently triggers much broader imaginative cognitive processes in the reader’s mind, various conceptual blendings between the results of the textual language and the unique cognitive mind style and context of the reader.^{xi} The reader longs for the lightness with which the future narrative can treat the subject. For Trout it is, in fact, a distant memory, a peripheral observation that would be laughable to treat seriously considering the evolution of mankind over a million years.

These largely imaginative mechanism form a creative palate, where the reader draws on personal context (personal narratives, recent socio-political events, emotions) in order to situate their impressions of the text and evaluate Vonnegut’s tactics for dealing with grandiose social issues.

What has become apparent in discussing the elements of blending in several passages from *Galápagos* is that the temporal leaps from real-time, the reader’s present, to the fictional time of one million years in the future, have allowed the narrator Leon Trout to understand himself and permit his readers to understand the core problems of human societies, *reducto ad absurdum*. By trivializing with irony and quips, the remarks from the narrator reduce the complex problems and stained histories of Western cultural values to a manageable level. Yet this does not appear to be Vonnegut’s ultimate goal, this reduction of large-scale problems to a level of triteness. The reader learns in the text that there is a “human defect which the Law of Natural Selection has yet to remedy: When people of today have full bellies, they are exactly like

their ancestors of a million years ago: very slow to acknowledge any awful troubles they may be in” (136). Here, the blend actually brings together humanity of the present and humanity of the future into a comedic look at similarities rather than differences. Tragically, their “full bellies” blind them to approaching danger; for the evolved creatures, having a full belly “is when they forget to keep a sharp lookout for sharks and whales” (136); for present-day people, “this was a particularly tragic flaw” (136) even more so, since “their deaf and blind bellies remained the final judges of how urgent this or that problem, such as the destruction of North America’s and Europe’s forests by acid rain, say, might really” (137).

Up until now the blending has largely shown, through ridicule, the failures of human beings in light of their smaller-brained descendents. Rather than emphasizing disparities between the creatures, this blend equates the past and present through this tragic flaw of full bellies blinding us to potential danger. The blend still emphasizes the faults of present-day humanity, “since the people who were best informed about the state of the planet, like Andrew MacIntosh, for example, and rich and powerful enough to slow down all the waste and destruction going on, were by definition well fed” (136). Furthermore the blend insinuates that our potential for destruction is much greater and the lack of action morally reprehensible, while a well-fed human of the future only puts at risk their own life with this flaw. And yet, this blend also has the result of emphasizing the extreme vulnerability that would result from a lack of brain size; death becomes the opposite of tragedy, merely routine.

Leon Trout stays true to his evaluation throughout the novel, yet the conceptual contrasts between the present and future begin to reveal problems in the usage of the Darwinian schema as a “morality.” At first, the faults in this moral system appear in how unvaried natural selection can be in solving minor imbalances between creature and habitat. As Leon Trout muses, “if I were

criticizing human bodies [besides the overly large brain]...the other would be: ‘Something is always wrong with our teeth. They don’t last anything like a lifetime, usually’ (84). The subsequent comment reveals how natural selection has settled the problem of teeth, yet unlike other blends this one is wholly unsatisfying to the reader: “It would be nice to say that the Law of Natural Selection, which has done people so many favors in such a short time, had taken care of the tooth problem, too. In a way it has, but its solution has been draconian...It has simply cut the average human life span down to about thirty years” (85). As the colonists of Santa Rosalia draw closer and closer to the island, the reader drifts further away from a full acceptance of Trout’s framing as a viable moral system; too many beautiful things, in addition to social issues, are abolished in the process. We learn “any human love story of today would have for its crisis the simplest of questions: whether the persons involved were in heat or not” (247). Such a result is consistent with the general pattern of simplification via evolution, but with the result that no creature could say to another: “We love you...you are not alone...everything is going to be all right” (247) as Mary Hepburn says to the dying James Wait.

While the text has a unique method for revealing the root problems of human societies, especially Western society, the complexity of human existence denies the viability of a simplistic reorganization of epistemology. Vonnegut immediately problematizes the very morality that he creates in *Galápagos*. As a humanist, he cannot promote a path that allows blatant cruelty to continue but also does not advocate for the dissolution of that which is redeemable in humanity: a paradox of hopes that reflects the paradoxes of contemporary America. Trout’s attempts to conclude his account reveal perhaps the most striking loss of humanity. He answers an imagined question from the reader: “Do people still know that they are going to die sooner or later? No. Fortunately, in my humble opinion, they have forgotten that” (320). Perhaps the most relevant

sign of our humanity is our ability to comprehend and fight against our ultimate end in non-being. While it might be beneficial, in the narrator's mind, to imagine a world where understanding death is not possible – he is a ghost, both dead and not dead, after all – it is death that arguably spurs the creative imagination of people, seeking longevity beyond the individual lifespan. Forgetting that we die is the final modification to the blend of our evolution, and it perhaps indicates most succinctly why the creatures that populate the island at the end of the timeline ought not to be called “human” at all. It is the desire to fight against death that begets art and writing; Trout himself avoids death for as long as possible in order to create a final text before the ability vanishes entirely from earth.

Leon Trout's own life story now becomes clear. His time alive, prior to the events of the novel, has contributed to the conceptual realization of humanity's evolution, yet it also potentially denies his credibility. The structuring of the novel, however, puts in question critical interpretations like Ferguson's claim that Leon Trout's mental disorders engender biases. In order to recognize the problems of society that are raised in *Galápagos* the reader has to, at least partially, accept the narrator's lens as credible. If we are to view his narrative as an exercise in paranoia and mental instability and therefore discredited, then the root problems that lie beneath his mental state - the grossly apparent issues of unchecked destruction of the environment and lack of decency in individual interactions - can perhaps be ignored or secondary. Trout's apparent inability to fully understand the complexities of the modern world prompts him to declare that he is “still full of rage at the natural order which would have permitted the evolution of something as distracting and irrelevant and disruptive as those great big brains” (189). Yet his justifications for remaining behind on earth as a ghost indicate an unspoken need to confirm his mother's sentiments that “in spite of everything, I still believe people are really good at heart”

(epigram). His account, however tenuous having “written these words in air” (318), is still an effort to describe what cannot be said, fighting against his father Kilgore Trout’s pessimism:

So then I disturbed my father at his typewriter, and asked him what my heritage was from his side of the family...“My boy,” he said, “you are descended from a long line of determined, resourceful, microscopic tadpoles – champions every one.” (170)

Trout’s fallible account notwithstanding, his remaining behind suggests a dire need to disprove pessimistic sentiments that human beings generally, like the colonists, “are led by captains who have no charts or compasses, and who deal from minute to minute with no problem more substantial than how to protect their self-esteem” (278).

If Trout is not a ghost, then the evolution of Man is just a delusion that cannot influence morals in the present. The text undergoes a parallel task of discounting traditional metanarratives, the *granfalloon*s Bokonon terms them in *Cat’s Cradle*, but encouraging the reader to seek for more than the dryness of the mere succession of microscopic tadpoles. Trout must be believed and science fiction must be trusted to draw meaningful conclusions about this Darwinian perspective, and the Darwinian perspective, though flawed, is critical to the eventual understanding that Vonnegut does not want people to lose their capacity for empathy. In his final published work of nonfiction, *Man Without a Country*, Vonnegut is frank about his worldviews and motives for art. He admits in this loose collection of essays that what made being alive worthwhile for him, besides music, “was all the saints I met, who could be anywhere...by saints I meant people who behaved decently in a strikingly indecent society” (106). Reducing the world’s problems, while unrealistic, nevertheless makes them manageable for real people, and I believe Kurt Vonnegut’s paramount beliefs in *Cat’s Cradle* and *Galápagos* are reflected in these final comments to a letter from a man who wants to know that “it will all be okay” (107):

Welcome to Earth, young man...It’s hot in the summer and cold in the winter. It’s round and wet and crowded. At the outside, Joe, you’ve got about a hundred years here. There’s only one rule that I know of: Goddamn it, Joe, you’ve got to be kind. (107)

Mental space theory demonstrates successive points that guide my interpretation. First of all, the locus of creative imagination and active interpretation rests in the small blends triggered by temporal comparisons between the different points of narration in the text. They are both comical and tragic instances of human failings, and the ultimate revelation that the efforts throughout human to sustain ourselves at the expense of nature is ironically contrasted against the Darwinian narrative's triumph where we failed. Natural Selection performs what we could not and without anyone noticing it or being able to influence it: the preservation of life. And yet, Natural Selection eliminates something inherent to humanity: the construction of individual and cultural histories and creative acts of beauty like Beethoven's fifth, and, perhaps on the sappy side, love. *Galápagos* is perhaps dubiously finished in terms of plot, but the meanings the reader has drawn out of the text are much richer, and somewhat aligned with Trout's hopeful send-off "you will learn, you will learn" (324). Vonnegut has little evidence to prove as much, but he still maintains hope in a way that is absent in *Cat's Cradle* dismissal of God and the accidental destruction of Earth.

Much of the scholarly approaches to *Galápagos* concentrate so selectively on micro-trends present in the text such that it is not always clear that critics are referring to the same novel. While the language is relatively undemanding of the reader, Vonnegut's novel prevents a solidified body of interpretation in the openness of the text. What can you say, after all, with the anti-climactic conclusion of humanity living peacefully on Santa Rosalia, and no intervening narrative between the years 1986 and 1,001,986 that brought them to this state? A critical approach can justifiably accredit completely polarized visions of the novel: the text as an exuberant catharsis of pessimism by promising some semblance of stability far into the future, or as an exposé of postmodern dementia. Yet mental space theory gets beneath the limitations of

critical interpretation, locating the sources of such divergence, and building a foundation on which future scholarship can rest. We can thus understand how meaningful discourse makes the leap from the private to public domain through the literary language.

One Hundred Years of Solitude: Critical Background

As I have demonstrated throughout the previous sections, a cognitive perspective on readerly interaction with literary texts can help to square divergent critical interpretations. While none of the critical work mentioned herein can be considered “incorrect” in that each reading is defensible, Cognitive Poetics locates the specific instances where readings are generated, looking at how readers draw on their contextualized parameters to make use of fiction. We can understand, as a result, where and why critical interpretations diverge; this method also provides an entirely new set of terms and directions that I think will benefit future approaches.

I want to turn to Gabriel García Márquez and his most famous novel *One Hundred Years of Solitude*. At first glance his narrative style and authorial concerns seem very different from Vonnegut’s fiction; however there are notable parallels between them. From a biographical perspective, Kurt Vonnegut and Gabriel García Márquez both exist as literary and cultural icons in the popular mindset of their respective nations: the United States and Colombia. García Márquez has also received massive attention for his fiction in the United States, both at the time of *One Hundred Years*’ U.S. publication and more recently in 2004 after endorsement by Oprah’s book club.^{xiii} Their novels seem to exhibit similar characteristics, despite the vast geographic distance between them. Both authors comment on and often discard modern mythologies in their representations of real-world people; these three novels noted in this project all end in “productive” apocalypses. But it is also the case that the authors foremost are great storytellers and therefore widely accessible. Nevertheless few critical resources have attempted

to explore the implications of the parallels in motive, and there are few potentially instructive cross-comparisons between the two (see notes for a few exceptions to this opinion).^{xiii} The three narratives seek to discuss real problems in explicitly unreal ways, through the techniques of fantasy: science fiction and magical realism. In the process they draw attention to themselves as sources of meaning-creation, intentionally interrogating the processes by which they enter into and respond to societal discourse. Many of the conclusions I have drawn about the products of blending in the previous sections will thus come in handy for the analysis of *One Hundred Years* as well.

In the next two sections: I will again discuss some of the primary critical approaches to *One Hundred Years of Solitude*, discussing notions of time, mythmaking, intertextuality, and historicity, before applying Mental Space Theory to produce my own analysis of the novel.

As perhaps the most emblematic example, for non-Latin readers, of modern Latin American literatures, the veritable starting gun for the Latin American literary boom of the late sixties and seventies, *One Hundred Years of Solitude* has generated a larger body of criticism than either of Vonnegut's novels. In the trope familiar to students of Western modernism, the novel has been imagined as the "Great Novel" for Latin American literature, a totalizing text testing the boundaries of criticism and culture in each successive age, never dated or out of synch with the communities that read it. Thus Mario Vargas Llosa categorizes it as a "total" novel: one that "aspire[s] to compete with reality on an equal basis, confronting it with an image and qualitatively matching it in vitality, vastness and complexity" (5). Furthermore, and important for my analysis, Llosa claims that the most important but perhaps most mysterious of the novel's facets is its accessibility to a non-scholarly audience. This suggests, as I argue, that García Márquez is at his core a great teller of tales, and literary criticism ought to take this into account.

The hermeneutical method with which some Latin American texts investigate their literary and social histories complicates one-dimensional and inflexible criticism: interpretation must work with everyday aesthetics, epistemologies, and ethics in mind.^{xiv} Discussions of a much older history and historiography of colonization in Latin American literature are problematic, as Roberto González Echevarría puts it, because “the burden of Latin American culture is a Western culture that reaches back to the Middle Ages, when the foundations of the Spanish Empire in the New World were set” (“Latin American” 92). Furthermore he expresses discomfort at the limitations of viewing Latin American texts as postcolonial literature of the “other,” of the third world responding back to the Empire, but is dissatisfied with the resulting inclusion in specifically Western literary discourse (“Latin American” 93). *One Hundred Years of Solitude* exhibits this often violent conflation between colonizing and colonized sources that is difficult to square in criticism: the indigenous roots, the older Spanish political and ideological conquests, and more recent Western (primarily from the US) economic subjugation.

One Hundred Years of Solitude recounts the founding, ascent, and demise of the fictional town of Macondo through the examples of the town’s founders, the Buendía family. Their history is built through an assemblage of episodes – a method reminiscent of Native American storytelling - where certain characters and themes reappear at different, contradictory times. By way of navigating the episodic plot, the focus comes to rest on how we have come to be who we are today. Six generations of Buendías span both a fictionally-narrated history and the actual histories of García Márquez’s hometown of Aracataca, Colombia, South America, and Literature itself. In a method characteristic of boom literature, it is often impossible to separate fictionality from reality in this novel. We traverse the birth of the town, human love and loss, incessant and

paradoxical wars, economic incursion by the US, and finally Macondo's destruction by the elements of time and fate.

The apocalyptic tenor of this novel, as in Vonnegut's two novels, draws attention to both the grand schemes of human life as well as the individual's tribulations, casting uncertainty on the relationships characters forge with one another. Lois Parkinson Zamora posits that the myth of apocalypse has the necessary role of punctuating time, where origins and conclusions can be harmonized and temporal coherence is imposed. She casts the apocalypse in *One Hundred Years of Solitude* outside the traditional Christian sense of the last judgment and the kingdom to be, and more secularly as "extended considerations of temporal reality, of the beginning and end of human beings and humanity" (49). Such secular narratives consider human necessity and agency to be independent of the machinations of the cosmos. Individual lives might experience beginnings and endings but not as ultimate or finite occurrences; they occur repeatedly. Interpretations of myth in the novel, like Zamora's, "emphasize the repetition of the Buendía's names and personalities, the recurring events and activities from one generation to another, the seemingly endless series of futile civil wars" (52) that pervade the Macondo from rise, decline, death, and rebirth. But Zamora claims that the town's destruction after one hundred years points towards the untenability of this mythical, eschatological structure. "Eschatological pressure" invades the temporal demarcation of the text. References to "many years later" become "some years later" and "months later," ever spiraling relentlessly towards an end and a place where time no longer has passage (51-53). Memories and premonitions, hallucinations of the past and future respectively, invade the consciousness of the characters. And therefore they seem to be unable to grasp the momentary and transitory, only the finitude of death. The wise itinerant Melquíades offers with his manuscript the ability to view in full the history, yet interpreting it fulfills the

final prophecy and the town is swept away. As much as the novel is about Macondo's history and the Buendía lineage, "it is also about the deciphering of the manuscript recording and preserving that history, and about the equivocations inherent in recording temporal reality in words" (56); in order to struggle against oblivion, a history of origins with temporal boundaries must be elaborated in art to impose form upon the final formlessness of death for the individual and their culture (55-57).

On the subject of myth as translation and the politics of translating mythical texts (both in the traditional sense of translating one language into another and the more abstract sense of cultural translation), Jill Scott notes that the function of myth is to "bridge one spatiotemporal context to another and to grant continued and renewed significance to a timetested cultural narrative" (58). According to Roberto González Echevarría, Latin American poetry and prose has concerned itself with myth and origins largely because of the eccentricities of a culture that does not fit into the traditional dichotomy of West versus Third-world. He claims that the "burden [brought by colonial encounters] of Latin American culture is a Western culture that reaches back to the Middle Ages" ("Latin American" 92). Latin American narratives maturing in the twentieth century cope with the question of the new by rethinking the old (93). Inherent in origin myths are the simultaneity of truth and falsehood, the relation of cultural realities to aspects of unreality. As widely accessible narratives and culture-approving devices, myths concern themselves with iterating origins and, paradoxically, transposing its energies into new contexts: "a careful balancing act between origin and invention" (Scott 62). Myth-making and "mythopoesis," as Scott calls this transposition, is a valuable tactic to tackle the difficulties posed by Latin American identity in the twentieth century.

Reclaiming history and recasting myth are both hermeneutical tools that, for the authors, provide the promise of understanding human nature. González Echevarría has written extensively on *One Hundred Years* as an anthropological mediation, concerned with “language and myth” and their potential to “disassemble the powerful scientific construct through which nineteenth century Latin America was narrated” (“Novel as Myth” 108, 113). Unlike Zamora, González Echevarría locates a positive potential for the mythologizing of Latin America in the novel. He identifies four primary characteristics of myth present: the various plotlines resemble biblical and classical myths, the characters are heroic in stature and in the actions they take in their lifetime often reflect the extremes of human emotion, the supernatural elements of the various plots add a mythical tenor, and the repeated themes of violence and incest that serve as the foundation to the novel (“Novel as Myth” 114). This attention towards rewriting Latin American origins intertwines with the complex historiographical problems caused by the periods of colonization, imperial and economic domination, and revolution. “For the modern Latin American narrative is an ‘unwriting’ as much as it is a rewriting...the new narrative unwinds the history told in the old chronicles by showing that that history was made up of a series of conventional topics, whose coherence and authority depended on...a period whose ideological structure is no longer current” (“Novel as Myth” 112).

González Echevarría asserts that *One Hundred Years of Solitude* presents a self-reflexive gesture through Melquíades’ room of books and manuscripts, an archive of writing and historical preservation. While time is circular and mythic in the lives of the characters, the world of writing in the archive is temporally linear: the story of the translating and deciphering of Melquíades’ text by subsequent generations of Buendías. Within the Archive, Melquíades “stands for writing, for literature, for an accumulation of texts that is no mere heap but...a relentless memory that

disassembles the fictions of myth, literature and even history” (“Novel as Myth” 118). Macondo acts, for García Márquez, as a way of mediating the complexities of a Colombian history in particular, and of Latin America generally.^{xv} Preserving the town’s history in an archive in its entirety, before it has occurred, reasserts dominance over the real world in fiction. With the final unraveling of the coded manuscripts, they are revealed to be the history and destruction of the Buendía family, the very account which we have just concluded: “Our own anagnorisis as readers is saved for the last page, when the novel concludes and we close the book to cease being as readers...by means of an unreading, the text has reduced us, like Aureliano, to a ground zero, where death and birth are joined together as correlative moments of incommunicable plenitude” (“Novel as Myth” 122). Here is where myth and Archive, thus history, are joined together, where “knowledge and death are given equivalent value” (“Novel as Myth” 122). The novel itself is realized to be the tale written down by Melquíades, and therefore refers to its own creation and its translation. Self-reflexivity, claims González Echevarría, is a way of disassembling the mediation through which Latin America is narrated.^{xvi}

Mary Pinard looks at the notion of solitude that prevails throughout the novel as both a physical place, like Melquíades’ room, and a psychological state of removal from linear temporality. By her definition, “the activity that does take place in solitude is repetitious and in flux: the weaving and unweaving of a shroud [by Amaranta to delay her death], the making and unmaking of gold fish [by Aureliano after thirty-two rebellions], the piling and unpling of coins [by Aureliano Segundo and Petra Cotes post-flood]” (67). The states of solitude encountered by each character bear similar characteristics but, by definition, equate to exclusively personal, subjective states, where they can “escape, at least temporarily, the passage of clock time and its effects, in order to exist simply and to perceive” (Pinard 71). While this state permits Melquíades

“to write the past, present and future of the Buendía race” (Pinard 70) and thus allows for productive creation in his manuscripts, Pinard’s approach fails to take the final conclusion to the novel into account: the moment when Aureliano Babilonia realizes how the manuscripts end:

For it was foreseen that [Macondo] would be wiped out by the wind and exiled from the memory of men... because **races condemned to one hundred years of solitude did not have a second opportunity on earth** (448, my emphasis).

Pinard’s theory provides a productive way to understand the characters’ escapes into solitude, yet it is a positive reading of solitude – the state provides the creative potential for Melquíades as “writer and chronicler” - and neglects the questions posed by the obliteration of Macondo.

Although not the first Latin American novel to exhibit the characteristics of the genre of magic realism, the wide popularity of *One Hundred Years of Solitude* brought the technique to the fore in contemporary discourse in the U.S. Morton Levitt and John Gerlach both track the development of this narrative technique in García Márquez’s earlier works of fiction: the progression from an omniscient narrative voice that needs to “explain” uncertain events to a narrative “from within the community, and they add thereby to the uncertainty of what may be accepted as real and what may remain something else” (Levitt 230).^{xvii} The flying carpets that the gypsies bring to Macondo early in the novel present an ideal example. They brought, “along with many other artifices...a flying carpet...but they did not offer it as a fundamental contribution to the development of transport, rather as an object of recreation” (34); instead of doubting the possibilities of the real, the question posed by the narrative is more concerned that unlike Melquíades’ tribe, these gypsies “were not heralds of progress but purveyors of amusement” (34). As Gerlach notes, what formerly would have been the locus of normality and logic (87) – the villagers doubting the gypsy tribe’s tricks – is instead indicted for their complicity in escapism, in opposition to the inventiveness of José Arcadio Buendía. Gerlach applies Tzvetan Todorov’s analysis of fantasy and concludes that “the task of the reader is to naturalize, to

recuperate, that is, to make intelligible, this break from the norms of the reader's experience" (89). He speculates that the sense of wonder that the magic realism techniques evokes for the reader is not abandoned because we cannot take the magical as literal; it is put to use by the narrative and directs us towards the "how", the importance resting in the manner instead of the matter (82, 89).

The analyses reviewed thus far have noted the fantastical and mythical elements of the novel in order to elucidate broader theories about how García Márquez attempts to reinterpret the complex history of his country and the continent. Redressing and reevaluating the conflicted past tends to place a pessimistic lens on the novel, ignoring as Clive Griffin and Gene H. Bell-Villada claim, the profits of investigating the humor in the novel. Humor, asserts Griffin, "can cut across cultural and even linguistic boundaries, appealing to the least and most sophisticated and knowledgeable readers" (53). The violation of taboos and immensity of the Buendías attributes – José Arcadio's enormous member and bulk, his father's ability to increase his weight at will, Fernanda's absurd prudery, Aureliano Segundo's tremendous wastes - in particular ensure a sense of lightness in spite of the tragic events that befall Macondo. While Colonel Aureliano Buendía's thirty-two rebellions have certain socio-political implications about Colombian politics, García Márquez switches tone, often with expletives or understatement to deflate tension and the foreboding mood (Griffin 56-57). Bell-Villada notes: "García Márquez's own Yankees are pure caricature but are drawn with such virtuoso precision and elaborate complexity... [he] appears to have understood that too solemn a vision of U.S. imperialism contributes nothing to the art of friction" (130). Exaggerating and ridiculing the foreigners and equally mocking the town's reactions more completely defamiliarizes the scene for the reader, who can more equivocally interpret the incidents that result (131). Such theories of humor

emphasize the importance Gabriel García Márquez places on “the spinning out of a yarn” (Griffin 65), and recognize the novel as foremost an example of consummate storytelling. Yet this view runs the risk of negating the importance that the Novel in general has as a truth-bearing and truth-making apparatus in contemporary cultural discourses, suggesting instead that *One Hundred Years* “does not pose serious questions upon which the reader is invited to meditate at length” (Griffin 65)

Immense in scope, *One Hundred Years of Solitude* limits much of the critical discourse to identifying only specific trends (origin myths, the technique of magic realism, portrayals of time, anthropological concerns, humor, etc), often at the expense of questioning how these trends will relate to one another in the reading experience. While interpretations cannot be expected to explain a literary text in totality, they often inadequately synthesize how these trends can be mutually present; there is just too much to cover and traditional criticism lacks the terminology to address the contextualized politics of meaning-creation. Floyd Merrell, for example, cannot begin without remarking on the ever-expanding list by which one can even discuss the “multidimensional microcosm” of this novel: it “can be construed as symbolic of Colombia (the socio-political), Latin America (the mythico-cultural level), Christianity (the mystico-religious level), the world (the historical archetypal levels), or the universe (the cyclical/entropic levels)” (21). We can add in the several other levels brought up in this overview, and this does not exhaust the list of critical approaches to *One Hundred Years*. The novel perhaps demonstrates its own immensity of vision, value, and inexhaustibility by its worldwide popularity. While Cognitive Poetics does not claim to be able to cover a literary work in its entirety and completely, it has the unique aspect of foregrounding the communicativeness and functionality that fiction has in society, the streaming of information from the individual into culture and back

again (Stockwell, *Cognitive Poetics* 168-170). In the following analysis I will posit some solutions for how *One Hundred Years of Solitude* offers layers of negotiated meaning that hinges on the context from which a given reader approaches the text.

Cognitive Poetic Analysis of *One Hundred Years of Solitude*

The register utilized by the discourse circles of professional academia has a major drawback in that it declares inadmissible the much more frequent reading experiences by those outside of this world. For example: postulating complex theories based on extensive socio-historical research to account for how exactly a given reader will cope with a text that places its fictional narrative alongside “actual” events inherently carries the assumption that the “reader” is one equivalently trained. Literary scholarship speaks to an audience consisting of other scholars. Discussions do not occur regarding how exactly “average” readers will draw on their more limited context in the negotiation of the text.^{xviii} As a general analytical method, Cognitive Poetics’ concentration on the sources and methods of exchange between literary language and meaning can allow scholars to take a step back and find ways of connecting different levels of reading into the greater discourses surrounding a fictional text. A scholar working in Latin America, a scholar from the U.S., a twenty-one year old student from the U.S, and a resident of Gabriel García Márquez’s hometown of Aracataca each will respond to different ideas, episodes, and trends that *One Hundred Years of Solitude* raises, will appropriately adapt their individual reading experience to the registers permitted them in their discursive groups. I will use Mental Space Theory to get beneath the biases of a scholarly approach and demonstrate ways of expanding how we can discuss this novel that has such global appeal.

Fauconnier and Turner’s work in cognitive linguistics will specifically provide a way to understand the structuring of the fantastical elements of *One Hundred Years* such that the reader

does not have to evaluate the text for believability but can instead adapt the text's assertions for their particular purposes. Familiar myths, characters who appear in stories by other authors, recognizable historical events, and prevailing motifs of art pervading the different plotlines further provides closeness between the reader and the fictional language. With increasing background knowledge the professional reader will notice and respond to more and more of these intertextual links. The reader is not necessarily distanced by the magical devices but is forced to use them to achieve an interpretation of the text, even if the reading proceeds as if García Márquez is simply "spinning a yarn." While this de-familiarization and re-familiarization arguably occurs in all works of fiction, the explicitness with which García Márquez utilizes the unreal makes a statement on the role of fiction as a truth-bearing (or more accurately a meaning-bearing) form in a way that does not obey national or language boundaries. Mental space theory brings to light the loci of these negotiations of meaning.

Much in the way *Galápagos* relies on temporal shifts to clarify the consequences of the distance between the reader's time and the time of narration, *One Hundred Years of Solitude* opens by preparing for the fictional distance that separates our world from Macondo. "Many years later, as he faced the firing squad, Colonel Aureliano Buendía was to remember" (1) initiates a double shift in temporal spaces, first to the moment when Colonel Aureliano Buendía faces a firing squad and immediately into his memory of his childhood, the "distant afternoon when his father took him to discover ice" (1). Instrumental in this leap is the passive voice of "was to remember" which focuses the reader not on the firing squad-frame but prepares them for the subsequent description of this past time. The narrative mode appears omniscient in its ability to access these multiple times and also intimately tied to the inner contemplations of the characters. Thus, discovering that "the world was so recent that many things lacked names, and

in order to indicate them it was necessary to point” (1) is not as much of a shock since it is not clear how far back in time we have jumped (*when* we are). Accordingly the reader is not led to speculate on metaphorical meanings for “discovering” ice, nor are we surprised that Melquíades’ magnet is described as magical: “everybody was amazed to see pots, pans, tongs, and braziers tumble down from their places...and even objects that had been lost for a long time appeared from where they had been searched for most” (1-2).

At first, considering the marked distance in time and modality between Macondo and the reader’s time, such reactions to basic physical properties (magnetism, magnification, navigation) imply a backwardness to the village. But the disparity between the modern reader’s breadth of knowledge and what the villagers assume is lessened by the narrative’s concentration on the consequences of the characters’ superstitions rather than the beliefs themselves. Melquíades, “an honest man,” claims that magnets reveal that “things have a life of their own...it’s simply a matter of waking up their souls” (2). The patriarch of the Buendía family, José Arcadio Buendía, “whose unbridled imagination always went beyond the genius of nature and even beyond miracles and magic” (2), doubts the gypsy’s honesty and attempts to use the magnets to find and extract gold from the earth. José Arcadio Buendía’s reaction to put magical power to “scientific” use with “an irresistible power of conviction” (3) becomes the focal point - character exposition in this case - rather than directing the reader to examine the general perception that such magical power is real. When the reader encounters the uncanny or apparently magical (unearthing the fifteenth-century armor, finding the Spanish Galleon in the middle of the jungle, and the plague of insomnia) as opposed to folkloric misrepresentation (interpreting magnetism as “magic”), the text already has prepared a blueprint for how they are refamiliarized and adapted to elements of unreality.

While the narrative has the task of relating most of the events that take place in *One Hundred Years*, it invariably sides with the beliefs and epistemic models that the Macondoian community uses to navigate their world, rather than narrating from a completely objective viewpoint. Joanna Gavins has explored the implications of limited versus omniscience narration in regards to mental space construction, declaring that the beliefs, goals, and fantasies that are imagined by characters in a text are inevitably character-accessible and not participant-accessible. “Focalized narratives represent only what one character believes to be the case and, as such, can be seen to constitute an epistemic modal world” (83, 89) that denies evaluation by the reader or participant, because of the distance inherently carried by the fictional language constructions. Despite being the primary vehicle for constructing the textual world, the narrative itself is beholden to the interpretations of the Buendía family, as if the omniscient narrator has both the ability to transcend time, yet has lived in Macondo and bears the town’s biases. The reader must “accept the contents of that world as reliable information” (Gavins 89) in order that the reading can occur at all. The epistemic world of *One Hundred Years of Solitude* has to provide, at some point, a way in to the text.

Discussing the family daguerreotype, the narrator notes both José Arcadio Buendía’s incredulity and later the exploitation of the “fantastic camera” (55) as well as taking the opportunity to discuss Aureliano Buendía’s coming of age. The invention bears the possibility of obtaining “scientific proof of the existence of God... through a complicated process of superimposed exposures taken in different parts of the house” (58). Perhaps fallible to the reader, this idea is supported by the narrative as another example of the patriarch’s practical imagination, as he later “stopped his pursuit of the image of God, convinced of His nonexistence” (67). Equally, the narrative can transcend time and perceive the mind of

Aureliano, who in the daguerreotype “had the same languor and the same clairvoyant look that he would have years later as he faced the firing squad” (55). Tied to the fantastical, the narrative nonetheless can claim: “it was true that he had never had [a woman]” (55). As with the flying carpets of the gypsies, the narrator’s omniscient perception and transcending of time adapts the perspective-limiting elements of the unreal.

Fauconnier and Turner demonstrate the pervasiveness of counterfactual reasoning in human creative thought, and conclude that at the cognitive level in which conceptual blending occurs, constructions using both real and unreal inputs, as well as running and “living in” fantastical blends, have a definite cognitive advantage for making sense of the world. “The ‘false’ blends are used in powerful ways to operate on the rest of the [blending] network, ultimately yielding inferences for a particular space and new outer-space connections between the inputs...the ‘literal falsity’ of these spaces is irrelevant to reason” (236). The passage that relates José Arcadio Buendía’s venture through the woods exhibits this trend:

Then, for more than ten days, they did not see the sun again. The ground became soft and damp, like volcanic ash, and the vegetation was thicker and thicker, and the cries of the birds and the uproar of the monkeys became more and more remote, and the world became eternally sad. The men on the expedition felt overwhelmed by their most ancient memories in that paradise of dampness and silence, going back to before original sin, as their boots sank into pools of steaming oil and their machetes destroyed bloody lilies and golden salamanders. For a week, almost without speaking, they went ahead like sleepwalkers through a universe of grief... (12)

Immediately, the references to biblical myth are apparent in this episode, particularly the story of Eden and the story of the apple of the Tree of Knowledge, and critically we can therefore speculate on the text’s approach to human and cultural origins; the blend, in fact is much richer. One input space is dominantly built by the language, recounting the sensory details of the men’s journey through the woods in search of the sea. However a second space is cued up by the familiarity with the biblical myth of Eden with references to “ancient memories in that paradise of dampness and silence, going back to before original sin,” The anomalous features of these

woods, “volcanic ash,” “pools of steaming oil,” and the absence of the sun, set the ground for a blend between the grammatically marked expedition space and the myth-space. The blend itself compresses the literal journey further and further into the forest and the internal remembering back in time to the state of humankind before original sin. While people cannot actually form a continuity of memory back through each generation to the original Man and Woman, aspects of the physical journey itself into primeval nature take on aspects of the biblical lineage. The prehistorical “volcanic ash” is mirrored in the prehistoric time prior to original sin.

This passage demonstrates how the magic is made real in the novel, particularly through the compression of the two input spaces via several conceptual metaphors. Conceptual metaphors – in this passage, the most prevalent are IDENTITY IS A JOURNEY, MEMORY IS PALPABLE, and EMOTIONS ARE SPATIAL - stem from our cognitive need to bridge sensory experience and abstraction.^{xix} “Image schemas are created on-the-fly as part of people’s ongoing simulations of actions when they engage in cognitive tasks, such as understanding language” (Tseng 138, quoting Gibbs), and within cognitive representation are ways in which we as readers can understand how characters negotiate and transcend physical and mental space. In the first input space, the townspeople are traveling through an increasingly dense and forbidding forest; nature triggers “ancient memories” as well as an overall feeling of oppression. The counterpart input in the second space is built instead around Man ‘traveling’ backwards through his lineage to, presumably, Adam and Eve in the garden.

Grammatically the textual language suggests that these two journeys are parallel, and the blend that emerges imagines José Arcadio Buendía’s expedition as a brief glimpse and return to Man’s origins. Cognitively parsing the language, the image schemas provide models by which “dampness and silence,” “ancient memories,” and “a universe of grief,” bodily and emotional

descriptions, can be equated to one another to set the tenor of this blend as well as helping to make a metaphorical leap in time a literal journey. The blended space is preserved by the text to accommodate the fantastic elements that the expedition discovers after the sun returns; the discovery of “an enormous Spanish galleon” literally “seemed to occupy its own space” (12): the blended space where José Arcadio Buendía can reach a place of origin and original being by traveling through primeval forest as well as through the pathways of collective memory. Yet the journey’s original purpose, helping Macondo out of its isolation and backwardness, fails as the journey reveals only the civilization from whence they came. José Arcadio Buendía’s “dreams ended as he faced that ashen, foamy, dirty sea, which had not merited the risks and sacrifices of the adventure” (13), and Macondo remained both newly founded and irremediably linked to the past.

Blending functions throughout the opening episodes of the text as the mode of bringing closer the real and unreal: a way of appropriating the potentially fantastic and naturalizing it, thereby causing literal rather than metaphoric pathways for interpreting the text. Macondo has been established by this point as both ordinary and down-to-earth yet still intimately tied to people and events of mythical proportions. José Arcadio and Úrsula flee their homeland and found Macondo because they are being “tormented by the immense desolation with which the dead man [Prudencio Aguilar]” pursued them with “his deep nostalgia as he yearned for living people, the anxiety with which he searched through the house looking for some water with which to soak his esparto plug” (25). While José Arcadio Buendía loses himself in his laboratory, “the willful firstborn...had become a monumental adolescent” to such an extent that “he was so well-equipped for life that he seemed abnormal” (27), yet he too is suffers the very human “abyss of abandonment” (30) in losing his virginity to Pilar Ternera, “confusedly aware that he was doing

something that for a very long time he had wanted to do but that he had imagined could never really be done” (30). Strange occurrences announce that Úrsula’s prolonged absence is about to end; “an empty flask that had been forgotten in a cupboard for a long time became so heavy that it could not be moved” (38-39); “a pan of water on the worktable boiled without any fire under it for a half an hour until it completely evaporated” (39). Yet her return is anything but extraordinary; “she arrived exalted, rejuvenated, with new clothes in a style that was unknown in the village” (39), hardly a way predicted by the unnatural occurrences in the household. The supernatural movement of flasks and cradle alike reflects instead the very normal strangeness that the community must have felt facing “men and women like them, with straight hair and dark skin, who spoke the same language and complained of the same pains” (39), yet new and foreign nonetheless: a confirmation of a world beyond Macondo’s borders.

Conceptual blending that follows the insomnia plague in particular reveals some of the recurrent themes that the text concerns itself with. While a plague of insomnia as described dwells outside of the reader’s acceptable margin of reality, the tactics with which the Buendías deal with the plague’s symptoms, especially the loss of memory, suggest very concrete solutions for approaching problems of familial and cultural identity. The reader learns that “the most fearsome part of the sickness of insomnia was not the impossibility of sleeping, for the body did not feel fatigue at all, but its inexorable evolution toward a more critical manifestation: a loss of memory” (48). The townspeople respond in ways - the marking of things with names and a description of their use, using fortune-telling cards to reveal the past instead of the future, and the construction of a memory-machine - that are enlightening about the function and importance of memory; the plague provides a platform for the reader to imagine a human state without memories or where memories, and thus identities, are threatened.

1) “Then he marked [every laboratory object] with their respective names so that all he had to do was read the inscription in order to identify them...José Arcadio Buendía put it into practice all through the house and later on imposed it on the whole village...Little by little, studying the infinite possibilities of a loss of memory, he realized that the day might come when things would be recognized by their inscriptions but that no one would remember their use...Thus they went on living in a reality that was slipping away, momentarily captured by words, but which would escape irremediably when they forgot the values of the written letters.” (51-52)

2) “José Arcadio Buendía then decided to build the memory machine that he had desired once in order to remember the marvelous inventions of the gypsies. The artifact was based on the possibility of reviewing each morning, from beginning to end, the totality of knowledge acquired during one’s life...he had succeeded in writing almost fourteen thousand entries when along the road...” (53)

Aureliano first combats his forgetfulness by marking down his metal-working tools with their proper names, but José Arcadio Buendía later realized “that the day might come when things would be recognized by their inscriptions but that no one would remember their use” (52). The inscriptions began to include functional reminders as well as identifying names, but even this would fail “when they forgot the values of written letters” (52). The narrative poses a space where the plague’s symptom is memory loss and the tactic of marking things with their proper name and function constitutes a treatment for these symptoms. This space is founded on an abnormal absence or lack of memory that cues up a second space for the opposing condition, where normality equates to a wholeness of memory. Compressing these two spaces along the vital relation of disanalogy (Fauconnier and Turner 99), the blend indicates that the naming of things, or more generally writing, maintains a wholeness of memory. Running this blend, “or letting its new structure take on a life of its own, gives rise to meanings which were not available in any of the inputs” (Dancygier “What can blending” 5); the blend reveals the vital connection between writing and individual and collective memory, and its importance as a communicative tool as well as a marker of identity. Prompted for the reader by the text, in other words, are conclusions about the possibilities and the limits of writing in the figuring and importance of cultural memory.

“The spell of an imagined reality...built on the uncertain alternatives of the cards” (52) introduces the town’s next tactic and offers a competing look at the writing and recording blend. A third blend joins the network via José Arcadio’s memory machine, “the artifact [that] was based on the possibility of reviewing ever morning...the totality of knowledge acquired during one’s life” (53). In three different blends *One Hundred Years of Solitude* reveals a deep-seeded concern for the preservation of communal memories. Cut off from the world because of the insomnia plague but also by the vast distance from civilization, Macondo runs the risk of losing touch with the collective identity of its people. Facing a loss of memory and the eternal repetition of “an imagined reality,” as seen in the town’s efforts to pass time by telling “over and over for house on end the same jokes” (50), the Buendías’ efforts are a shoring up and preserving their genealogical identity in the face of forces that threaten to dissolve it.

Tropes of cyclicity and repetition, outside of familiar perceptions of linear time, persist in the reoccurrence of names, personalities, and physical attributes of the Buendía family. While the text structures the episodic plotline more or less in a linear fashion, at various points the cyclical perception of time invades the household, both threatening it and offering respite from the general decline of old-age and death. Tinkering with a toy ballerina, the aging José Arcadio creates perpetual motion by attaching a pendulum to the mechanism and falls into a delirious state, a blended space created in his mind that the reader accesses:

The fever of insomnia fatigued him so much that one dawn he could not recognize the old man with white hair and uncertain gestures who came into his bedroom. It was Prudencio Aguilar. When he finally identified him, startled that the dead also aged, José Arcadio Buendía felt himself shaken by nostalgia...A few hours later, worn out by the vigil, he went into Aureliano’s workshop and asked him: “what day is today?” Aureliano told him that it was Tuesday. “I was thinking the same thing,” José Arcadio Buendía said, “but suddenly I realized that it’s still Monday, like yesterday. Look at the sky, look at the walls, look at the begonias”...On Friday, before anyone arose, he watched the appearance of nature again until he did not have the slightest doubt but that it was Monday. Then he grabbed the bar from the door and with the savage violence of his uncommon strength he smashed to dust the equipment in the alchemy laboratory. (84-85)

José Arcadio's only successful venture, the discovery of perpetual motion sends him into a state where he encounters, for the first time, the ghost of his former rival, and later no longer can perceive the passage of the days. Textually the narrative structures a blend that the patriarch of the family lives in, as opposed to a blend that the reader only participates in: the combination of a space consisting of the invention that "danced uninterruptedly to the rhythm of her own music" and a space where time flows in its natural, linear form. The blend therefore redirects José Arcadio's perception of time, as the toy's pendulum-driven cycle contradicts the passage of time as having a definite beginning or end. Death and life interact with one another, and "nostalgia," like the "universe of grief" encountered in the liminal space of the Spanish galleon, suggests both a mental state and a physical place outside of regular time. While José Arcadio continues to age and notices "that the dead also age," he cannot prove that the days have in fact passed. He cannot escape this blend and loses his sanity.

Fauconnier and Turner describe this process of creating and then living in conceptual blends in conjunction with lottery depression. Purchasing a ticket, people unknowingly imagine themselves with the prize money, and then perceive a loss as a loss of millions of dollars; "One of their fundamental results is that the same objective facts are much more painful for subjects when framed as a loss than when framed as a gain" (2002: 233). For José Arcadio Buendía, the fantasy he creates ruins his sanity, for the natural progression of time and the ability to differentiate oneself from day-to-day has a pivotal place in human consciousness, and once inside he cannot escape. Much like those with lottery depression, José Arcadio Buendía gets caught in a blend of his own making, a fantastical space that negates his identity. García Márquez plays with this type of blend repeatedly throughout the book, complementing the mythical tenor first established in the beginning. Myth often iterates the repetition of events, the

reappearance of characters in different stories, and the notion that the cosmological order does not proceed in the same manner that the human order does. José Arcadio's crisis stems from a conflicting blend between myth-time and human-time, a fantastical mental and physical state of simultaneous being and non-being.

Instead of merely interpreting this episode as though José Arcadio Buendía simply lost his sanity, the narrative's ability to tie together a personal and omniscient perspective allow the reader to participate in this blend as well. While the events themselves send José Arcadio Buendía into state of endless repetition, it is the narrative that permits us, as with the expedition blend, to navigate the fictional character's mental state, to meaningfully understand the loss of self and identity associated with this occurrence. When outside of time's passage, the family members "spoke to him and he looked at them without recognizing them, saying things they did not understand" (86). This language turns out to be Latin. With the case of José Arcadio Buendía unable to extricate himself from his own fantasy blends, the reader perceives how integral the natural progression of time is for people to demarcate themselves from their environment. José Arcadio Buendía's sudden access to an ancient language will indicate how, literally, the patriarch's blend has derailed him from the normal passage of time. A more knowledgeable reader, understanding that Latin is the language of the Catholic Church as well as the sanctioned language of Spanish colonial record-keeping, can further conclude that this fantasy blend has the ability, potentially dangerous, to bridge the distance of historical periods. We may further generalize that José Arcadio Buendía's failure to remain sane is inextricably linked to his constant need to scientifically take apart, examine, and catalogue the natural world. In making sense of the characteristics of the novel itself, the reader uses characters' speech, thoughts, and

actions to understand how they navigate their world, and by extension understand how García Márquez comments on the real world (Semino, “Blending” 57-59).

Colonel Aureliano Buendía’s thirty-two rebellions represent another sort of cyclical interruption of traditionally linear time. *One Hundred Years of Solitude* offers various sorts of blends that the characters can enter into, physical places and mental states, where the magical can exist and interact with the real, as in the sensation Colonel Aureliano expresses after his first capture: “I had the impression that I had already been through all that before” (136). As loci for the reader’s imaginative interpretation, they likewise serve as important vehicles for the complex weaving of the contextual and textual. By emphasizing the repetition of the endless wars, their paradoxical conclusions that reflect no change at all, García Márquez uses blending as a way to funnel historical reference into the fictional atmosphere. By representing and parodying elements of Colombian history the text further dissolves the boundary between the reader’s understanding of fiction and reality; *One Hundred Years of Solitude* through its very fictionality can become a marker of history and therefore cultural identity.

Different readers, depending on their unique context that they bring to the negotiation of the text, will recognize and utilize the referential markers that the novel offers. Colonel Gregorio Stevenson appears in Macondo “on a mission to Curaçao, where he hoped to recruit exiles from all over the Caribbean” (127), alluding to the many liberal revolutions along the Caribbean coast, which now the Buendías participate in and lead; “The first direct news Úrsula received from [Aureliano], several years after his departure, was a wrinkled and faded letter that had arrived, passing through various hands, from Santiago, Cuba” (159). Further knowledge of García Márquez’s biography will reveal to the reader this little nod to Fidel Castro’s revolution, a good friend of García Márquez’s in life, whose revolutionary journey began at Santiago de Cuba.

“Conservative general José Raquel Moncada, mayor of Macondo since the end of the war” (159), who respected Aureliano and “took advantage [of truces] to teach Colonel Aureliano Buendía how to play chess” (160) refers to the actual revolutionary president of Nicaragua in the 1920s and the Moncada barracks of Castro’s first strike in his revolutionary movement. Colonel Aureliano Buendía fights against and alongside fictional characters who originate from other Latin American novels: Colonel Lorenzo Gavilán and Artemio Cruz from *The Death of Artemio Cruz* by Carlos Fuentes, Victor Hugues from Alejo Carpentier’s *The Lost Steps*, and Rocamadour from Julio Cortazar’s *Rayuela* (Griffin 53). And, as García Márquez claims in his autobiography, much of the portrait of Colonel Aureliano Buendía comes from the author’s memories of his grandfather, who also fought and eternally awaited a pension that never arrived.^{xx}

These contextual markers are points of negotiated interpretation, provoking blending where the reader can recognize and make use of them. Each blend occurs as a combination of the fictional history of *One Hundred Years* and the real-world histories available for the reader to draw on. By integrating the historio-cultural landscape into the reading process, the fictional landscape in turn passes into the popular cultural mindset of readers. Knowledgeable readers who note these references will draw on them in additional blends. By pitting the plot of his novel among the struggles of many historical, real-world moments, García Márquez self-reflexively declares the powers of his fictional text. At each reference, the blends that emerge between fiction and reality, or between the novel and other fictional texts, demonstrate the narrative’s power as an archival force, bringing together the struggles that are separated by time and distance and fantasy. Macondo has become, through these self-reflexive gestures, simultaneously real and unreal, and the struggles of the Buendía family are likewise the struggles of real-world

individuals and communities. Although the text is not limitless, this referentiality will broaden how the reader applies these meaningful conclusions about social identities, about how commonalities can be forged across traditionally recognized barriers.

A referential moment that a majority of readers would notice is the links between the author and the fictional characters he has created. Sharing the author's surname, Colonel Gerineldo Márquez reveals how intricately the novel places itself both outside of the confines of reality and irremediably connects the text to its surrounding context brought by the reader to the interchange of discourse. His presence, and later the presence of a fictional representation of the author himself, further blurs the lines between the real world and the text world. Structurally the conceptual blends continually get more complex as the reader compresses the representations of people with their real-world correlates.^{xxi} Just as the narrative adapts the reader to elements of "magic," it furthers this process by conceptually blending the very barriers between text and author, between text and the reading experience, and between writing and reading.

The fictional ancestor of García Márquez is a descendent of Macondo's settlers and fights alongside Colonel Aureliano Buendía for the entirety of the twenty years of rebellion. It is he who "was the first to perceive the emptiness of the war" (175) and discovers the full extent to which Aureliano's "image was fading away into a universe of unreality. The characteristics of his speech were more and more uncertain, and they came together and combined to form words that were gradually losing all meaning" (175), reminiscent of the insomnia plague's forgetful oblivion. Eventually Aureliano begins to recognize the meaningless repetition:

His orders were being carried out even before they were given, even before he thought of them, and they always went much beyond what he would have dared have them do. Lost in the solitude of his immense power, he began to lose direction....He was weary of the uncertainty, of the vicious circle of that eternal war that always found him in the same place, but always older, wearier, even more in the position of not knowing why, or how, or even when. (180-181)

“Lost in the solitude” that periodically enmeshes every member of the Buendía family, Aureliano in this space reaches a similar crisis in the purposeless repetition of the war and his slowly dissolving identity as did his father, though it is the excesses of complete military authority that sends the son into his solitude. Subjected to rather than controlling the excesses of power, he “began to lose direction,” and he no longer associates himself with the role that he plays as revolutionary leader. García Márquez provides continuity for the reader by constructing the same blending structures: the physical and mental state of solitude, the disruption of linear time, and the “vicious circle” that threatens Aureliano. By referencing and abbreviating versions of Colombian history and interweaving the text with the plight of other Latin American uprisings, Colonel Aureliano Buendía’s entrapment becomes an accusation of the inherent paradoxes of Latin America’s conflicted past. Spanning definitive time periods, the text lessens the distance between countries and modes of conflict, defining the universally corrupting influence of Power as endemic to humanity, or at least to Latin America.

Entrapped in a blend, unable to mitigate the political forces of his own creation, Colonel Aureliano Buendía can only notice tangentially the passage of time outside himself; while the war and his role within remain static, he himself notices his aging shell that continues to reflect the passage of linear time while another side of him does not. Trying to break out of this cycle, “Colonel Aureliano Buendía scratched for many hours trying to break the hard shell of his solitude” (184) unsuccessfully until he figured out that it was time to end the war, despite his pride. This pride entraps him and must be overcome in order to escape from the solitude blend.

After signing the Treaty of Neerlandia, he shoots himself through a circle that a doctor drew where his heart supposedly was, but it actually was drawn where a bullet could pass through the body without hitting a single organ. His failed attempt makes him a legend in a few

hours. “The same people who invented the story that he had sold the war for a room with walls made of gold bricks defined the attempt at suicide as an act of honor and proclaimed him a martyr” (194). García Márquez continues to toy with the blend that has resulted from Aureliano’s rebellions, hinting at how legends are born: from untruth. While the Colonel himself with his act of self-abnegation confronts his mortality, the blend lives on. Society reinterprets his deed as proof of his status, and the conservative government awards him the “Order of Merit” (194). The reader, who has tracked the modification of the blend, understands the cruel paradoxes of Latin American ruling powers. The role of *Colonel Aureliano Buendía* surpasses and lives on in fame while the character himself withdraws into the silversmith’s shop once again.

The second half of the book primarily tracks the decline of the family, and as such its primary concern is death. With the conclusion of Colonel Aureliano’s major timeline, the following chapter marks a revival of sorts for the family: “Years later on his deathbed Aureliano Segundo would remember the rainy afternoon in June when he went into the bedroom to meet his first son” (197). Just as Aureliano’s siblings and his parents make up a major part of the family’s rise, Aureliano Segundo and his offspring marks another generation, except toward the family’s decline. Mimicking the opening of the first part of the novel, this verbal repetition fits right in with the reader’s well-established conceptual understanding of the novel. Repetition has dictated the construction of the meaningful blends in the novel thus far. Úrsula, the matriarch since Macondo’s founding and the longest living Buendía, has the rare ability to view these cyclical trends in the family: “Throughout the long history of the family the insistent repetition of names made her draw some conclusions that seemed to be certain. While the Aurelianos were

withdrawn, but with lucid minds, the José Arcadios were impulsive and enterprising, but they were marked with a tragic sign” (197).

Yet Úrsula too is bound by the temporal constraints of Macondo and cannot pull the house out of ruin as she had done in so many episodes previous. As she departs life, she dissolves into “a hodge-podge of requests to God and bits of practice advice to stop the red ants from bringing the house down, to keep the lamp burning by Remedios’ daguerreotype, and never to let any Buendía marry a person of the same blood” (368). Her death represents both the loss of the family’s totality of memory and the loss of the last link to the town’s origin in Riohacha. Her death brings “a certain confusion in nature: the roses smelled like goose foot, a pod of chick peas fell down and the beans lay on the ground in a perfect geometrical pattern” (369). Like the blend signaling the matriarch’s return to the town, the fantastic evidence of the disruption of nature reveals a great change to come, but this time in the guise of loss. Time ultimately wears away Úrsula, but the blending further suggests that time ultimately wears away our limited time on Earth. García Márquez suggests it is our maintenance of historical memory and contact with the past, as Úrsula did for so long for the family, imposing a necessary order for the present. Thinking about her son Colonel Aureliano Buendía’s hardened heart in the exile of his workshop, “she realized that [he] had not lost his love for the family because he had been hardened by the war... but that he had never loved anyone, not even his wife” (267). Overthrown by his own premonitions, Aureliano “had fought so many wars not out of idealism, as everyone thought, nor had he renounced a certain victory because of fatigue... but that he had won and lost for the same reason, pure and sinful pride. [Úrsula] reached the conclusion that the son for whom she would have given her life was simply a man incapable of love” (267). Her memory creates for the reader a blend that explicitly reinterprets Aureliano’s state in the war. Though she soon

passes away, the town's decline threatens to sweep away all evidences of the lives of those who formerly populated it, a threat that she counters with her memory. Transcending time and noting the convergence of the past and present, memory is therefore vital to maintaining stability. The narrative has been throughout the novel a series of memories recalling a past increasingly distant: the moment of creation and origins, "when the pirate Sir Francis Drake attacked Riohacha in the sixteenth century" (21).

The arrival of the banana company and the hoards of foreigners, who came "drawn by that great volcanic belch" of the train "because everyone is coming" (248) signals the final outside force "that would deal Macondo its fatal blow" (315). Referencing an actual company (United Fruit) that set up a plantation in García Márquez's hometown of Aracataca, the narrative demonstrates the corrupting influence of U.S. and other Western countries occurs through economic domination; this foreign manipulation plays an important role in the dissolution of the town. But García Márquez does not directly blame the U.S. for ruining the indigenous histories of his home country. The repetition of tropes from the thirty-two rebellions and the return of "the decrepit lawyers dressed in black who during other times had besieged Colonel Aureliano Buendía and who now were controlled by the banana company" (323) indicates a continuum of corrupting influences, one and the same in each given time. *One Hundred Years of Solitude* investigates these various connections across temporal periods and planes of physical space to connect the uniqueness of individual life to the universal plight of humanity. The blends where time's flow has been interrupted or comes into question become the sources for these leaps between individual experiences, drawing on the reader's life as well.

Mr. Brown, the company's owner, disguises himself and releases information about his own demise to avoid the growing unrest over the poor working conditions of the company. The

weight of U.S. dominion in the real world, a familiar trope across regional boundaries of readership, informs the inflated nature of power, expanding the company's control to mythical proportions in a blend to demonstrate how the original inhabitants of the town perceived their own subjugation.

A while later, faced with a new attempt by the workers, the lawyers publicly exhibited Mr. Brown's death certificate, attested to by consuls and foreign ministers, which bore witness that on June ninth last he had been run over by a fire engine in Chicago. Tired of that hermeneutical delirium, the workers turned away from authorities in Macondo...It was there that the sleight-of-hand lawyers proved that the banana company did not have, never had had, and never would have any workers in its service. (324)

The power of the banana company is enlarged to such proportions that they have the ability to dictate history and the existence of the town itself. In this blend, the reader uses the town's "hermeneutical delirium" to offer further interpretation on how completely the banana company holds sway over Macondo. Blending the facts of the company's stubbornness to accede to the demands of the workers with the theoretical "delirium" and "sleight-of-hand lawyers," the resulting compression posits for the reader the logical continuation of such power: complete control over existence and non-existence. Linking back to earlier episodes through the vulture-like lawyers, this blend integrates *material* power structures (the court system, the hard evidence of Mr. Brown's death) with abstract and nearly absolute *narrative* powers.

One Hundred Years suggests that such power structures are not purely foreign implants, but often self-inflicted and paradoxically familiar. Outside the text, the reader can see the absurdity of attempting to thwart the workers' complaints by faking the death of the company's owner. But within the text, the blend justifies how the company can gain control over existence itself; it controls the information and records, the juridical bodies, the transportation that connected Macondo to the world, and the means of directing popular discourse via the media. If the reader were not positioned alongside the Buendía family and the citizens of Macondo, there would be no center of "truth" or ability to discern the concrete grounding of these events.

When the tension reaches its peak, the company massacres all of the workers and their families in a public square, though it “did not bring on fright but a kind of hallucination” (328) for José Arcadio Segundo. He miraculously survives the slaughter of thousands, escaping the train “with almost two hundred freight cars... [that] had no lights, not even the red and green running lights... [which] slipped off with a nocturnal and stealthy velocity” to the sea to dump the bodies (330). Returning to Macondo, “he could find no trace of the massacre” (331), and in fact one resident of the town assures him that “there haven’t been any dead here” (331). With its hermeneutical control, the company’s complete control over the very existence of the workers themselves erases the history of the event right after it has occurred. José Arcadio Segundo withdraws into a space of solitude in Melquíades’ workshop, “reading and rereading the unintelligible parchments” (337), and in fact “the rest of the family forgot about him” (337). Threatened by the doubt in his own existence, José Arcadio Segundo escapes the rigors of time in the liminal space provided by the old room of the manuscripts. Losing touch with reality, he is able to confirm “there were more than three thousand [victims]...I’m sure now” (337), but he no longer participates in the physical lives of his remaining Buendías. Caught in his attempts to reestablish a true history of the events of the massacre, he loses the ability to establish a history for himself; he is removed from the even the memory of his own family, forgotten.

The final but preordained decoding of the ancient manuscripts that have been periodically read by the Buendía family in their retreat of solitude pronounces the doom of the town. Aureliano Babilonia, the illegitimate offspring of Renata Remedios, lives most of his life without any contact with the world outside his house.^{xxii} He possesses, with little outside the household, the capacity to decipher what generations of family members could not. The illicit connubial relationship between him and his aunt Amaranta Úrsula fulfills the prophecy of incest that the

marriage between Úrsula and José Arcadio Buendía would produce a child with the tail of a pig. The child “was a dry and bloated bag of skin that all the ants in the world were dragging toward their holes along the stone path in the garden” (445), but this provides the key to “Melquíades’ final keys” (446); the first lines of the parchment are revealed to be: “The first of the line is tied to a tree and the last is being eaten by the ants” (446). García Márquez pulls together the separate episodes into a moment of blended unity:

“It was the history of the town, written by Melquíades, down to the most trivial details, one hundred years ahead of time. He had written it in Sanskrit, which was his mother tongue... the final protection, which Aureliano had begun to glimpse when he let himself be confused by the love of Amaranta Úrsula, was based on the fact that Melquíades had not put events in the order of man’s conventional time, but had concentrated a century of daily episodes in such a way that they coexisted in one instant.” (446)

I will not attempt to catalogue each part of this passage into its coinciding mental space construction. Suffice it to say that the process of readerly integration and compression reduces the cognitive task of organizing this passage much more effectively than is possible in a scholarly essay. Throughout the novel, the reader has, depending on his level of knowledge, been able to accrue the different episodic blends that emphasize a unity across time rather than disparities. The remarks by Úrsula noting the repetition of her family’s traits, the repeated structures of the events that take place between the first and second half of the book, the familiar modes of blending that are repeatedly drawn on in understanding the local moments of magic and solitude, all can be compressed into productive avenues of meaning for the reader. By repeating the same conceptual structures over and over; furthermore, by referring to its own act of repetition, the narrative has prepared the reader for such a confluence of blending, González Echevarría’s idea of a reader’s “plenitude” (“Novel as Myth” 122).

By pulling together all of the episodes “in such a way that they coexisted in one instant,” regardless of the limitations of “man’s conventional time,” the narrative seeks to link the history of Macondo with its moment of realization and inception, to blend together the notion of

accumulating and archiving histories to the moment when those histories are read, interpreted, and given life. A massive frame-shift occurs as a result of this blend, as the manuscripts that Melquíades wrote and Aureliano Babilonia deciphers are understood to be the very narrative which we have just completed. The name Babilonia itself contributes to this, harkening back to the myth of Babel and the last moment of universal communication among human societies. Likewise, the reader must also blend a representation of himself into this moment of realization; we too are reading and deciphering the manuscripts, confirming the histories of Macondo. Justifying its own existence, the novel permits both a reading in the traditional sense, but also a fictional “reading,” where the reader participates in the text’s own realization. The parameters that dictate the conceptual blends throughout the novel grant this moment of unity for the “average” reader, who perhaps has not participated as much in the text’s referential structuring.

Supplementing this process throughout the text has been the referential markers to the fictional and historical universe surrounding *One Hundred Years of Solitude*; a knowledgeable reader, therefore, can more readily understand and participate in this moment of connectedness by recognizing throughout how the novel has extended its creative inception beyond the words on the page, linking the plight of the Buendías to communities outside of the novel.

As the apocalyptic wind with “cyclonic strength tore the doors and windows off their hinges, pulled off the roof of the east wing, and uprooted the foundations” (447) of the Buendía household, Aureliano approaches his own life within the history, hoping to “anticipate the predictions and ascertain the date and circumstances of his death” (447). Yet he and the reader simultaneously know that it “had already been understood that he would never leave that room” (448), for the family, Macondo, and the narrative “would be wiped out by the wind... at the precise moment when Aureliano Babilonia would finish deciphering the parchments” (448). The

apocalypse is once again the necessarily conclusion to the fictional text. The solitude whereby the Buendía family could understand their history necessitates their removal from that history. The apocalypse is an act of sacrifice for García Márquez, like the confluence of the episodes into a single point of unity, guaranteeing death and rebirth. This is the end of time for the fictional characters that have propagated *One Hundred Years of Solitude*; it is ultimately a work of fiction and not an archive of the real world. The Buendías' spaces outside of time and the pressures of death, attempting to gain an understanding of their identity, must be sacrificed. By sacrificing them, however, García Márquez indicates the power of fictional histories to readjust and reclaim the tides of time for the individual in the real world. With the conflicted past apparent in Colombian history and Latin America generally, the author demonstrates the ultimate ascendancy of the fictional text as a form to mediate the biases of historical record. Beyond this even, *One Hundred Years of Solitude* guides readers across national boundaries in the understanding of how identity can be renegotiated through fiction. Enmeshed in the structures of the real, the elements of the fantastic – explicit evidence of the text's fictionality – can offer innovative ways for how we navigate the world outside of the text. The moment that the text declares “within here is how the world actually works” is the moment by which the text becomes laden with the biases and conflicts of forging an identity in the contemporary world. *One Hundred Years of Solitude* ends with apocalypse, I believe, to suggest that art can surpass reality in that it maintains control of its own revelation.

Conclusion: A comparison of narrative technique

With these analyses I have attempted to show how the understanding of mental space configuration and conceptual blending can offer new and detailed insights into the levels of textual negotiation and interpretation. In each case study, the body of traditional critical

interpretation presents as many problems as it seeks to solve. While my approach has not sought to overthrow the methodologies of critical analysis, in many respects these methodologies lack the terminology and conceptual basis to delve into the active processes of exchange between text and context that occur during the reading event. A theory of conceptual blending locates the sources of meaning-creation that the language of the text has inherently encoded (Dancygier “Blending and narrative” 55-56). Traditional literary criticism necessarily involves the iteration of interpretations after the fact, since one cannot evaluate and situate a text in scholarly discourse without producing a reading first. By looking at the modes and variance of blending in literary language, Cognitive Poetics seeks to describe these structures that will produce a given interpretation and therefore can dictate productive lines for how readers utilize fictional texts.

I have chosen to investigate Kurt Vonnegut’s *Cat’s Cradle*, *Galápagos*, and Gabriel García Márquez’s *One Hundred Years of Solitude* because of several similar characteristics they exhibit. All three novels are deceptively accessible at first glance and in fact have enjoyed wide popular readership, I believe, because of the importance their authors place on the art of good storytelling. More pertinently: scholarly criticism on all three novels seems to wrestle with problems that underlie their narrative styles: the novels have many thematic parallels; and the literary language of each novel conceptually represents the world in similar if not identical fashions.

Cat’s Cradle and *Galápagos* provide consummate examples of Vonnegut’s paradoxical narrative technique: his humanist morality versus his social critique. In order to square these paradoxes some critics have had to resort to merely pointing out the author’s contradictory ideas about the postmodern world, often at the expense of understanding how the text copes with postmodern issues, and thus fail to decide what exactly he is talking about at all. Surprisingly,

these critics do not often appear to be talking about the same novel. Dealing with the postmodern problems of representation as well as the gross lack of decency with which people treat the natural world (and each other) in the Vonnegut universe, critics often resort to overly pessimistic readings of these novels. *One Hundred Years of Solitude* has a completely different place in the canon of contemporary literature – probably the best-known and most highly praised example of the Latin American novel internationally. Yet the episodic plot of the novel and its breadth of focus (cultural identities, historical reference, issues of time, myth, origin, epistemologies, etc) make the text difficult to explicate in an essay or categorize by one theory. Often interpretive works are at odds by attributing similar evidence, particularly the mythical traits of characters and events, to completely different ends. Scholars of all three narratives have to somewhat concede to the indefinable forces at play in the authors' work.

Kurt Vonnegut and Gabriel García Márquez have rarely been compared to one another, perhaps because of the different cultures their work responds to. Yet they exhibit similar concerns about contemporary culture broadly, especially in understanding of cultural myths. *Cat's Cradle* particularly seeks to question and complicate the viability of Western metanarratives as useful in a paradoxical and blatantly cruel world. Bokkonism is created as an anti-narrative, never offering a single solution and therefore potentially more accurate than deceptive and harmful metanarratives like Progress. In Vonnegut's mind these cultural mythologies are useful only to the extent that they promote empathy between individuals and communities. *Galápagos* does not undermine these mythologies to the same extent that *Cat's Cradle* does, yet it both uses a new narrative based on Darwinian Natural Selection and questions its own use of that narrative. *One Hundred Years of Solitude* is replete with references to other myths, particularly biblical myths, but these are merely tools with which to draw closer the

reader and the fictional characters within. Along common texts (like biblical myths, or historical referents), the novel demonstrates its flexibility as a fictional construct to offer alternatives to formulating identity, countering the paradoxes of a subjugated, colonial past. By drawing on and then destroying the generative forces that fiction offers for human identities, the novel overthrows the conflicts that have disrupted a whole, continuous collective memory, placing itself simultaneously outside of and enmeshed with its context.

Both authors use explicitly unreal situations as a means rather than the ends point to useful conclusions. In Vonnegut's case, science fiction makes the reader aware of potential apocalypse in order to understand the social processes that allowed the disasters to occur. The fabrication of ice-nine is never questioned in of itself because in terms of method the text implicates recognizable trends (the belief in a technological utopia, the sin-less freedom of scientists to treat human life as expedient) as the source of such creation. In other words, ice-nine *could* exist, and the text reveals why. In order to comprehend the state of the world in *Galápagos*, a narrator is needed who can bridge a million-year lapse in time. As a time-traveling ghost, he gradually reveals to the reader that what has happened to humanity depends on his perspective. Evolution is not science fiction, Vonnegut claims, but a means to an end. By eventually exposing the faults in Trout's narrative, we understand his need to be human beyond death. He forgoes the afterlife to be assured of some hope, to find some text by which human equanimity can be achieved. Ultimately this Darwinian text through which he interprets the future largely fails for the reader in the present time; nevertheless it helps us to understand why we need these narratives to mitigate the chaotic forces that lie outside of our control. In García Márquez's case, the magical elements of the text are not the focus but the means by which the concerns about identity and myth are broached. The interaction between the magical elements of

the text and the referential evidences of the real-world draws attention to the text itself as an artifact, as a construction and a cultural archive. Pointing to its own fictionality with fantasy, the novel dispels these limitations by claiming a place in the real world, situating itself across human localities and within the fictional universes created by other authors. In all three cases, the narrative techniques weave the real into the artifice of the unreal in order to instigate meaning-creation for the reader, to prompt us to look at how fictions (art) can inform and guide culture and gain some better understanding of our contexts.

All three novels, narrating the fantastic, demonstrate some form of apocalypse that obliterates the world at the conclusion of the reading process. Fantasy and apocalypse are two methods by which these authors refer back to the very act of writing these fictional texts. These narratives iterate their own destruction, yet they posit rich meanings for a readership still very enmeshed in time. As artistic vehicles mediating the conflicts of the twentieth century, the narratives remain acutely aware of the limitations from which they are born, necessitating destruction at their conclusion. They do not seek to supplant the real world, but to inform it, to question, to remain both outside and within its conflicts. Language in art, these novels declare, has an immense power in the formation of human identities, to recreate the past and postulate a future. And the strongest gesture possible for these novels is to destroy themselves in attempting to convey their meanings to readers. Although simple, they offer change, beauty, escape, comfort, and perhaps enlightenment.

As my analyses of these texts have found, mental space construction and blending in particular are the cognitive tools with which the reader parses, distributes, and interacts with literary language to formulate meaning. Beyond merely analyzing sentence-level phenomena, blending provides a methodological platform for looking at longer narrative texts.^{xxiii} We can

seek to categorize where and how in literary language a reader will draw on contextual factors to supplement the reading process, and how author's encode in the language guideposts for the reader to follow along the route to interpretation. Cognitive Poetics is a particularly new field of study in the scholarly world, developed and codified as an interdisciplinary venture only in the last eight years. At its heart it embodies the principal of application, the practical exploration of a cognitive framework in regards to a textual example (Stockwell, *Cognitive Poetics* 166). In this application, the reader ultimately is the source for our understanding: his impressions, ideas, and emotions elicited by the text.

To conclude, I return to the lines of Jonah in *Cat's Cradle* to illustrate the sacred duty these authors feel that they undertake in creating literature. Vonnegut and García Márquez alike are convinced, as these three novels insinuate, of the valuable role literature has in defining life and revealing the ineffable in humanity. Jonah and Philip Castle go so far as to speculate at what might happen without it:

“Sir, how does a man die when he's deprived of the consolations of literature?”
 “In one of two ways,” he said, “petrescence of the heart or atrophy of the nervous system.”
 “Neither one very pleasant, I expect,” I suggested.
 “No,” said Castle the elder. “For the love of God, *both* of you, *please* keep writing!” (232)

We as readers can perhaps forgive the author for tooting his own horn.

Notes

ⁱ See Fauconnier 1997 and Fauconnier and Turner 2002 for a full outline of where and how the brain cognitively organizes language into mental spaces.

ⁱⁱ Space builders can be locatives, adverbials, conditionals, etc, that “open a new space or shift focus to a new part of an existing space. Spaces are structured by names and descriptions, tense, mood and other aspectuals” (Stockwell 97). “Space builders are linguistic expressions which trigger the construction of new spaces, and indicate the nature of the connection between each new space and the one from which it was constructed” (Gavins and Steen 90).

ⁱⁱⁱ Stockwell’s example is a famous exchange between Lady Astor and Winston Churchill. Astor said “If you were my husband, I would give you poison,” to which Churchill replied “Madam, if you were my wife I would drink it”. An imagined marriage is created but the two individuals still share their dislike of one another. This exchange exhibits a blended structure that is “carried forward” in the dialogue and allows for further conclusions based on the parameters provided, i.e. if Astor had married Churchill, she would poison him and if Churchill finds he’s married to Astor, he would willingly drink said poison.

^{iv} See also Klinkowitz 1974 for another discussion of the unique approaches to postmodernity in Vonnegut’s fiction.

^v May (25-36) argues for a theory of the author’s fiction that bridges the distance between comedic techniques and the pessimistic outlook apparent in *Cat’s Cradle* and other early novels.

^{vi} See Fauconnier 1997 as well as Stockwell (*Cognitive Poetics* 95-96), who describes the term **accessibility** as the measure of disjunction between character-knowledge in the text and the wider knowledge available to the reader. This can vary and be altered through cross-space mapping, an instance that occurs during conceptual integration when counterpart meanings are carried over from one mental space to another. When ideas are made inaccessible, cross-space mapping is how those new ideas are brought in to create a revised or even completely new **emergent structure** that is neither the base space (the factors held as true to start with) nor the projected space (the factors entirely contradicting the starting space), but a blended space. In this case, the blended space is within the reader, while it is the text that is offering the formally acceptable base space and the radically different projected space (98).

^{vii} For a thorough analysis of the process of frame-shifting in comedic language as a process of conceptual blending, consult Coulson (49-62).

^{viii} Stockwell in *Cognitive Poetics* describes how our cognitive mechanisms combine the rich language data from a text with our context in an extended operation of conceptual blending, and terms this **completion**.

^{ix} I believe that, while this point of view can be defended, the best reading does not follow Ferguson’s line. This opinion will be raised later in the analysis.

^x “A double-scope network has inputs with different (and often clashing) organizing frames as well as an organizing frame for the blend that includes parts of each of those frames and has emergent structure of its own. In such networks, both organizing frames make central contributions to the blend, and their sharp differences offer the possibility of rich clashes. Far from blocking the construction of the network, such clashes offer challenges to the imagination” (Fauconnier and Turner 131-135). In fact, in this example the reader is left to construct in his or her imagination (without linguistic markers in the text) how to relate these three spaces. It seems easy to us outside of this terminology: once again the problem lies in our construction of destructive technologies. But the theory of mental spaces allows for a better understand for how this is arrived at.

^{xi} See also two works by Semino (“Mind style” 153-203) and (“A cognitive stylistic approach” 95-122) for an overview of the cognitive basis for mind style. She argues for the existence of a “mind style” unique in each person and identifiable through speech and language patterns. Also discernible are mind styles of characters within fictional texts, indicated by the same constructs with which we mediate our identity from day-to-day.

^{xii} Information provided on Wikipedia, at url: http://en.wikipedia.org/wiki/Oprah's_Book_Club

^{xiii} Stavans tackles this problem of cross-border communication by collecting an incredibly wide range of reviews, commentary, and interviews with contemporary authors responding to each other's literature. Faris in Harold Bloom's critical overview of *Cat's Cradle* argues a topic that does thematically compare the novel with *One Hundred Years of Solitude*

^{xiv} McGuirk, in the chapter "On the meta-history of literature," (52-68), lays down guidelines for attempting to reveal everyday or practical epistemological resources and an accompanying application to Bécquer's *Rima I*, Darío's "Yo persigo una forma, and Vallejo's *Los heraldos negros*.

^{xv} Many other critics have tracked the intertwining of historical events in the novel. Bell-Villada primarily focuses on the intertwining of actual historical events with the Banana Company episodes in the novel, commenting on how García Márquez both includes and rewrites such events. See also Zavala (109-126) and Janes (125-146) to name two.

^{xvi} In the end González Echevarría sees the various forms of myth as a tantalizing but paradoxical force for the reader; the mythic struggle constantly denies [the act of writing] the authority to generate and contain knowledge about the other without at the same time generating a perilous sort of knowledge about one's mortality and capacity to know oneself" ("Novel as Myth" 122). It "is impossible to create new myths...yet [the novel brings] us back once and again to that moment where our desire for meaning can only be satisfied by myth" ("Novel as Myth" 123).

^{xvii} Though not described here, see also the discussion by Conniff of a more doubtful approach of magic realism as "the redemption of fiction in the fact of a reality that is still becoming progressively more disorderly" (140). In a disordered present, claims Conniff, the ceaseless repetition of events in the novel suggest that apocalypse is only one possibility which is understood only after it is too late: an end predicted by José Arcadio Buendía's attempts to practically and scientifically apply the wonders brought by the gypsies.

^{xviii} Stockwell in "Texture and Identification" iterates this problem and takes a cognitive poetic reading of the poem "If" by Rudyard Kipling to postulate how we can bring the more natural reading experience that occurs day-to-day into scholarly circles.

^{xix} See Tseng, (135-157) for a discussion on the interaction between conceptual representations of sensory and motor experience and the production and reception of language discourse. George Lakoff (1987) and M. Johnson (1987) are the first to lay out a theory for the innateness of different conceptual relations in metaphor and image schemas.

^{xx} His autobiography reveals the full extent to which he based the fictional world of Macondo on his experiences living in Aracataca and the stories his grandmother used to tell.

^{xxi} See Turner "Compression and representation" for a much more detailed exploration of how the vital relation of *representation* can be compressed over a plethora of different levels of mental space construction.

^{xxii} Though not addressed here, García Márquez writes in himself and his real-world friends Álvaro, Germán, and Alfonso, who were instrumental, according to the autobiography, in the development of his ideas about fiction around the time he decided to pursue a career in writing. This intersection between the fictional character Aureliano (a product of several works of fiction by García Márquez that led to *One Hundred Years*), at the time of the manuscript's unveiling, and the fictional correlatives of the author's friends and self produce a series of blends that suggest how fully fictional texts intersect in our daily lives. The author seems, through these blends, to suggest the concurrence of the fictional moment of deciphering the manuscripts, of realizing the totality of the Macondo's history, has a potency reflected by his relationship as a young adult to these other people. He uses the novel, in other words, as self-justification for his creative art, connecting the decoding of Macondo's identity to the decoding of the ideas behind the novel, and likewise to the reader's individual act of interpretation and decoding meaning from said work.

^{xxiii} See Dancygier 2005, Oakley 1998, and Semino 2006 for three other applications of conceptual blending to narrative fiction.

Appendix

**Diagram One:
“Going to the pub” schema**

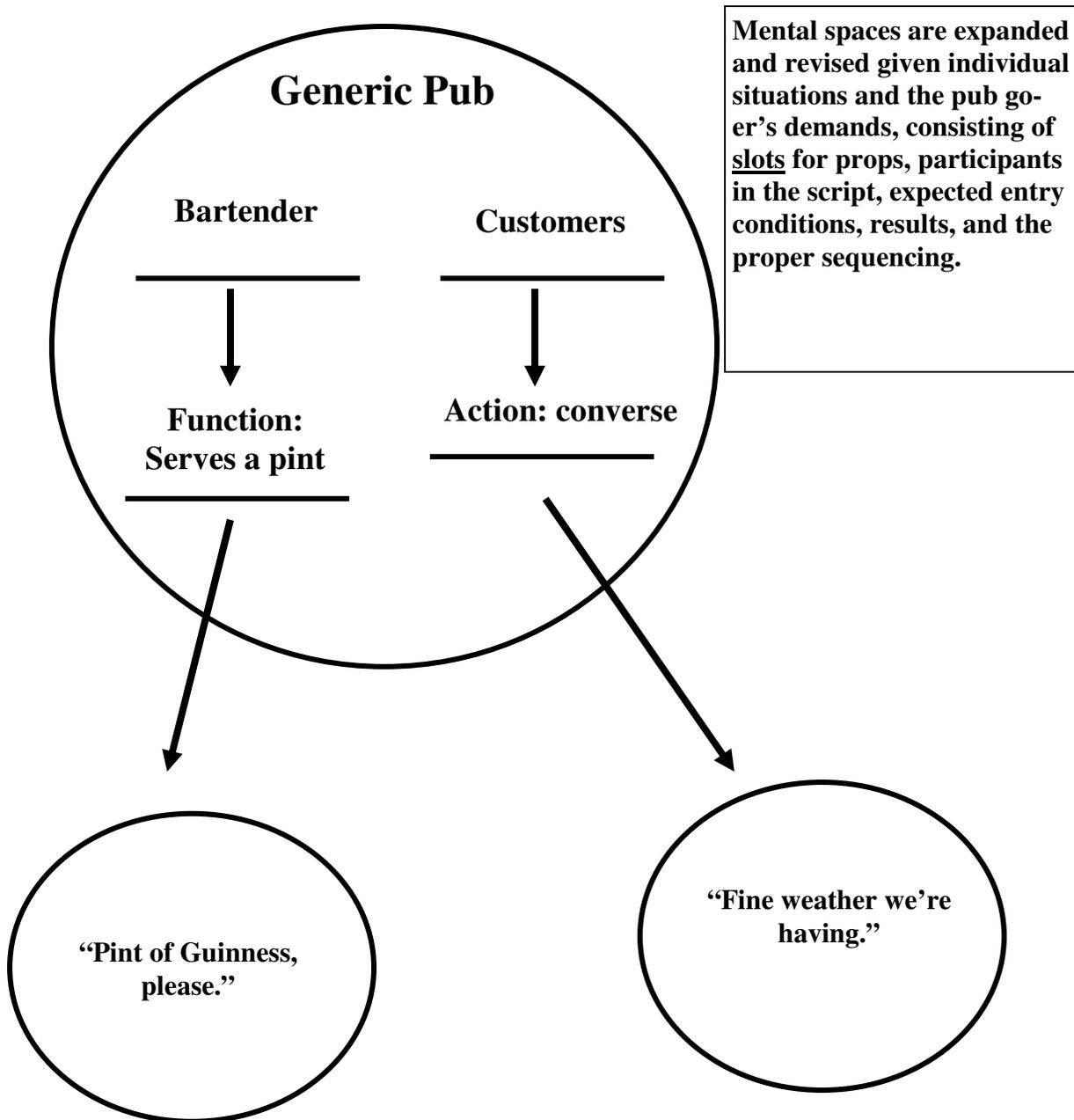


Diagram Two: Vonnegut and “Progress” blend

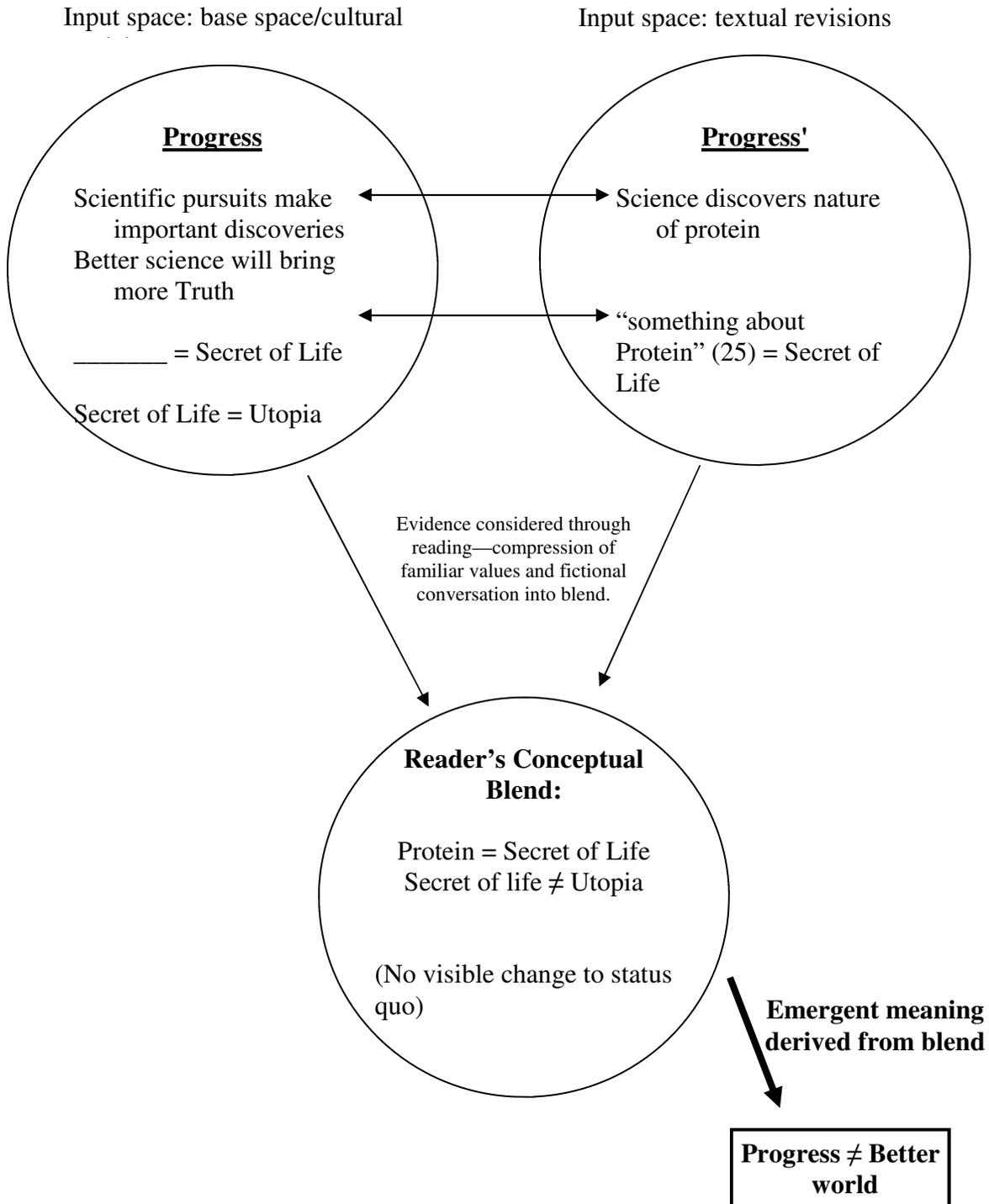
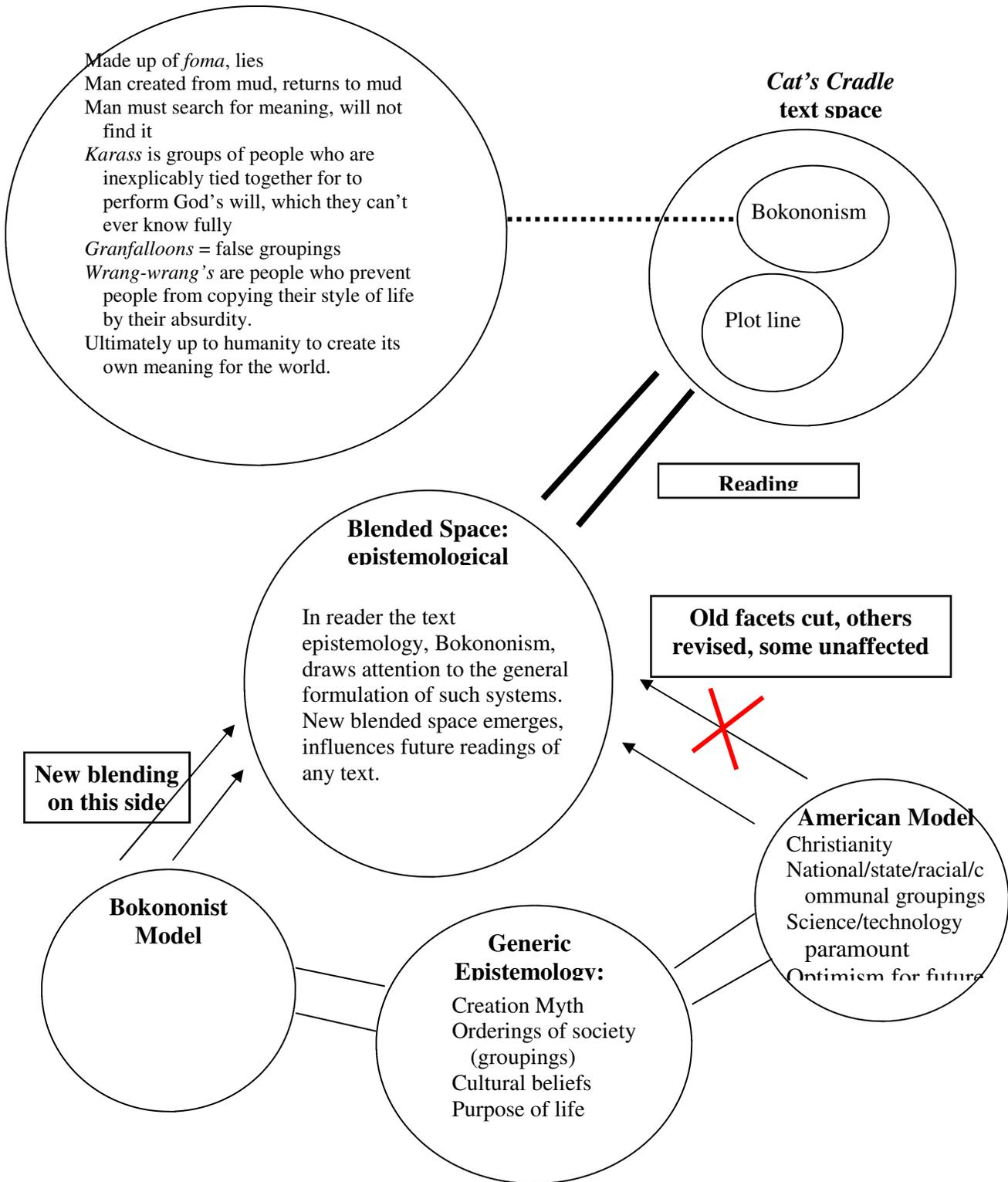
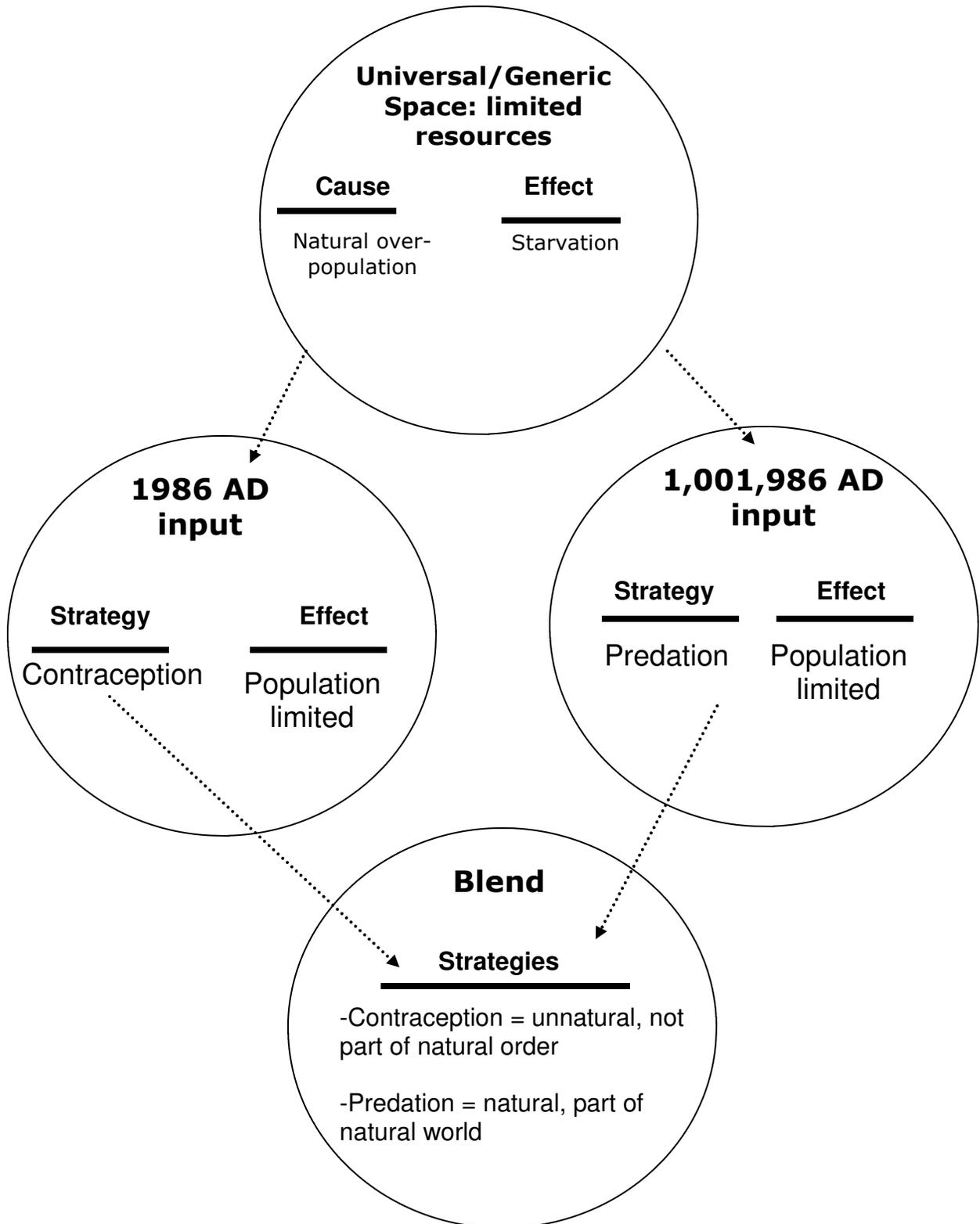


Diagram Three: Bokononism blending network

Bokononism
Epistemological space



**Diagram Four: “Abortion” blend
in *Galápagos***



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